Brotherton House, Wythenshawe

Site Investigation Report and Remediation Method Statement

28 November 2025

Prepared For

Muse Places and Wythenshawe Community Housing Group



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Site Investigation Report and Remediation Method Statement

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28/11/2025	C03	Updates to include additional comments reived from Asteer Planning, including a revision to the development proposals.	L.Reid

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Executive Summary

Site Description	The site comprises and area of approximately 1.69 ha is size and is located to the northwest of Wythenshawe town centre. The approximately postcode for the site is M22 9QX and the National Grid Reference for the approximate centre of the site are 382237, 387174. The site is roughly rectangular in shape and comprises Brotherton House, a vacant office building formerly occupied by Lloyds Banking Group. There are also three ancillary outbuildings within the site, alongside large areas of surface car parking, with established trees and vegetation around the perimeter of the site. Vehicular access is from Cornfield Drive in the corner of the site. An electrical substation is located adjacent to northeast corner of the site.
Proposed Development	It is understood that the current proposals for the redevelopment of the site are for extra care apartments (use Class C2), older living apartments and dwelling houses (use Class C3), car and cycle parking, landscaping and other associated works, following demolition of existing buildings.
Historical Development	Earliest available mapping from approximately 1876 indicates that the area is predominantly greenfield land with a large pond towards the centre of the area. The area remained predominantly unchanged, with the exception of a drain which is indicated in the north of the area and leading to the pond from approximately 1960 until approximately 1978 when a large irregularly shaped structure is indicated across the centre and north of the area. Two smaller structures are also indicated in the east of the area. The area is indicated in the present day layout from approximately 1987.
Published Geology	Published BGS mapping indicated the majority of the site to be underlain Glacial Till overlying bedrock of the Bollin Mudstone Member. Made Ground whilst not formally mapped is considered to be present associated with the previous development of the site including the infilled pond. No geological faults were recorded onsite or within the immediate surrounding area, with the closest fault recorded approximately 590m to the southeast, trending north to south/southeast.
Hydrology and Hydrogeological Setting	The Glacial Till is designated a Secondary Undifferentiated aquifer whilst the bedrock of the Bollin Mudstone Member is designated a Secondary B aquifer. The area is not located within a groundwater Source Protection Zone (SPZ). There are no groundwater or surface water abstraction records within 1km of the site. The nearest significant surface water body is a lake approximately 860m south of the site. The lake is fed by a predominantly the culverted Baguley Brook which is orientated north-south approximately 250m west of the area. Unnamed streams/ditches and small pond are located approximately 780m northeast of the area within Park Wood.
Site Investigation	The Phase 2 ground investigation was undertaken between 11 August and 22 August 2025 and included; 8 window sample boreholes up to a maximum depth of 2.80mbgl, 4 rotary boreholes up to a maximum depth of 15.00mbgl and 4 inspection pits excavated to a maximum depth of 2.00mbgl. Three ground gas and groundwater monitoring rounds have subsequently been carried. The ground conditions across the site were found to comprise of a variable thickness of Made Ground (between 0.20m and >1.55m in thickness) overlying superficial deposits of Glacial Till. The superficial soils were recorded in each exploratory hole where the thickness of Made Ground was proven, with the upper surface recorded between +57.90mOD and +58.64mOD) and found to range between >0.50m and 2.55m in thickness. The underlying weathered Bollin Mudstone Member was encountered within a number of exploratory holes with the upper surface recorded between +58.03mOD and +55.92mOD and found to be between 0.05m and >0.80m in thickness. The more competent stratum of the Bollin Mudstone Member was encountered in each of the rotary boreholes as extremely weak to weak mudstone and siltstone between +56.71mOD and +55.35mOD and proven to the maximum borehole penetration depth. Review of the groundwater monitoring results across site and the wider Wythenshawe masterplan area indicates that the perched water within the Made Ground is inconsistent in nature. Similarly, a pervasive shallow aquifer within the Glacial Till has not been recorded, with groundwater considered likely to be constrained by the predominantly cohesive deposits of the stratum. The results of the groundwater monitoring indicate that a bedrock groundwater body is present beneath the site within the Bollin Mudstone with groundwater levels typically recorded between 1.25mOD and 3.04mOD (57.24mOD and 56.29mOD) at the site. The groundwater levels suggest that there is a degree of sub-artesian groundwater present as groundwater levels have been recorded above the surface of the bedrock. Groundwater flow direction at the site is indicated to be generally towards the west /southwest.
Contamination Assessment	**Human Health:** A total of 21 soil samples were submitted for chemical analysis and the results compared against human health GAC for a “residential with home grown produce” end use. Assessment of the Made Ground and natural soils indicated that contaminant concentrations are below their respective assessment thresholds. In addition, no asbestos was detected in the 18 Made Ground samples analysed. **Ground Gases:** Based on the results of the ground gas monitoring undertaken, methane and carbon dioxide concentrations were below 1%v/v and 5%v/v respectively with low flow rates recorded. The calculated GSVs correlate to CS1. **Controlled Waters:** Minor exceedances of cadmium, ammoniacal nitrogen, fluoranthene and zinc were recorded against the EQS in groundwater samples obtained during the investigation. The risks to controlled waters are considered to be low on the basis that no exceedances against the DWVs were recorded (as well as noting that the DWVs are considered to be a conservative assessment criteria for the site as it is considered unlikely that the groundwater at the site will be used as a drinking water source); the nearest surface water body to the site is the predominantly culverted Baguley Brook approximately 250m west of the site, where the distance from the site and the culverted nature of the brook afford protection to the water bodies; the cohesive nature of the Glacial Till, as well as the cohesive horizons of Made Ground are considered to mitigate lateral and vertical contaminant migration and a laterally pervasive water body has not been encountered in the Made Ground and Glacial Till during the site investigation; and the existing and proposed buildings and hardstanding across the site limit infiltration which subsequently limits potential mobilisation of contaminants. **Plants and Vegetation:** Very low phytotoxic concentrations within the Made Ground and natural soils present a very low risk to proposed plants and vegetation. It is noted however 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. **Water Supply Pipes:** The initial total soils analysis results indicate that standard polyethylene (PE) pipework may not be suitable for use for new buried water supply pipes, due to elevated TPH concentration. However, it is recommended that a UKWIR assessment is undertaken along the proposed water supply pipe route once the site layout and site levels have been confirmed to confirm the water supply pipe selection material.
Preliminary Waste Characterisation	The preliminary waste assessment (carried out using the HazWasteOnline™ Toolkit) indicates that the majority of the material tested would be characterised as non-hazardous material and therefore considered to be acceptable to a non-hazardous waste facility. WAC testing of 4 indicates that the material would be acceptable to an inert waste facility. However, 1 out of the 21 soil samples tested was characterised as hazardous material (WS25 at 0.20mbgl due to elevated TPH). WAC testing carried out on this sample indicated that this material may be accepted as stable non-reactive hazardous waste (SNRHW) at a non-hazardous landfill.
Geotechnical Recommendations	At this stage, detailed information on the proposed foundations, formation levels and/or loadings is not available. Given the variable thickness and composition of the Made Ground and the proposed height of the new structures (i.e. multi-storey), it is considered likely that a piled foundation solution will be required. It is assumed that piles would be socketed approximately 5m into the competent bedrock, noting the upper horizon of the bedrock is highly weathered and the bedrock is generally fractured. Pile design should be undertaken by, and remain the sole responsibility, of a specialist piling contractor. It is considered that roads and pavement will be founded likely onto the Made Ground or Glacial Till, depending on formation levels. It is recommended that pavements and roadways founded on the Made Ground or superficial deposits are designed to an initial conservative California Bearing Ratio (CBR) value 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. Where floor slabs are founded onto granular deposits, ground bearing slabs may be utilised although the potential for differential settlement where floor slabs span multiple strata will need to be considered. Based on the ground conditions encountered, excavations required during the development should not pose difficulties for conventional excavators or earth moving equipment. Shallow excavations may be unstable during groundworks due to the unpredictable nature of its composition and strength. Groundwater 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. Excavation below the level of the Secondary aquifers is not currently anticipated; however, if required, more significant groundwater control measures are likely to be required. Buried concrete design classes have been calculated for the site as DS-1 (AC-1). Consideration should be given to existing buried infrastructure within the site and if buried infrastructure is to be retained, ground movement analysis and/or impact assessments may be required. An Earthworks Specification should be produced in accordance with the Specification for Highway Works and an MMP will be required to set out the on-site movement of soils for earthworks operations. There is potential for encountering buried obstructions at the site due to the site's development history. Obstructions may include former basements, foundations, walls, utilities and Made Ground containing demolition rubble and large boulder sized obstructions of concrete and brick. Whilst no evidence of voids was encountered during the site investigations, there is potential for voids to be present within the ground, for example small voids associated with uncontrolled / un-engineered backfill of historical basements. Voids may present a risk to shallow foundations and a watching brief for these features is recommended during earthworks and construction works.
Remediation Strategy	The following activities form the remediation strategy for the redevelopment of the site: • Watching brief and discovery strategy. • Removal of AST infrastructure. • Decommissioning of existing borehole monitoring wells. • Appropriate material management of arisings associated with enabling works for re-use and/or disposal, including off-site disposal to appropriately licenced waste facilities. • Mitigation of risks to controlled waters during enabling works, including appropriate management of stockpiles, controlling surface water run-off and appropriate discharge/disposal of perched groundwater. • Selection and installation of appropriate materials for buried water supply pipes. • Provision of growth medium in areas of soft landscaping. A verification plan has been provided, which sets out the requirements to verify the remediation works and a verification report is to be collated on completion. Where the works are separated between enabling works phase and construction works phase, the enabling works contractor will provide an interim verification report to verify the remediation works completed during the enabling works phase and the remaining remediation works to be completed during the construction phase. The verification reports should be submitted to and approved by the Local Planning Authority.

1. Introduction

Civic Earth Limited was appointed in August 2025 by Civic Engineers, on behalf of Muse and Wythenshawe Community Housing Group (the Client), to undertake a site investigation for the proposed redevelopment of a site known as 'Brotherton House' or 'Area 3.3' on the Wythenshawe Town Centre Masterplan, in the town centre of Wythenshawe, Manchester (herein referred to as "the site"). It is noted that the site can also be referred to as 'Area 7'.

In October 2023, Manchester City Council launched a search for a partner to support the design, delivery, and funding of new homes across Wythenshawe Town Centre. This initiative also included the revitalisation of the Civic Shopping Centre, with the overarching goal of regenerating Wythenshawe and realising its vision for a vibrant, high-quality neighbourhood.

Following being named Development and Investment Partner, Muse, working closely with Council, key stakeholders and its technical team, have prepared an Illustrative Masterplan for Wythenshawe Town Centre, which builds upon the vision for the area and sets out plans to deliver around 2,000 new homes across a mixture of tenures and housing types to meet the needs of a diverse community. Brotherton House forms part of the wider Wythenshawe Town Centre masterplan area.

The aim of this report is to provide:

- A brief summary of the site history, anticipated geology, hydrogeological setting and preliminary risk assessment and conceptual site model;
- A summary of the ground and groundwater conditions encountered during the Phase 2 site investigation, and analysis and interpretation of chemical and geotechnical laboratory testing carried out as part of the site investigation; and
- A Remediation Method Statement and associated verification plan for the proposed development to address potential risk identified to receptors associated with the potential contamination beneath the site and recommendations with respect to waste characterisation and disposal of the project.

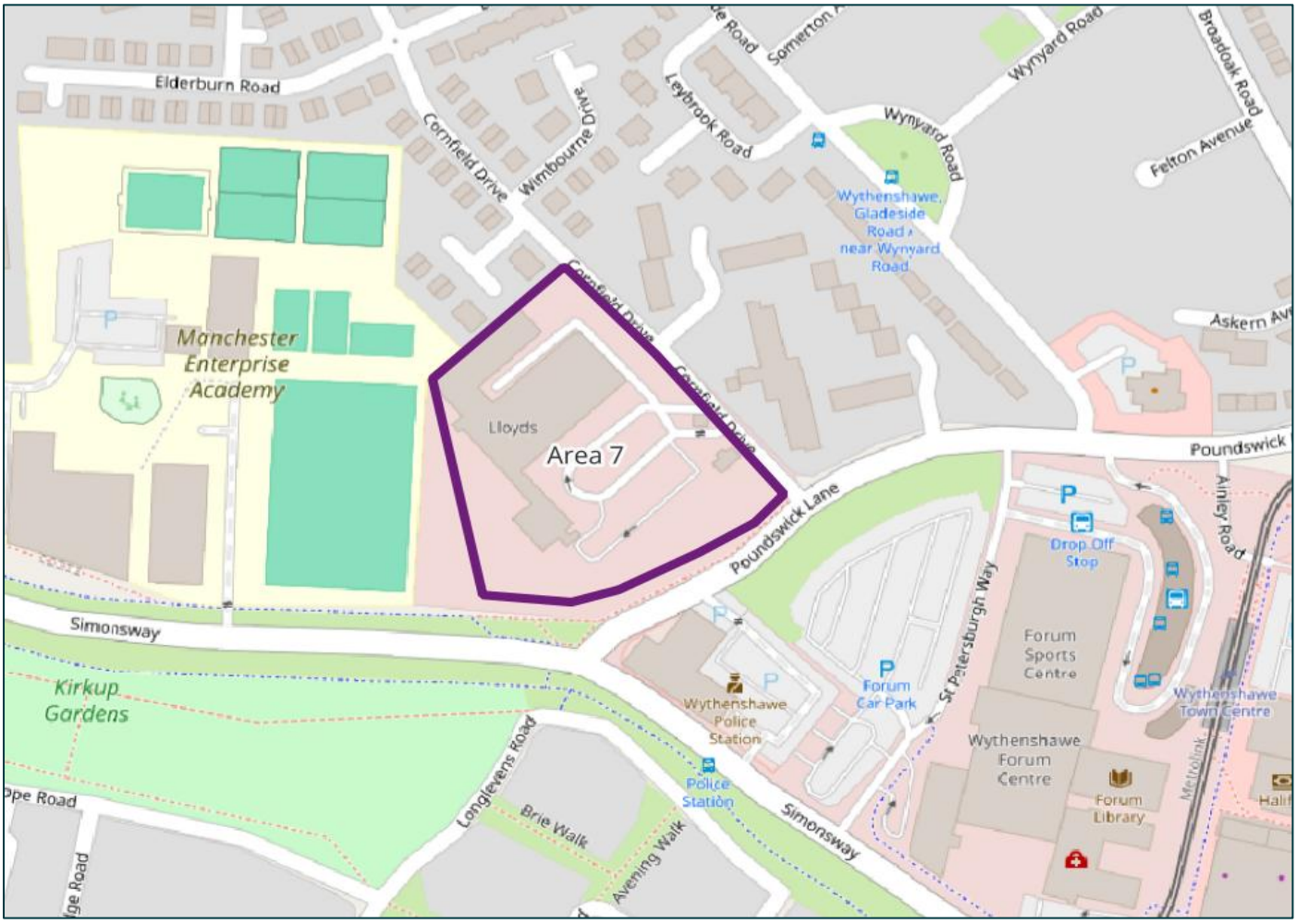
It is recommended that this report is submitted to the Local Authority to support the Planning Application made in relation to the site.

2. Site Context

2.1. Site Location

The site comprises and area of approximately 1.69 ha is size and is located to the northwest of Wythenshawe town centre. The approximately postcode for the site is M22 9QX and the National Grid Reference for the approximate centre of the site are 382237, 387174. The site location is illustrated in Plate 1.

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



2.2. Site Description

The site is roughly rectangular in shape and comprises Brotherton House, a vacant office building formerly occupied by Lloyds Banking Group. There are also three ancillary outbuildings within the site, alongside large areas of surface car parking, with established trees and vegetation around the perimeter of the site. Vehicular access is from Cornfield Drive in the corner of the site. An electrical substation is located adjacent to northeast corner of the site.

The site is bound to the north by two-storey residential properties located on Ribchester Drive, Cornfield Drive to the east, Poundswick Lane to the south and an all-weather playing pitch with floodlights, used by Manchester Enterprise Academy, to the west.

The site is gently sloping from approximately 58m above Ordnance Datum (mOD) in the north up to approximately 60mOD in the south.

A site walkover survey was carried out by an Engineer from Civic Earth on 14 July 2025 which confirmed the usage of the site and the general topography, although the car parks which are present in the southeast of the site were noted to be on different levels (up to 2m height difference) with an area of soft landscaping between. The pond in the garden area in the west of the site was also noted to have been drained and a slope, with associated retaining wall, was observed in the northwest corner of the site.

Fly tipped material, including wood, bikes, an air con unit, extractor fan unit and furniture was observed within the service yard area, located within the north of the site, and an above ground storage tank (AST) was observed in the northeast corner. The tank was noted to be a 45,000 litre diesel tank, sitting on top of a raised concrete slab, with signage suggesting that it has been decommissioned. It is conjectured that the tank was formerly used internally within the service building, with a valve for an oil supply noted on the service building.

Several other ancillary buildings were also recorded service yard area; however, access was restricted to these buildings and therefore it could not be confirmed if there were potentially contaminative stored substances on site.

A copy of the site walkover record is included in Appendix A.

2.3. Proposed Development

It is understood that the current proposals for the redevelopment of the site are for extra care apartments (use Class C2), older living apartments and dwelling houses (use Class C3), car and cycle parking, landscaping and other associated works, following demolition of existing buildings. An illustrative plan of the proposed development is illustrated in Plate 2.

Plate 2: Conceptual Sketch for Proposed Redevelopment (FeildenCleggBradley Studios LLP, Drawing No: 18704-FCB-ZZ-SP-D-A-0401)



3. Historical Development

3.1. Sources of Information

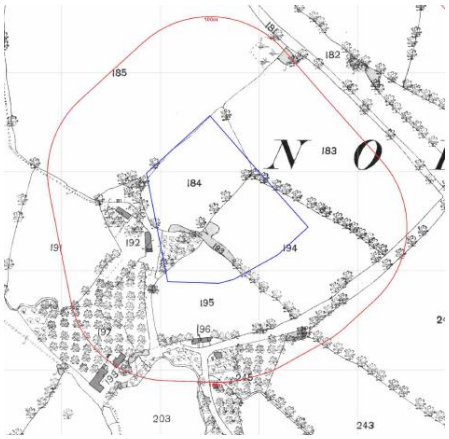
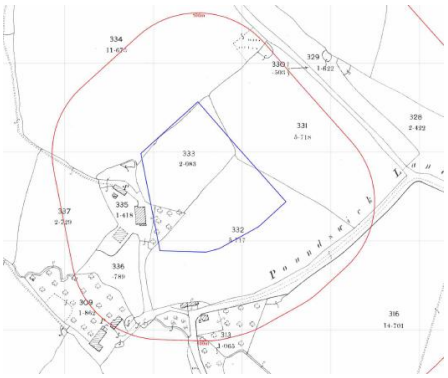
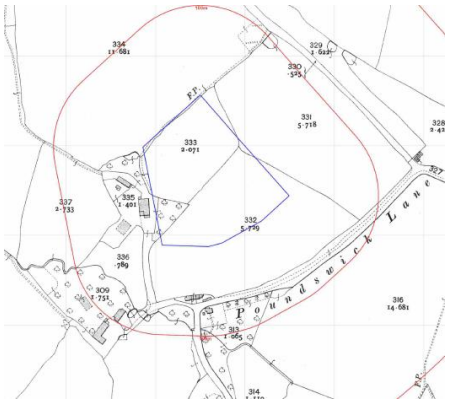
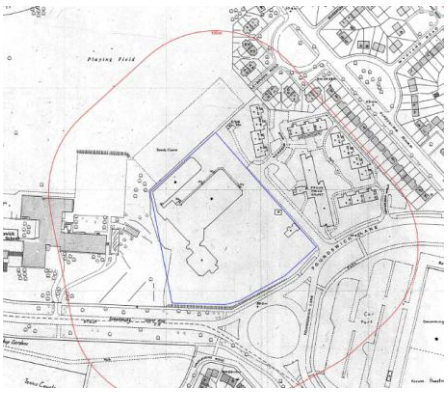
The historical development of the site has been traced from Ordnance Survey mapping (see Appendix B) and historical satellite mapping included in the Groundsure Enviro + Geo Insight report (see Appendix C).

3.2. Site History

3.2.1. On-Site

The pertinent historical development of the site is summarised in Table 1 along with the relevant excerpts from historical maps and aerial photographs.

Table 1: Summary of Site History

1876 – 1:2,500	1898 – 1:2,500	1910 – 1:2,500
		
The earliest available mapping for the site suggests the site is occupied by agricultural fields, which are bound by hedgerows/trees. A possible 'pond' feature is present towards the centre of the site.	The 'pond' feature is no longer noted.	No significant changes are recorded on site, although a footpath is noted to extend parallel to the northern site boundary.
1960 – 1:1,250	**1977-1982 – 1:1,250**	**1982 - 1987 – 1:1,250**
		
The site is indicated to be surfaced in rough pasture with *Drains* extending into the northern and central site areas. A *Pond* is again indicated towards the centre of the site in a similar shape and orientation to the pond like feature recorded on earlier mapping.	The site is now occupied by a large unnamed building (configuration similar to today's layout). The *Pond* within the southwestern site area is no longer noted.	The on site building is indicated as *Offices,* with areas of presumed car parking occupying the southern half of the site.

1992 – 1:250	1995 – 1:250	2003 – Aerial imagery
		
A small structure is noted within the southeastern site area (presumed to be the modern-day bike shed).	No significant changes recorded onsite.	The aerial imagery indicates that the site remained as *Offices*, with car parking and areas of soft landscaping occupying the southern site area.

3.2.2. Off-Site

Earliest available mapping, dated 1876 to 1879, indicates much of the immediate surrounding to be vacant land of a presumed agricultural usage, with isolated residential properties (presumed farmhouses) present approximately 10m west and approximately 100m southwest of the site, respectively. *Poundswick Lane* is recorded approximately 40m to the southeast and hamlet of *Poundswick* is recorded approximately 250m to the south.

By 1938, large-scale residential and commercial development is noted in the area of *Wythenshawe*, approximately 200m to the northeast. A large-scale residential development is also noted on the 1954 map extract at *Woodhouse Park and Moss Nook,* approximately 150m to the southwest of the site.

The map extract dated 1960 indicates that *Poundwick Lane* has been realigned and extends parallel to the southern site boundary. A *Tennis Court* is noted to the immediate north of the site, with *Playing Fields* further beyond, and that the area to the immediate west of the site has been redeveloped as *Poundswick Grammar School. Poundwick Hall Farm*, approximately 100m southwest of the site, has now expanded and includes several new buildings and *pond*. Residential development is noted within much of the surrounding area.

Public Baths (with associated *car parking*) are recorded on the 1971-1975 map extract, approximately 40m to the southeast and a further *Tennis Court* is recorded approximately 110m to the southwest of the site. By 1977, *Wythenshawe Centre* located approximately 250m to the southeast of the site had expanded, with a *Clinic*, *Library*, *Post Office* and several *car parks* noted. *Poundwick Hall Farm* to the southwest is no longer noted. *Frank Price Court* (flatted residential properties) is recorded to the immediate east of the site on the 1977-1982 map extract and an *electrical substation* is recorded approximately 10m to the north/northeast of the site. A *Multistorey Car Park* is recorded approximately 450m to the southeast of the site on the map extract dated 1989.

The 2010 map extract indicates a *Police Station* approximately 40m to the south of the site and further expansion of the *School* is also noted. The 2025 map extract indicates that the *School* to the west of the site has been redeveloped, with the main building now located approximately 100m to the west. Several MUGA (Multi-use games area) pitches are also shown surrounding the school. Recent residential development is also recorded to the immediate north.

3.3. Planning History

A review of Manchester City Council planning portal[1] includes the following selected planning applications for the site.

- **040227:** Extension to existing carpark to provide 80 new spaces and new vehicular access onto Cornfield Drive. This application was approved on 23 April 1992.
- **F06773 and F06329:** Erection of computer centre and ancillary buildings. This application was approved on 6 July 1977.
- **077159/FO/2005/S2:** Installation of air conditioning units, new entry gates and installations of CCTV cameras. This application was approved on 13 December 2005.
- **023067:** Installation of an antenna on plant room wall to roof of office block. This application was approved on 31 December 1984.
- **091666/FO/2009/S2:** Installation of manually operated swinging gates in perimeter fencing and removal of

[1] https://pa.manchester.gov.uk/online-applications/spatialDisplay.do?action=display&searchType=Application (Accessed October 2025)

landscaping to form emergency access. This application was approved on 6 January 2010.

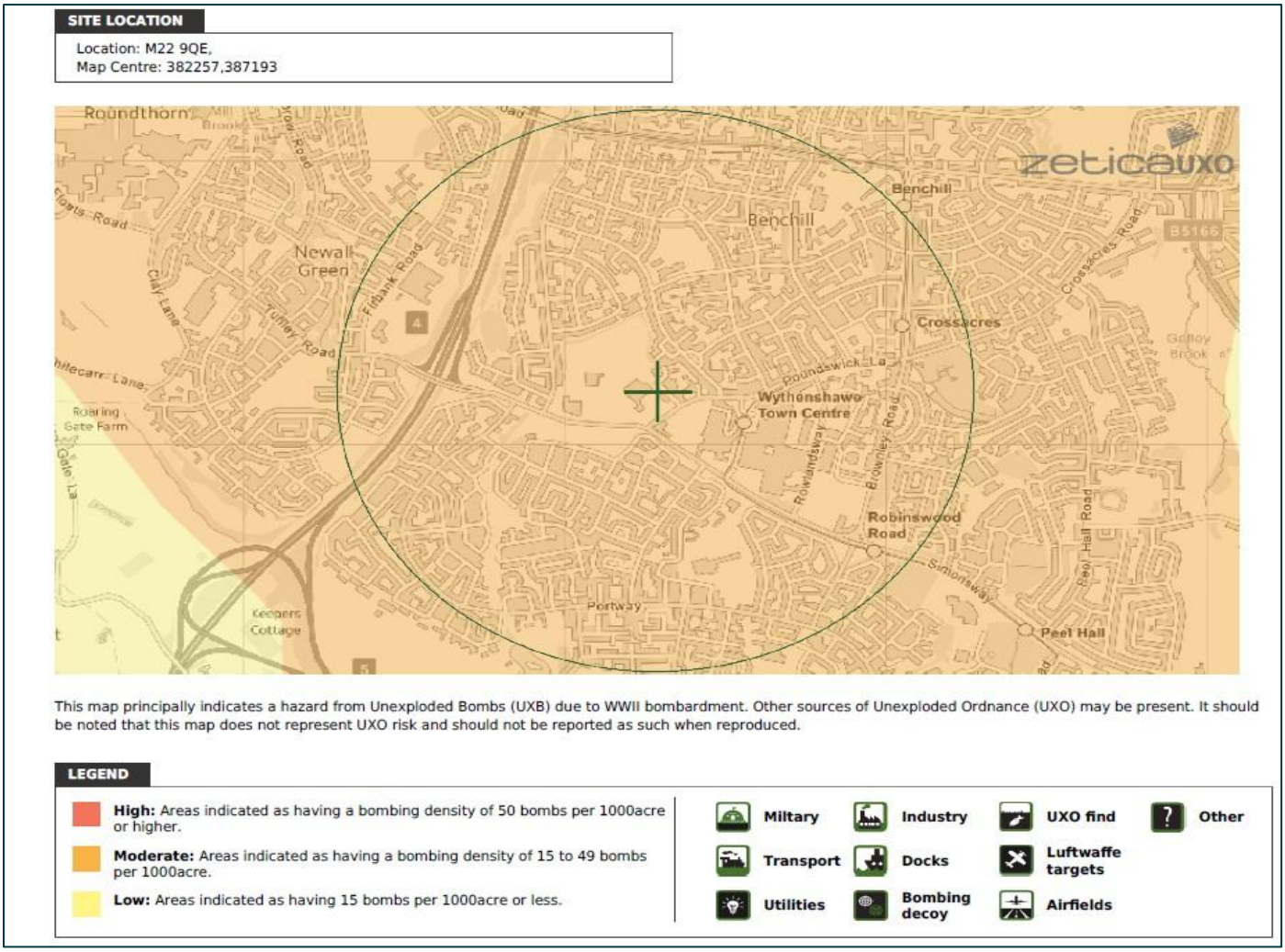
- **F16030:** Construction of a shelter for the storage of 8 No. motorcycles and 12 No. bicycles. This application was approved on 16 June 1981.
- **EIASCO/25/010:** Request for scoping opinion under Part 4, Regulation 15 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended). This application was validated on 15 October 2025, with the status listed as 'awaiting decision'.

It is noted that a full review of the planning history of the site and surrounding area has not been undertaken.

3.4. Unexploded Ordnance

A review of the publicly available online risk mapping indicates that the site is located within a moderate risk area from unexploded ordnance (UXO) as illustrated in Plate 3.

Plate 3: UXO Risk Map (Zetica Online[2])



A Detailed UXO risk assessment was procured to confirm the potential risk from UXO associated with intrusive works e.g. site investigation and future construction works. A copy of the Detailed UXO Risk Assessment report, prepared by RMS UXO Limited, is included in Appendix D.

The detailed UXO report identified the following:

- Wythenshawe was not bombed during WWI and therefore the risk of encountering unexploded WWI bombs today is very low / unlikely.
- During WWII, the Borough of Bucklow sustained a low-density bombing campaign according to The National Archives statistics, with an average of 5.6 items of ordnance recorded per 1,000 acres.
- There are six bombing indicated known to have occurred within an approximate 1km radius of the site, those being two HE (high explosive) bombs and four firebombs. The closest HE bomb strike occurred approximately 880m northeast of the site in January 1941. However, abandoned bombs and UXBs (unexploded bombs) were recorded

[2] UXO Zetica Online Risk Map, https://zeticauxo.com/guidance/risk-maps/ (Accessed October 2025)

in the wider surrounds to the site.

- Bomb damage mapping is unavailable for the area of Wythenshawe.
- The risk of encountering unexploded WWI bombs is considered to be very low.
- No evidence has been located to suggest that the site formerly had any military occupation or usage that could have led to contamination with items of British / Allied ordnance.
- It was noted that during post-war development works, there are no records of UXO being found onsite.

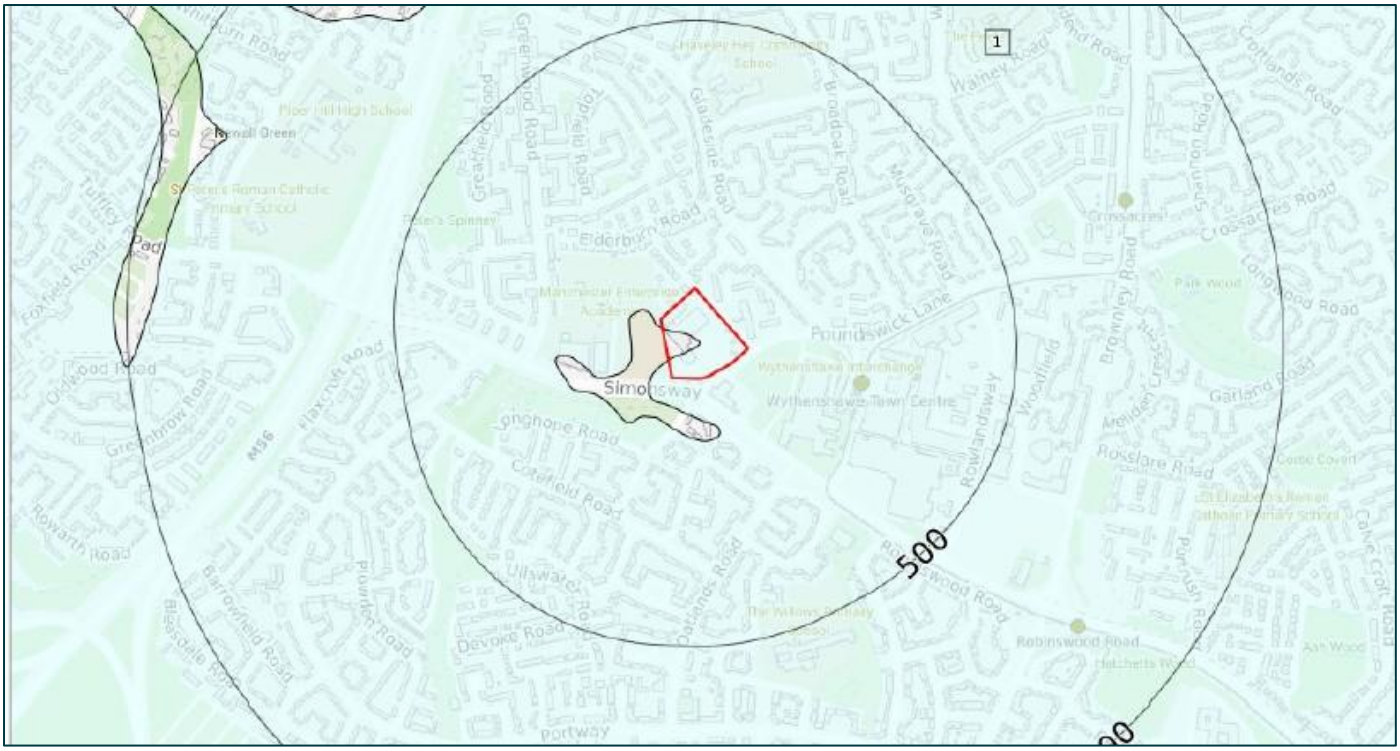
RMS UXO Limited conclude that the site is at a low risk from high explosive and incendiary bombs. On this basis, UXO supervision during in-ground works including ground investigation and construction was not considered necessary, although a safety awareness briefing and emergency response plan was recommended prior to intrusive works.

4. Anticipated Ground Conditions

4.1. Published Geology

With reference to the British Geological Survey (BGS) website[3], BGS Sheet SJ 88NW[4] and the Groundsure Enviro + Geo Insight report (see Appendix C), the majority of the site is anticipated to be underlain by Till (diamicton); however, no superficial deposits are mapped across an area in the west of the site. The distribution of the superficial deposits is illustrated in Plate 4.

Plate 4: Superficial Deposits (Excerpt from Enviro + Geo Insight Report)



The bedrock is indicated to comprise the Bollin Mudstone Member, as illustrated in Plate 5. No geological faults are recorded on site or within the immediate surrounding area, with the closest fault recorded approximately 590m to the southeast, trending north to south/southeast.

With reference to the BGs Lexicon[5], the anticipated ground conditions can be described as follows:

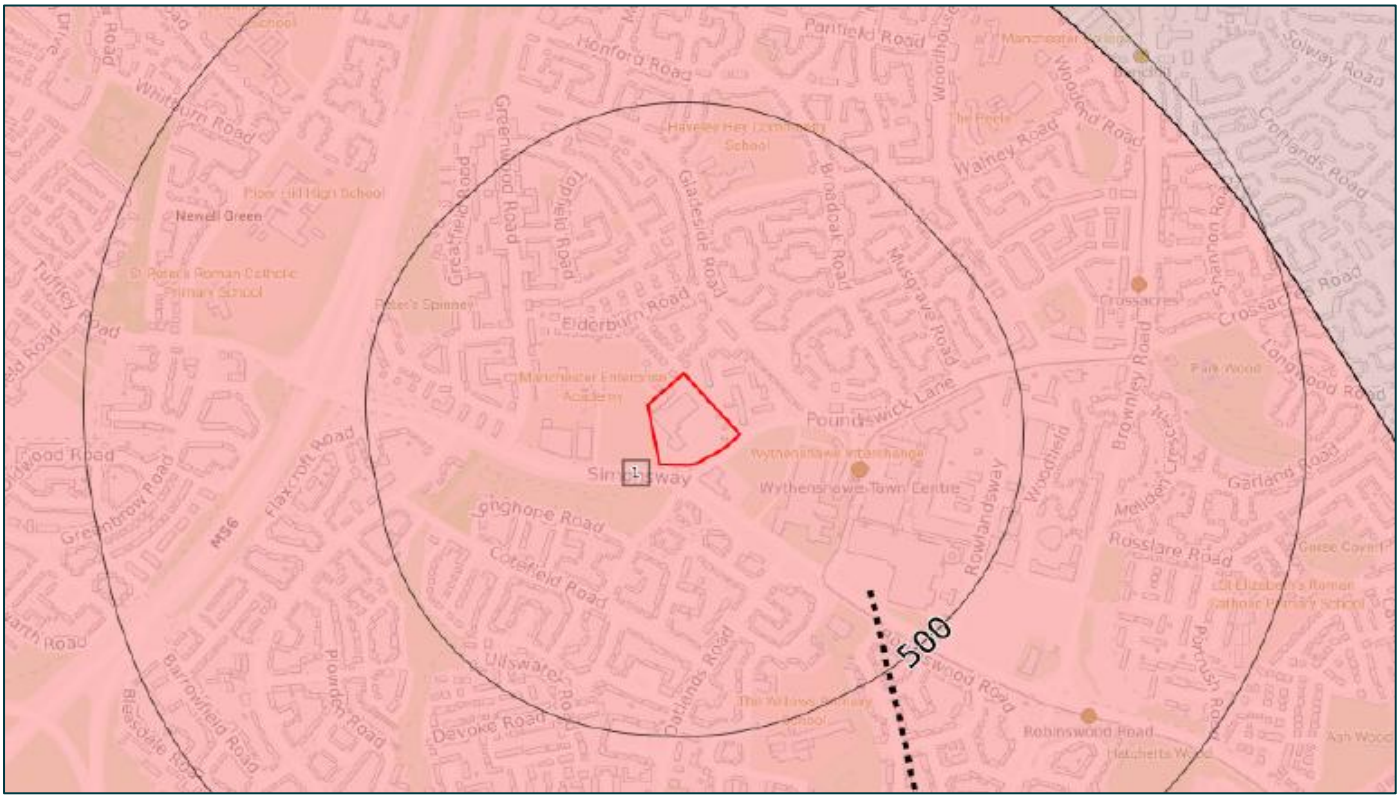
- **Till:** unsorted and unstratified drift, generally over-consolidated material, consisting of a heterogenous mixture of clay, sand, gravel, and boulders varying widely in size and shape.
- **Bollin Mudstone Member:** upper part is a dominantly laminated reddish-brown and greenish-grey mudstone with siltstone. The lower part is a structureless and laminated, dominantly reddish-brown mudstone.

[3] BGS GeoIndex (https://mapapps2.bgs.ac.uk/geoindex/home.html) (Accessed October 2025)

[4] BGS (1962) Lancashire, Sheet SJ 88 NW, Solid and Drift. 1:10,560

[5] BGS Lexicon of Named Rock Units, https://webapps.bgs.ac.uk/lexicon/lexicon.cfm?pub=BGS (Accessed October 2025)

Plate 5: Bedrock Geology (based on excerpt from Groundsure Enviro + Geo Insight Report)



4.2. Unpublished Geology

There are no historical BGS borehole logs for review on site; however, there are 13 records within 250m of the site boundary, as is illustrated in Section 16 of the Groundsure Enviro + Geo Insight report (see Appendix C).

The ground conditions encountered within these boreholes were generally described as topsoil (of up to 0.60m in thickness) or Made Ground, described as; dark grey ash and limestone gravel, greyish brown, slightly sandy, fine to coarse subangular gravel of limestone, or soft to firm, reddish brown, slightly sandy, slightly gravelly clay with brick fragments. The Made Ground was recorded to be underlain by natural soils described as; firm to stiff grey/brown, sandy clay or stiff, reddish brown mottled grey, slightly sandy, slightly gravelly clay, with more granular horizons. The underlying natural soils, which are considered to be representative of the indicated Glacial Till deposits, were encountered at varying depths of between 0.43m below ground level (mbgl) and 1.10mbgl, extending to depths of 2.65mbgl (borehole termination depth).

Possible rockhead, described as stiff to very stiff, brown, silty clay (completely weathered siltstone), extremely weak reddish brown mudstone (recovered as clay), extremely weak light grey sandstone, and extremely weak light grey siltstone was encountered in a number of the boreholes, with top of rockhead encountered at varying depths of between 0.80mbgl and 2.30mbgl. Copies of the BGS borehole records are included in Appendix E.

4.3. Mining and Ground Workings

A review of the Mining Remediation Authority Interactive Viewer[6] indicates that the site lies outside a 'Coal Mining Reporting Area' and a 'Development High Risk Area'. In addition, there are no recorded mine entries on site or within the immediate surrounding area. With reference to the Groundsure Enviro + Geo Insight report obtained for the site (see Appendix C), there are no records of British Pits (BritPits), underground workings, mining or natural cavities or non-coal mining within 250m of the site.

There are records of 2 surface ground workings (indicated as ponds) recorded towards the centre of the site, dated 1967 and 1977, correlating to the position of the pond identified on the historical mapping. A further 2 records of surface ground workings (ponds) are also recorded approximately 70m east and 120m southeast of the site, dated 1989 and 1995, respectively.

4.4. 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.

[6] Mining Remediation Authority Map Viewer, https://datamine-cauk.hub.arcgis.com/ (Accessed October 2025)

The superficial deposits of Glacial Till are designated as a Secondary Undifferentiated aquifer i.e. *'assigned where it is not possible to attribute either category A or B to a rock type. In general, these layers have previously been designated as both minor and non-aquifer in different location due to the variable characteristics of the rock type'* across the majority of the site, with no superficial aquifer indicated to be present beneath the western site area.

The underlying Bollin Mudstone Member bedrock is designed as a Secondary B aquifer i.e. *'predominantly lower permeability layers which may store / yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers'.*

The site is not located within a groundwater Source Protection Zone (SPZ) and there are no groundwater or surface water abstractions reported within 2,000m of the site. There is also no record of any potable abstractions within 2,000m of the site.

The nearest significant surface water body is a lake approximately 860m south of the site. The lake is fed by a predominantly the culverted Baguley Brook which is orientated north-south approximately 250m west of the area. Unnamed streams/ditches and small pond are located approximately 780m northeast of the area within Park Wood.

4.5. Ground Hazards

The risk associated with the potential geological hazards at the site have been assessed using the Enviro + Geo Insight report (see Appendix C) and are summarised in Table 2.

Table 2: Geological Hazards

Hazard	Risk
Shrink-swell Clays	Very Low
Running Sands	Negligible to Very Low
Compressive Deposits	Negligible
Collapsible Deposits	Very Low
Landslides	Very Low
Ground Dissolution	Negligible

4.6. Radon

The Groundsure Enviro + Geo Insight Report (see Appendix C) indicates that the site lies within a low risk radon probability area (less than 1% of home are at or above the Action Level). As such, radon protective measures are not considered necessary for the proposed development, assuming no basement structures are to be incorporated into the proposed development.

4.7. Railway Infrastructure

There are no records of railway infrastructure within the site. There are however 5 records relating to railways (Metrolink and unspecified) within 250m of the site, with the closest being approximately 220m to the east of the site.

5. Environmental Setting

5.1. Environmental Disclosure Report

The Groundsure + Geo Insights report (included in Appendix C) has been used to provide information on the environmental setting of the site and to assist in identifying possible sources of contamination. A summary of the pertinent records generally within 250m of the site is provided below in Table 3. For full details the Groundsure Enviro + Geo Insights reports should be referred to. The records generally reflect the key pertinent features identified on the historical mapping. It is noted that the distances stated are approximate.

Table 3: Summary of Pertinent Information from the Environmental Disclosure Report

Environmental Record	Record Details	Distance from Site
Historical Industrial Land Uses	No records identified on site or within 250m of the site.	-
Historical Tanks	No records identified on site or within 250m of the site.	-
Historical Energy Features	No records identified on site. 9 records identified within 250m of the site for electrical substations, dated between 1978 and 1995.	- 10m NE, 245m NW (x4), 245m E
Historical Garages	No records identified on site or within 250m of the site.	-
Historical Petrol Stations	No records identified on site or within 250m of the site.	-
Historical Landfill (BGS Records)	No records identified on site or within 250m of the site.	-
Historical Landfill (LA/mapping records)	No records identified on site or within 250m of the site.	-
Historical Landfill (EA/NRW records)	No records identified on site or within 250m of the site.	-
Historical Waste Sites	No records identified on site or within 250m of the site.	-
Licensed Waste Sites	No records identified on site or within 250m of the site.	-
Waste Exemptions	No records identified on site. 9 records identified within 250m of the site for aerobic composting and associated prior treatment, spreading waste on non-agricultural land to confer benefit, use of waste in construction and sorting and de-naturing of controlled drugs for disposal.	- 75m NE (x3), 100m W, 140m NW, 160m E, 160m SE (x3)
Recent Industrial Land Uses	No records identified on site. 5 records identified within 250m of the site for electrical features (electricity substations), bus and coach stations, deposits and companies and tram, metro and light railway stations and stops.	- 10m NE (x2), 180m W, 185m E, 220m SE
Current or Recent Petrol Stations	No records identified on site or within 250m of the site.	-
Licensed Pollutant Release (Part A (2) / B)	No records identified on site or within 250m of the site.	-
Licensed Discharges to Controlled Waters	No records identified on site or within 250m of the site.	-
Pollution Incidents (EA/NRW)	No records identified on site or within 250m of the site.	-
Control of Major Accident Hazards (COMAH)	No records identified on site or within 250m of the site.	-
Regulated Explosives Sites	No records identified on site or within 250m of the site.	-
Hazardous Substance Storage / Usage	No records identified on site or within 250m of the site.	-
Environmental Designations	No records identified on site or within 250m of the site. The site is recorded within a SSSI Impact Zone; further details are contained within the Groundsure report.	-

6. Preliminary Risk Assessment

6.1. Introduction

Historical contamination of land may present harm to human health and the environment. Current UK legislation stipulates that the risk associated with potential land contamination is assessed and remediated, if necessary. Under the Town and Country Planning Act 1990 (as amended), potential land contamination is a "material planning consideration" together with the National Planning Policy Framework[7] (revised in July 2023), which means that a planning authority must consider contamination when they prepare development plans or consider individual applications for planning permission. It is the responsibility of the developer to carry out the remediation where it is required and satisfy the Local Authority that the remediation has been carried out as agreed.

Additionally, Part 2A of the Environmental Protection Act 1990 requires that a significant source-pathway-receptor linkage exists to determine a site as contaminated land. This means that there has to be a contaminant present, a receptor that could be harmed by this contaminant, and a pathway linking the two. Part 2A deals with the contamination risk from a site in its current use, however, the planning system requires that the proposed use is considered. Where remediation is carried out under the planning system, it should be ensured that the subject site is in such a condition that it would still not meet the definition of contaminated land under Part 2A.

6.2. Preliminary Conceptual Site Model

A preliminary conceptual model has been compiled for the site with respect to the proposed development to identify the potential sources of contamination and the associated potential contaminant linkages. Based on the current development proposals, a residential without home grown produce end use has been adopted. This model also informs the potential need for further investigation at the site.

6.2.1. Potential Sources

Potential contamination sources can include both current and historical activities on-site and off-site in the surrounding area. The potential sources outlined in Table 4 have been identified at the site.

Table 4: Potential Sources

Hazard	Description
Historical and current land uses – Site	Potentially contaminative historical land uses at the site include the infilled *pond* and the more recent car parking areas. Historical industries could be potential sources of a wide range of contaminants including heavy metals, Total Petroleum Hydrocarbons (TPHs), Polycyclic Aromatic Hydrocarbons (PAHs) and asbestos. In addition, an AST was observed during the site walkover and whilst the AST was indicated to have been decommissioned, the AST is considered to be a potential source of historical contamination.
Historical and current land uses – Off-site	Much of the surrounding area has had a residential/commercial usage, with *Wythenshawe Civic Centre* (town centre with retail units, leisure centre, multi-storey carparking etc) present to the east, residential properties to the north and south and *Poundwick Grammar School,* with associated outdoor amenity space, present to the west of the proposed development site. Electrical substations are also noted within the surrounding area. These historical uses could be potential sources of a wide range of contaminants including heavy metals, PAHs and Polychlorinated Biphenyls (PCBs).
Made Ground – Site and Off-site	Potential for Made Ground to be present due to historical development on and off-site, which could be a potential source of a wide range of contaminants including heavy metals, hydrocarbons and asbestos.
Ground gases / vapour	Made Ground may be a source of ground gas where an appreciable organic content is present. If present, degradation of hydrocarbons/organic chemicals can also produce organic vapours and ground gases.
Groundwater	Perched water in the Made Ground and Secondary (Undifferentiated) aquifer in the Glacial Till may be a source of contamination resulting from impacts from the previous on and off-site sources. Potential contaminants in water would be similar to those potentially present in the soils, as discussed above.

6.2.2. Potential Pathways

The potential migration pathways that may be present are outlined in Table 5.

Table 5: Potential Pathways

Hazard	Description
Ingestion and inhalation	Contamination within the Made Ground and/or shallow natural soils can result in the ingestion or inhalation of contaminated soils (and asbestos fibres if present) where soil is exposed and inhalation of ground gases/vapours.
Direct / dermal contact	Direct/dermal contact with contaminated soils or shallow groundwater can result in the uptake of contaminants through the skin (where soil is exposed) or permeation of contaminants through structures.

[7] Ministry of Housing, Communities and Local Government (2023). National Planning Policy Framework.

Hazard	Description
Root uptake	Uptake of phytotoxic contaminants by plants and vegetation within areas of soft landscaping.
Lateral and vertical migration	Leaching from potential contamination in the soils may impact the water in the Made Ground, underlying Secondary Undifferentiated aquifer (Till) and underlying Secondary B aquifer (Bollin Mudstone Member - Mudstone). The Baguley Brook is also located approximately 240m to the west of the site; however, it is noted that the brook is predominantly culverted in proximity to the site. The nearest significant surface water body is a lake approximately 860m south of the site.
Ground gas / vapour migration	Lateral migration of ground gases and/or vapours through the soil matrix could lead to accumulation within buildings, posing a risk of asphyxiation or explosion.
Drainage and services	Could provide a preferential pathway for dissolved phase contaminant migration and/or ground gases/vapour transport.
Foundations (shallow, piled)	Could provide a preferential pathway for dissolved phase contaminant migration and/or ground gases/vapour transport.

6.2.3. Potential Receptors

The potential receptors have been identified based on the proposed residential end use, and are outlined in Table 6.

Table 6: Potential Receptors

Hazard	Risk, if source and pathway present
Future site users	Users and occupiers of the site are considered to be at risk from possible contamination associated within shallow soils and groundwater, if source and pathway are present.
Construction workers	Considered to be at risk from potential contamination within soils and groundwater during groundworks. Such persons are likely to be in close contact with potentially contaminated materials on site associated with the current and historical uses of the site and surrounding area.
Off-site residents	Potentially at risk from potential contaminants in wind-blown dust and potential odours/vapours generated during development works.
Controlled waters	The surrounding aquifers and surface water are potentially at risk from the leaching of contaminants from potentially contaminated soils and groundwater.
Buildings / Infrastructure / services	Potentially at risk from ground gas migration, aggressive ground conditions and contaminants that may permeate through underground services such as water supply pipes.
Plants and vegetation	Primarily at risk from phototoxic contaminants such as boron, copper, nickel and zinc.

6.2.4. Preliminary Risk Assessment

A preliminary qualitative risk assessment has been undertaken for the site based on the findings of the conceptual site model and the potential contaminant linkages that may exist at the site in accordance with the October 2020 Land Contamination Risk Management Guidance (LCRM)[8]. The magnitude of the risks associated with potential contaminant linkages has been assessed using criteria broadly based on those presented in CIRIA Report C552[9], and are summarised in Table 7. The risk assessment methodology is presented in Appendix F.

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

[9] CIRIA (2001) Contaminated Land Risk Assessment. A guide to good practice. C552

Table 7: Preliminary 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 (including historical on site AST).	Migration of gases and vapours through the surface via permeable soils and drainage & services	Internal building spaces & future occupiers	Medium	Low likelihood	Moderate/low	Potential for variable thicknesses of Made Ground, particularly in area of infilled pond. *Further assessment of underlying geology and ground gas monitoring recommended to assess ground gas regime, including investigation within the vicinity of the AST.*
Organic/ inorganic contaminants within underlying soils and perched groundwater within the Made Ground associated with historical on-site land uses (including infilling of former pond and historical AST)	Direct/indirect ingestion of soil and dust, inhalation of particle vapours and asbestos fibres and dermal contact	Construction workers	Medium	Likely	Moderate	Potential for shallow soils to be impacted with asbestos and/or contaminants, although it noted that this risk would be mitigated by use of appropriate PPE. *Further chemical analysis and assessment of shallow soils recommended to assess risk.*
		Future site users	Medium	Likely	Moderate	Potential for shallow soils to be impacted with asbestos and/or contaminants. Hardstanding and/or buildings are proposed across large areas of the site which will act as a barrier between receptor and potential contamination within underlying soils. Likely soft landscaping will require a clean cover system to mitigate potential risks. Assessment of risk from potential vapour intrusion into buildings required (particularly within the northeastern site area). *Chemical analysis and assessment of shallow soils recommended to assess risk.*
		Off-site residents	Medium	Low likelihood	Moderate/Low	Potential for shallow soils to be impacted with asbestos and/or contaminants. It is assumed that appropriate practices are adopted to prevent dust generation during construction e.g., dampening down and covering stockpiles etc.
	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. Potential for contamination within Made Ground where new buried water supply pipes will be laid. *Chemical assessment of soils recommended to assess risk.*
	Root uptake	Plants and vegetation	Minor	Likely	Low	Potential for shallow soils to be impacted with asbestos and/or contaminants. Made Ground is considered unlikely to present a suitable growth medium. *Chemical analysis and assessment of shallow soils recommended to assess risk.*

Potential Source/Medium	Potential Exposure Route	Potential Receptor	Severity	Probability	Risk Rating	Comments
	Vertical and lateral migration, pathways created during construction activities	Shallow Secondary Undifferentiated aquifer (*Glacial Till*)	Medium	Low likelihood	Moderate/Low	Potential for contaminants within the soil to leach to the underlying aquifer within superficial deposits. Where proposed, buildings and hardstanding will limit leaching potential. In addition, cohesive horizons within Made Ground may mitigate migration of contaminants. *Analysis and assessment of soils and groundwater required to assess risk.*
		Secondary B aquifer (*Bollin Mudstone Member)*	Medium	Low likelihood	Moderate/Low	Potential for contaminants within the soil to leach to the underlying aquifer within bedrock. Where proposed, buildings and hardstanding will limit leaching potential. In addition, cohesive horizons within Made Ground may mitigate migration of contaminants. *Analysis and assessment of soils and groundwater required to assess risk.*
		Local surface water bodies (*Culverted Baguley Brook and Lake)*	Mild	Unlikely	Very Low	Potential for shallow soils and perched water to be impacted with contaminants based on historical site use. However, cohesive horizons within Made Ground may mitigate migration of contaminants. In addition, Baguley Brook is predominantly culverted which will act as a barrier to contaminant migration into the water body. The lake is located 860m from the site. *Analysis and assessment of soils and groundwater required to assess risk.*
Organic / inorganic contaminants within shallow groundwater aquifer (Glacial Till) from historical on and off-site sources (including the AST in the northeastern site area)	Direct contact and ingestion of contaminated groundwater	Future site users	Medium	Unlikely	Low	Hardstanding, buildings and formal landscaping is proposed across the site which will limit the exposure to future site users. Construction workers may come into contact with shallow water during excavation works; however, contact between future site users/off-site residents and shallow aquifer considered unlikely. *Assessment of groundwater profile and contamination is recommended to assess risk.*
		Construction workers	Medium	Low likelihood	Moderate/low	
		Off-site residents	Medium	Unlikely	Low	
	Inhalation of vapours	Future site users	Medium	Low likelihood	Moderate/low	Potential for elevated hydrocarbon concentrations in shallow groundwater from the AST. *Assessment of groundwater regime and contamination is recommended to assess risk.*
	Lateral migration	Local surface water bodies (*Baguley Brook and Lake)*	Mild	Unlikely	Low	Potential for shallow water to be impacted with contaminants based on historical and current site use. Buildings and hardstanding across large areas of the site will limit leaching potential. In addition, cohesive horizons within superficial deposits may mitigate migration of contaminants. Brook is predominantly culverted and Lake is approximately 860m from the site. *Analysis and assessment of soils and groundwater required to assess risk.*
	Vertical migration, pathways created during construction	Secondary B aquifer (*Bollin Mudstone Member)*	Medium	Low likelihood	Moderate/low	Potential for contaminants within the shallow groundwater to migrate to underlying bedrock aquifer. Considered likely

Potential Source/Medium	Potential Exposure Route	Potential Receptor	Severity	Probability	Risk Rating	Comments
	activities					that the presence of buildings and hardstanding and cohesive horizons of superficial deposits will limit potential for vertical migration of potential contaminants to bedrock aquifer in these areas. *Assessment of groundwater profile and contamination is recommended to assess risk.*
	Direct contact with underground services	Buildings and structures	Mild	Likely	Moderate/low	Buried concrete to be designed as appropriate for ground conditions. *Assessment of groundwater profile and contamination is recommended to assess risk.*

7. Phase 2 Site Investigation

7.1. Introduction

A Phase 2 site investigation was undertaken within accessible areas of the site between 11 and 22 August 2025 as part of a wider preliminary site investigation across the wider master redevelopment area, and a summary of the intrusive works completed at the site is summarised in Table 8.

Table 8: Summary of Exploratory Hole Locations

Location Reference	Type of Exploratory Hole	Ground Level (mOD)	Base Depth (mbgl)	Base Levels (mOD)
WS21	WS	58.70	2.80	55.90
WS22	WS	59.23	2.00	57.23
WS23	WS	58.37	2.00	56.37
WS24	WS	59.84	2.20	57.64
WS25	WS	59.90	2.80	57.10
WS26	WS	59.78	2.50	57.28
WS27	WS	58.41	2.50	55.91
WS28	WS	58.59	2.50	56.09
RC01	RH	58.50	15.00	43.50
RC02	RH	58.92	15.00	43.92
RC03	RH	59.71	15.00	44.71
RC06	RH	58.68	15.00	43.68
TP01	FIP + TP	60.00	2.00	58.00
TP02	FIP + TP	59.21	1.55	57.66
TP03 / FIP03	FIP	59.14	1.70	57.44
TP04	FIP	58.71	1.80	56.91

WS = window sample borehole; RH = rotary cored hole, TP = machine excavated trial pit, FIP = foundation inspection trial pit.

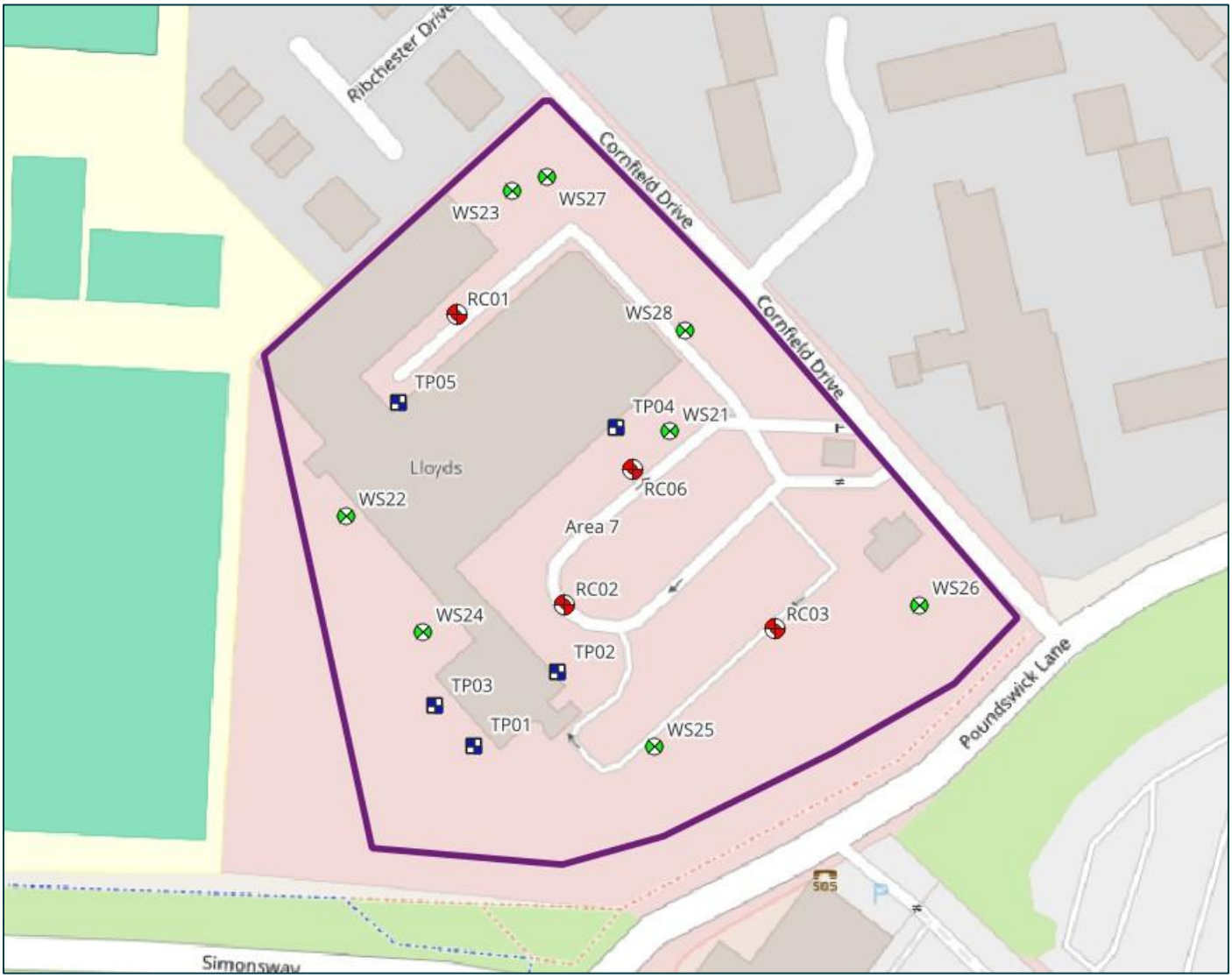
Prior to breaking ground, exploratory holes were cleared for buried services by a specialist utility contractor utilising a cable avoidance tool (CAT) and signal generator. Coordinates and ground levels were surveyed for each exploratory hole position.

The investigation was undertaken in general accordance with the requirements of BS 5930:2015+A1:2020[10] and BS 10175:2011+A2:2017[11] and the exploratory hole records are included in Appendix F. An exploratory hole location plan is illustrated in Plate 6. It is noted that a fifth trial pit (TP05) was proposed; however, the location was not undertaken due to time constraints. In-situ Standard Penetration Tests (SPTs) were carried out within the window sample boreholes. In addition, hand shear vane (HSV) tests were undertaken where suitable cohesive soil samples were retrieved.

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

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

Plate 6: Exploratory Hole Location Plan



7.2. Ground Gas and Groundwater Monitoring

Three ground gas and groundwater monitoring visits have been undertaken at the site on 4 and 5 September 2025, 16 and 17 September 2025 and 30 September 2025. Groundwater samples were obtained from boreholes RC01, RC02, RC06, WS24, WS25 and WS27 on 17 September 2025. A summary of the monitoring wells installed is provided in Table 9 and the ground gas and groundwater monitoring and sampling records are included in Appendix G. It is noted that the records included in Appendix G also include the results of the ground gas and groundwater monitoring carried out within the wider Wythenshawe development area.

Table 9: 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)
RC01	Bollin Mudstone Member	3.00	15.00	55.50	43.50
RC02	Bollin Mudstone Member	3.00	15.00	55.92	43.92
RC03	Glacial Till / Bollin Mudstone Member	2.00	14.00	57.71	45.71
RC06	Bollin Mudstone Member	3.00	15.00	55.68	43.68
WS21	Glacial Till / Bollin Mudstone Member	1.50	2.50	57.20	56.20
WS23	Glacial Till	0.50	1.00	57.87	57.37

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)
WS24	Glacial Till	1.00	2.00	58.84	57.84
WS25	Made Ground	0.50	1.00	59.40	58.90
WS26	Made Ground	0.50	1.00	59.28	58.78
WS27	Glacial Till / Bollin Mudstone Member	1.50	2.50	56.91	55.91

7.3. Chemical Laboratory

7.3.1. Soil Testing

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

- 21 Nr. pH
- 21 Nr. soil organic matter (SOM);
- 21 Nr. total sulphate as SO_4;
- 21 Nr. total cyanide;
- 21 Nr. heavy metal suite (antimony, arsenic, barium, beryllium, boron, cadmium, chromium (III and VI), copper, lead, mercury, nickel, selenium, vanadium and zinc);
- 21 Nr. polycyclic aromatic hydrocarbons (PAH);
- 21 Nr. total petroleum hydrocarbons (TPH);
- 21 Nr. total monohydric phenols;
- 21 Nr. BTEX compounds (benzene, toluene, ethylbenzene, xylenes);
- 1 Nr. Semi Volatile and Volatile Organic Compounds (SVOCs and VOCs);
- 5 Nr. Waste Acceptance Criteria (WAC) tests; and
- 18 Nr. asbestos screen.

7.3.2. Groundwater Testing

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

- 6 Nr. pH
- 6 Nr. dissolved organic carbon (DOC);
- 6 Nr. total sulphate as SO_4;
- 6 Nr. ammoniacal nitrogen as N;
- 6 Nr. total cyanide;
- 6 Nr. free cyanide;
- 6 Nr. hardness;
- 6 Nr. heavy metal suite (antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium (III and VI), copper, lead, magnesium, mercury, nickel, selenium, vanadium and zinc);
- 6 Nr. PAH;
- 6 Nr. BTEX compounds (benzene, toluene, ethylbenzene, xylenes);
- 6 Nr. TPH; and
- 6 Nr. total monohydric phenols.

It is noted that the soil and groundwater testing certificates included in Appendix I also include the results of other samples which were scheduled for analysis as part of the wider Wythenshawe site assessment.

7.4. Geotechnical Laboratory Analysis

Selected soil samples were submitted to Geolabs Limited (a UKAS accredited laboratory) for geotechnical testing in

general accordance with BS 1377[12]. The following tests were scheduled and the results are included in Appendix J:

- 3 Nr. Atterberg Limit (4 Point);
- 3 Nr. natural water content;
- 16 Nr. point load strength of rock;
- 1 Nr. uniaxial compressive strength of rock including 1 Nr. determination of Young's Modulus and Poisson's Ratio; and
- 7 Nr. Building Research Establishment (BRE) Special Digest (SD)[13] Suite – including 2:1 water soluble sulphate, 2:1 water soluble chloride, water soluble magnesium, total sulphate, total sulphur and pH.

It is noted that the geotechnical results included in Appendix J also include the results for samples which were scheduled for analysis as part of the wider Wythenshawe site assessment.

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

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

8. Ground and Groundwater Conditions

8.1. Summary of Ground Model

A summary of the ground conditions encountered during the site investigation is provided in Table 10. It is noted that the ground conditions recorded in foundation inspection trial pits TP02, TP02, TP03 / FIP03 and TP04 are not included in Table 10 and are reported separately in Section 0.

Table 10: Summary of Site Investigation Ground Conditions

Stratum	Top of Stratum (mbgl) [mOD]	Thickness (m)
Brown slightly clayey gravelly sand. Sand is fine to medium. Gravel is angular fine of mudstone and flint. Frequent rootlets and wood noted. *Encountered in borehole WS22 only.* **[TOPSOIL]**	0.00 [59.23]	0.10
Concrete / tarmac hardstanding over: *Granular horizons:* typically black to red / light grey / pale yellow to white slightly silty sandy gravel / slightly sandy clayey gravel / clayey gravelly sand. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of brick, tile, ceramic, mudstone, dolomite, limestone and chalk. Occasional subangular cobbles of dolomite noted. Rare metal, brick fragments noted. *Rare angular to subangular cobbles of limestone and tarmac in RC03.* *Frequent rootlets and wood noted in WS24 at depths of between 0.00mbgl (59.84mOD) and 0.20mbgl (59.64mOD).* *Cohesive horizons*: typically soft to firm red brown / dark brown mottled yellow brown sandy gravelly clay. Gravel is fine to coarse, subangular to rounded of mudstone and brick. *Bituminous material was recorded in WS21, WS22, WS25, WS26, WS28 and RC02 at varying depths of between 0.10mbgl (58.60mOD) and 1.10mbgl (59.38mOD).* *A buried concrete slab was recorded in RC03 at depths of between 0.60mbgl (59.11mOD) and 0.80mbgl (58.91mOD).* **[MADE GROUND]**	0.00 to 0.10 [60.00 to 58.37]	0.20 to >1.55
Soft to firm red / grey / black slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone. *Frequent fibrous organic material; was noted in WS25 at depths of between 2.00mbgl (57.90mAOD) and 2.75mbgl (57.15mAOD).* Firm to stiff and stiff red / grey mottled brown / orange brown gravelly CLAY / sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse angular to subrounded of sandstone, mudstone, dolomite, quartz, and coal. *Encountered in WS21 to WS28, RC01, RC02, RC03 and RC06* Reddish brown slightly clayey slightly gravelly sandy SILT. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of mudstone, quartz and coal. *Encountered in WS21 only at depths of between 0.50mbgl (58.20mOD) and 2.00mbgl (56.70mAOD*). Clayey gravel with cobbles of dolomite. Gravel is fine to coarse, angular to subangular of dolomite. *Encountered in WS23 only at depths of between 0.20mbgl (58.17mAOD) and 1.20mbgl (57.17mAOD).* **[GLACIAL TILL]**	0.20 to 1.40 [57.90 to 58.64]	>0.50 to 2.55
Very stiff brown mottled red clay with mudstone lithorelics / extremely weathered laminated MUDSTONE. MUDSTONE recovered as brown slightly silty gravel. Gravel is fine to coarse angular of mudstone lithorelics. Grey SILTSTONE. *Encountered in WS21, WS22 and WS24 to WS28.* **[WEATHERED BOLLIN MUDSTONE MEMBER]**	1.20 to 3.00 [58.03 to 55.92]	0.05 to >0.80

Stratum	Top of Stratum (mbgl) [mOD]	Thickness (m)
Extremely weak to weak thinly to medium bedded laminated brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close and wide spaced rough planar clean and rough undulating mostly clean with rare clay infill; 2) 80 to 85 degrees closely spaced to medium spaced stepped rough clean. Often recovered as; orangish brown gravel / orange brown gravelly cobbles. Gravel is fine to coarse of mudstone lithorelics. Cobbles are angular of mudstone. Extremely weak to weak light grey / orange brown thinly bedded / thinly laminated SILTSTONE. Discontinuities: 1) 5 degrees extremely close to medium close spaced rough smooth clean; 2) 80 degrees medium / close spaced steeped rough clean. *Encountered in RC01, RC02, RC03 and RC06.* **[BOLLIN MUDSTONE MEMBER]**	2.20 to 3.30 [56.71 to 55.35]	>11.70 to >12.80

8.2. Made Ground

Made Ground was encountered from below hardstanding or topsoil at each exploratory hole location and ranged in thickness between 0.20m and 1.40m in thickness. The stratum comprised both granular cohesive horizons, both of variable consistency and density.

A total of 2 SPTs were undertaken within the cohesive Made Ground in window sample boreholes WS25 and WS26, were the SPT N60 values were recorded to be 4 and 6, respectively, which correspond to a 'very soft to soft' clay[10].

Sulphate and pH testing was undertaken on a sample of the Made Ground, obtained from borehole WS26, and the results are summarised in Table 11.

Table 11: 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	6.8	19.1	20	<2.0

*2:1 Leachate Equivalent

8.3. Glacial Till

The Glacial Till was encountered in each of the window sample and rotary boreholes. The top of the superficial deposits was recorded between 57.90mOD and 58.64mOD and recorded to range between >0.50m and 2.55m in thickness.

SPT N60 values ranged from 6 to 54 corresponding to 'soft to very stiff' clay[10]. Correlated c_u values range from 27kPa to 243kPa (assuming f1 = 4.5[14]), correlating to 'low to very high' strength material[10]. A single SPT was undertaken within the suspected granular horizons of the Glacial Till (no recovery of arisings recorded) where an SPT N60 value of 3 was recorded, corresponding to a 'very loose' granular deposits[10].

Hand shear vane tests undertaken within the cohesive Glacial Till deposits during the site investigation returned undrained shear values between 18kPa and 98kPa, correlating to very low to high strength material[10].

A summary of the SPT N60 values and undrained shear strengths versus levels are provided in Plate 7 and Plate 8, respectively.

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

Plate 7: SPT N60 versus Level (mOD) – Glacial Till

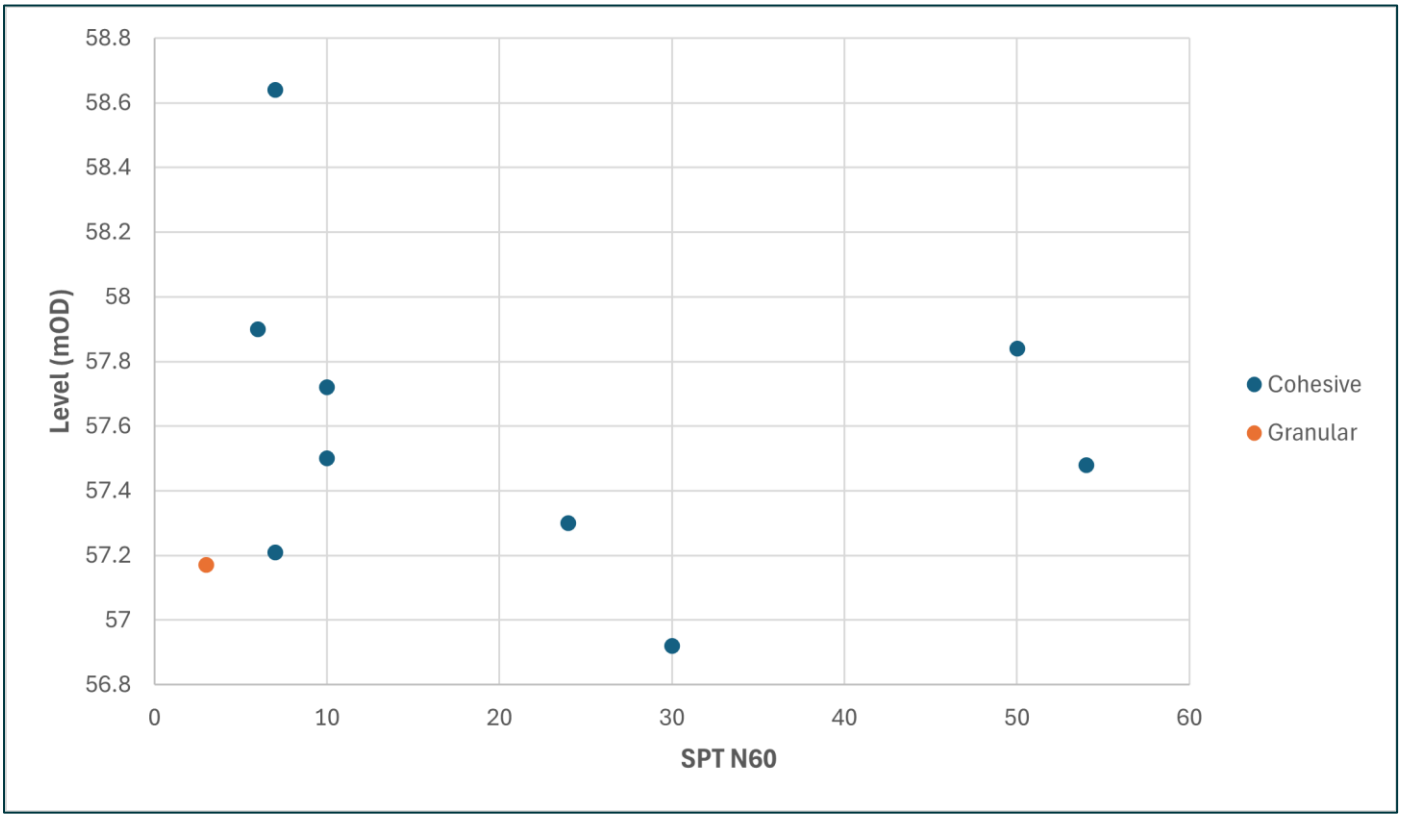
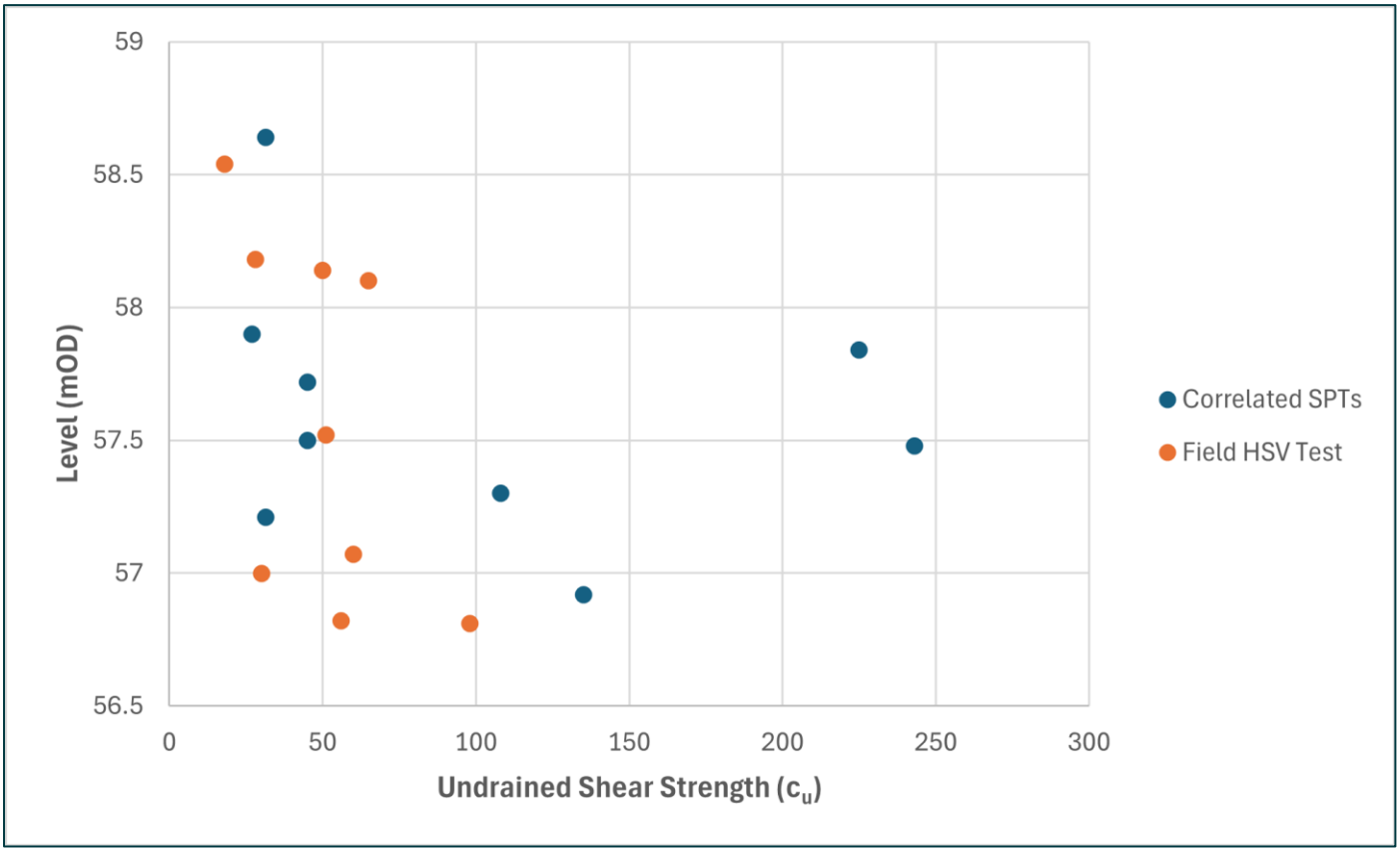


Plate 8: Undrained Shear Strength versus Level (mOD) – Glacial Till



A summary of the classification testing undertaken on selected samples from the Glacial Till is provided in Table 12 . The results of the classification testing indicate the material to be clay of intermediate plasticity[10] with a low to medium volume change potential[15].

[15] NHBC (2024) NHBC Standards. Chapter 4.2 Building near trees.

Table 12: Summary of Classification Testing – Glacial Till

Number of Tests	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	% Passing (>450µm)	Modified Plasticity Index (%)
2	20.7 to 22.2	40 to 44	20 to 21	98 to 100	18.62 to 24

Sulphate and pH testing was undertaken on samples of the Glacial Till retrieved during the ground investigation. The results are summarised in Table 13

Table 13: Summary of pH and Sulphate Testing – Glacial Till

Number of Tests	pH	Water Soluble SO_4* (mg/l)	Water Soluble Chloride* (mg/l)	Water Soluble Nitrate as N* (mg/l)
5	6.6 to 8.9	11.8 to 427	3.1 to 49	<2.0 to 35

*2:1 Leachate Equivalent

8.4. Bollin Mudstone Member

The weathered Bollin Mudstone Member, recovered as very stiff mottled red clay with mudstone lithorelics / extremely weathered laminated mudstones or brown slightly silty gravel of coarse angular mudstone lithorelics was encountered in window sample boreholes WS21, WS22 and WS24 to WS28 between 58.03mOD and 55.92mOD and ranged between 0.05m and >0.80m in thickness. The more competent bedrock was encountered in each of the rotary boreholes (RC01 to RC03 and RC06) as extremely weak to weak mudstone and siltstone between 56.71mOD and 55.35mOD and proven to the maximum borehole penetration depth.

A total of 5 SPTs were carried out within the weathered cohesive Bollin Mudstone Member and SPT N60 values ranged from 6 to 50, corresponding to 'soft to very stiff' cohesive deposits[10]. It is noted that the SPT N60 values were generally in excess of 30, which corresponds to a 'stiff' cohesive deposit and the lowest SPT N60 value of 6 (at 1.20mbgl) was only recorded within window sample borehole WS28 and is not considered to be representative of the weathered Bollin Mudstone Member, as the visual description of these soils in-situ was recorded as 'stiff'. Hand shear vane tests undertaken within the cohesive weathered Bollin Mudstone Member, during the site investigations, returned undrained shear values between 18kPa and 82kPa, correlating to 'very low to high strength' material[10].

A total of 6 SPTs were also undertaken within the weathered granular Bollin Mudstone Member and SPT N60 values ranged from 28 to 54, corresponding to 'medium dense to very dense' granular deposits[10].

A summary of the SPT N60 values and undrained shear strengths versus levels are provided in Plate 9 and Plate 10, respectively.

Point load testing and unconfined compressive strength (UCS) tests were carried out on the core samples retrieved from boreholes RC01, RC02, RC03 and RC06. A summary of the point load tests is provided in Table 14 with UCS values (applying the Broch and Franklin conversation of 24 to the Is(50) values). A summary of the UCS Tests (including Young's Modulus and Poisson's Ratio) is provided in Table 15. It is noted selection of cores from borehole RC03 and RC06 were also scheduled for Unconfined Compressive Strength (UCS) testing; however, the testing was unable to be carried out due to the fractured nature of the material. Similarly, a selection of core from borehole RC02 was also scheduled for UCS with Youngs Modulus and Poisson's Ratio but was unable to bet be tested as the sample was very fragile and already showing signs of failure.

Table 14: Summary of Point Load Testing

Number of Tests	Is (MPa)	Is(50) (MPa)	Estimated UCS (MPa)
21	0.02 to 0.87	0.03 to 0.83	0.72 to 19.92

Table 15: Summary of UCS Testing

Number of Tests	Bulk Density (Mg/m^3)	UCS (MPa)	Young's Modulus (GPa)	Poisson's Ratio
1	2.32	0.845	0.0419	0.61

The recorded and estimated UCS values for the Bollin Mudstone Member correlate to an extremely weak to moderately weak rock[10] which is generally consistent with the field description of this strata.

Plate 9: SPT N60 versus Level (mOD) – Bollin Mudstone Member

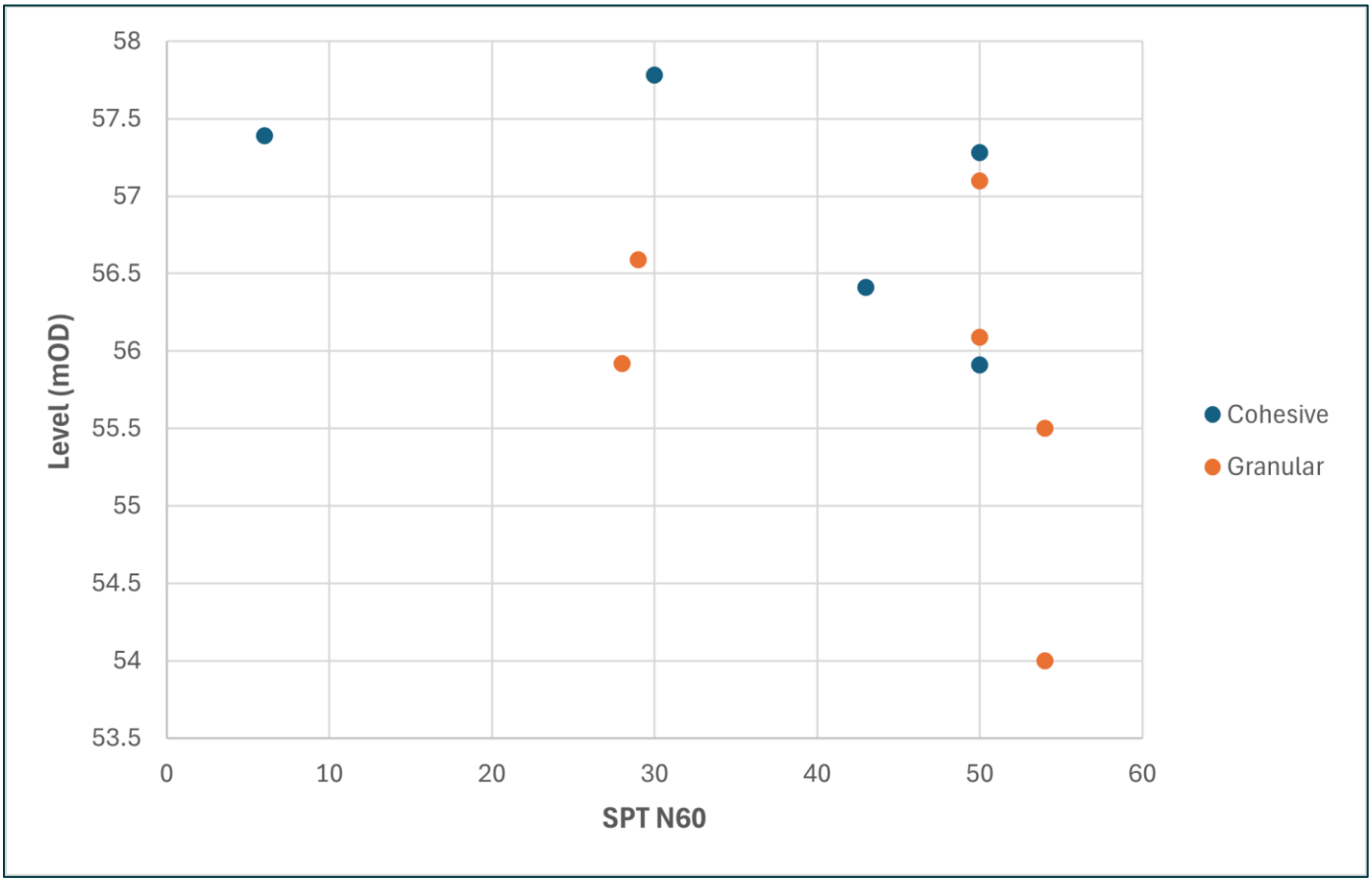
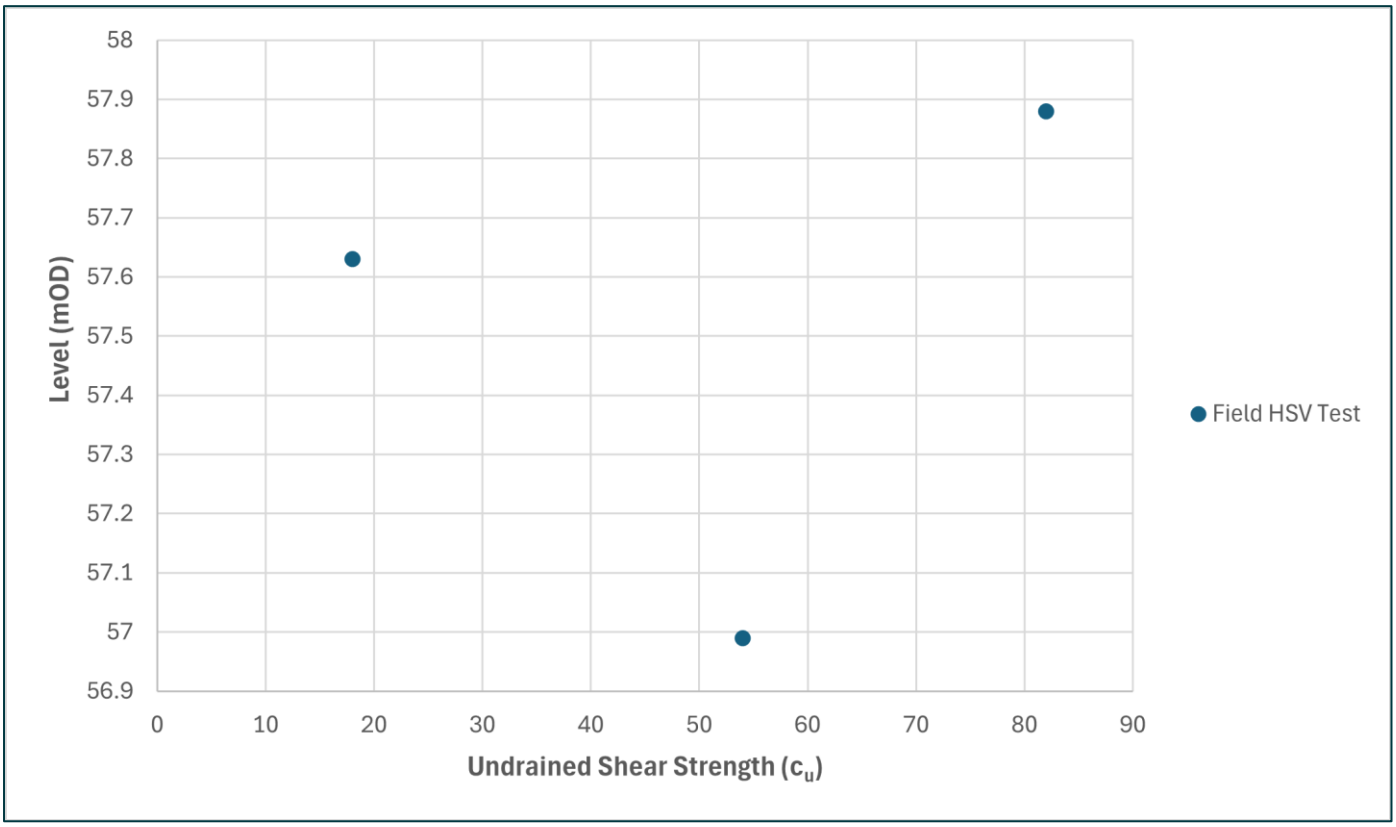


Plate 10: Undrained Shear Strength versus Level (mOD) – Weathered Bollin Mudstone Member



A summary of classification testing carried out on sample of the Weathered Bollin Mudstone Member, obtained from window sample borehole WS21 is provided in Table 16. The results of the classification testing indicate the material to

be clay of low plasticity[10] with a low volume change potential[16].

Table 16: Summary of Classification Testing – Weathered Bollin Mudstone Member

Number of Tests	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	% Passing (>450µm)	Modified Plasticity Index (%)
1	12.7	31	19	64	7.68

Sulphate and pH testing was undertaken on samples of the Weathered Bollin Mudstone Member retrieved during the ground investigation. The results are summarised in Table 17.

Table 17: Summary of pH and Sulphate Testing – Weathered Bollin Mudstone Member

Number of Tests	pH	Water Soluble SO_4* (mg/l)	Water Soluble Chloride* (mg/l)	Water Soluble Nitrate as N* (mg/l)
2	8.3	11.1 to 15.5	8.7 to 54	<2.0

*2:1 Leachate Equivalent

8.5. Visual and Olfactory Potential Contamination

A moderate hydrocarbon odour was noted within the Made Ground deposits in borehole WS25 (from 0.40mbgl to 1.00mbgl). It is noted that this borehole is located within the area of soft landscaping in the southeast of the site and away from the AST which is present within the northeast of the site. Bituminous material was also recorded within a number of window samples boreholes at varying depths of between 0.10mbgl (58.60mOD) and 1.10mbgl (59.38mOD). The presence of foreign materials such as brick, tile, ceramic, wire and metal was noted within the Made Ground.

8.6. Obstructions

A buried concrete slab was recorded in borehole RC03 between 0.60mbgl (59.11mOD) and 0.80mbgl (58.91mOD).

8.7. Groundwater

Groundwater was encountered during the site investigation as detailed in Table 18.

Table 18: Summary of Groundwater Strikes during Site Investigation

Location	Stratum	Strike Depth (mbgl)	Strike Level (mOD)
RC01	Bollin Mudstone Member	5.10	53.40
RC02	Bollin Mudstone Member	12.00	46.92
RC03	Bollin Mudstone Member	12.00	47.71
RC06	Bollin Mudstone Member	11.00	47.68
WS21	Glacial Till	1.90	56.80
WS27	Weathered Bollin Mudstone Member	2.30	56.11
TP02	Made Ground	1.30	57.91

Three groundwater monitoring rounds have been undertaken at the site between 4 September 2025 and 30 September 2025 and the results are summarised in Table 19.

Table 19: Summary of Groundwater Monitoring

Location	Stratum	Date	Groundwater Depth (mbgl)	Groundwater Level (mOD)
RC01	Bollin Mudstone Member	04 & 05.09.25	1.77	56.73
		16 & 17.09.25	1.29	57.21
		30.09.25	1.46	57.04
RC02	Bollin Mudstone Member	04 & 05.09.25	2.23	56.69
		16 & 17.09.25	2.03	56.89
		30.09.25	2.03	56.89
RC03	Glacial Till / Bollin Mudstone	04 & 05.09.25	3.04	56.67
		16 & 17.09.25	2.87	56.84

[16] NHBC (2024) NHBC Standards. Chapter 4.2 Building near trees.

Location	Stratum	Date	Groundwater Depth (mbgl)	Groundwater Level (mOD)
	Member	30.09.25	2.77	56.94
RC06	Bollin Mudstone Member	04 & 05.09.25	Unable to Monitor, Headworks Flooded at Surface	
		16 & 17.09.25	2.39	56.29
		30.09.25	2.14	56.54
WS21	Glacial Till / Bollin Mudstone Member	04 & 05.09.25	1.62	57.08
		16 & 17.09.25	1.46	57.24
		30.09.25	1.47	57.23
WS23	Glacial Till	04 & 05.09.25	DRY	DRY
		16 & 17.09.25	DRY	DRY
		30.09.25	DRY	DRY
WS24	Glacial Till	04 & 05.09.25	1.56	58.28
		16 & 17.09.25	1.39	58.45
		30.09.25	0.94	58.90
WS25	Made Ground	04 & 05.09.25	DRY	DRY
		16 & 17.09.25	0.80	59.10
		30.09.25	DRY	DRY
WS26	Made Ground	04 & 05.09.25	DRY	DRY
		16 & 17.09.25	DRY	DRY
		30.09.25	DRY	DRY
WS27	Glacial Till / Bollin Mudstone Member	04 & 05.09.25	1.61	56.80
		16 & 17.09.25	1.34	57.07
		30.09.25	1.25	57.16

Based on the results of the groundwater monitoring, water within the Made Ground and underlying Glacial Till appears to be perched and discontinuous in nature. Review of the groundwater monitoring results from the other site investigation boreholes undertaken across the wider Wythenshawe masterplan area indicates that the perched water within the Made Ground is inconsistent in nature. Similarly, a pervasive shallow aquifer within the Glacial Till has not been recorded, with groundwater considered likely to be constrained by the predominantly cohesive deposits of the stratum.

The results of the groundwater monitoring indicate that a bedrock groundwater body is present beneath the site within the Bollin Mudstone with groundwater levels typically recorded between 1.25mOD and 3.04mOD (57.24mOD and 56.29mOD) at the site. The groundwater levels suggest that there is a degree of sub-artesian groundwater present as groundwater levels have been recorded above the surface of the bedrock. Groundwater flow direction at the site is indicated to be generally towards the west /southwest.

8.8. Ground Gas

Three rounds of ground gas monitoring have been carried out at the site between 4 September 2025 and 30 September 2025. The monitoring rounds were carried out in atmospheric pressure ranging between 999mbar and 1019mbar, in rising and steady atmospheric pressures. A summary of the worst-case ground gas monitoring results is provided in Table 20. The worst-case scenario includes maximum steady flow, maximum steady carbon dioxide and maximum (peak) methane recorded at each borehole over the three monitoring rounds. It is noted that ground gas monitoring was not carried out within borehole RC01, RC02, RC03, RC06 or WS21 on the first monitoring round; however, the boreholes are installed within the natural deposits which are not considered to represent ground gas generating strata.

Table 20: 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)
RC01	Bollin Mudstone Member	0.0	0.0	0.0	0.0
RC02	Bollin Mudstone Member	0.0	0.3	0.0	0.0
RC03	Glacial Till / Bollin Mudstone Member	0.0	2.1	0.0	0.0
RC06	Bollin Mudstone Member	0.0	0.1	0.0	0.0

Location	Stratum	Steady Flow Rate (l/hr)	Maximum Steady CO_2 (% vol. in air)	Maximum CH_4 (% vol. in air)	Maximum PID (ppm)
WS21	Glacial Till / Bollin Mudstone Member	0.0	0.9	0.0	0.0
WS23	Glacial Till	0.0	0.6	0.0	0.0
WS24	Glacial Till	0.0	0.7	0.0	0.0
WS25	Made Ground	0.0	1.4*	0.0	0.0
WS26	Made Ground	0.0	2.4	0.0	0.0
WS27	Glacial Till / Bollin Mudstone Member	0.0	0.2	0.0	0.0

*Steady state not reached, maximum concentration stated

8.9. Foundation Inspection Trial Pits

A summary of the existing foundation details and depths encountered in trial pits TP01 to TP04 are summarised in Table 21 and copies of the sketches are included in Appendix G.

Table 21: Summary of Foundation Inspection Trial Pits

Location	Base of Foundation (mbgl)	Foundation Details
TP01	0.95	Concrete slab extending out 0.95m from existing brick wall. The trial pit was excavated down the face of the concrete which was indicated to be an initial 100mm in thickness. The slab then stepped back 350mm and then extended down a further 350mm. The underside of the concrete slab was proven at 0.95mbgl, founded within the Glacial Till.
TP02	Not encountered	Concrete slab extending out 0.50m from existing brick wall. A 200mm wide wooden plank was recorded on top of concrete near the edge. The trial pit was extended down the face of the concrete to a depth of 1.55mbgl and base of concrete was not encountered. Water was encountered at a depth of 1.30mbgl.
TP03/FIP03	1.45	Concrete slab extending out 0.65m from existing brick column. Trial pit excavated down face of concrete to a depth of 1.45mbgl, where the base of the slab was encountered to be bearing into the natural Glacial Till soils, which were described as; firm red sandy gravelly clay. The pit was excavated 0.25mbgl into the natural soils, with the pit terminating at a depth of 1.70mbgl.
TP04	1.60	Concrete slab extending out 0.35m from existing brick column. The slab was proven to a depth of 1.00mbgl, before it stepped out 200mm. The slab was then proven to a depth of 1.60mbgl where it was recorded to be bearing onto strata of the weathered Bollin Mudstone Member, which was described as extremely weak to weal red laminated MUDSTONE. The pit extended 0.2m into bedrock and terminated at a depth of 1.80mbgl.

9. Ground Model Summary

The ground model at the site has been generated based on the site investigation undertaken within the site by Civic Earth in August 2025.

The ground conditions across the site were found to comprise of a variable thickness of Made Ground (between 0.20m and >1.55m in thickness) overlying superficial deposits of Glacial Till. The superficial soils were recorded in each exploratory hole where the thickness of Made Ground was proven, with the upper surface recorded between +57.90mOD and +58.64mOD) and found to range between >0.50m and 2.55m in thickness. The underlying weathered Bollin Mudstone Member was encountered within a number of exploratory holes with the upper surface recorded between +58.03mOD and +55.92mOD and found to be between 0.05m and >0.80m in thickness. The more competent stratum of the Bollin Mudstone Member was encountered in each of the rotary boreholes as extremely weak to weak mudstone and siltstone between +56.71mOD and +55.35mOD and proven to the maximum borehole penetration depth.

Review of the groundwater monitoring results across site and the wider Wythenshawe masterplan area indicates that the perched water within the Made Ground is inconsistent in nature. Similarly, a pervasive shallow aquifer within the Glacial Till has not been recorded, with groundwater considered likely to be constrained by the predominantly cohesive deposits of the stratum. The results of the groundwater monitoring indicate that a bedrock groundwater body is present beneath the site within the Bollin Mudstone with groundwater levels typically recorded between 1.25mOD and 3.04mOD (57.24mOD and 56.29mOD) at the site. The groundwater levels suggest that there is a degree of sub-artesian groundwater present as groundwater levels have been recorded above the surface of the bedrock. Groundwater flow direction at the site is indicated to be generally towards the west /southwest.

10. Contamination Assessment

10.1. Introduction

The risks to the identified potential receptors at the site have been assessed with respect to the identified contamination at the site. The potential receptors have been identified with reference to the Part 2A Contaminated Land Guidance and associated DEFRA guidance[17] 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 K.

10.2. Risks to Human Health from Soil Contaminants

A total of 21 soil samples were submitted for chemical analysis, 18 samples from the Made Ground and 3 samples from the natural Glacial Till, and the results compared against human health generic assessment criteria (GAC) for a "residential with 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 K and the natural soils in Table B in Appendix K. 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 below their respective assessment thresholds. SVOC and VOC analysis was carried out on one Made Ground soil sample (borehole WS25 at 0.60mbgl); the concentrations recorded were below the laboratory limits of detection. In addition to the total soils analysis, each of the 18 Made Ground samples was screened for the presence of asbestos; no asbestos was detected in the soil samples analysed. The results of the assessment of the natural soils indicate that the contaminant concentrations recorded are below their respective GAC.

10.3. Risks to Human Health from Dissolved Contaminants

A total of six groundwater samples have been analysed as part of the site investigation; one sample from the perched water within the Made Ground (borehole WS25); two samples from the Secondary Undifferentiated aquifer within the Glacial Till (boreholes WS24 and WS27) and 3 samples from the Secondary B aquifer in the Bollin Mudstone Member (boreholes RC01, RC02 and RC06). The groundwater chemical analysis results have been compared to assessment criteria for a residential end use and the results of the assessment are summarised in Table C (Perched Water, Made Ground), Table D (Secondary Undifferentiated Aquifer) and Table E (Secondary B aquifer) in Appendix K. 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.

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

Gas Screening Values (GSVs) have been calculated in accordance with CIRIA 665[18] using the maximum flow rate and maximum carbon dioxide/methane concentration for each individual well during the three monitoring rounds completed at the site. The results of the assessment are summarised in Table 22.

Table 22: 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
RC01	Bollin Mudstone Member	0.0	0.0	0.0	<0.0001	CS1
RC02	Bollin Mudstone Member	0.0	0.3	0.0	<0.0003	CS1
RC03	Glacial Till / Bollin Mudstone Member	0.0	2.1	0.0	<0.0021	CS1
RC06	Bollin Mudstone Member	0.0	0.1	0.0	<0.0001	CS1
WS21	Glacial Till / Bollin Mudstone Member	0.0	0.9	0.0	<0.009	CS1
WS23	Glacial Till	0.0	0.6	0.0	<0.0006	CS1
WS24	Glacial Till	0.0	0.7	0.0	<0.0007	CS1

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

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

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
WS25	Made Ground	0.0	1.4	0.0	<0.0014	CS1
WS26	Made Ground	0.0	2.4	0.0	<0.0024	CS1
WS27	Glacial Till / Bollin Mudstone Member	0.0	0.2	0.0	<0.0002	CS1

Based on the ground gas assessment outlined above, the calculated GSVs correspond to a CS1 regime, whereby ground gas protection measures are not considered necessary. It is noted that the Local Authority may require additional rounds of ground gas monitoring to confirm the ground gas regime.

10.5. Risks to Controlled Waters

A total of six groundwater samples (1 sample from the perched water within the Made Ground; 2 samples from the perched water within the Glacial Till and 3 samples from the Secondary B aquifer in the Bollin Mudstone Member) were scheduled for groundwater analysis and the potential risks assessed against the Environmental Quality Standards (EQS) for freshwater and the UK Drinking Water Values (DWVs) to assess the potential risks to controlled waters; the predominantly culverted Baguley Brook 250m west of the site, underlying Secondary Undifferentiated aquifer of the Glacial Till and Secondary B aquifer of the Bollin Mudstone Member. The results of the groundwater assessment are summarised in the following tables in Appendix K.

- Perched Water EQS Assessment – Table F
- Secondary Undifferentiated EQS Assessment – Table G
- Secondary B Aquifer EQS Assessment – Table H
- Perched Water DWV Assessment – Table I
- Secondary Undifferentiated DWV Assessment – Table J
- Secondary B Aquifer EQS Assessment – Table K

Perched Water

Assessment of the perched water results indicate that the contaminant concentrations are below their respective assessment thresholds with the exception of total cyanide, where an elevated concentration of 25µg/l was recorded in borehole WS25 against an EQS threshold of 1.0µg/l. However, the EQS for total cyanide is based on the EQS for free cyanide, where the concentration was below the laboratory limit of detection (<1.0µg/l).

Secondary Undifferentiated Aquifer

Assessment of the results of testing of the samples from the shallow aquifer indicate that the contaminant concentrations are below their respective assessment thresholds with the exception of the contaminants outlined in Table 23. Fluoranthene is indicated to exceed the EQS annual average (but not the maximum allowable or DWV), noting that the laboratory limit of detection of 0.01µg/l is greater than the EQS annual average). Ammoniacal nitrogen is noted to exceed both the EQS and DWV.

Table 23: Summary of Secondary Undifferentiated Aquifer Exceedances against EQS and DWV

Contaminant	Location	EQS (µg/l) [Annual Average]	EQS (µg/l) [Max. Allowable]	DWV (µg/)	Concentration (µg/l)
Fluoranthene	WS24	0.0063	0.12	0.1	0.06
Ammoniacal Nitrogen	WS24	*	750	500	2,000

Secondary B Aquifer

Assessment of the Secondary B aquifer results indicate that the contaminant concentrations are below their respective assessment thresholds with the exception of the contaminants outlined in Table 24. Cadmium and zinc are recorded to exceed the EQS but does not exceed the DWV. Fluoranthene is indicated to exceed the EQS annual average (but not the maximum allowable or DWV), noting that the laboratory limit of detection is greater than the EQS annual average).

Table 24: Summary of Secondary B Aquifer Exceedances against EQS and DWV

Contaminant	Location	EQS (µg/l) [Annual Average]	EQS (µg/l) [Max. Allowable]	DWV (µg/)	Concentration (µg/l)
Cadmium	RC06	0.25	1.5	5.0	2.0
Zinc	RC06	12.1	*	5,000	72.71
Fluoranthene	RC02	0.0063	0.12	0.1	0.02

10.5.1. Summary of Controlled Waters Assessment

The results of the Made Ground perched water assessment recorded elevated concentrations of total cyanide against the EQS. However, concentrations of free cyanide were recorded below the laboratory limits of detection. The results of the Secondary Undifferentiated aquifer EQS assessment did not record elevated contaminant concentrations with the exception of fluoranthene and ammoniacal nitrogen. The results of the Secondary B aquifer EQS assessment recorded elevated concentrations of cadmium, zinc and fluoranthene.

In consideration of the above assessment results and the site conceptual site model, the risks to controlled waters are considered to be low on the basis of the following:

- The discontinuous nature of the perched water and shallow Secondary Undifferentiated aquifer and the presence of cohesive Glacial Till deposits beneath the site will mitigate lateral and vertical contaminant migration.
- Elevated concentrations of total cyanide had been recorded against the EQS; however concentration free cyanide have been recorded below the laboratory limit of detection (1µg/l).
- Marginally elevated concentrations of fluoranthene were recorded above the EQS; however, the nearest surface water receptor (which is predominantly culverted) is approximately 250m from the site and there is not a clear soil source identified at the site (maximum soil concentration of 2.9mg/kg recorded).
- The elevated concentrations of cadmium and zinc identified within the Secondary Undifferentiated aquifer have not been recorded within the groundwater samples obtained from Secondary B aquifer, suggesting that the discontinuous nature of the perched water and shallow Secondary Undifferentiated aquifer and presence of cohesive Glacial Till deposits beneath the site mitigate lateral and vertical migration of cadmium and zinc.
- Elevated concentrations of ammoniacal nitrogen were recorded within the Secondary Undifferentiated aquifer; however, based on the conceptual site model, ammoniacal nitrogen was not considered to be a contaminant of concern within the Made Ground as a potential source was not identified during the preliminary risk assessment. In addition, no evidence of contaminants typically associated with gas works (e.g. blue billy or coal tar) was observed during the site investigation works. The elevated concentration of ammoniacal nitrogen is therefore considered to be representative of natural organic degradation processes occurring within the groundwater body and/or background concentrations.
- The existing and proposed buildings and hardstanding across the site limit infiltration which subsequently limits potential mobilisation of contaminants.
- The DWVs are considered to be a conservative assessment as the perched water and shallow Secondary Undifferentiated aquifer are unlikely to be used as a drinking water source.
- The Baguley Brook, which is present approximately 250m to the west of the site, is largely culverted along its route (brick or concrete lined) which will mitigate lateral and vertical contaminant migration into the watercourse. The nearest 'open' surface water body is >500m from the site.

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

10.6. Risks to Plants and Vegetation

The risk to vegetation and plants from phytotoxic contaminants is summarised in Table L in Appendix K. The results indicate that the concentrations of phytotoxic contaminants are below their respective GAC and the risk to proposed plants and vegetation is considered to be low. It is noted however that the Made Ground is unlikely to be a suitable growth medium, and importation of a suitable growth medium may be required.

10.7. Risks to Buried Water Supply Pipes

An assessment of the risks to buried water supply pipes is summarised in Table M in Appendix K 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 M, the initial total soils analysis results indicates that standard polyethylene (PE) pipework would not be suitable for use due to elevated concentrations of TPHs against the assessment criteria. It is therefore anticipated that barrier pipes will be required for new buried water supply pipes.

10.8. Preliminary Waste Characterisation

A preliminary waste characterisation assessment in line with WM3 technical guidance has been carried out on the 21 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 HazWasteOnline™ Toolkit and the waste

classification reports are included in Appendix L. The results of the assessment indicate that the majority of the material tested would be characterised as non-hazardous material and therefore considered to be acceptable to an inert waste facility (subject to WAC testing) or a non-hazardous waste facility. However, 1 out of the 21 soil samples were characterised as hazardous material:

- **WS25 at 0.20mbgl** - hazardous material due to elevated TPH concentrations (2029.1mg/kg)

A total of 4 single stage full WAC tests were carried out as part of the site investigation on the materials which were classified as non-hazardous:

- **WS21 at 0.25mbgl** - material is indicated to be acceptable for disposal at an inert waste facility;
- **WS25 at 1.10 mbgl** - material is indicated to be acceptable for disposal at an inert waste facility;
- **TP02 at 0.20 mbgl** - material is indicated to be acceptable for disposal at an inert waste facility;
- **RC02 at 0.30 mbgl** - material is indicated to be acceptable for disposal at an inert waste facility;

A WAC test was also carried out on the hazardous sample from WS25 (at 0.20 mbgl), with the result indicating that this material may be accepted as stable non-reactive hazardous waste (SNRHW) at a non-hazardous landfill.

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 11.7.

10.9. Revised Qualitive Risk Assessment

A revised risk assessment has been carried out (see Table 25) 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 LCRM[19].

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

Table 25: 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 thickness of Made Ground encountered on site during site investigations. The ground gas monitoring recorded very low ground gas concentrations and negligible flow rates, corresponding to CS1 regime for the site.
Organic/ inorganic contaminants within underlying soils and perched groundwater within the Made Ground	Direct/indirect ingestion of soil, perched water and dust, inhalation of particle vapours and asbestos fibres and dermal contact	Construction workers	Medium	Unlikely	Low	Low contaminant concentrations recorded during site investigations with contaminant concentrations below residential with plant uptake GAC.
		Future site users	Medium	Unlikely	Low	
		Off-site residents	Medium	Unlikely	Low	Low contaminant concentrations recorded during site investigations with contaminant concentrations below residential with plant uptake GAC. Proposed hardstanding and buildings will act as a barrier between receptor and contamination within underlying soils. Assumes good site practices in place to limit generation of dust and off-site migration of dust and odours such as dampening down and covering of stockpiles.
	Direct contact with underground structures and services	Buildings and structures, buried services	Mild	Likely	Moderate/Low	Buried concrete to be designed as appropriate for ground conditions. Barrier pipes considered to be required due to elevated TPH concentrations recorded within the Made Ground. However, it is recommended that a UKWIR assessment is undertaken along the proposed water supply, once the site layout and site levels have been finalised, to confirm the water supply pipe suitability.
	Root uptake	Plants and vegetation	Minor	Unlikely	Very Low	Low phytotoxic concentrations recorded in Made Ground and natural soils; however, Made Ground material unlikely to be a suitable growth medium. Importation of a suitable growth medium may be required.
	Lateral and vertical migration	Shallow Secondary Undifferentiated aquifer (*Glacial Till*)	Medium	Unlikely	Low	No elevated concentrations recorded in perched water sample against DWV. No continuous water body recorded within the Made Ground to act as a pathway to the underlying Secondary Undifferentiated aquifer. In addition, no continuous groundwater body recoded in the Glacial Till. Cohesive horizons within the Made Ground are considered to limit potential contaminant migration. Where proposed, buildings and hardstanding will also limit infiltration and leaching potential.
		Secondary B aquifer (*Bollin Mudstone Member*)	Medium	Unlikely	Low	No elevated concentrations recorded in perched water sample against DWV. No continuous water body recorded within the Made Ground to act as a pathway to the underlying Secondary Undifferentiated aquifer. In addition, no continuous groundwater body recorded in the Glacial Till. Cohesive horizons within the Made Ground and underlying Glacial Till are considered to limit potential contaminant migration. Where proposed, buildings

Potential Source/Medium	Potential Exposure Route	Potential Receptor	Severity	Probability	Risk Rating	Comments
						and hardstanding will also limit infiltration and leaching potential.
		Local surface water bodies *(culverted Baguley Brook)*	Mild	Unlikely	Very Low	No continuous water body recorded within the Made Ground to act as a pathway to the underlying Secondary Undifferentiated aquifer. In addition, no continuous groundwater body recoded in the Glacial Till. Cohesive horizons within the Made Ground and underlying Glacial Till are considered to limit potential contaminant migration. Where proposed, buildings and hardstanding will also limit infiltration and leaching potential. In addition, Baguley Brook is predominantly culverted which will act as a barrier to contaminant migration into the water body.
Organic / inorganic contaminants within shallow groundwater aquifers (Glacial Till)	Direct contact and ingestion of contaminated groundwater	Future site users	Medium	Unlikely	Low	No continuous water body recorded within the Glacial Till. Should localised shallow groundwater be encountered by construction workers, use of appropriate PPE will mitigate risks to receptors. Future site users and off-site residents are unlikely to come into contact with groundwater due to formal landscaping and buildings/hardstanding across the site.
		Construction workers	Medium	Low Likelihood	Moderate/Low	
		Off-site residents	Medium	Unlikely	Low	
	Inhalation of vapours	Future site users	Medium	Unlikely	Low	No continuous water body recorded within the Glacial Till. Groundwater analysis indicates a low risk from vapours.
	Lateral migration	Local surface water bodies *(culverted Baguley Brook)*	Mild	Unlikely	Very low	No continuous water body recorded within the Glacial Till. Cohesive horizons within the Glacial Till are considered to limit potential contaminant migration. Where proposed, buildings and hardstanding will also limit infiltration and leaching potential. Minor exceedances of cadmium, fluoranthene and zinc are recorded against the EQS; however, the nearest surface water body to the site is the predominantly culverted Baguley Brook approximately 250m west of the site, where the distance from the site and the culverted nature of the brook afford protection to the water bodies.
	Vertical migration	Secondary B aquifer (*Bollin Mudstone Member*)	Medium	Unlikely	Low	No exceedances against the DWV recorded in the groundwater sample obtained from the bedrock aquifer, and no continuous water body recorded within the Glacial Till to act as a pathway for contaminant migration into underlying aquifer. Cohesive horizons within the Glacial Till are considered to limit potential contaminant migration. Where proposed, buildings and hardstanding will also limit infiltration and leaching potential.
	Direct contact with underground services	Buildings and structures	Mild	Likely	Moderate/Low	Buried concrete to be designed as appropriate for ground conditions.

11. Remediation Strategy

11.1. Introduction

The Remediation Strategy for the proposed redevelopment of the site is outlined in the following sections, based on the information obtained during the site investigation and revised qualitative risk assessment.

The following activities form the remediation strategy for the redevelopment of the site:

- Watching brief and discovery strategy;
- Decommissioning of existing borehole monitoring wells;
- Appropriate material management of arisings associated with the enabling works for re-use and/or disposal, including off-site disposal to appropriately licensed waste facilities;
- Mitigation of risks to controlled water during enabling works, including appropriate management of stockpiles, controlling of surface water run-off and appropriate discharge/disposal of perched water;
- Selection and installation of appropriate materials for buried water supply pipes;
- Provision of growth medium in areas of soft landscaping.

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. Where works are separated between an enabling works phase and a construction works phase, the enabling works contractor will provide an interim verification report to verify the remediation works completed during the enabling works phase and the remaining remediation works to be completed during the construction phase.

11.2. Watching Brief and Discovery Strategy

A watching brief will be put in place during enabling works by the Contractor(s). Should areas of unexpected contamination, including gross hydrocarbon contamination (e.g. oil / NAPL) and asbestos, be encountered or suspected, a qualified geoenvironmental engineer will be informed and the risk associated with the contamination assessed.

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

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

- Work to cease in that areas;
- Notify the geoenvironmental engineer to attend site and inspect the identified material, obtaining samples if appropriate, and develop a remediation strategy to address the identified contamination, if required; and
- Notify Contaminated Land Officer at Manchester City Council and/or Environment Agency, as appropriate.

In the event that material requires excavation:

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

11.3. Removal of Above Ground Storage Tank

It is understood that the AST has historically been decommissioned; however, the infrastructure remains on site. The following will be undertaken to remove the AST from site:

- Inspection and confirmation of the extent of infrastructure associated with the former AST will be undertaken and removal works will be carried out under a watching brief. Any residual free product / liquid fuel product will be collected and disposed of from site following appropriate laboratory analysis and waste disposal protocols.
- Removal of the AST slab will be carried out under a watching brief and excavation on an initial area of 5m x 5m

around the hotspot location followed by visual and laboratory verification testing of the sides and base of the excavation will be carried out to confirm removal of the gross contamination i.e. total TPH concentration of less than 1,000mg/kg (hazardous waste thresholds).

11.4. Borehole Decommissioning

Monitoring wells installed as part of the Civic Earth site investigation within the site will be decommissioned prior to commencement of significant earthworks. A summary of the monitoring wells to be decommissioned is provided in Table 26

Table 26: Summary of Borehole Installations to be Decommissioned

Location Reference	Target Response Zone	Easting	Northing	Base of Well (mbgl)
RC01	Bollin Mudstone Member	382229.28	387207.51	15.00
RC02	Bollin Mudstone Member	382252.47	387145.44	15.00
RC03	Glacial Till / Bollin Mudstone Member	382297.58	387140.25	15.00
RC06	Bollin Mudstone Member	382266.98	387174.45	15.00
WS21	Glacial Till / Bollin Mudstone Member	382274.97	387182.49	2.50
WS23	Glacial Till	382241.17	387233.99	1.00
WS24	Glacial Till	382222.04	387139.58	2.00
WS25	Made Ground	382271.64	387115.04	1.00
WS26	Made Ground	382328.45	387145.40	1.00
WS27	Glacial Till / Bollin Mudstone Member	382248.52	387236.97	2.50

The monitoring wells will be decommissioned in accordance with EA good practice guidance[20], to include removal of headworks and backfilling of the monitoring well from base to top with low permeability material i.e. bentonite / cement grout. Backfilling will be carried out via a tremie pipe (where wells are deeper than 3m in depth), or via a funnel and compacted with a rod or similar (where wells are shallower than 3m).

11.5. 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.m^3) are used to determine whether a property requires no, basic or full measures. At present, Approved Document C advocates basic measures for the probability banding 3% to 10% (full measures if >10%). However, Public Health England would like to see all new builds include basic measures.

Information the Public Health England UK radon map[21] which indicates that the site lies in an area where less than 1% of homes are estimated to be at or above the action level. As such, radon protection measures are not considered necessary within the future development of the site.

11.6. Growth Medium

Based on the findings of the soil contamination assessment, a clean cover system to mitigate potential risk to human health are not considered to be required. However, importation of a suitable growth medium may be required.

The material imported to form the growth medium will be uncontaminated soil from a known and reputable source. The capping soils will meet the chemical criteria for human health concerning the criteria for a ***residential with home-grown produce*** end use (see Appendix M). Imported topsoil is required to meet the requirements of BS 3882[22] and imported subsoil is required to meet the requirements for BS 8601[23]. 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.

Pre-import chemical compliance testing will be undertaken with **a minimum frequency of 3 samples tested per source (and per material type)**.

Once placed, the imported soils will be sampled and chemically tested by a suitably qualified geoenvironmental engineer to confirm that the material complies with the specifications outlined in Appendix M. Verification testing will be via the formation of hand pits to:

- Obtain soil samples from each material (i.e. topsoil and subsoil) for chemical analysis at **a minimum frequency of**

[20] Environment Agency (2012) Good practice for decommissioning redundant boreholes and wells (it is noted that this guidance has been withdrawn, however no new guidance has been published and therefore the decommissioning should be carried out in accordance with the principles of the guidance document.

[21] Public Health England UK radon map, www.ukradon.org/information/ukmaps

[22] British Standards (2015) *Specification for Topsoil and Requirements for Use*. BS3882:2015.

[23] British Standards Institute (2013) *Specification for Subsoil and Requirements for Use*.

1 sample per 250m^3, with a minimum of 3 samples per source will apply (and per material type).

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

It is noted that where soils are imported to form a growth medium only, a minimum thickness is not required from a clean cover system perspective. The thickness of the growth medium would be determined by the project horticulturalist.

11.7. 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 Made Ground material excavated could be re-used on site, subject to final finish levels under the CL:AIRE[24] 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 and as such, 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 protocol[25], 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.

Should the importation of material for use in the bulk earthworks be required, the material will be required to meet the criteria for the residential end use as outlined in Section 11.6. Compliance testing at **a frequency of 1 per 500m^3** will be required. It is noted that chemical compliance testing of imported Primary Aggregate would not be required

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.

11.8. Mitigation of Risks to Controlled Waters during Construction Works

The following measures will be put in place to mitigate the potential impact on controlled waters during groundworks, where contaminants in the underlying soils may be mobilised to a greater extent than naturally occurs:

- Appropriate management of stockpiles, including stockpiling in designated areas away from drainage channels, segregation of different types of material (e.g. Made Ground and natural soils), and controlling surface water run-off with bunds, liners and coverings. Excavated soils will also be appropriately stored with preventative measures against nuisance odours to protect human health during temporary storage on site. The Contractor will document handling and storage protocols for potentially contaminated soils.
- Appropriate management and discharge/disposal of perched water and groundwater encountered in excavations and water used during enabling works (e.g. for dust suppression and wheel washing). Temporary drainage systems

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

[25] 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.

are to be designed and implemented so that they capture waterborne pollution prior to entering any existing drainage systems.

- Appropriate storage of all hazardous liquids, chemicals and materials where materials are to be stored in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations.

The enabling and construction works should be undertaken in accordance with CIRA 811[26]. In addition, it is noted that a risk assessment has been undertaken for the proposed piling works to demonstrate that the proposed piling techniques have a low risk of creating preferential pathways for contamination into the underlying aquifer.

11.9. Buried Water Supply Pipes

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

11.10. Health, Safety and Environmental Controls

Precautions will be taken to minimise exposure of workers and the general public to potentially harmful substances during earthworks. The risks to contractors will be controlled through the implementation of site safety procedures and the use of suitable personal protective equipment (PPE). Attention will also be paid to restricting possible off-site nuisance, such as dust and odour emissions.

All site works will be undertaken in accordance with the guidelines prepared by the Health and Safety Executive including HSG 150[27] and HSG151[28], and CIRIA Reports R132D[29] and C811[26]. All site works will be carried out in accordance with the Contractor's Construction Phase Plan.

Precautions should include (but not be limited to):

- Provision of appropriate PPE and good personal hygiene, washing and changing procedures.
- Dust and vapour suppression methods, including dampening down, minimising the working face exposed and covering stockpiles, and regular cleaning of all site roads, access roads and the public highway.
- Vehicle washing is carried out before vehicles leave the site, with washings contained on site and suitably disposed of.
- Safe storage of fuel and other potentially polluting liquids and the provision of spill control and clean-up facilities.
- Appropriate planning of excavations with regular inspections carried out by a competent person. No operatives should be permitted to enter un-shored or otherwise protected excavations identified as unstable by the competent person, however shallow they are.

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[30,31,32]. 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 the 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 of 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 dust.

11.10.1. Asbestos

Asbestos was not detected in the Made Ground soil samples analysed as part of the site investigation; however, there

[26] CIRIA (2023). *Environmental Good Practice on Site Guide*. 5th Edition.

[27] HSE (2006) *Health and Safety in Construction*. 3rd Edition. HSG 150.

[28] HSE (2009) *Protecting the Public*. 2nd Edition. HSG 151.

[29] CIRIA (1996) *A Guide for Safe Working on Contaminated Sites*. R132D.

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

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

[32] HSE (2012) Asbestos: The Survey Guide. 2nd Edition. HSG 264.

is considered to be the potential for asbestos to be encountered during demolition works and 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[33,34,35]. 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.

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

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

[35] HSE (2012) Asbestos: The Survey Guide. 2nd Edition. HSG 264.

12. Validation and Verification

12.1. Remediation Validation Requirements

This Remediation Strategy will require validation reports to be collated on completion. Where the works are separated between the enabling works phase and the construction works phase, the enabling works contractor will provide an interim verification report to verify the remediation works completed during the enabling works phase. This interim report should be submitted to and approved by the Local Planning Authority. The remaining remediation works to be completed during the construction phase will also require a verification report. The verification reports should be submitted to and approved by the Local Planning Authority.

Based on the remediation strategy outlined in Section 11, it is anticipated that the verification evidence will comprise:

12.1.1. Enabling Works Phase

- Site inspection records, photographs and laboratory testing records should unexpected contamination be encountered under the watching brief.
- Borehole decommissioning records.
- General site inspection records and photographs during cut and fill and material re-use works.
- As-built drawings including final earthworks levels and volumes.
- Material management procedures (permits, exemptions, MMP, etc.) and records detailing material re-use locations, as appropriate.
- Duty of Care records for disposal of asbestos-contaminating materials and surplus arisings, including WAC testing certificates, waste haulier permits, waste recipient permits and volumes of materials disposed of by each haulier / to each facility.

12.1.2. Construction Works Phase

- Site inspection records, photographs, and laboratory testing records should unexpected contamination be encountered under the watching brief.
- As-built drawings.
- United Utilities water supply pipe risk assessment, specification of water supply pipework and confirmation from United Utilities of their acceptance of the material used.
- Site inspection records, photographs and laboratory testing for growth medium material importation and construction, confirming compliance with the relevant import specification.

12.2. Verification Plan

A Verification Plan, which details the remedial requirements and verification information required to confirm that the remediation of the site is carried out in compliance with this Remediation Strategy, is presented in Appendix N.

13. Geotechnical Recommendations

13.1. Introduction

Geotechnical recommendations for the proposed redevelopment of the site are outlined in the following sections based on the information obtained during the site investigation and the proposed development scheme.

13.2. Geotechnical Design Parameters

Geotechnical design parameters are outlined in Table 27. 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 27: Geotechnical Design Parameters

Stratum	Bulk Unit Weight γ_b (kN/m3)	Undrained Shear Strength c_u (kPa) [c']	Unconfined Compressive Strength (MPa)	Friction Angle ϕ (°)	Young's Modulus, Eu (MPa) [E']
Made Ground (granular)	18	-	-	22[b]	[10]
Glacial Till (cohesive)	19	30 [0]	-	25[b]	18[c] [8.1][d]
Weathered Bollin Mudstone Member (cohesive)	18	18 [0]	-	25[b]	10.8[c] [4.86][d]
Weathered Bollin Mudstone Member (granular)	17	-	-	34[a]	-
Unweathered Bollin Mudstone Member	-	-	5.5	-	40

Notes:

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

13.3. Foundation Design

At this stage, detailed information on the proposed foundations, formation levels and/or loadings is not available; however, it is considered likely that formation level is likely to be within the Made Ground across the majority of the site. Given the variable thickness and composition of the Made Ground and the proposed height of the new structures (i.e. multi-storey), it is considered likely that a piled foundation solution will be required. It is assumed that piles would be socketed approximately 5m into the competent bedrock, noting the upper horizon of the bedrock is highly weathered and the bedrock is generally fractured.

Pile design should be undertaken by, and remain the sole responsibility of, a specialist piling contractor who will determine the most appropriate and cost-effective pile type based on their own interpretation of the site investigation data, their own installation techniques, and experience of piling in similar ground conditions. For all piling operations the design, construction, and maintenance of a working platform in accordance with guidance presented in BRE 470 "Working platforms for tracked plant" (2004) will be required.

13.4. Floor Slabs and Pavement Design

It is considered that roads and pavement will be founded likely onto the Made Ground or Glacial Till, depending on formation levels. It is recommended that pavements and roadways founded on the Made Ground or superficial deposits are designed to a conservative California Bearing Ratio (CBR) value of 2.5%. This value could potentially increase following in-situ testing of formation soil levels. It is recommended that formation level should be compacted and soft sports (<2.5%) removed. All pavements should be designed and compacted and verified in accordance with MCHW CC 601[36].

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 granular deposits, ground bearing slabs may be utilised although the potential for differential settlement where floor slabs span multiple strata will need to be considered.

[36] Manual of Contract Documents for Highway Works (2025) CC 601/MMHW Method of Measurement for CC 601 Earthworks. September 2025.

13.5. Excavation Works

Based on the ground conditions encountered, excavations required during the development should not pose difficulties for conventional excavators or earth moving equipment. However, shallow excavations may be unstable during groundworks due to the unpredictable nature of its composition and strength.

Groundwater control, if required, may be achieved with shallow excavations by adopting a sump pumping systems around the perimeter of the excavation as well appropriate temporary supports such as trench boxes/trench sheets. This should be confirmed by the contractor and temporary works designer on initial excavation. Excavation below the level of the Secondary aquifers is not currently anticipated; however if required, more significant groundwater control measures are likely to be required.

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 protected excavations identified as unstable by a competent person, however shallow they are, in accordance with the guidance presented in CIRIA Report[37],

13.6. Buried Concrete Design

Design Sulphate (DS) and Aggressive Chemical Environmental for Concrete (ACEC) classes for the Made Ground, Glacial Till and Weathered Bollin Mudstone Member are summarised in Table 28 based on the results of the chemical sulphate and pH testing[38].

Table 28:Summary of DS and ACEC Classes

Stratum	WSS DS Class	WSS ACEC Class
Made Ground	DS-1	AC-1s
Glacial Till	DS-1	AC-1s
Weather Bollin Mudstone Member	DS-1	AC-1

13.7. Buried Infrastructure

Consideration should be given to existing buried infrastructure within the site and if buried infrastructure is to be retained, ground movement analysis and/or impact assessments may be required. Consideration should also be given to the potential for differential settlement where new services are to be located within areas of cut and fill and pass between Made Ground and natural soils. This could include measures such as designing services to greater falls, including flexible joints and piling of manholes.

13.8. Buried Obstructions and Voids

There is potential for encountering buried obstructions at the site due to the site's development history. Obstructions may include former basements, foundations, walls, utilities and Made Ground containing demolition rubble and large boulder sized obstructions of concrete and brick. Whilst no evidence of voids was encountered during the site investigations, there is potential for voids to be present within the ground, for example small voids associated with uncontrolled / un-engineered backfill of historical basements. Voids may present a risk to shallow foundations and a watching brief for these features is recommended during earthworks and construction works.

13.9. Earthworks

An Earthworks Specification should be produced in accordance with the Specification for Highway Works[39] and an MMP will be required to set out the on-site movement of soils for earthworks operations.

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

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

[39] Manual of Contract Document for Highway Works (MCHW) Specification for Highway Works..

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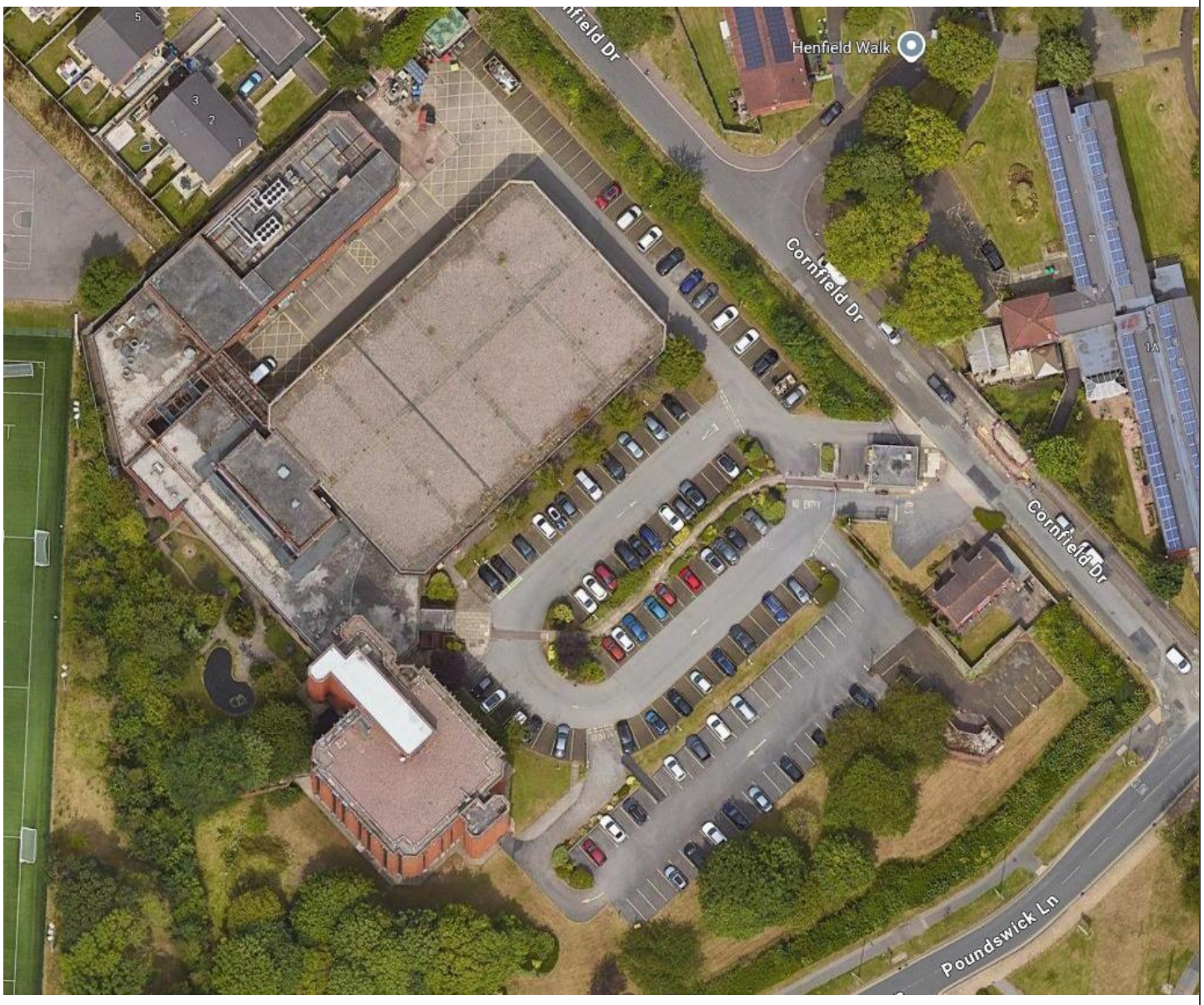
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together

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Appendix A – Site Walkover Survey

Project Name:	Wythenshawe Preliminary Site Investigation, Brotherton House		
Address:	Lloyds, Cornfield Dr, Wythenshawe, Manchester M22 9QX	Job Number:	51143/01
Date:	14/07/2025	Engineer:	JF
Weather:	Light wind, light cloud, sunny		

Site Layout Plan



Site Access

Pedestrian Access	Pedestrian access onto the site via security gate off of Cornfield Drive.
Vehicular Access	Vehicular access onto the site via security gate off of Cornfield Drive.

Parking Arrangements	Existing car park within site boundary as part of previous site use.
Restrictions	Padlock access to site, permission and permits required from Manchester City Council (MCC).
Access for Site Investigation (Drilling Rigs, Excavators etc.)	Same as vehicular and pedestrian access.
Surface Covering	
Type of Cover	Concrete, concrete slab and tarmacadam hardstanding, some soft landscaping.
Quality of Cover	Reasonably good, occasional repair to surface noted within older portions of the carpark.
Evidence of Existing Boreholes	None observed.
Topography	
Flat / Sloping / Stepped etc.	Carpark surfaces have slight gradient towards drains, also on different levels with slightly sloping soft landscaping in between, empty pond in garden area. Slope and retaining wall northwest corner of the site.
Evidence of Subsistence	None observed.
Significant Slopes	Slope between two levels of carpark approx. 1.5m – 2m high.
Local Depressions	Empty pond in garden, west of site.
Vegetation	
Trees (Type & Estimated Height)	Mix of evergreen and deciduous ranging between approx. 5m – 12m in height.
Other Vegetation	Grass and bushes along areas of soft landscaping.
Japanese Knotweed	None observed.
Giant Hogweed	None observed.
Himalayan Balsam	None observed.
Signs of Stressed Vegetation / Poor Growth / Disease	None observed.

Services	
Location and Details of Manhole Covers, Wells, Marker Pegs	Multiple utility covers in carparking, service yard and soft landscaping surrounding the buildings. Markers for oil, gas, diesel, water and electricity are all present and particularly notable on service buildings and structures within the service yard to the north of the site.
Utility Scar Features	Multiple within carparking and service yard running between manhole covers and into buildings.
Overhead Services	None other than overhead lighting within carparking.
Water Supply	Cover for water seen in service yard, assumed to run from entrance off Cornfield Drive and along carparking towards service buildings.
Buildings and Structures	
Number, Height, Construction Material, Roof Construction Material	Two storey building next to site entrance (security guard accommodation?) made of brick with roof tiles. Single storey security hut at entrance, flat roof, brick. Main office building approx. 5 storeys, brick and concrete, flat roof with plant room. Two, two storey service buildings (connected, horseshoe shape), brick, concrete, flat roofs. Outdoor tool shed, single storey, breeze blocks. Single storey brick bike shelter.
Current Uses	Technically vacant but at the time of visit was being used as a film set (no power to building), access based on MCC permit.
Evidence of Subsistence / Cracking / Water Damage	None observed.
Presence of Potential Asbestos Containing Material (ACM)	Unknown, however building constructed in 70s so possible.
Existing Foundations	Unknown.
Existing Basements / Cellars	Possible basement in service building but unable to confirm.
Surface Water and Groundwater	
Evidence of Flooding	None observed.
Evidence of High Water Table	None observed.
Rivers, Springs, Wells, Ponds, Ditches, Streams (incl. Flow Direction and Size)	Pond in garden area, currently empty, pond is lined, approx. 2m deep, 10-15m diameter.

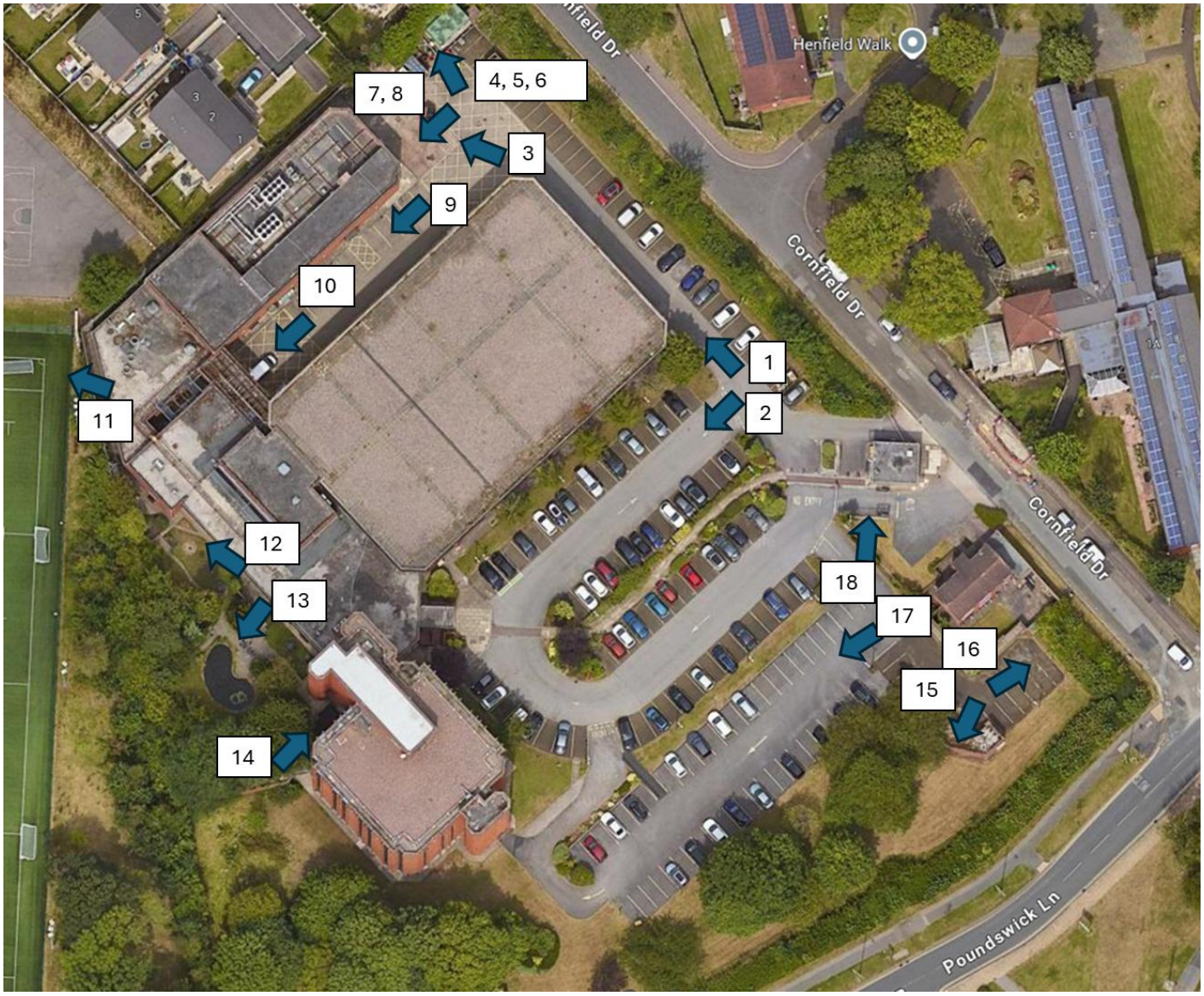
Potential Sources of Contamination	
Fly Tipped Material	Some waste material left in service yard area, wood, bikes, air con unit, extractor unit, furniture.
Evidence of Filled Ground	Not apparent, however elevated section of carpark suggests there may be some present.
Evidence of Tanks (USTs, ASTs, Interceptors, Pipework) incl. Fuel Spillages	AST spotted in NE corner of site, potentially bunded, 45000 litre diesel tank (assumed to be for running a backup generator within service building but unable to confirm existence of this), signage suggests this has been decommissioned. On service building a valve for an oil supply is noted, may be a UST for oil internally within service building or under concrete hardstanding in service yard, unable to confirm.
Stored Substances	Service buildings and tool shed may have previously contained stored substances, as well as plant rooms, unable to confirm. Fuel oil (diesel) indicated on external AST.
Electricity Substations	None observed on site.
Other Identified Potential Sources	None observed.
Surrounding Land Use	
Residential / Commercial / Industrial incl. Type of Industry / Commercial Activity	Residential north, School to the west, residential (including assisted living) to the east, police station and Civic Centre to the south.
Railways / Viaducts / Bridges	Metrolink and bus station >100m south.
Tunnels	None observed.
Other Identified Pertinent Uses	None observed.
Anecdotal Information	
Tenants / Landowners / Client	Walker Sime: MCC licenses required. Walker Sime will arrange access once SI programme is provided. Paper copy schematics for the building layout are meant to exist but there location is unknown.
Neighbours / Locals	N/A
Other Comments	

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Site Walkover Record

Project Name:	**Wythenshawe Preliminary Site Investigation, Brotherton House**		
Address:	Lloyds, Cornfield Dr, Wythenshawe, Manchester M22 9QX	Job Number:	51143/01
Date:	14/07/2025	Engineer:	JF
Weather:	Light wind, light cloud, sunny		

Photo Location Plan



Site Photos



1. Facing northwest, view looking along parking and access to service yard.



2. Facing southwest, view across carparking, main building and entrance, soft landscaping and service building.



3. Facing northwest, view across service yard, concrete and tarmacadam hardstanding, manhole covers, tool shed, waste material and diesel tank visible.



4. Facing north, view of 45000 litre diesel tank.



5. Facing north, information on AST.



6. Facing north, close up of waste pile.

Site Photos



7. Facing southwest, view of service building and covers in service yard. Red panel on wall contains controls for gas and oil. May be UST for oil within building.



8. Facing southwest, close up of signage for combustible material store.



9. Facing southwest, view along service yard.



10. Facing southwest, close up of loading bay area within service yard, please note utility scar, electric goods lift, possible defibrillator box on wall.



11. Facing northwest, view of boundary with school, including minor earthwork and brick retaining wall.



12. Facing northwest, view across garden area.

Site Photos



13. Facing west, view of pond in garden area, has been drained, is lined.



14. Facing east, view across southern garden area back towards main building.



15. Facing southwest, single storey brick bike shed, concrete slab present.



16. Facing northeast, carparking, soft landscaping and brick wall southeast corner of the site.

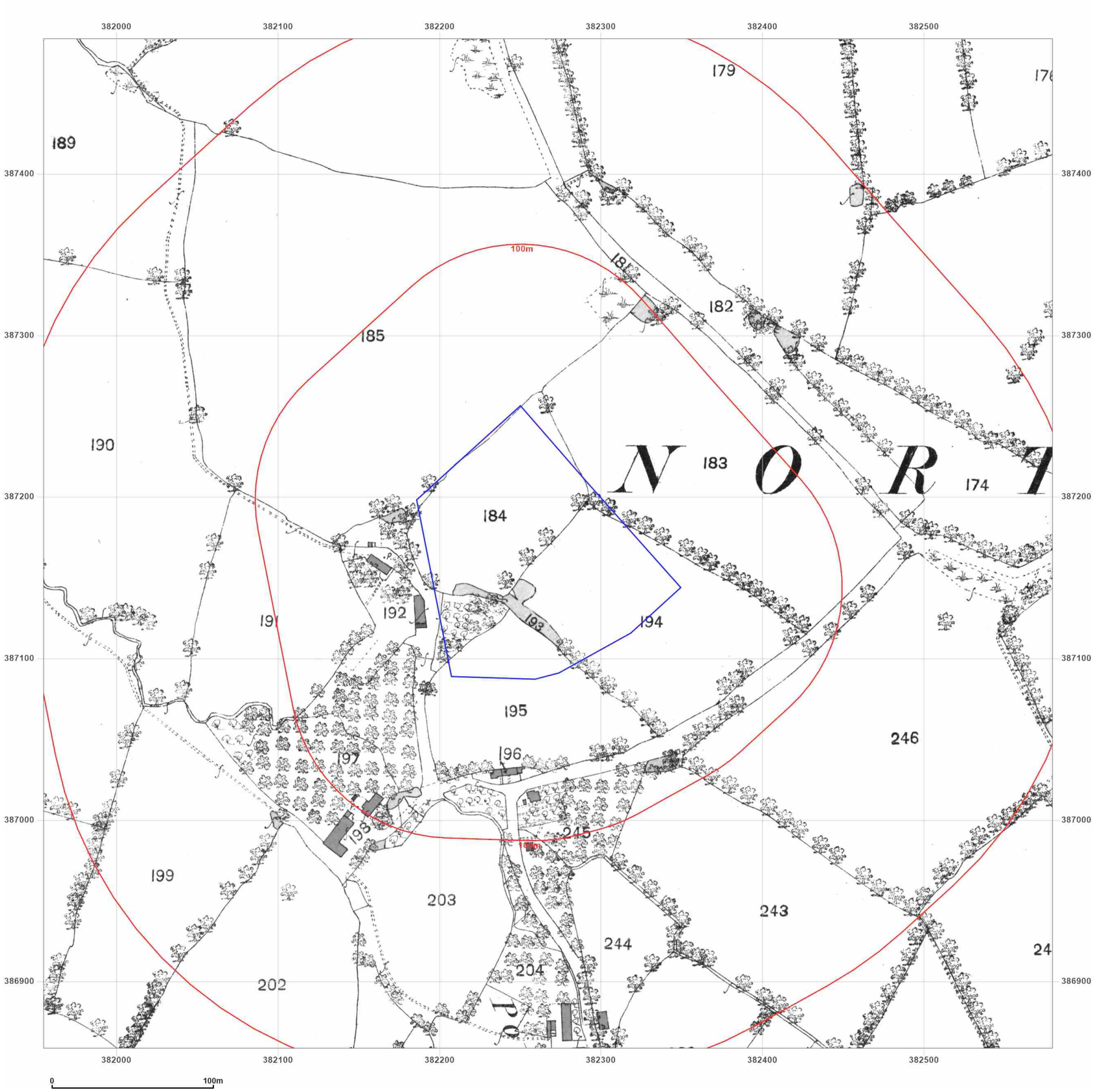


17. Facing west, view across elevated section of carpark towards main office building.



18. Facing northeast, view of security office at site entrance.

Appendix B – Historical Maps



Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: County Series

Map date: **1876**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1876
Revised 1876
Edition N/A
Copyright N/A
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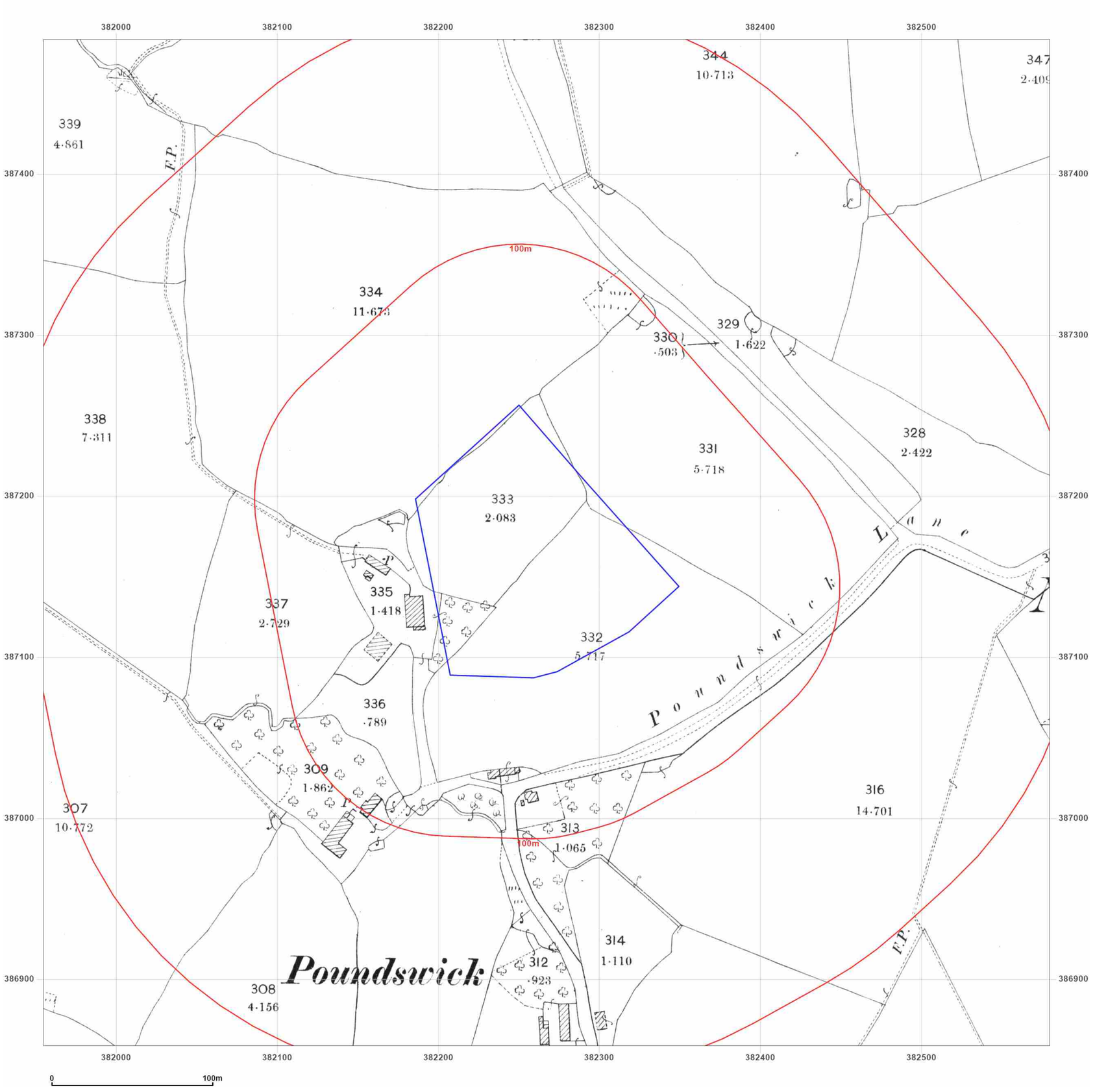
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: County Series

Map date: **1898**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1898
Revised 1898
Edition N/A
Copyright N/A
Levelled N/A

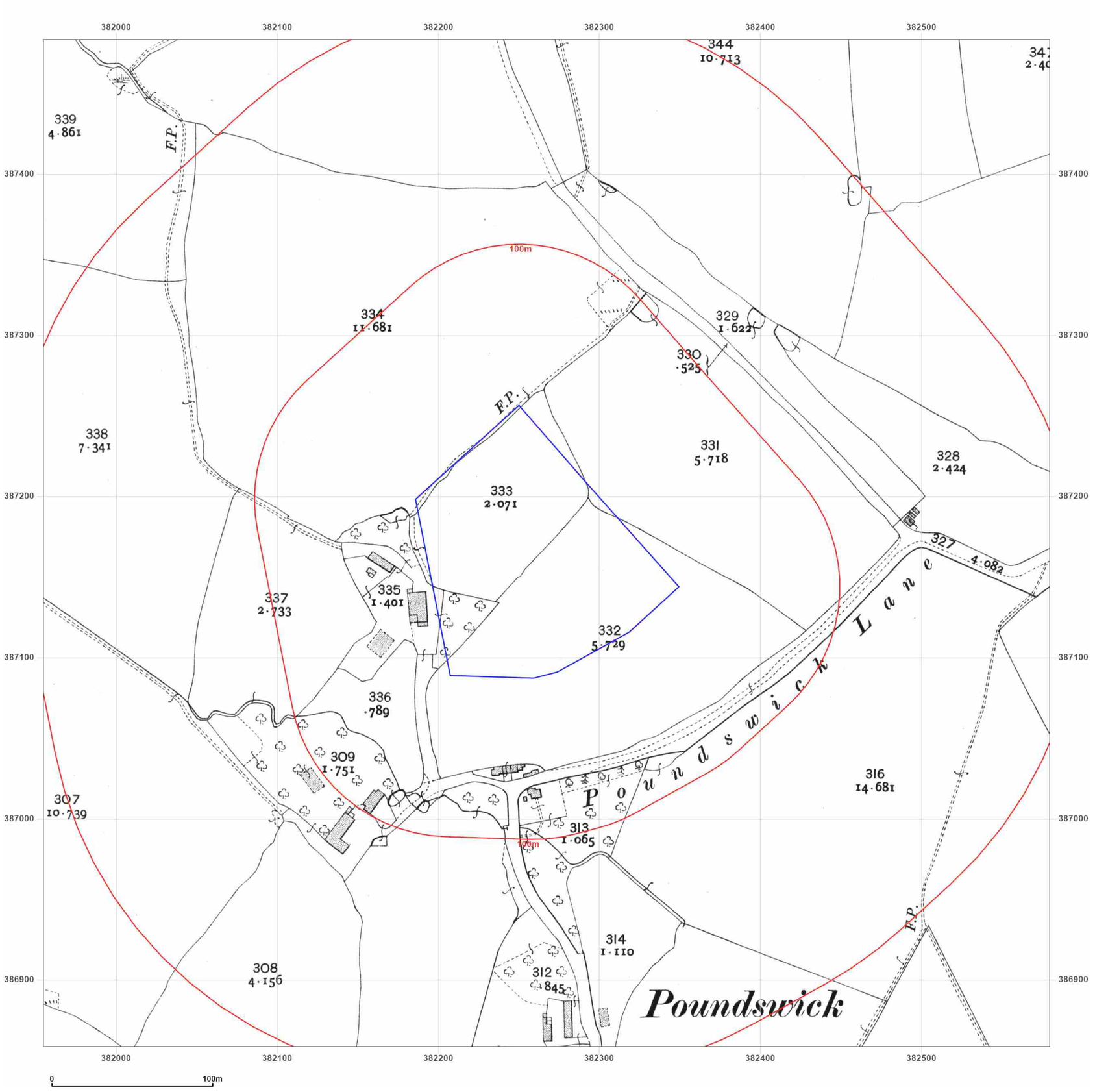
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Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: County Series

Map date: **1910**

Scale: 1:2,500

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Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1960**

Scale: 1:1,250

Printed at: 1:2,000

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Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1960-1964**

Scale: 1:2,500

Printed at: 1:2,500

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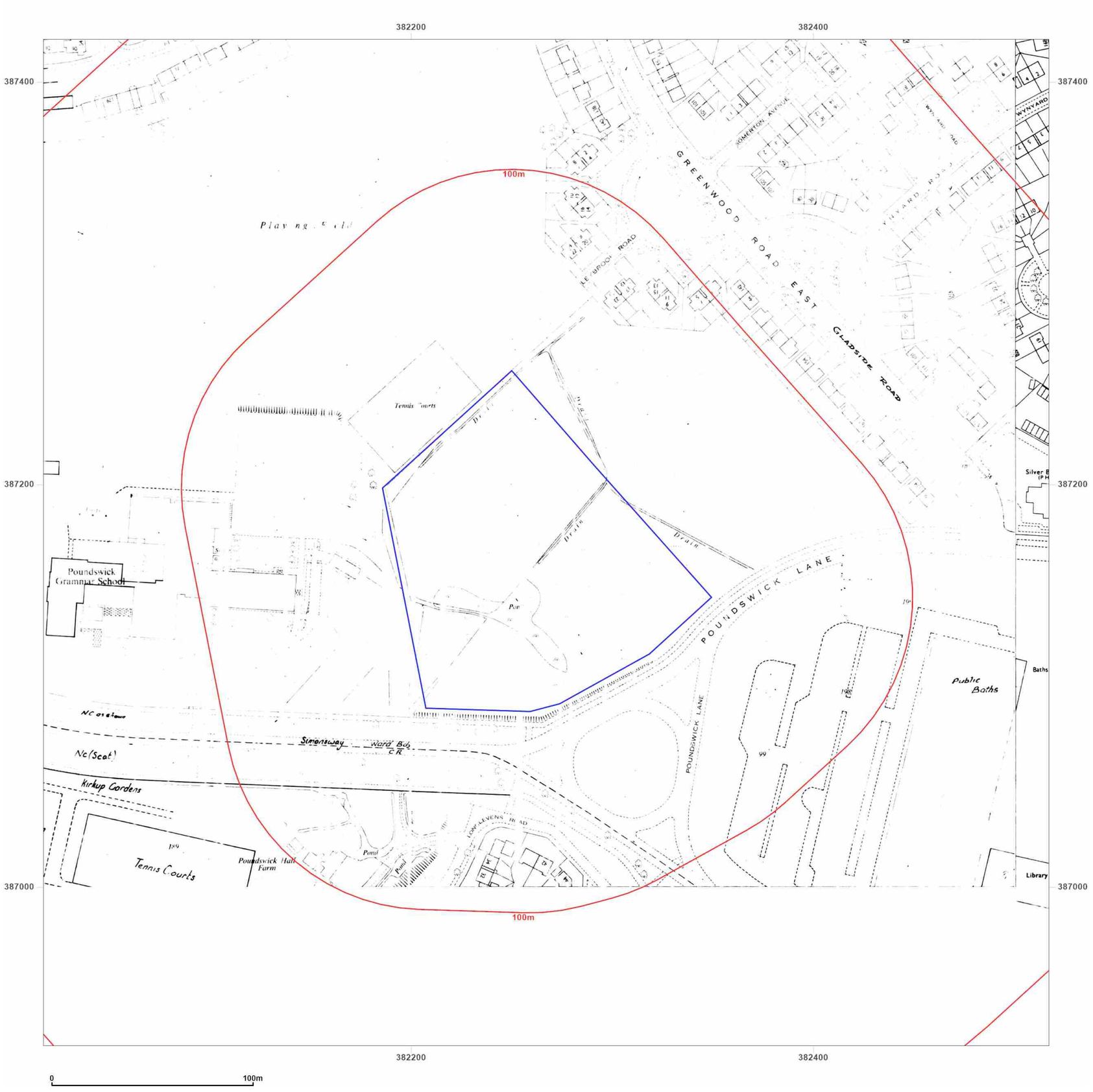
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Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1971-1975**

Scale: 1:1,250

Printed at: 1:2,000

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Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1977-1982**

Scale: 1:1,250

Printed at: 1:2,000

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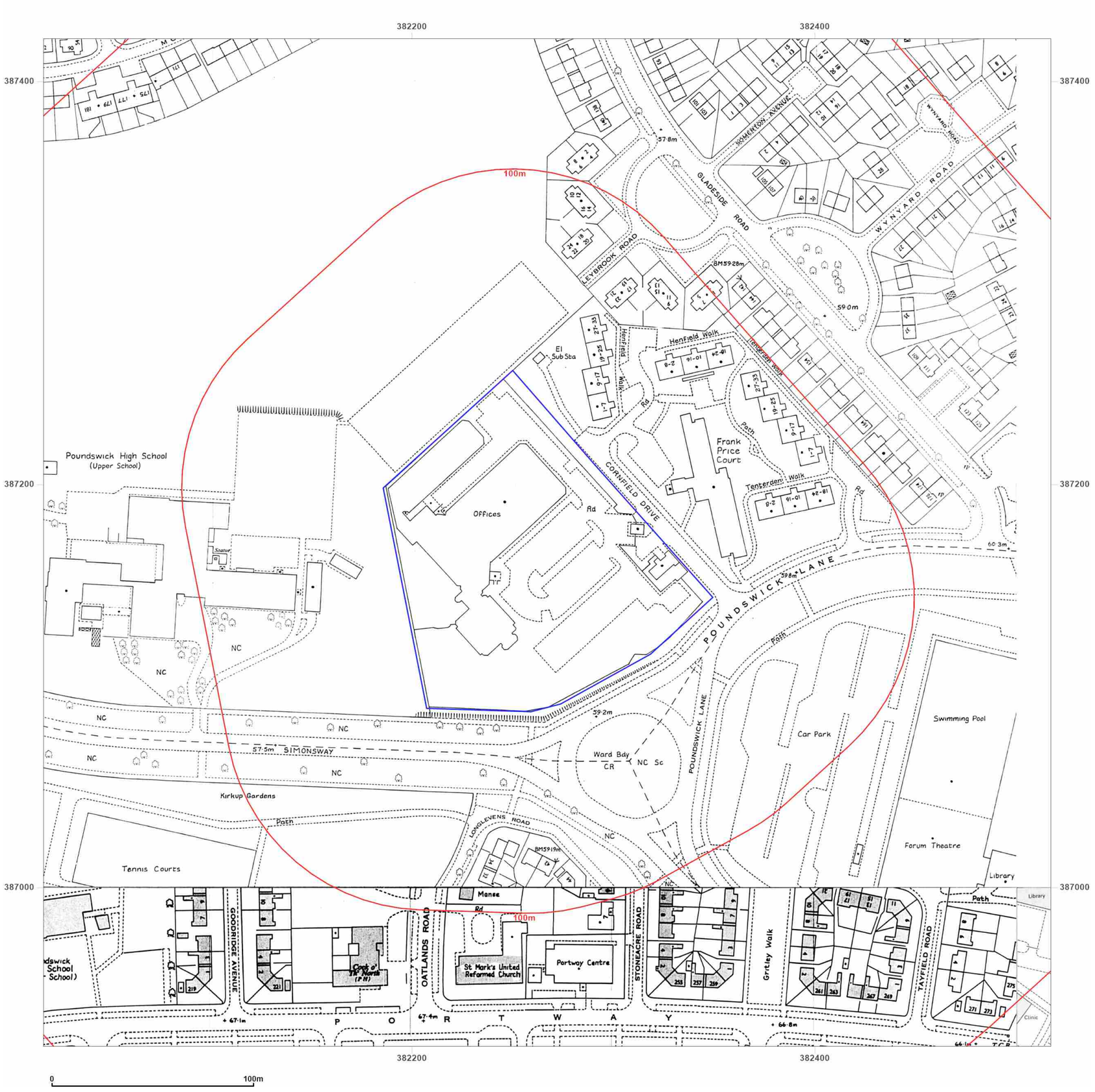
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Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1982-1987**

Scale: 1:1,250

Printed at: 1:2,000

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Revised 1987
Edition N/A
Copyright 1987
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~~Edition N/A~~
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Revised 1981
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Copyright 1982
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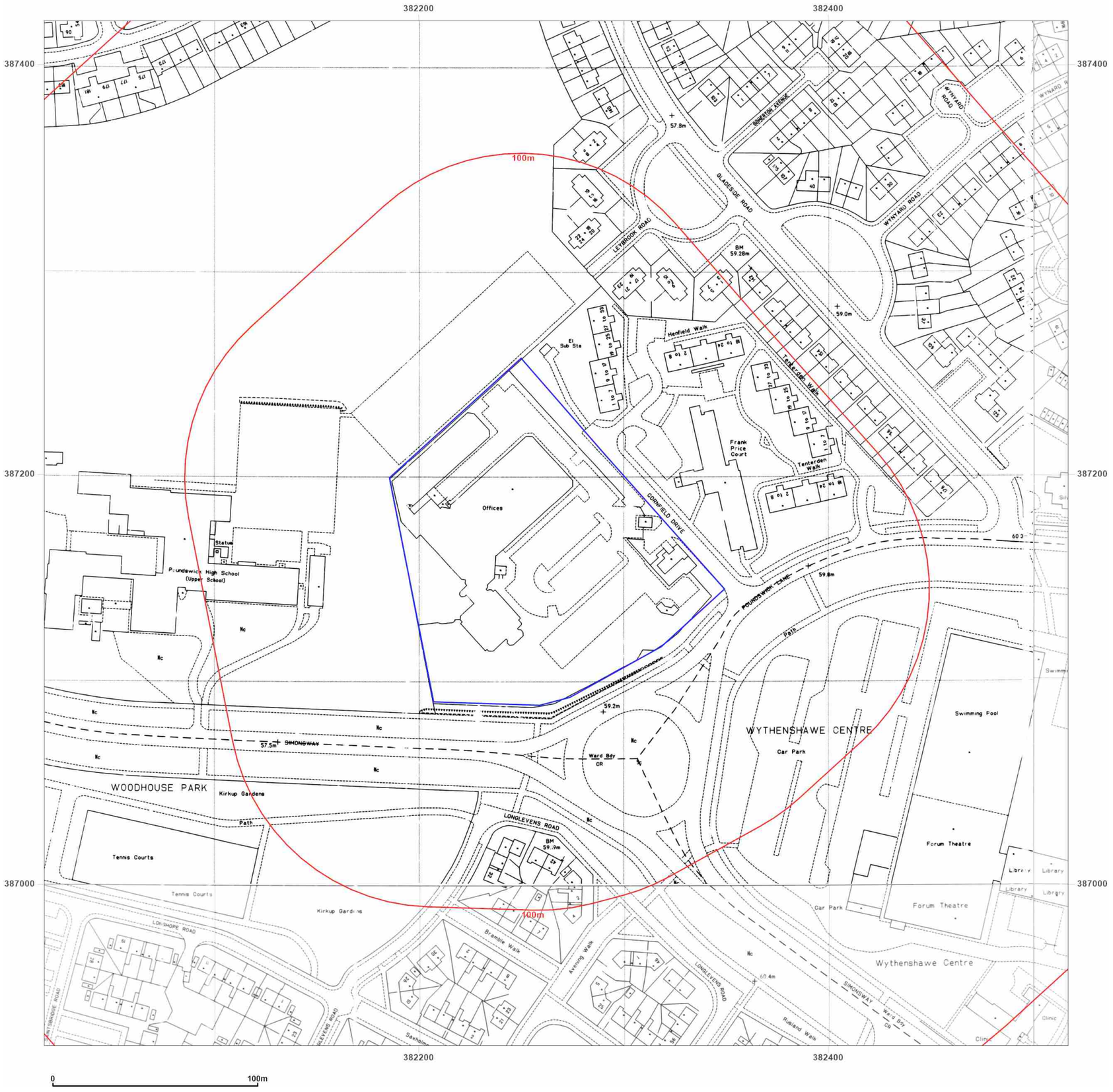
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1992**

Scale: 1:1,250

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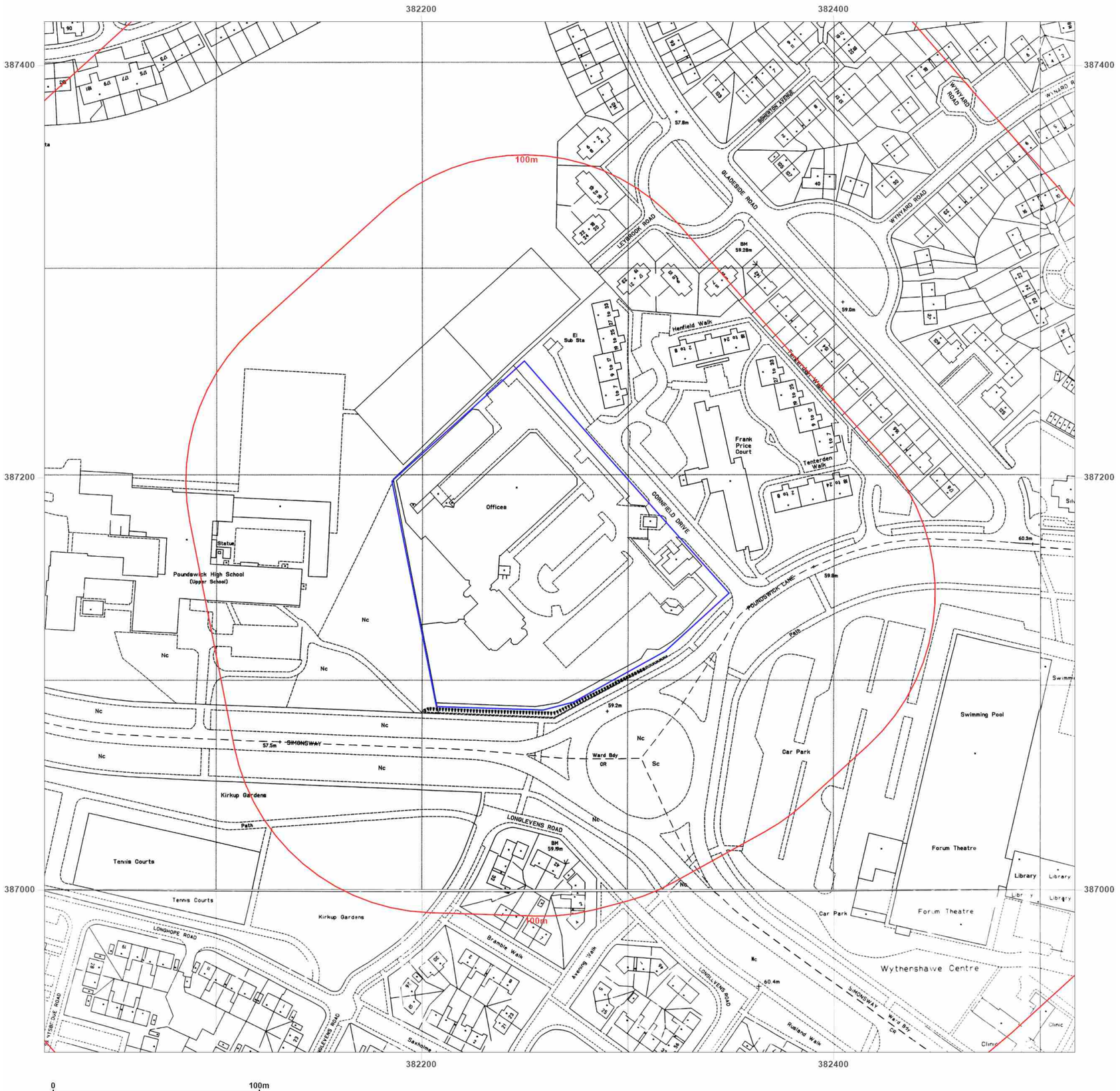
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1992-1995**

Scale: 1:1,250

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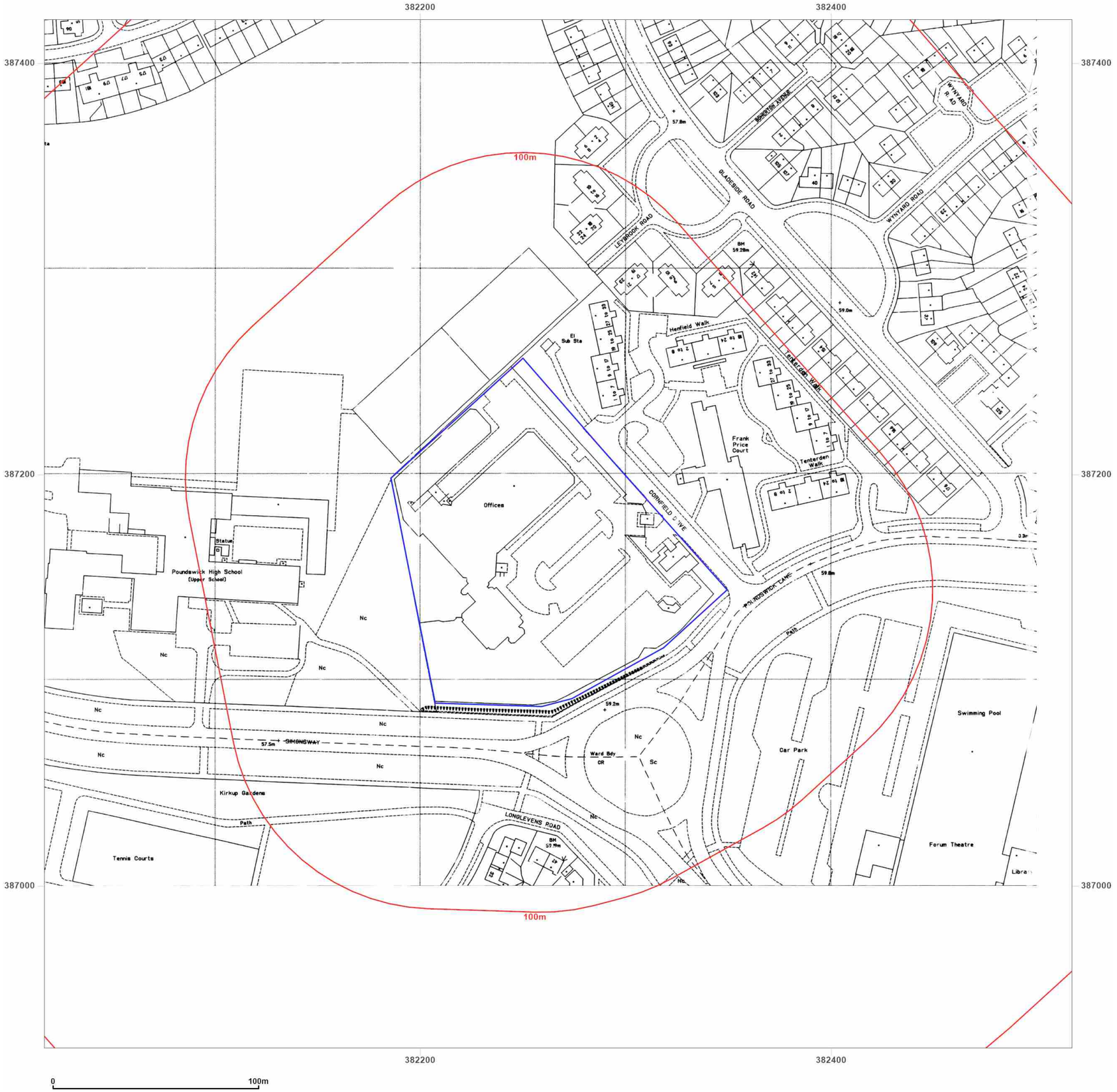
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1995**

Scale: 1:1,250

Printed at: 1:2,000

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Edition N/A
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: LandLine

Map date: **2003**

Scale: 1:1,250

Printed at: 1:1,250

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2003

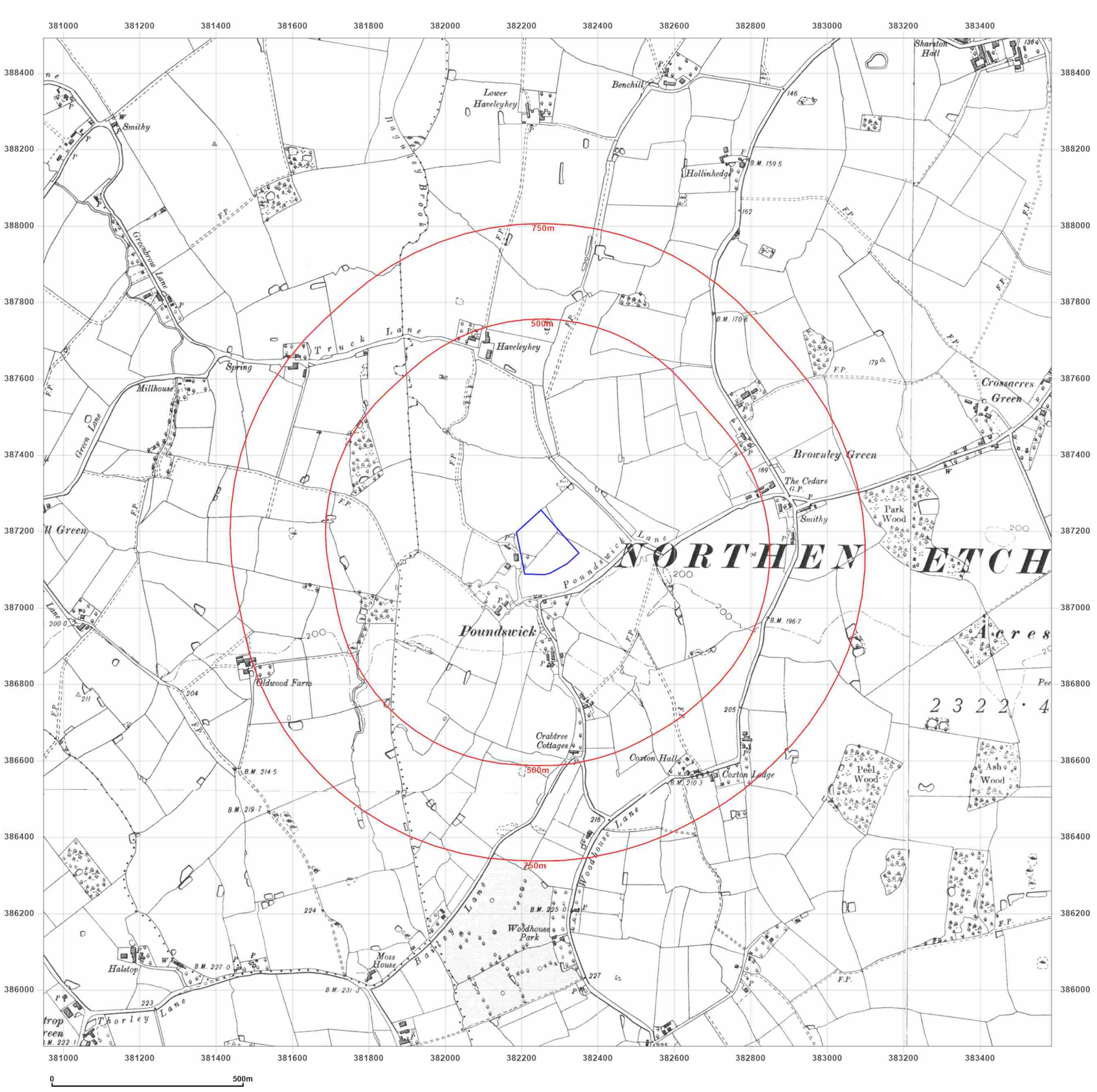
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: County Series

Map date: **1897-1899**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1876
Revised 1897
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1897
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1874
Revised 1897
Edition 1899
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1897
Edition N/A
Copyright N/A
Levelled N/A

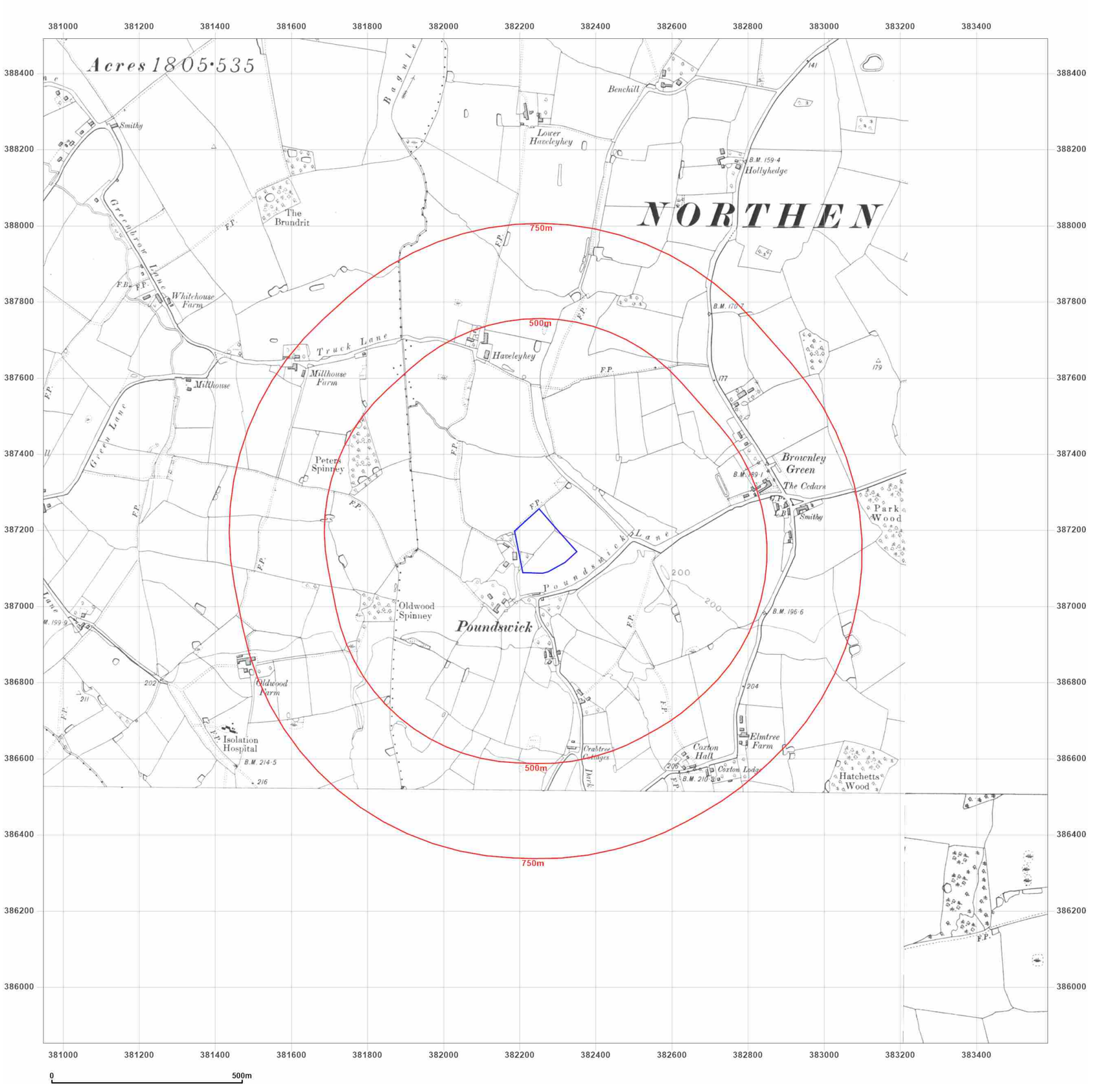
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: County Series

Map date: **1907**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1873
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

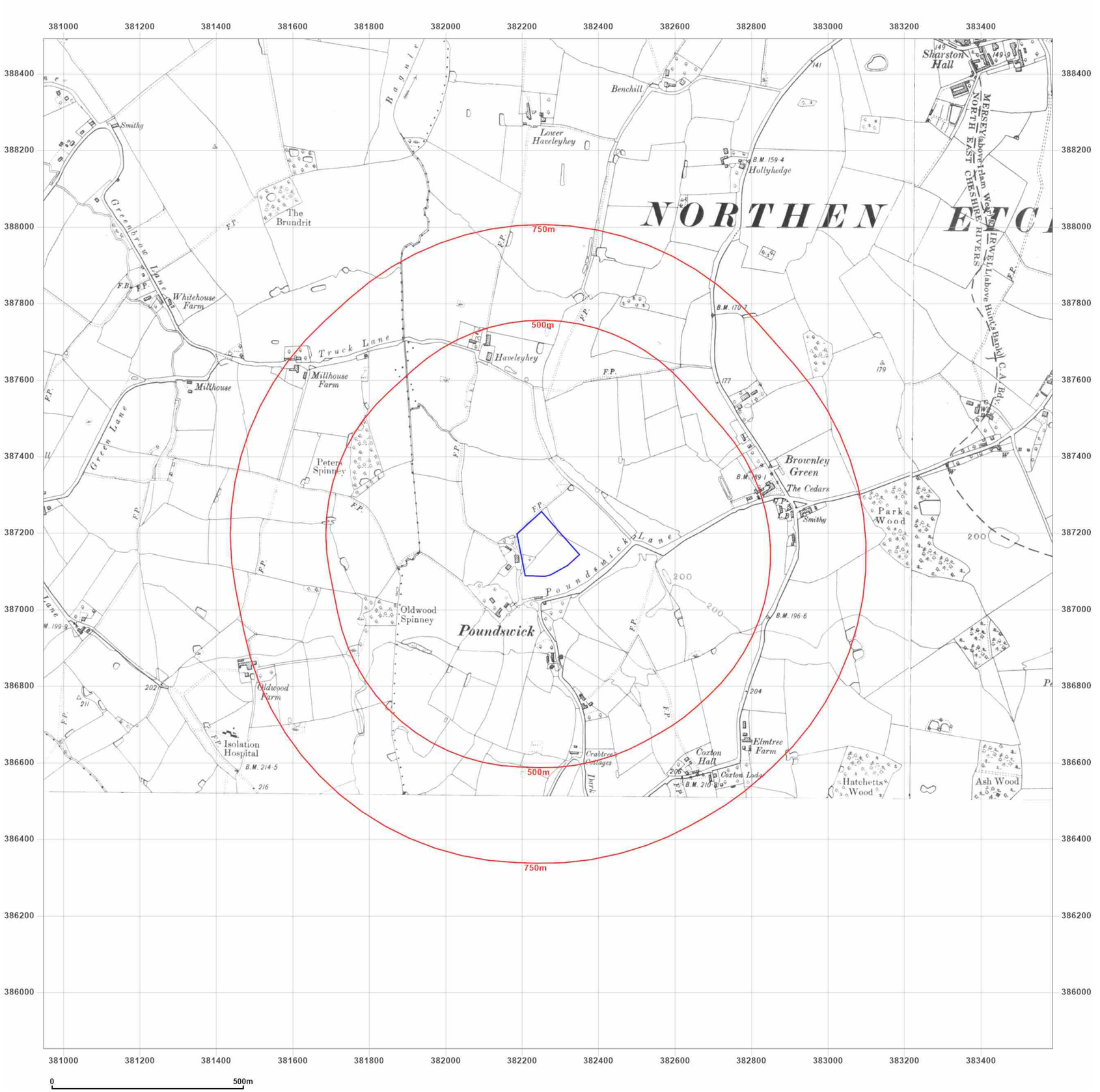
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: County Series

Map date: **1907-1908**

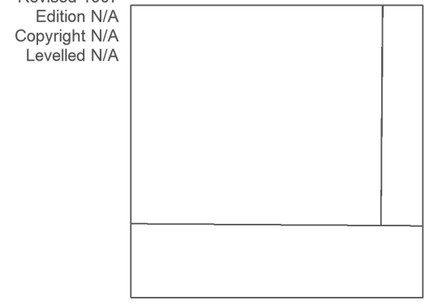
Scale: 1:10,560

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Surveyed 1873
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A



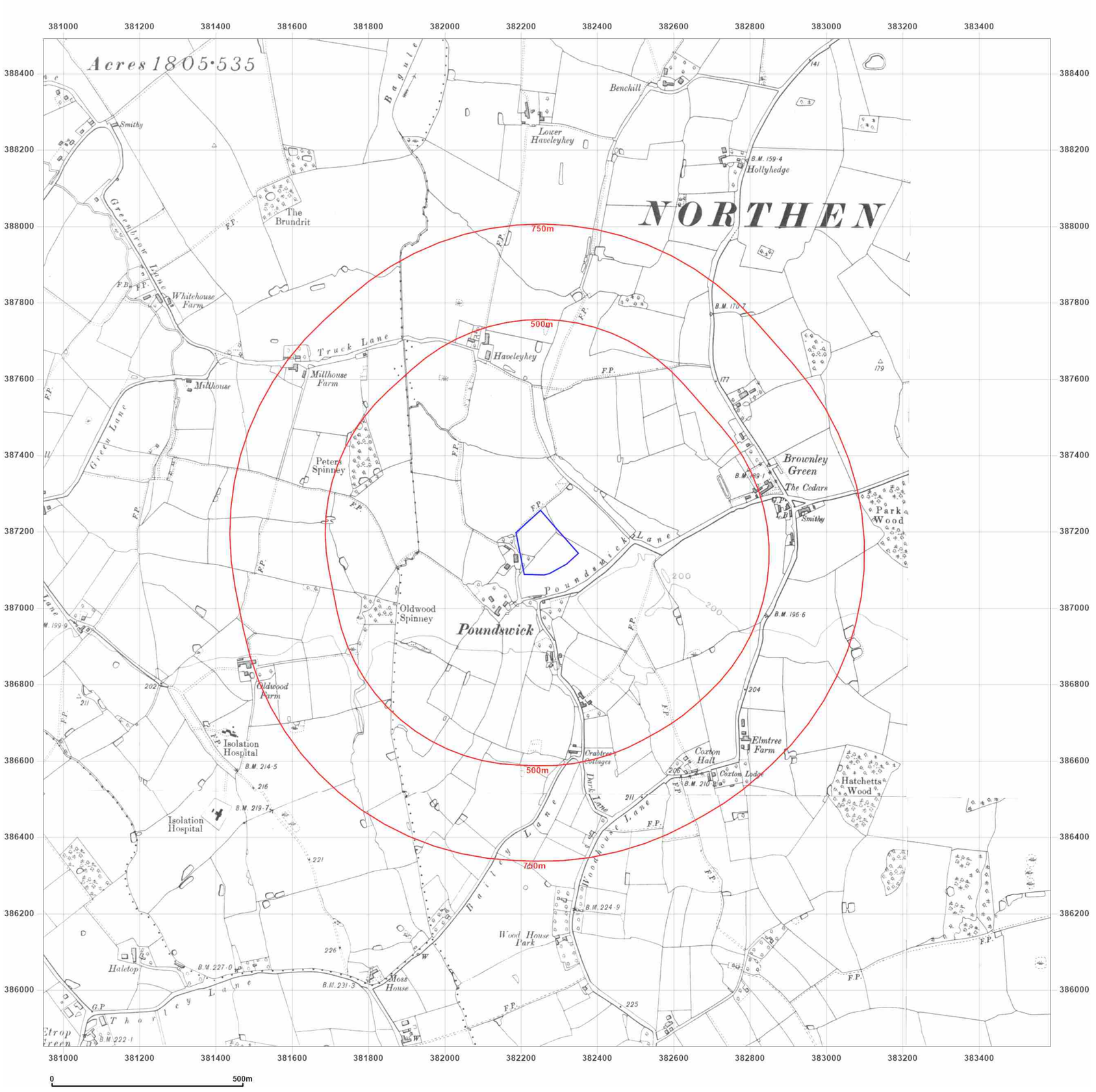
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: County Series

Map date: **1907-1910**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1873
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1874
Revised 1910
Edition 1910
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

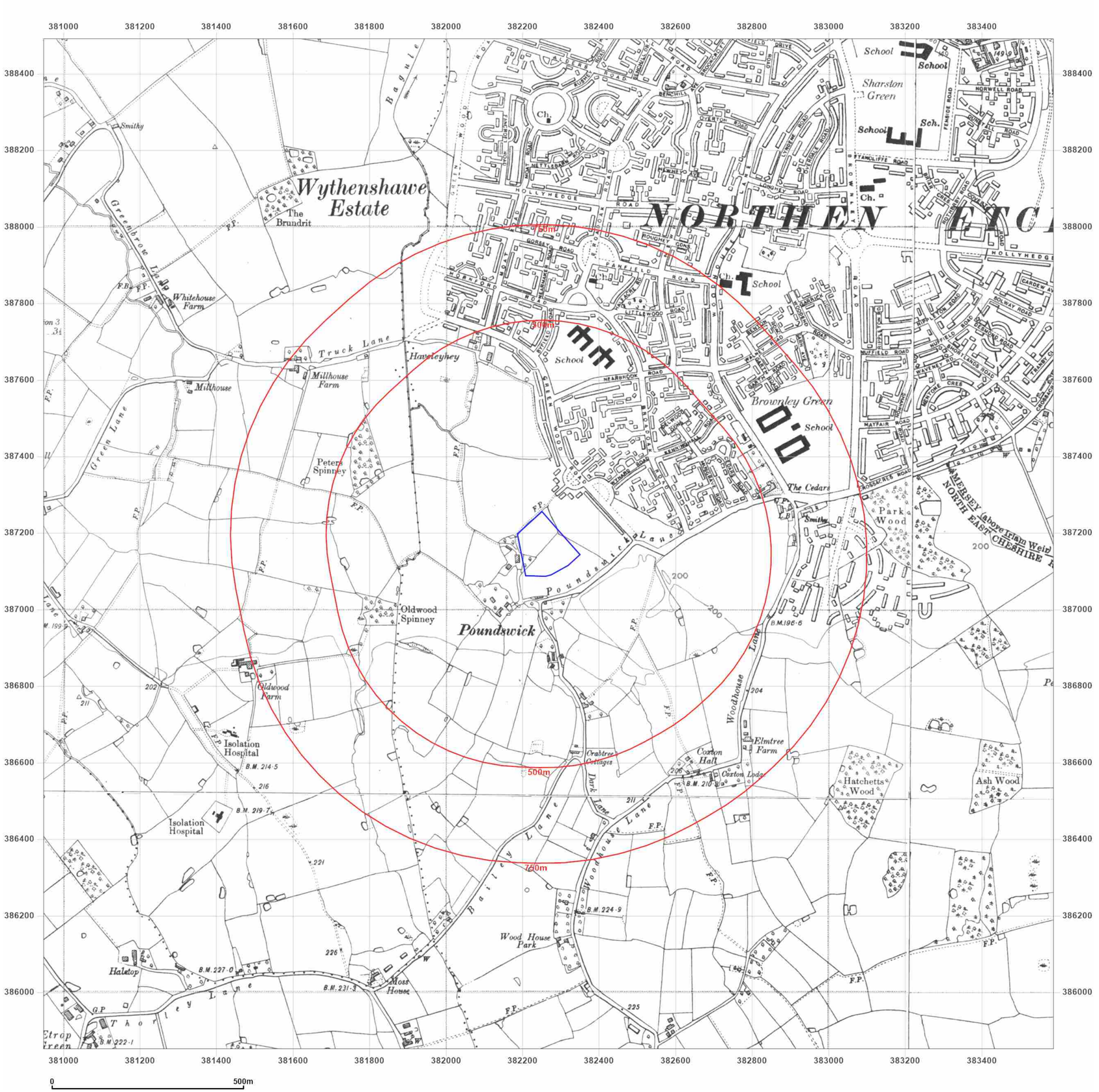
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

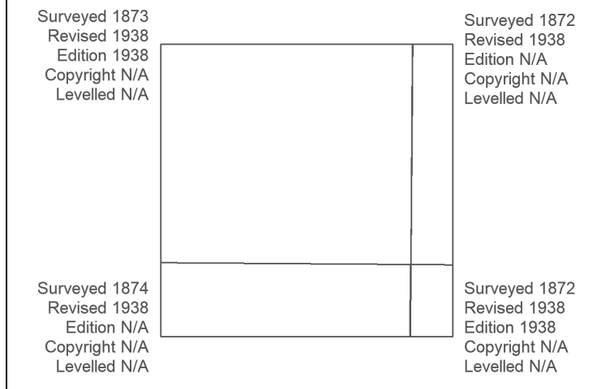
Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: Provisional

Map date: **1954**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1949
Revised 1954
Edition N/A
Copyright N/A
Levelled N/A

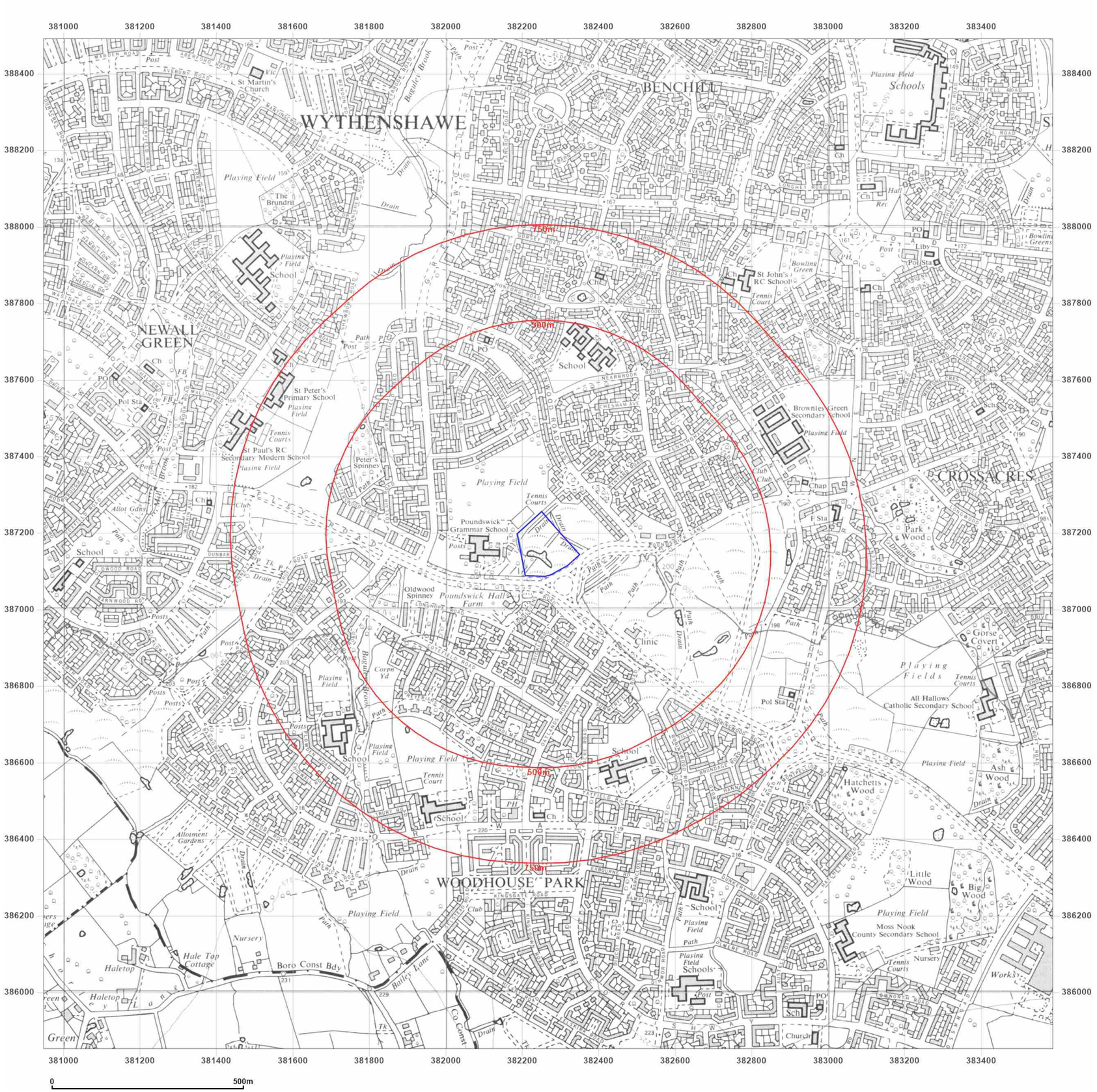
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: Provisional

Map date: **1967**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1967
Revised 1967
Edition N/A
Copyright N/A
Levelled N/A

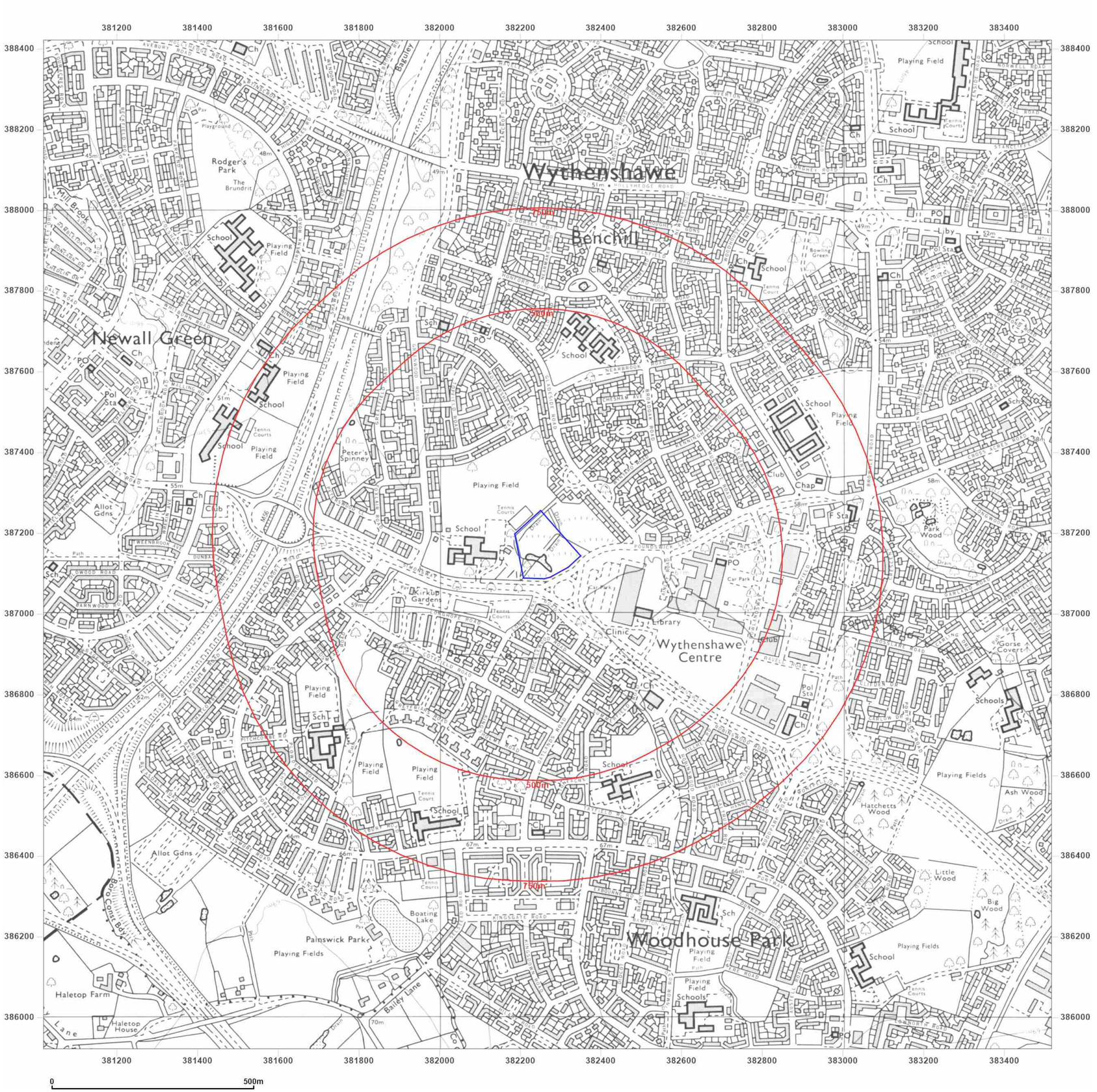
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1977**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1975
Revised 1977
Edition N/A
Copyright 1977
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1989**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1984
Revised 1989
Edition N/A
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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **1995**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1984
Revised 1995
Edition N/A
Copyright N/A
Levelled N/A

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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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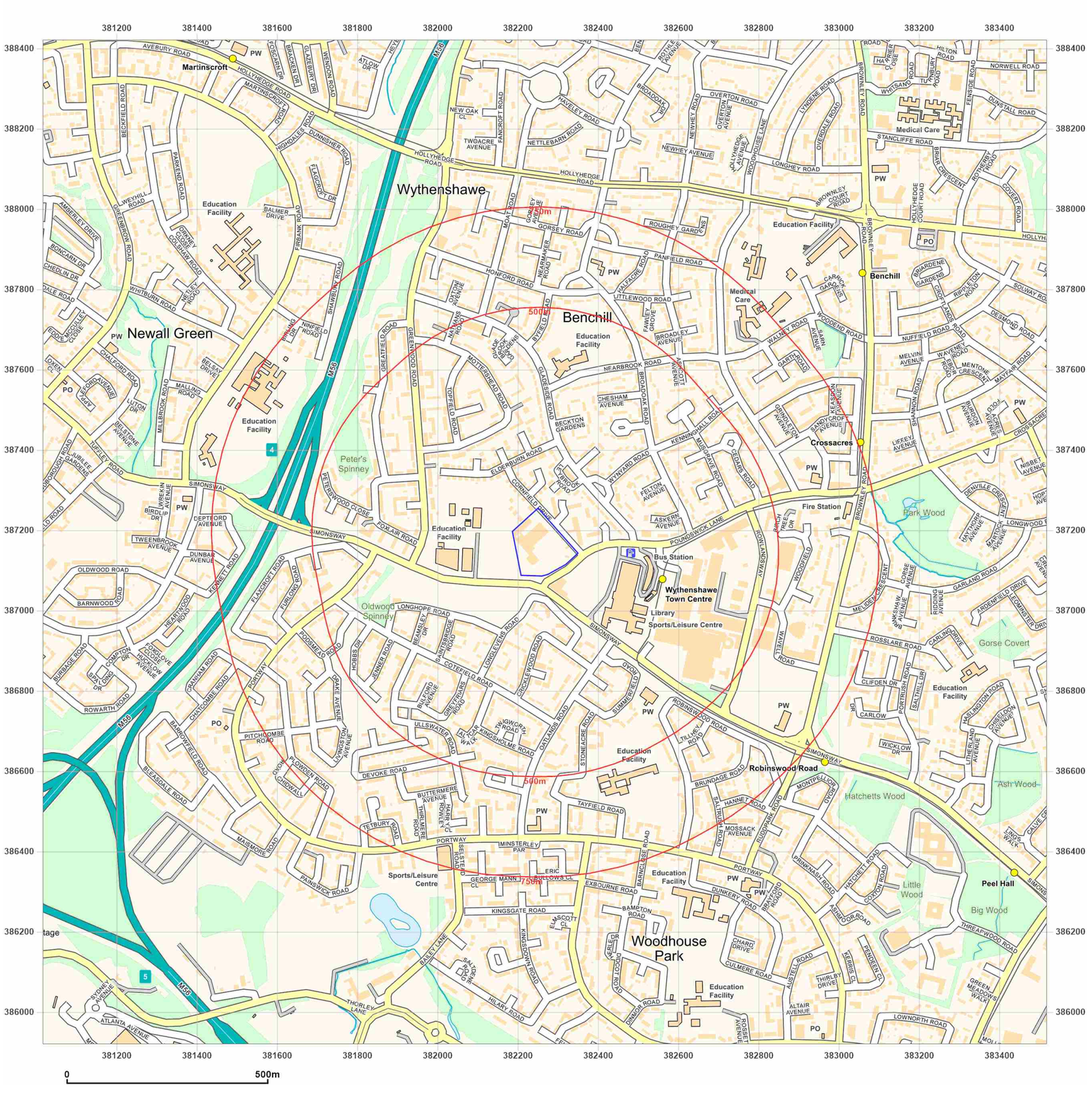
2010

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Groundsure INSIGHTS

Site Details:

Area 7, Wythenshawe

Client Ref: 51143-01 Area 7, Wythenshawe
Report Ref: GS-BK1-QVY-K8A-UNP
Grid Ref: 382267, 387171

Map Name: National Grid

Map date: **2025**

Scale: 1:10,000

Printed at: 1:10,000

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Appendix C – Groundsure Enviro + Geo Insight Report

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

Area 7, Wythenshawe

Order Details

Date: 28/10/2025

Your ref: 51143-01 Area 7, Wythenshawe

Our Ref: GS-ZJ1-46Q-7X9-5QC

Site Details

Location: 382256 387160

Area: 1.69 ha

Authority: Manchester City Council ↗



Summary of findings p. 2 >

Aerial image p. 9 >

OS MasterMap site plan p.14 >

Insight User Guide ↗

Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Certified B Corporation

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	0	0	2	-
16 >	1.2 >	Historical tanks >	0	0	0	5	-
16 >	1.3 >	Historical energy features >	0	1	4	6	-
17	1.4	Historical petrol stations	0	0	0	0	-
17 >	1.5 >	Historical garages >	0	0	0	2	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
19 >	2.1 >	Historical industrial land uses >	0	0	0	3	-
20 >	2.2 >	Historical tanks >	0	0	0	5	-
20 >	2.3 >	Historical energy features >	0	3	6	8	-
21	2.4	Historical petrol stations	0	0	0	0	-
21 >	2.5 >	Historical garages >	0	0	0	3	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
22	3.1	Active or recent landfill	0	0	0	0	-
22	3.2	Historical landfill (BGS records)	0	0	0	0	-
23	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
23	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
23	3.5	Historical waste sites	0	0	0	0	-
23	3.6	Licensed waste sites	0	0	0	0	-
23 >	3.7 >	Waste exemptions >	0	0	9	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
25 >	4.1 >	Recent industrial land uses >	0	2	3	-	-
26	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
26 >	4.3 >	Current or recent petrol stations >	0	0	0	1	-
26	4.4	Electricity cables	0	0	0	0	-
27	4.5	Gas pipelines	0	0	0	0	-

27	4.6	Sites determined as Contaminated Land	0	0	0	0	-
27	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
27	4.8	Regulated explosive sites	0	0	0	0	-
27	4.9	Hazardous substance storage/usage	0	0	0	0	-
28	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
28	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
28 >	**4.12 >**	**Licensed pollutant release (Part A(2)/B) >**	0	0	0	1	-
28	4.13	Radioactive Substance Authorisations	0	0	0	0	-
29	4.14	Licensed Discharges to controlled waters	0	0	0	0	-
29	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
29	4.16	Pollutant release to public sewer	0	0	0	0	-
29	4.17	List 1 Dangerous Substances	0	0	0	0	-
29	4.18	List 2 Dangerous Substances	0	0	0	0	-
30	4.19	Pollution Incidents (EA/NRW)	0	0	0	0	-
30	4.20	Pollution inventory substances	0	0	0	0	-
30	4.21	Pollution inventory waste transfers	0	0	0	0	-
30	4.22	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	**Hydrogeology >**	On site	0-50m	50-250m	250-500m	500-2000m
31 >	**5.1 >**	**Superficial aquifer >**	Identified (within 500m)				
32 >	**5.2 >**	**Bedrock aquifer >**	Identified (within 500m)				
33 >	**5.3 >**	**Groundwater vulnerability >**	Identified (within 50m)				
34	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
34	5.5	Groundwater vulnerability- local information	None (within 0m)				
35	5.6	Groundwater abstractions	0	0	0	0	0
35	5.7	Surface water abstractions	0	0	0	0	0
35	5.8	Potable abstractions	0	0	0	0	0
35	5.9	Source Protection Zones	0	0	0	0	-
36	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	**Hydrology >**	On site	0-50m	50-250m	250-500m	500-2000m

37 >	6.1 >	Water Network (OS MasterMap) >	0	0	1	-	-
38	6.2	Surface water features	0	0	0	-	-
38 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
38 >	6.4 >	WFD Surface water bodies >	0	0	1	-	-
39 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
40	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
40	7.2	Historical Flood Events	0	0	0	-	-
40	7.3	Flood Defences	0	0	0	-	-
41	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
41	7.5	Flood Storage Areas	0	0	0	-	-
42	7.6	Flood Zone 2	None (within 50m)				
42	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
43 >	8.1 >	Surface water flooding >	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding >					
45 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
46	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
47	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
47	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
47	10.4	Special Protection Areas (SPA)	0	0	0	0	0
47	10.5	National Nature Reserves (NNR)	0	0	0	0	0
48	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
48 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	3
48	10.8	Biosphere Reserves	0	0	0	0	0
49	10.9	Forest Parks	0	0	0	0	0
49	10.10	Marine Conservation Zones	0	0	0	0	0
49 >	10.11 >	Green Belt >	0	0	0	0	4

49	10.12	Proposed Ramsar sites	0	0	0	0	0
50	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
50	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
50	10.15	Nitrate Sensitive Areas	0	0	0	0	0
50	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
51	10.17	SSSI Impact Risk Zones	0	-	-	-	-
51	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
52	11.1	World Heritage Sites	0	0	0	-	-
52	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
52	11.3	National Parks	0	0	0	-	-
52	11.4	Listed Buildings	0	0	0	-	-
53	11.5	Conservation Areas	0	0	0	-	-
53	11.6	Scheduled Ancient Monuments	0	0	0	-	-
53	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	**Agricultural designations** >	On site	0-50m	50-250m	250-500m	500-2000m
54 >	**12.1** >	**Agricultural Land Classification** >	Urban (within 250m)				
55	12.2	Open Access Land	0	0	0	-	-
55	12.3	Tree Felling Licences	0	0	0	-	-
55	12.4	Environmental Stewardship Schemes	0	0	0	-	-
55	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
56	13.1	Priority Habitat Inventory	0	0	0	-	-
56	13.2	Habitat Networks	0	0	0	-	-
56	13.3	Open Mosaic Habitat	0	0	0	-	-
56	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	**Geology 1:10,000 scale** >	On site	0-50m	50-250m	250-500m	500-2000m
57 >	**14.1** >	**10k Availability** >	Identified (within 500m)				
58	14.2	Artificial and made ground (10k)	0	0	0	0	-

59 >	14.3 >	Superficial geology (10k) >	1	0	0	0	-
60	14.4	Landslip (10k)	0	0	0	0	-
61 >	14.5 >	Bedrock geology (10k) >	1	0	0	0	-
62 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	0	1	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
63 >	15.1 >	50k Availability >	Identified (within 500m)				
64	15.2	Artificial and made ground (50k)	0	0	0	0	-
64	15.3	Artificial ground permeability (50k)	0	0	-	-	-
65 >	15.4 >	Superficial geology (50k) >	1	0	0	0	-
66 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
66	15.6	Landslip (50k)	0	0	0	0	-
66	15.7	Landslip permeability (50k)	None (within 50m)				
67 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
68 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
68 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	0	1	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
69 >	16.1 >	BGS Boreholes >	0	0	13	-	-
Page	Section	Natural ground subsidence >					
71 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
72 >	17.2 >	Running sands >	Very low (within 50m)				
74 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
75 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
76 >	17.5 >	Landslides >	Very low (within 50m)				
77 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
79	18.1	BritPits	0	0	0	0	-
80 >	18.2 >	Surface ground workings >	2	0	2	-	-
80	18.3	Underground workings	0	0	0	0	0
80	18.4	Underground mining extents	0	0	0	0	-

80	18.5	Historical Mineral Planning Areas	0	0	0	0	-
81	18.6	Non-coal mining	0	0	0	0	0
81	18.7	JPB mining areas	None (within 0m)				
81	18.8	The Coal Authority non-coal mining	0	0	0	0	-
81	18.9	Researched mining	0	0	0	0	-
82	18.10	Mining record office plans	0	0	0	0	-
82	18.11	BGS mine plans	0	0	0	0	-
82	18.12	Coal mining	None (within 0m)				
82	18.13	Brine areas	None (within 0m)				
82	18.14	Gypsum areas	None (within 0m)				
83	18.15	Tin mining	None (within 0m)				
83	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
84	19.1	Natural cavities	0	0	0	0	-
84	19.2	Mining cavities	0	0	0	0	0
84	19.3	Reported recent incidents	0	0	0	0	-
84	19.4	Historical incidents	0	0	0	0	-
Page	Section	**Radon** >					
86 >	**20.1** >	**Radon** >	Less than 1% (within 0m)				
Page	Section	**Soil chemistry** >	On site	0-50m	50-250m	250-500m	500-2000m
88 >	**21.1** >	**BGS Estimated Background Soil Chemistry** >	2	0	-	-	-
88	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
88	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	**Railway infrastructure and projects** >	On site	0-50m	50-250m	250-500m	500-2000m
89	22.1	Underground railways (London)	0	0	0	-	-
89	22.2	Underground railways (Non-London)	0	0	0	-	-
90	22.3	Railway tunnels	0	0	0	-	-
90	22.4	Historical railway and tunnel features	0	0	0	-	-
90	22.5	Royal Mail tunnels	0	0	0	-	-

90	22.6	Historical railways	0	0	0	-	-
90 >	**22.7 >**	**Railways >**	0	0	5	-	-
91	22.8	Crossrail 2	0	0	0	0	-
91	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 07/04/2023

Site Area: 1.69ha

Recent site history - 2019 aerial photograph



Capture Date: 22/04/2019

Site Area: 1.69ha

Recent site history - 2009 aerial photograph



Capture Date: 24/06/2009

Site Area: 1.69ha

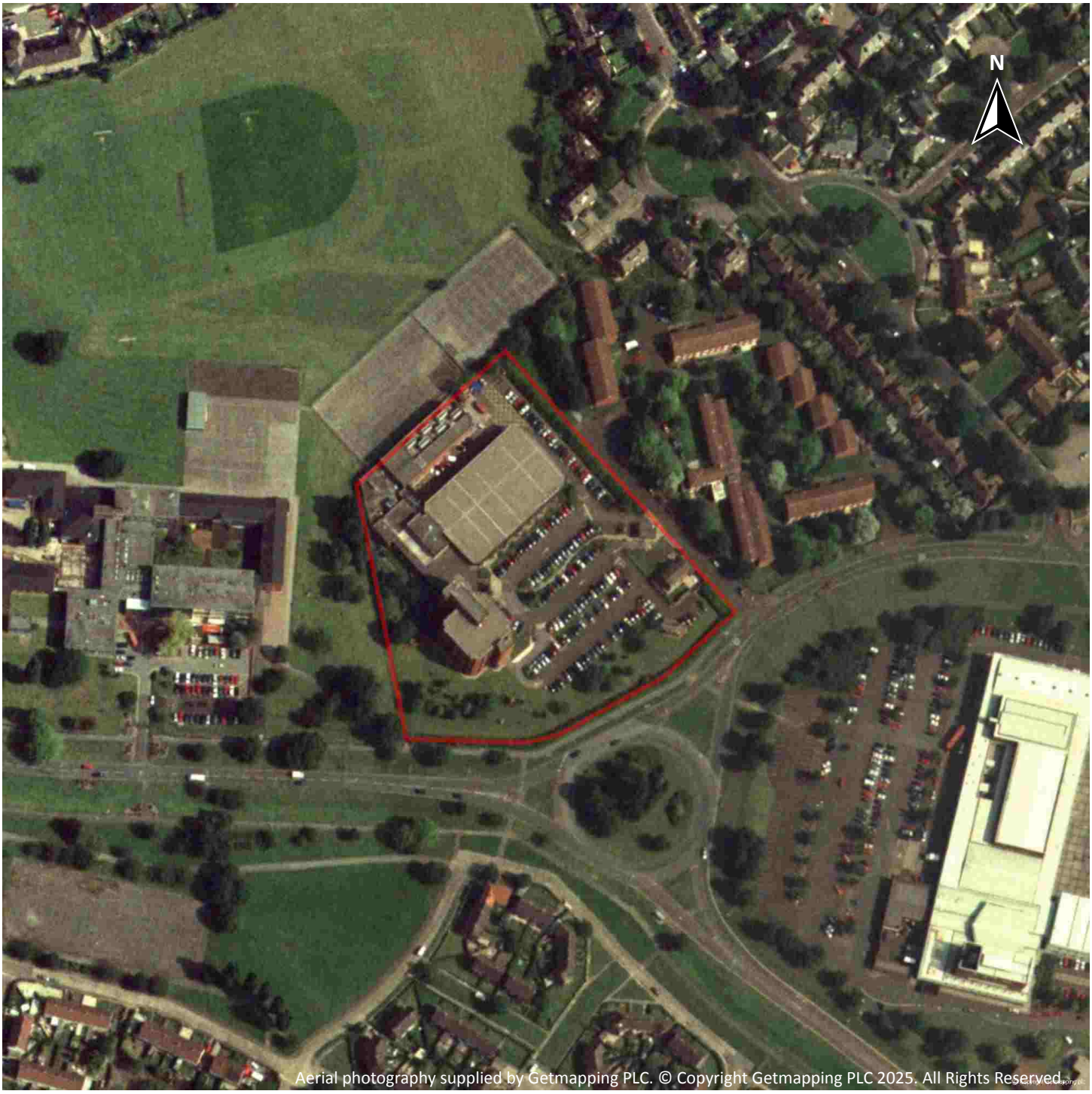
Recent site history - 2005 aerial photograph



Capture Date: 15/05/2005

Site Area: 1.69ha

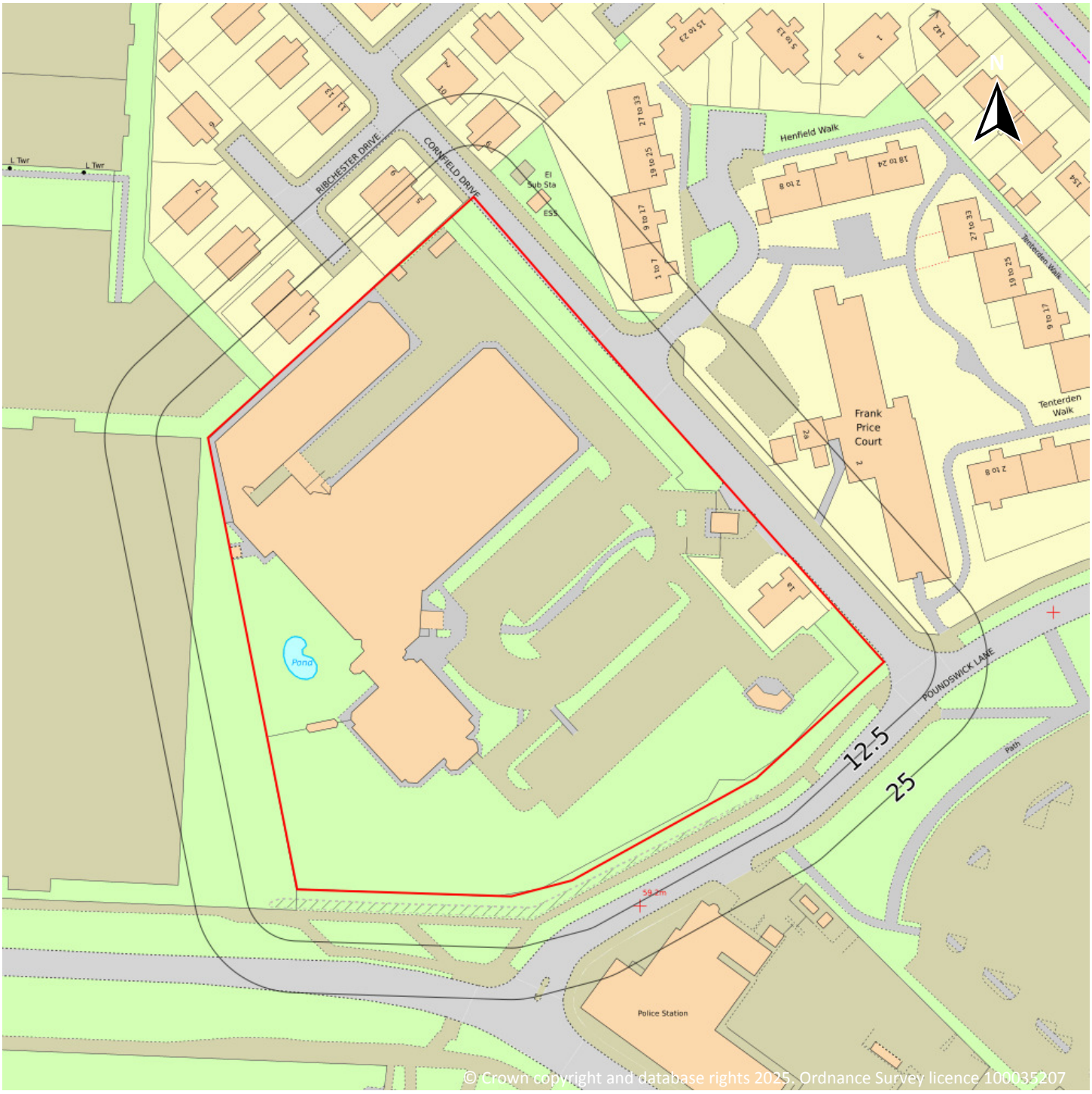
Recent site history - 2000 aerial photograph



Capture Date: 27/06/2000

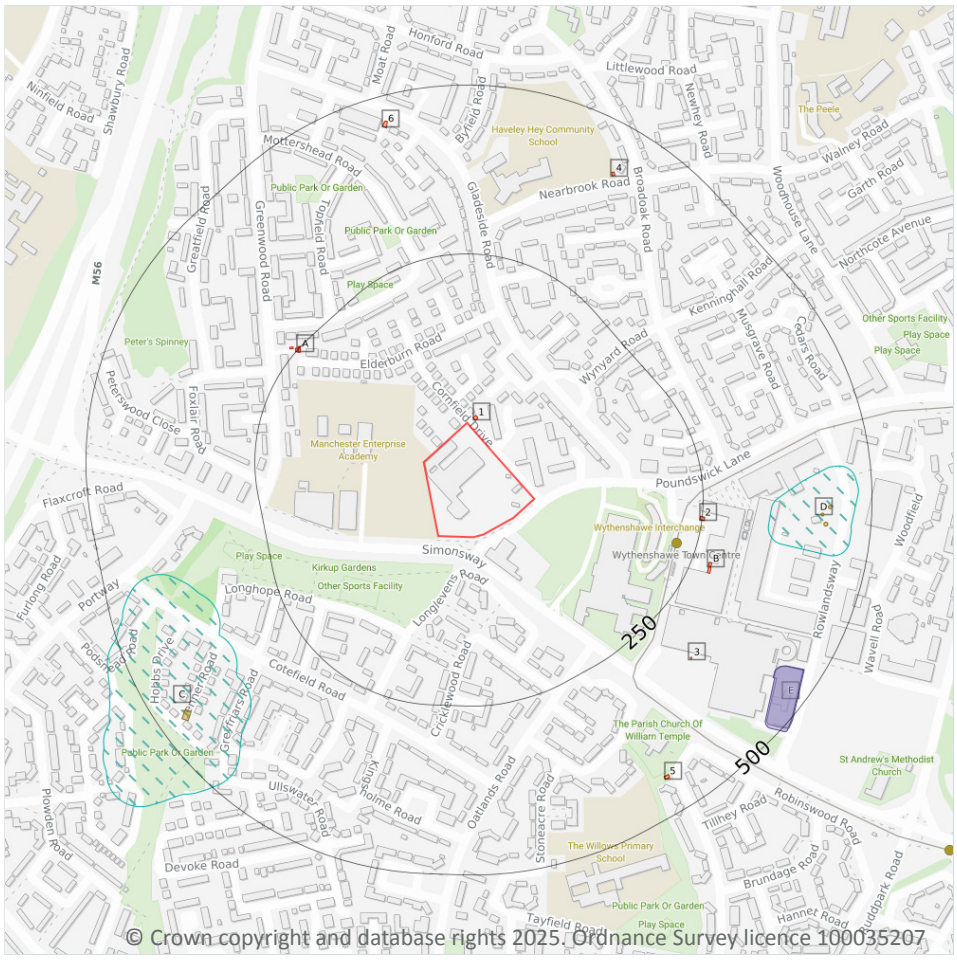
Site Area: 1.69ha

OS MasterMap site plan



Site Area: 1.69ha

1 Past land use



1.1 Historical industrial land uses

Records within 500m	2

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
C	346m W	Corporation Yard	1967	856573

ID	Location	Land use	Dates present	Group ID
D	349m E	Bus Station	1989 - 1995	937279

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	5

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
3	329m SE	Unspecified Tank	1978	117075
D	425m E	Unspecified Tank	1982	117061
D	430m E	Unspecified Tank	1982	117062
D	436m E	Unspecified Tank	1982	117060
C	449m SW	Tanks	1998	109358

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	11

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
1	11m NE	Electricity Substation	1978 - 1995	77223
A	245m NW	Electricity Substation	1978 - 1987	73008

ID	Location	Land use	Dates present	Group ID
A	245m NW	Electricity Substation	1995	72439
2	247m E	Electricity Substation	1982 - 1992	88660
A	248m NW	Electricity Substation	1974	77212
A	256m NW	Electricity Substation	1995	67149
B	275m E	Electricity Substation	1982	67162
B	277m E	Electricity Substation	1992	67164
4	424m NE	Electricity Substation	1985	67718
5	443m SE	Electricity Substation	1978 - 1992	86615
6	453m N	Electricity Substation	1985	67154

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	2

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
E	438m SE	Garage	1978 - 1982	30823
E	438m SE	Garage	1992	24509

This data is sourced from Ordnance Survey / Groundsure.

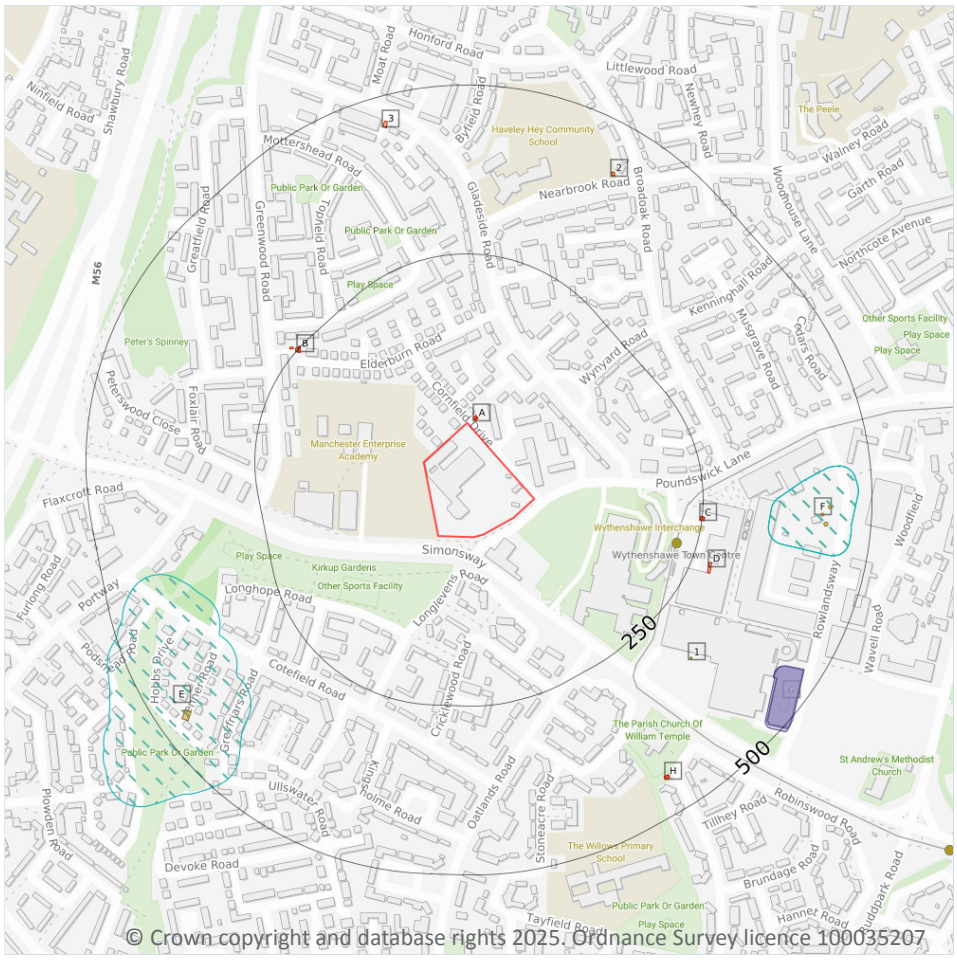
1.6 Historical military land

Records within 500m	0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



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2.1 Historical industrial land uses

Records within 500m	3

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
E	346m W	Corporation Yard	1967	856573
F	349m E	Bus Station	1995	937279
F	349m E	Bus Station	1989	937279

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	5

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
1	329m SE	Unspecified Tank	1978	117075
F	425m E	Unspecified Tank	1982	117061
F	430m E	Unspecified Tank	1982	117062
F	436m E	Unspecified Tank	1982	117060
E	449m SW	Tanks	1998	109358

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	17

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
A	11m NE	Electricity Substation	1978	77223
A	11m NE	Electricity Substation	1987	77223
A	12m NE	Electricity Substation	1995	77223
B	245m NW	Electricity Substation	1978	73008
B	245m NW	Electricity Substation	1987	73008
B	245m NW	Electricity Substation	1995	72439
C	247m E	Electricity Substation	1982	88660

ID	Location	Land Use	Date	Group ID
C	247m E	Electricity Substation	1992	88660
B	248m NW	Electricity Substation	1974	77212
B	256m NW	Electricity Substation	1995	67149
D	275m E	Electricity Substation	1982	67162
D	277m E	Electricity Substation	1992	67164
2	424m NE	Electricity Substation	1985	67718
H	443m SE	Electricity Substation	1992	86615
H	443m SE	Electricity Substation	1982	86615
H	444m SE	Electricity Substation	1978	86615
3	453m N	Electricity Substation	1985	67154

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	**3**

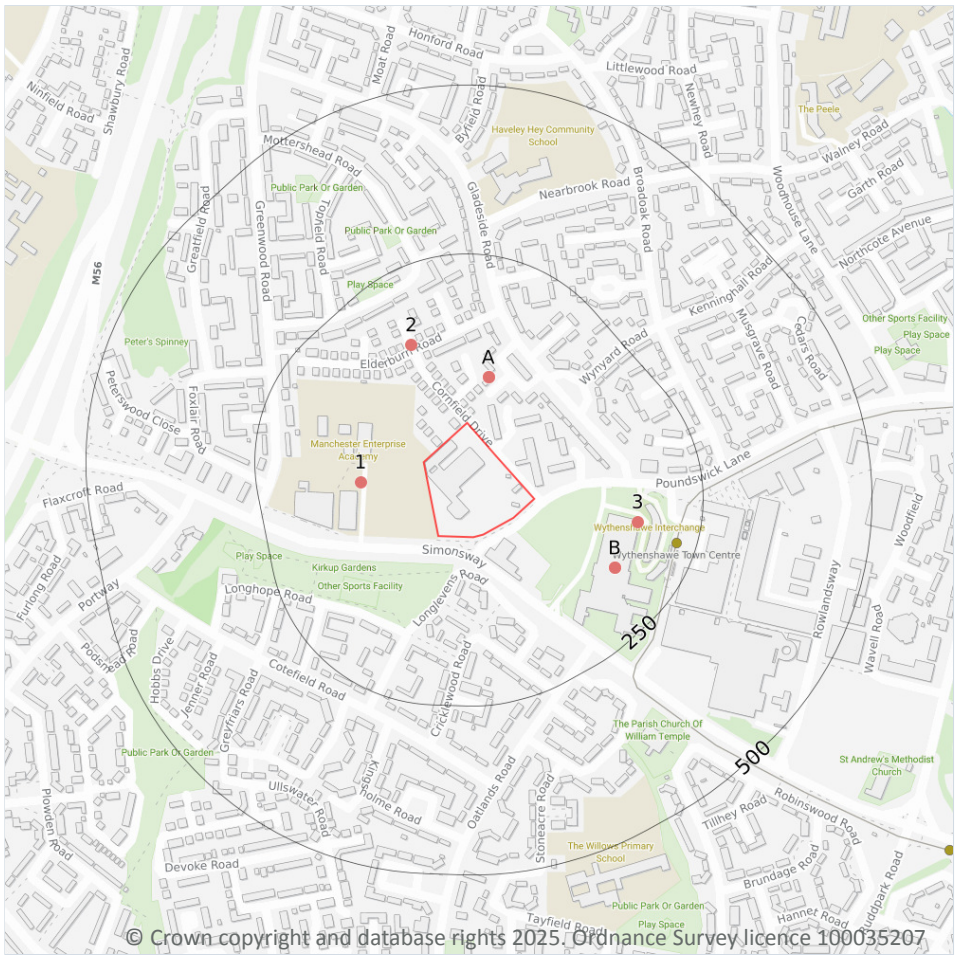
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
G	438m SE	Garage	1982	30823
G	438m SE	Garage	1992	24509
G	439m SE	Garage	1978	30823

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



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3.1 Active or recent landfill

Records within 500m	0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m	0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m	0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m	0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m	9

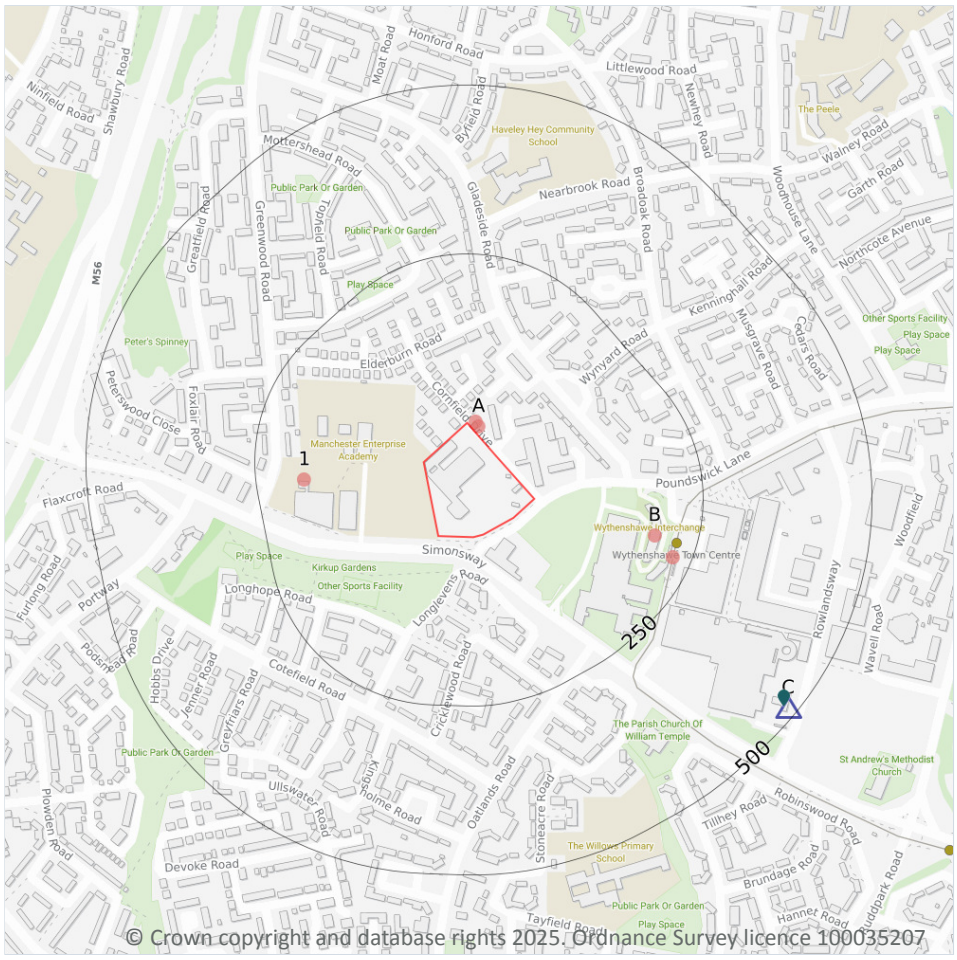
Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 22 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	73m NE	Willmott Dixon, Off Laybrook Road, Wythenshawe, M22 9qt	WEX138248	Treating waste exemption	Not on a farm	Aerobic composting and associated prior treatment
A	73m NE	Willmott Dixon, Off Laybrook Road, Wythenshawe, M22 9qt	WEX138248	Using waste exemption	Not on a farm	Spreading waste on non-agricultural land to confer benefit
A	73m NE	Former Playing Fields Off, Leybrook Road, Wythenshawe, M22 9qt	WEX136422	Using waste exemption	Not on a farm	Use of waste in construction
1	98m W	Simonsway, Manchester, M22 9rh	WEX026481	Using waste exemption	Not on a farm	Use of waste in construction
2	141m NW	-	WEX245184	Using waste exemption	Not on a farm	Use of waste in construction
3	157m E	-	WEX412706	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	157m SE	The Pharmacy Group Corporation, Forum Square, Civic Centre, Wythenshawe, Manchester, M22 5rx	WEX366395	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	157m SE	Forum Square, Civic Centre, Wythenshawe, Manchester, M22 5rx	WEX375009	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	157m SE	Forum Square, Civic Centre, Wythenshawe, Manchester, M22 5rx	WEX442071	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

This data is sourced from the Environment Agency and Natural Resources Wales.

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	5

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 25 >**

ID	Location	Company	Address	Activity	Category
A	10m NE	Electricity Sub Station	Greater Manchester, M22	Electrical Features	Infrastructure and Facilities
A	11m NE	Electricity Sub Station	Greater Manchester, M22	Electrical Features	Infrastructure and Facilities
1	178m W	Electricity Sub Station	Greater Manchester, M22	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
B	186m E	Bus Station	Greater Manchester, M22	Bus and Coach Stations, Depots and Companies	Public Transport, Stations and Infrastructure
B	223m SE	Wythenshawe Town Centre (Manchester Metrolink)	Greater Manchester, M22	Tram, Metro and Light Railway Stations and Stops	Public Transport, Stations and Infrastructure

This data is sourced from Ordnance Survey.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m	**0**

Current or recent tanks identified from the Ordnance Survey NGD.

This data is sourced from Ordnance Survey.

4.3 Current or recent petrol stations

Records within 500m	**1**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 25 >**

ID	Location	Company	Address	LPG	Status
C	487m SE	BP	Rowlands Way, Wythenshawe, Manchester, Greater Manchester, M22 5RG	No	Open

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m	0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.8 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.9 Hazardous substance storage/usage

Records within 500m	0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.10 Historical licensed industrial activities (IPC)

Records within 500m	0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed industrial activities (Part A(1))

Records within 500m	0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.12 Licensed pollutant release (Part A(2)/B)

Records within 500m	1

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 25 >**

ID	Location	Address	Details	
C	472m SE	BP Civic Service Station, Rowlandsway, Wythenshawe, M22 5RG	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.13 Radioactive Substance Authorisations

Records within 500m	0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Licensed Discharges to controlled waters

Records within 500m	0

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to surface waters (Red List)

Records within 500m	0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 1 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 List 2 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution Incidents (EA/NRW)

Records within 500m	0

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.20 Pollution inventory substances

Records within 500m	0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory waste transfers

Records within 500m	0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

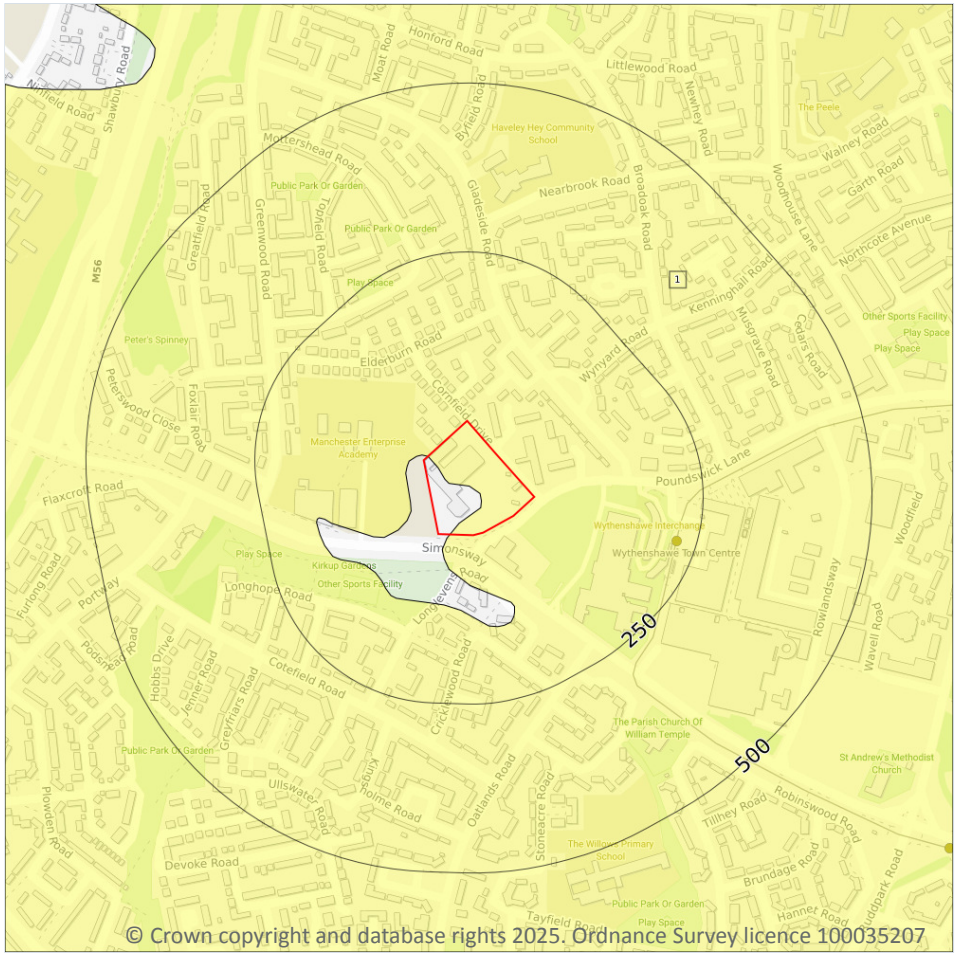
4.22 Pollution inventory radioactive waste

Records within 500m	0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m	1

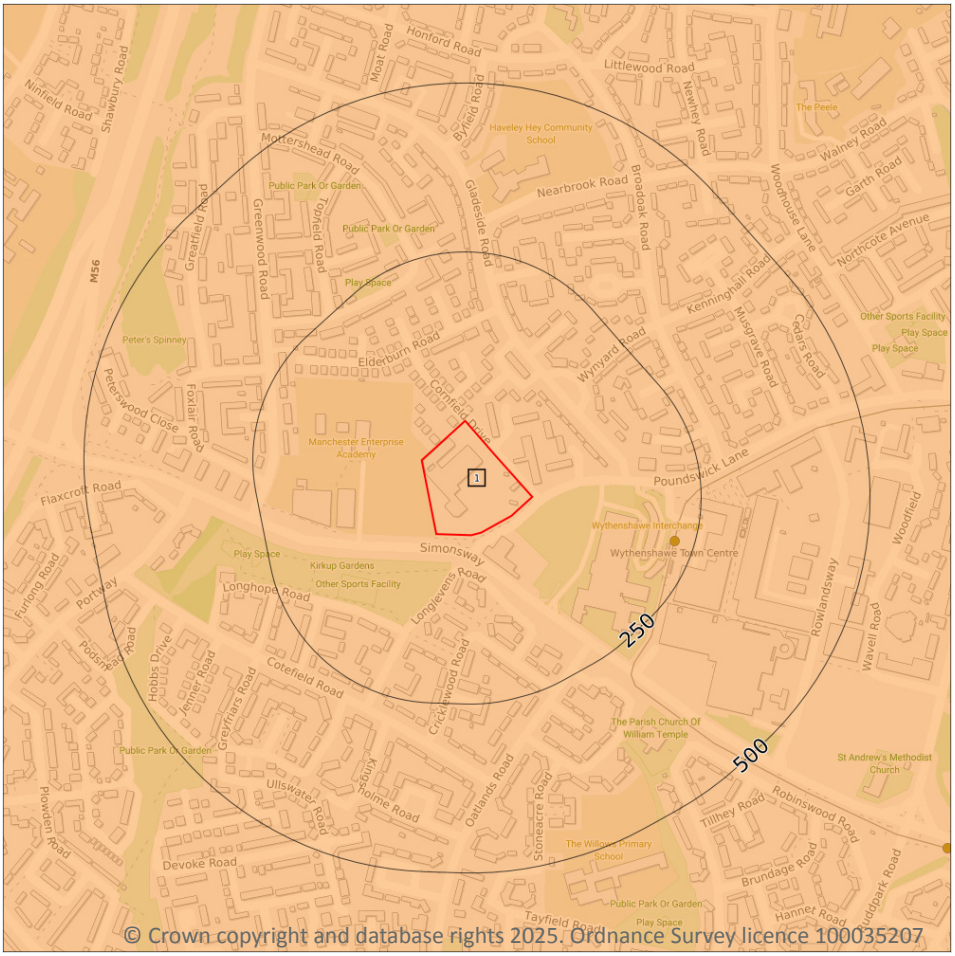
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 31 >**

ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Bedrock aquifer



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5.2 Bedrock aquifer

Records within 500m	1

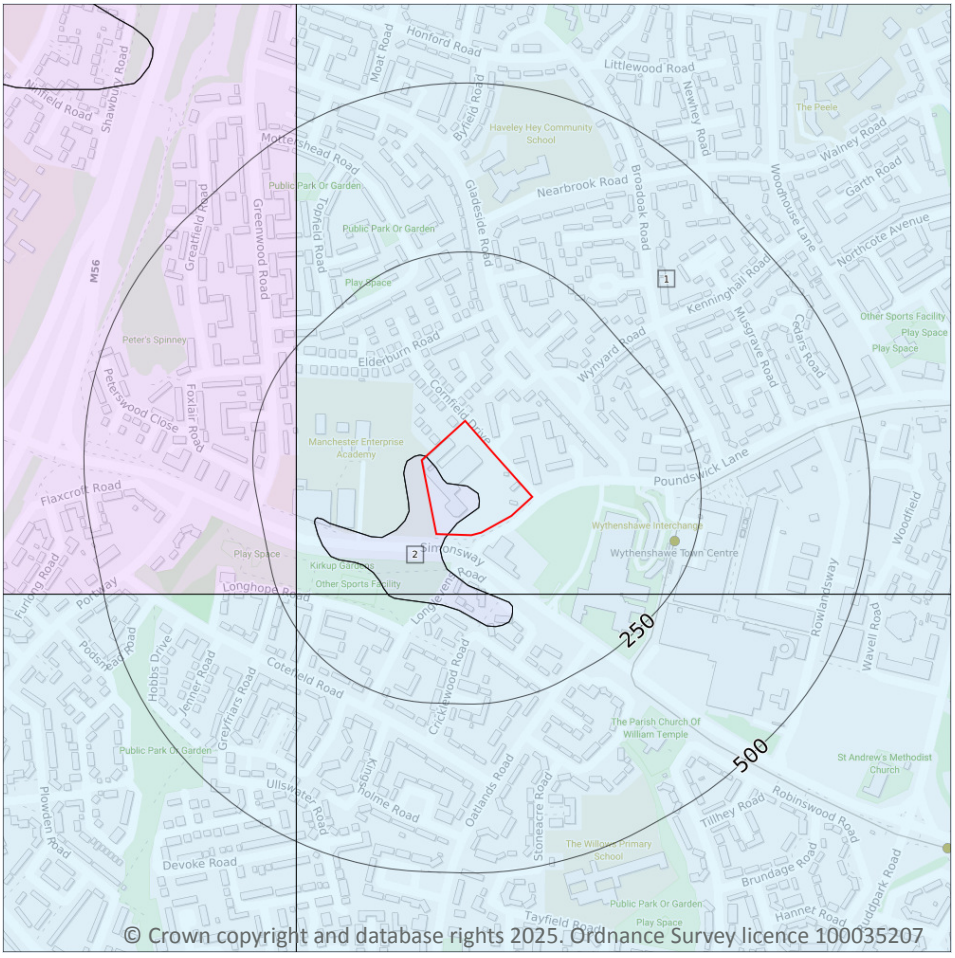
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 32 >**

ID	Location	Designation	Description
1	On site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



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5.3 Groundwater vulnerability

Records within 50m	2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 33 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: <3m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site	0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones

5.6 Groundwater abstractions

Records within 2000m	0

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	0

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

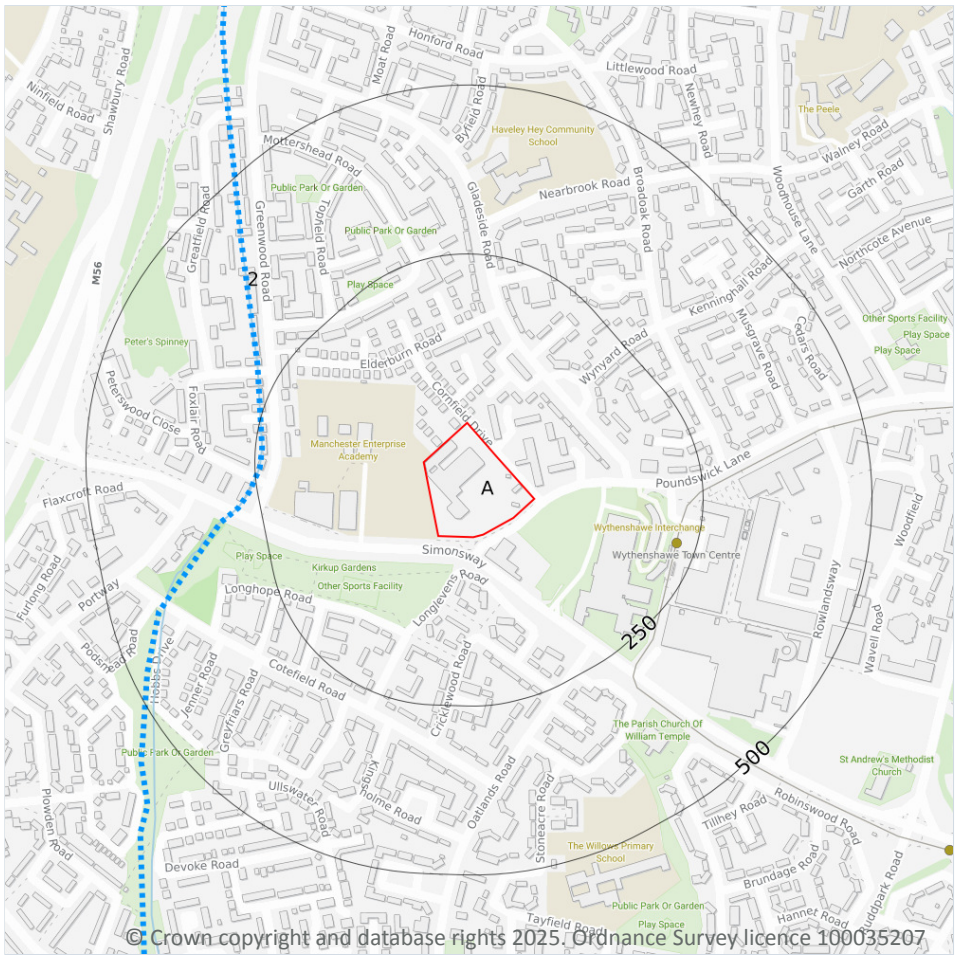
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



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6.1 Water Network (OS MasterMap)

Records within 250m	1

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 37 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
2	240m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Baguley Brook

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	0

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 37 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Sinderland Brook (Fairywell Bk and Baguley Bk)**	**GB112069061270**	**Bollin Dean Mersey Upper**	**Mersey Upper**

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 37 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
1	240m W	River	Sinderland Brook (Fairywell Bk and Baguley Bk)	GB112069061270 ↗	Moderate	Fail	Moderate	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 37 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Weaver and Dane Quaternary Sand and Gravel Aquifers**	**GB41202G991700** ↗	**Poor**	**Poor**	**Good**	**2019**

This data is sourced from the Environment Agency and Natural Resources Wales.

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m	0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m	0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m	0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

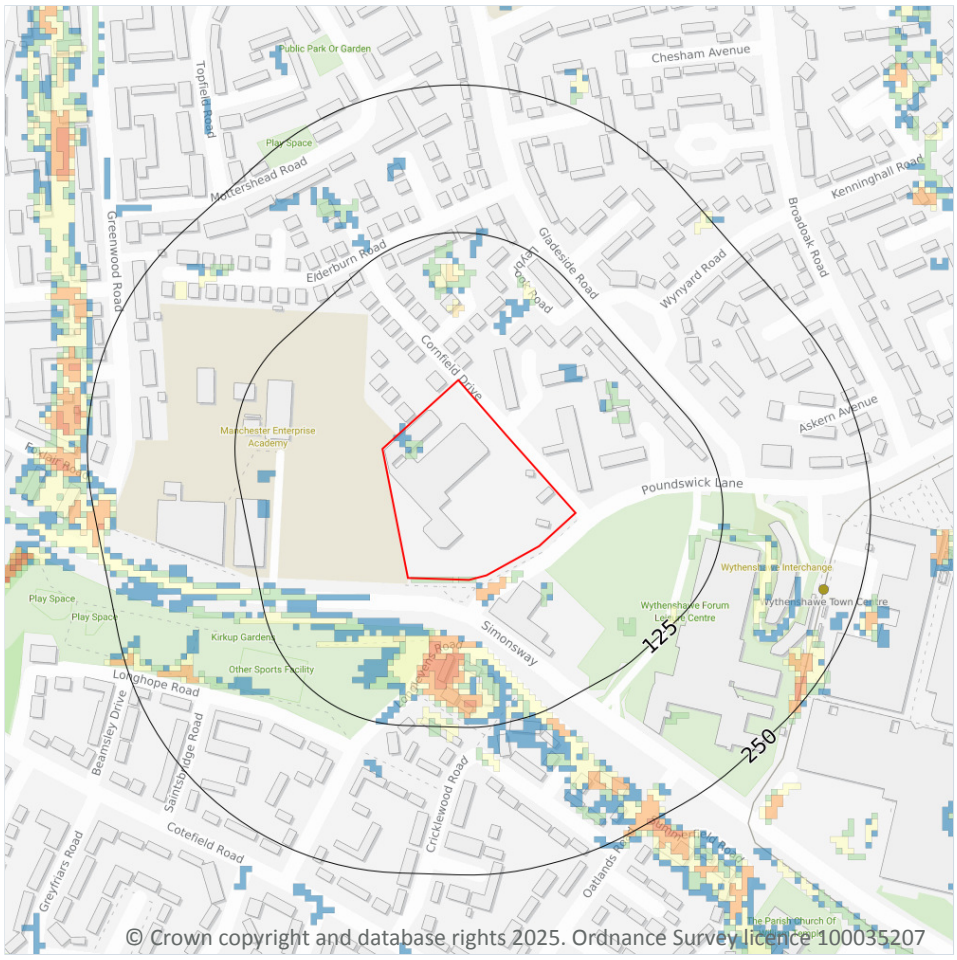
7.7 Flood Zone 3

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

8 Surface water flooding



8.1 Surface water flooding

Highest risk on site	**1 in 250 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, 0.1m - 0.3m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 43 >**

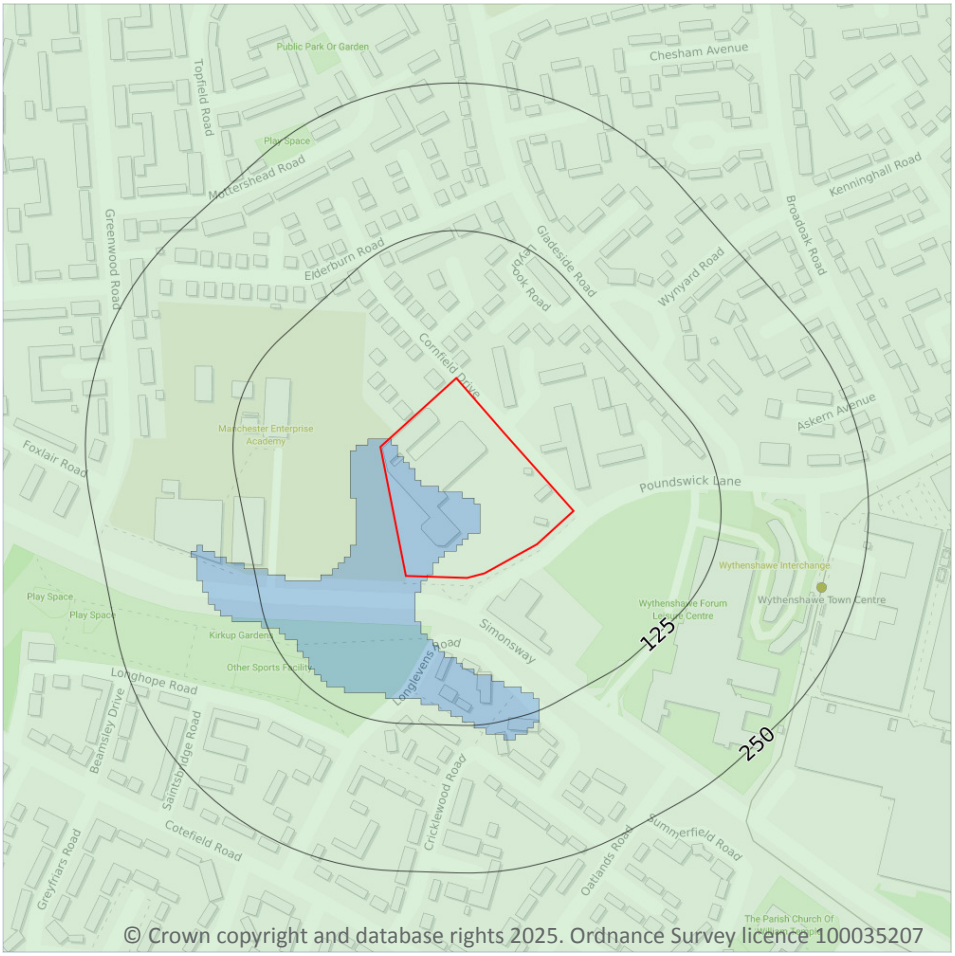
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site	**Low**
Highest risk within 50m	**Low**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 45 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



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10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m	0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m	0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m	3

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on **page 46 >**

ID	Location	Name	Woodland Type
-	1672m N	Black Carr Wood	Ancient & Semi-Natural Woodland
-	1938m SW	Davenport Green Wood	Ancient & Semi-Natural Woodland
-	1975m N	Round's Wood	Ancient & Semi-Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m	0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m	4

Areas designated to prevent urban sprawl by keeping land permanently open.

Features are displayed on the Environmental designations map on **page 46 >**

ID	Location	Name	Local Authority name
-	1480m E	Merseyside and Greater Manchester Green Belt	Manchester
-	1597m E	Merseyside and Greater Manchester Green Belt	Stockport
-	1775m W	Merseyside and Greater Manchester Green Belt	Trafford
-	1924m SE	Merseyside and Greater Manchester Green Belt	Manchester

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m	0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m	0

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

This data is sourced from Natural England and Natural Resources Wales.

SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m	0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m	0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m	0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

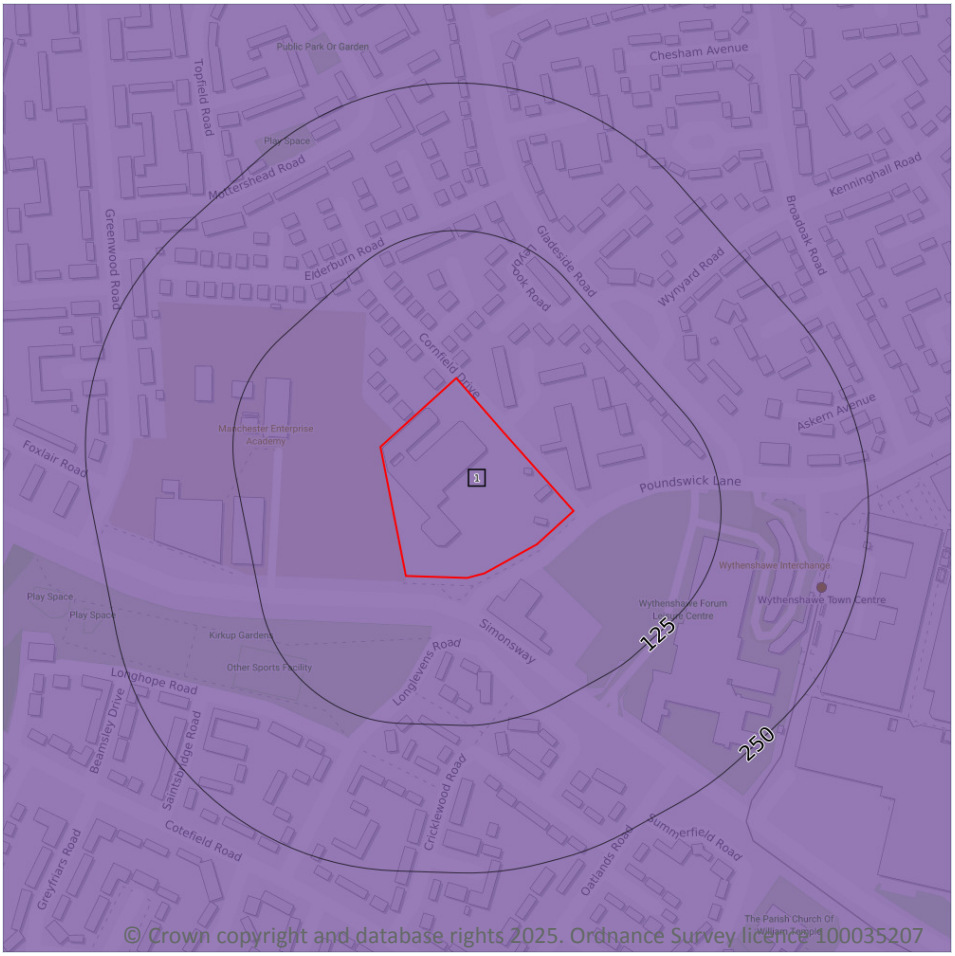
11.7 Registered Parks and Gardens

Records within 250m	0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12 Agricultural designations



- Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	1

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 54 >**

ID	Location	Classification	Description
1	**On site**	**Urban**	**Non-agricultural/no quality assigned**

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m	0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

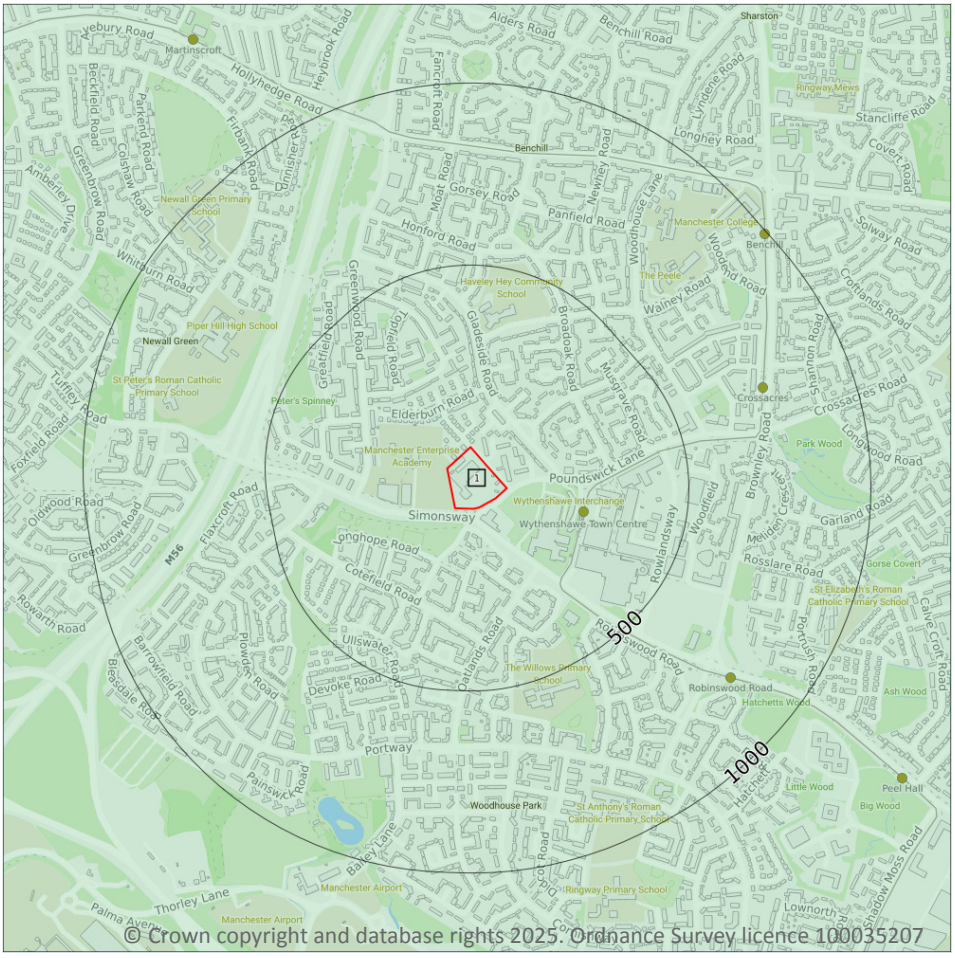
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



14.1 10k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 57 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**No coverage**	**SJ88NW**

This data is sourced from the British Geological Survey.

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

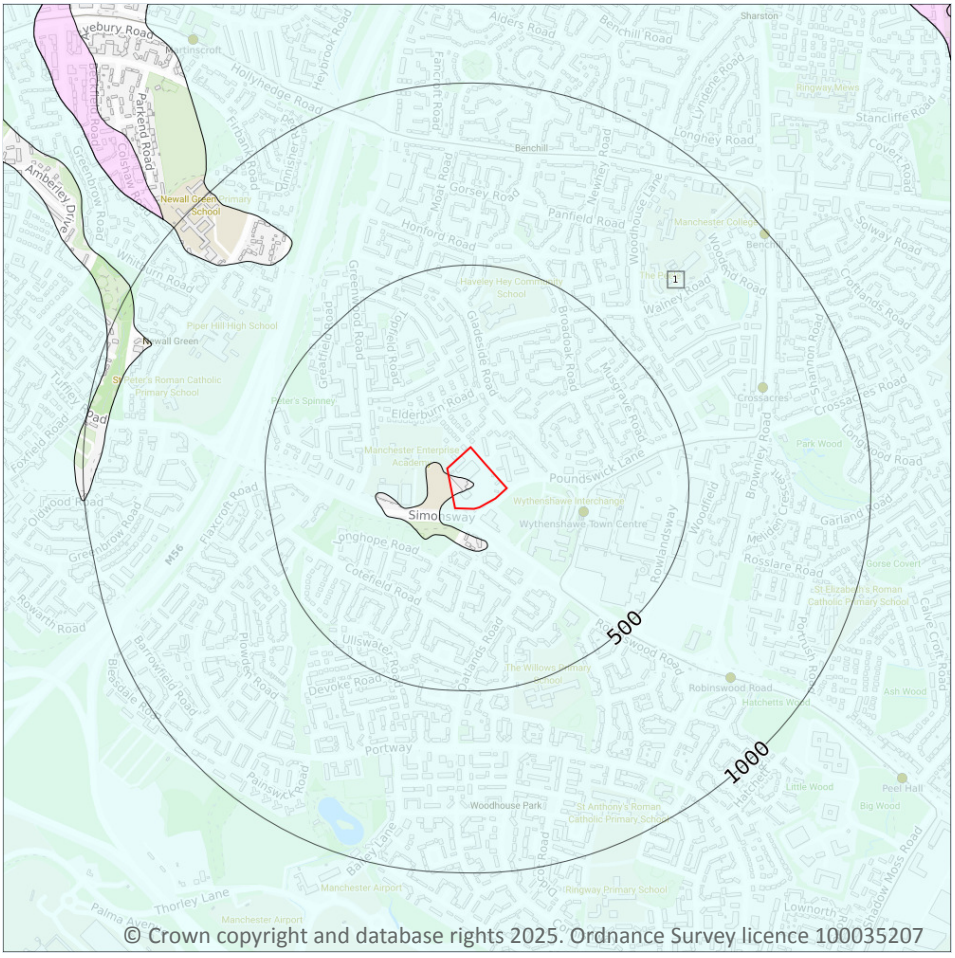
14.2 Artificial and made ground (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 59 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**Till, Devensian - Diamicton**	**Diamicton**

This data is sourced from the British Geological Survey.

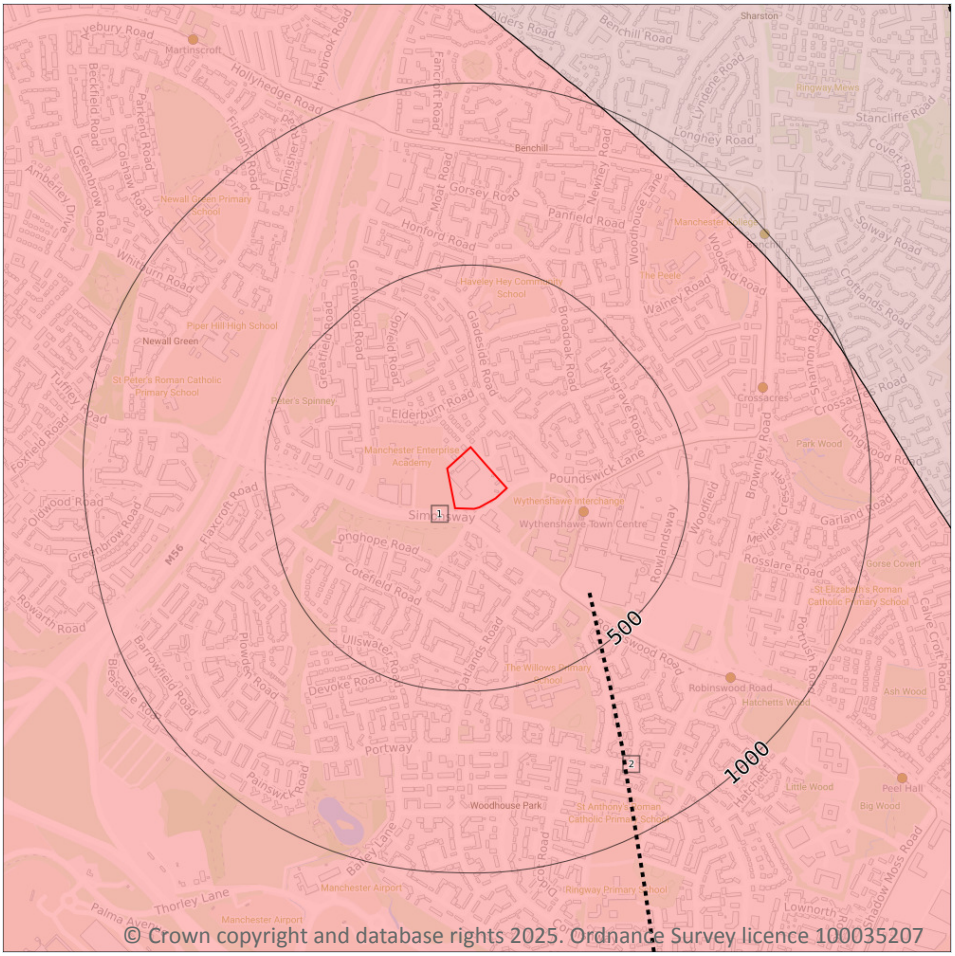
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 61 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**BOM-MDST**	**Bollin Mudstone Member - Mudstone**	**Anisian Age**

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	1

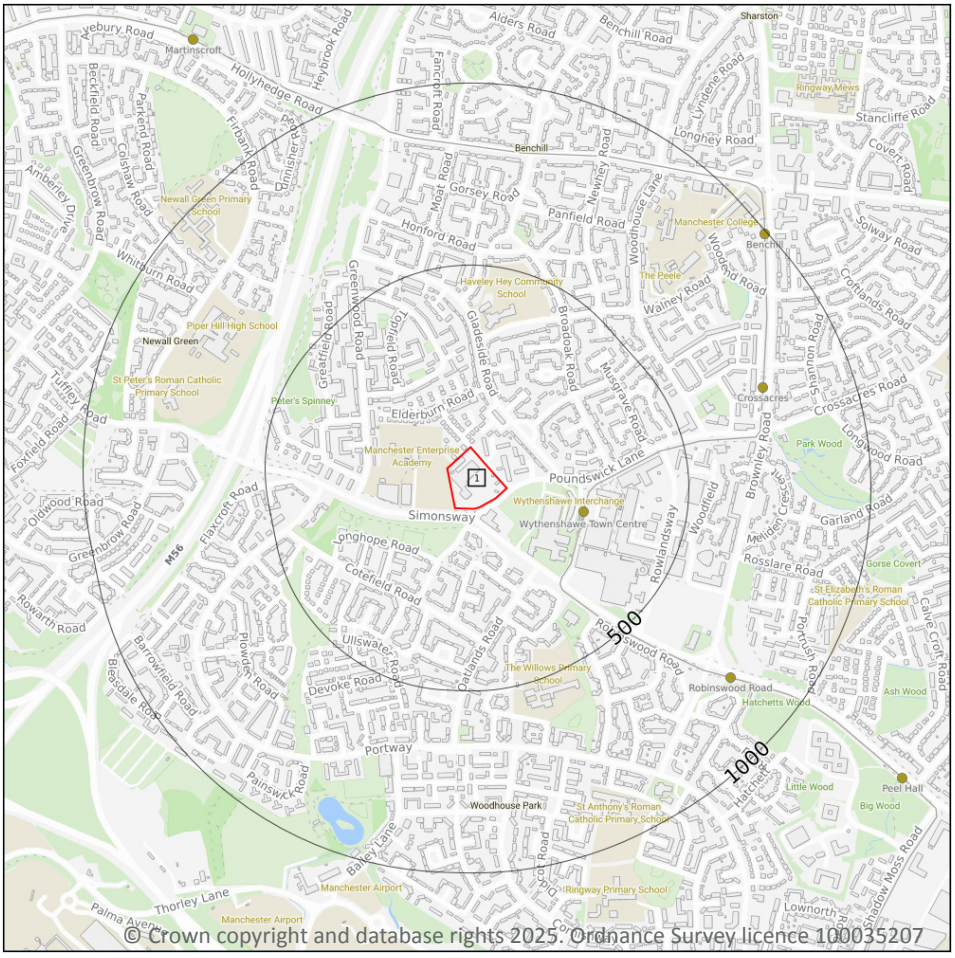
Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 61 >**

ID	Location	Category	Description
2	358m SE	FAULT	Normal fault, inferred; crossmarks on downthrow side

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



15.1 50k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 63 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**Full**	**EW098_stockport_v4**

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

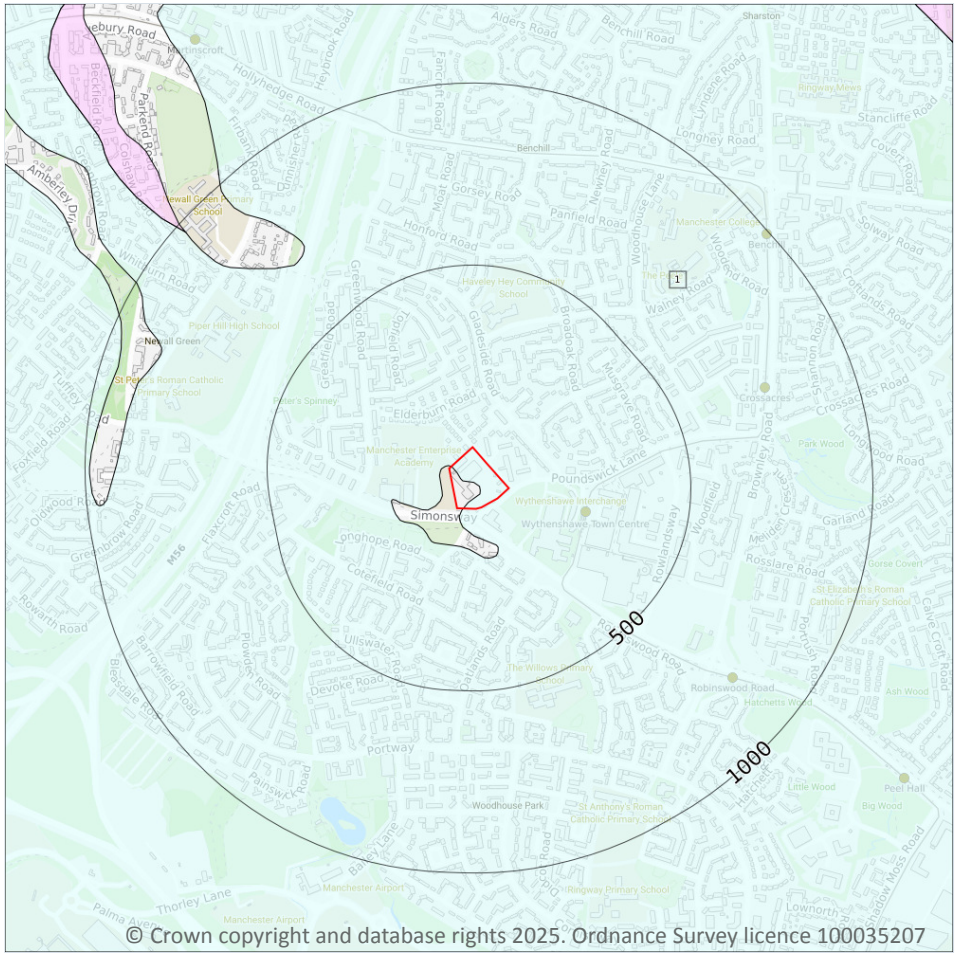
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 65 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**TILL, DEVENSIAN**	**DIAMICTON**

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**High**	**Low**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

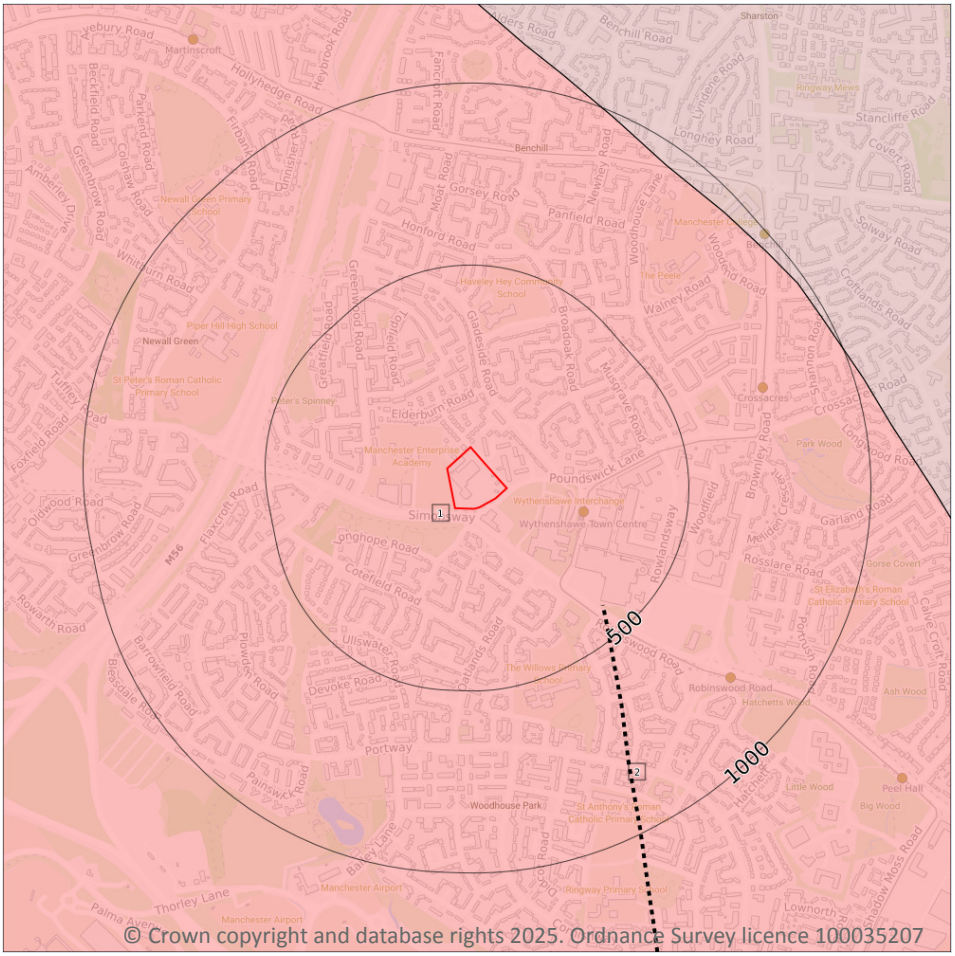
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 67 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**BOM-MDST**	**BOLLIN MUDSTONE MEMBER - MUDSTONE**	**ANISIAN**

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Low**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	1

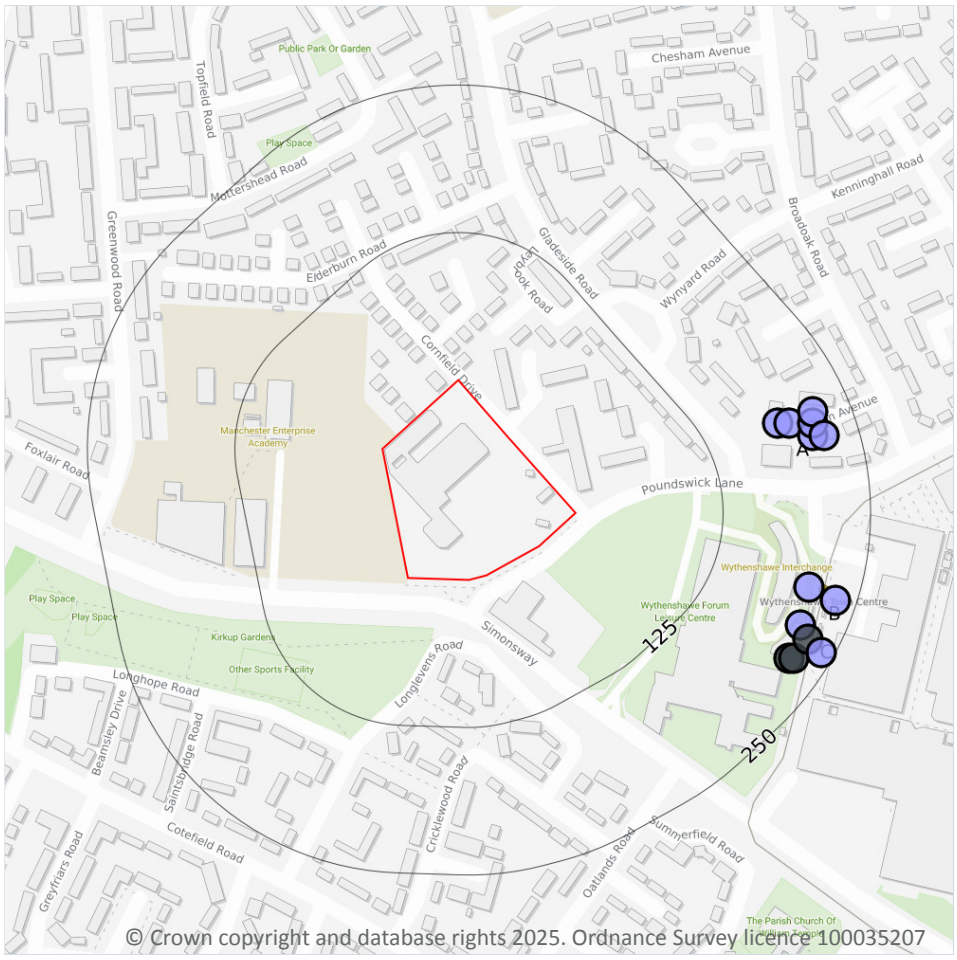
Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 67 >**

ID	Location	Category	Description
2	415m SE	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.

16 Boreholes



Site Outline

Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m **13**

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

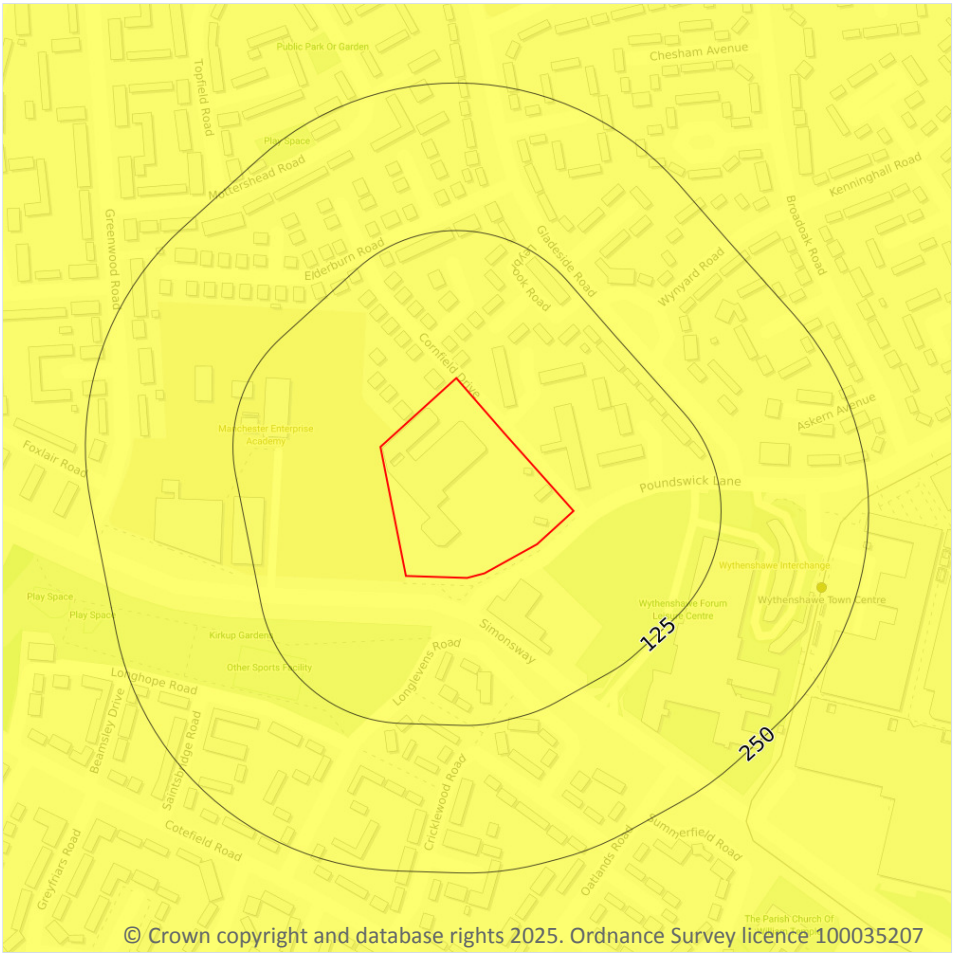
Features are displayed on the Boreholes map on **page 69 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	187m NE	382520 387220	ASKERN AVENUE BENCHILL MANCHESTER TPE	2.5	N	915683 ↗
A	196m NE	382530 387220	ASKERN AVENUE BENCHILL MANCHESTER TPD	2.6	N	915682 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
B	208m E	382547 387081	MANCHESTER METROLINK PHASE 3B - AIRPORT EXTENSION WS41_AIR	2.37	N	19335129 ↗
A	211m E	382550 387210	ASKERN AVENUE BENCHILL MANCHESTER TPB	2.7	N	915680 ↗
C	213m SE	382540 387049	MANCHESTER METROLINK PHASE 3B - AIRPORT EXTENSION WS42_AIR	1.7	N	19335130 ↗
A	215m E	382550 387220	ASKERN AVENUE BENCHILL MANCHESTER BH1	3.1	N	915678 ↗
A	218m NE	382550 387230	ASKERN AVENUE BENCHILL MANCHESTER TPC	2.8	N	915681 ↗
C	219m SE	382530 387021	Metrolink 3B - Nonaccelerated Airport BH5002	-	Y	N/A
A	221m E	382560 387210	ASKERN AVENUE BENCHILL MANCHESTER TPA	2.8	N	915679 ↗
C	222m SE	382534 387021	Metrolink 3B - Nonaccelerated Airport BH5002A	-	Y	N/A
C	224m SE	382546 387037	Metrolink 3B - Nonaccelerated Airport BH5001X	-	Y	N/A
B	232m E	382569 387070	MANCHESTER METROLINK PHASE 3B - AIRPORT EXTENSION WSTP100_AIR	1.5	N	19335900 ↗
C	239m SE	382557 387026	MANCHESTER METROLINK PHASE 3B - AIRPORT EXTENSION WS43_AIR	2.65	N	19335131 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m	1

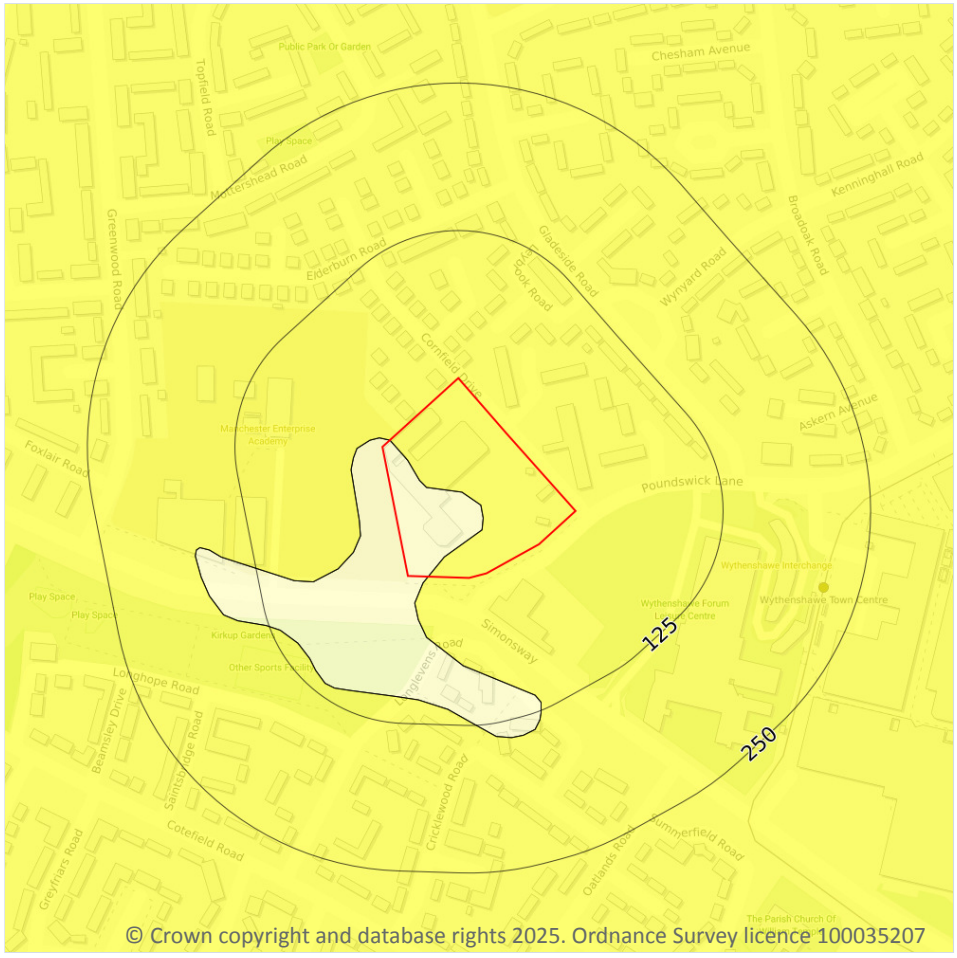
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 71 >**

Location	Hazard rating	Details
On site	**Very low**	**Ground conditions predominantly low plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



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17.2 Running sands

Records within 50m	2

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

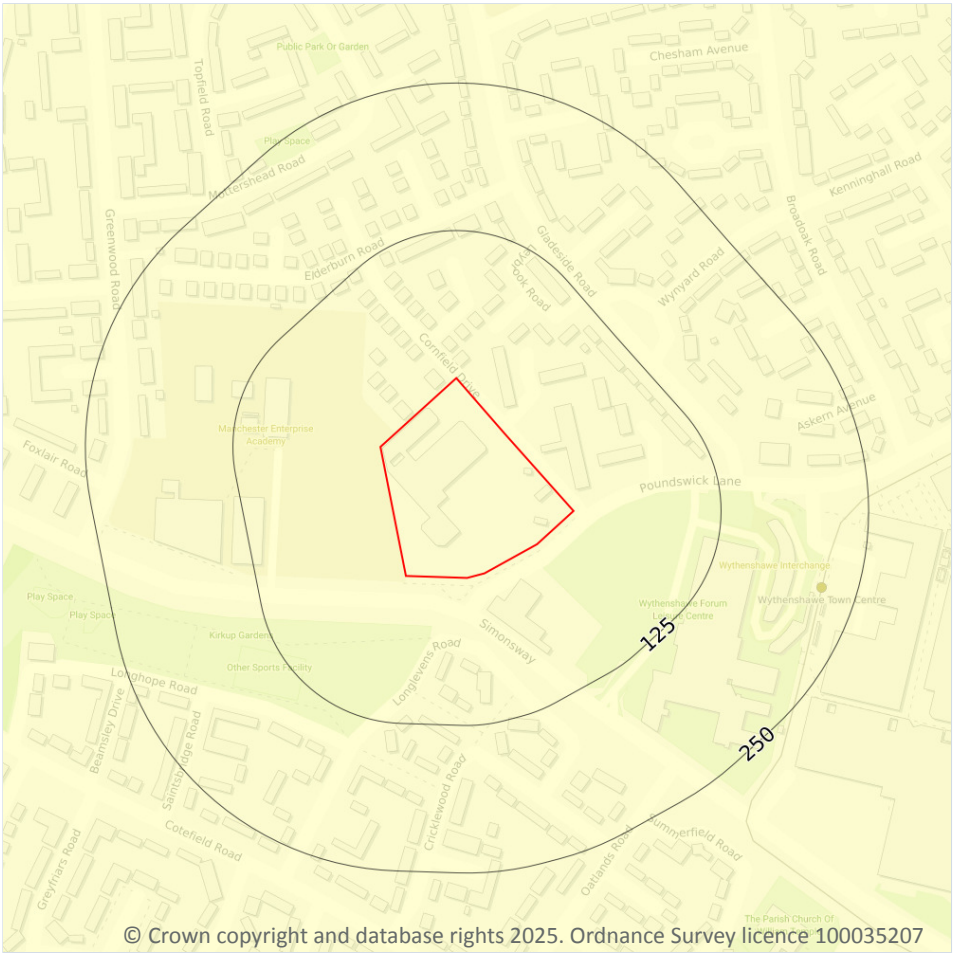
Features are displayed on the Natural ground subsidence - Running sands map on **page 72 >**

Location	Hazard rating	Details
On site	**Negligible**	**Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

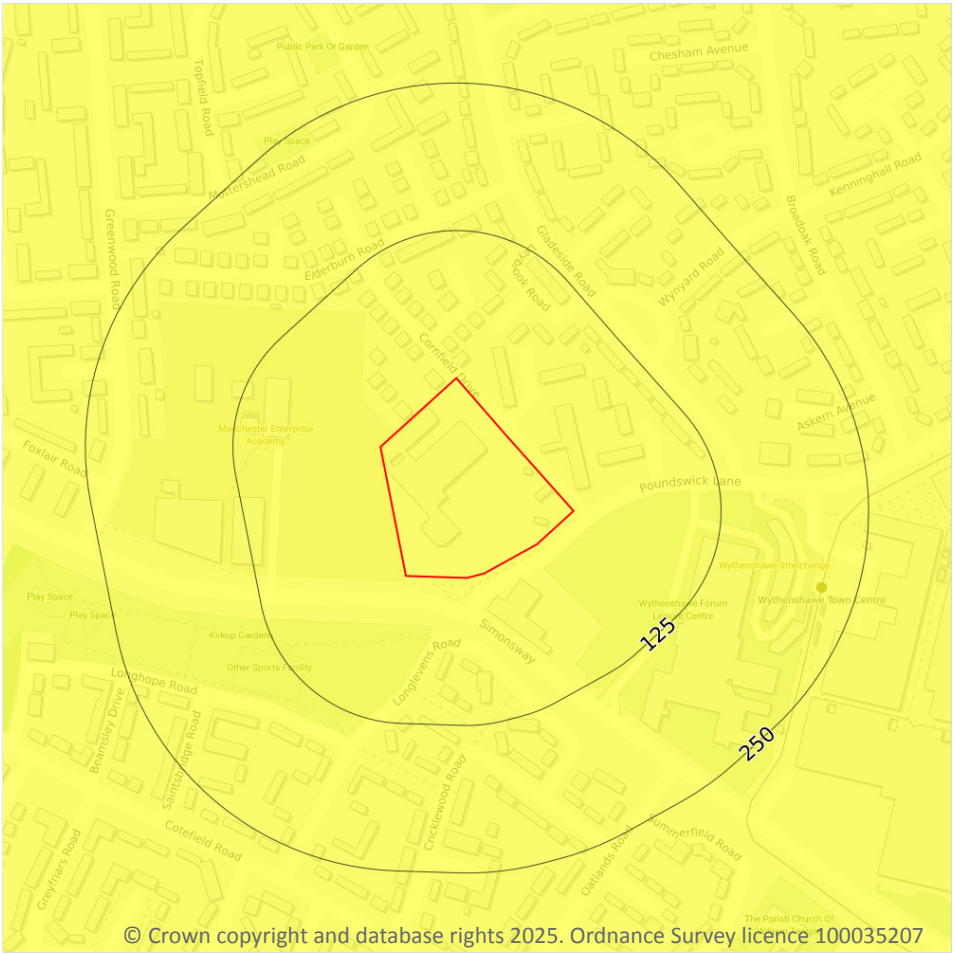
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 74 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



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17.4 Collapsible deposits

Records within 50m	1

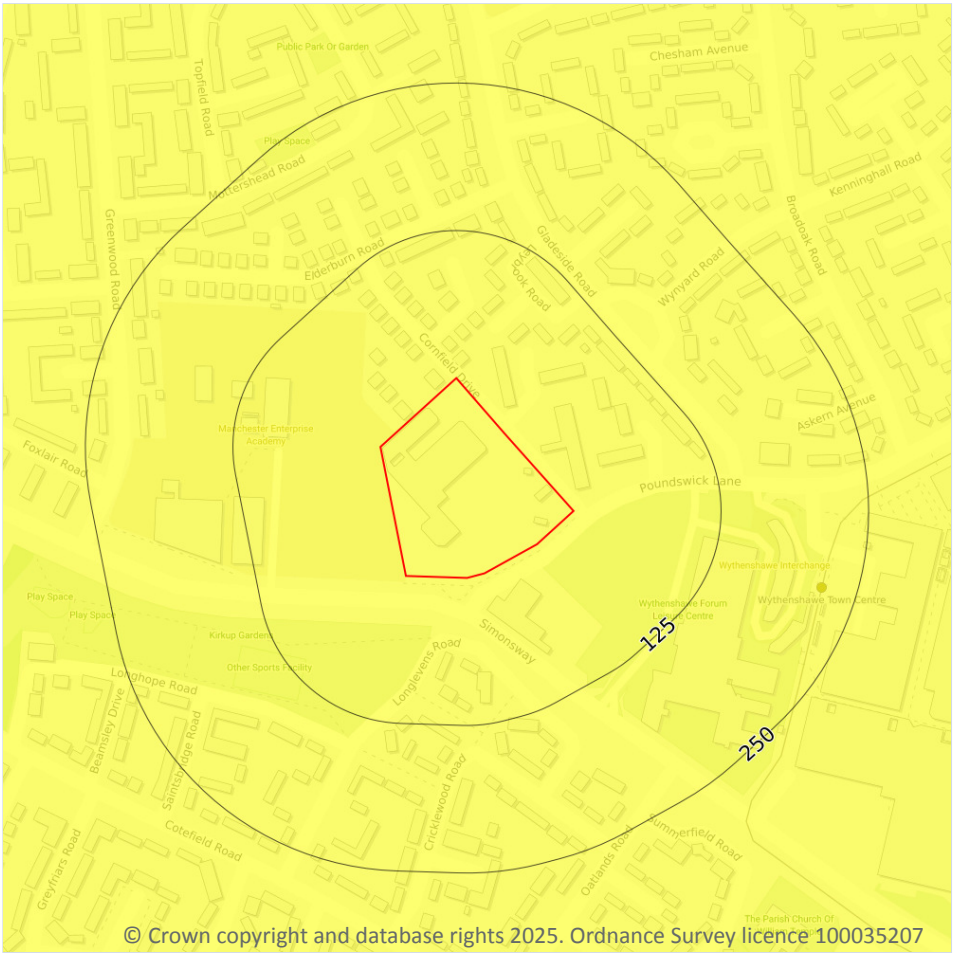
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 75 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m	1

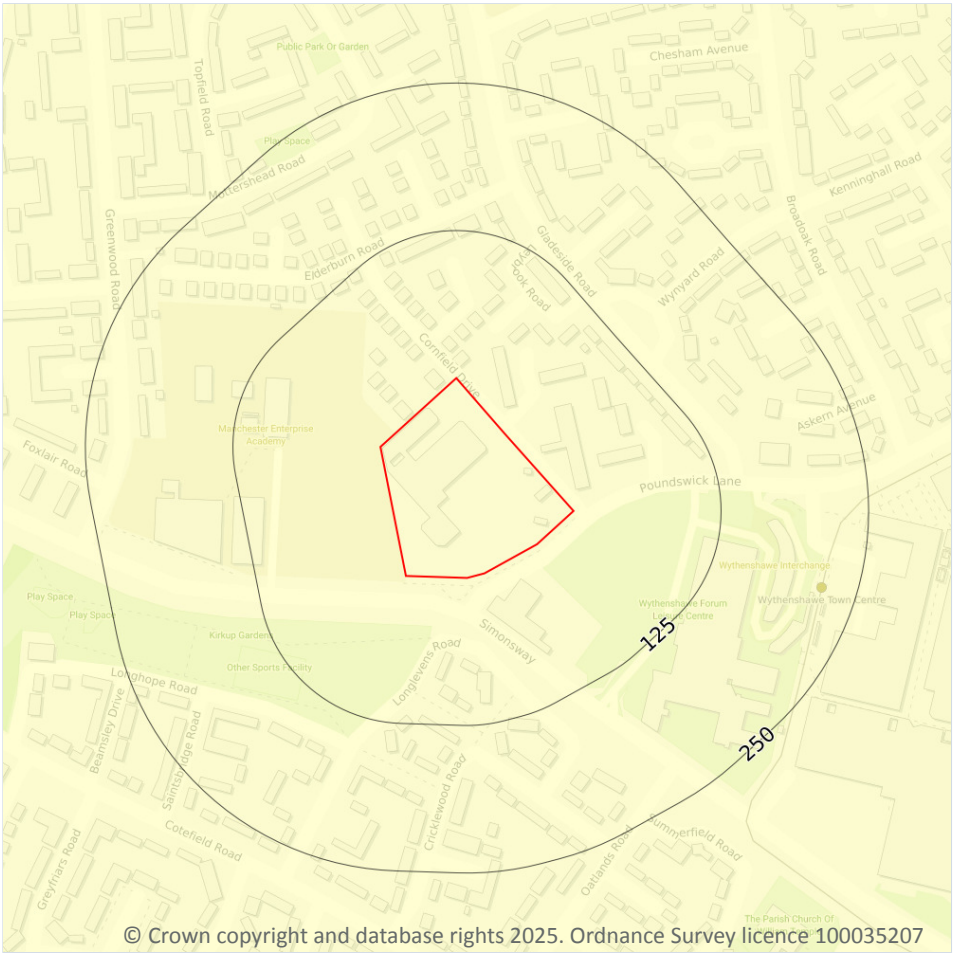
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 76 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m	1

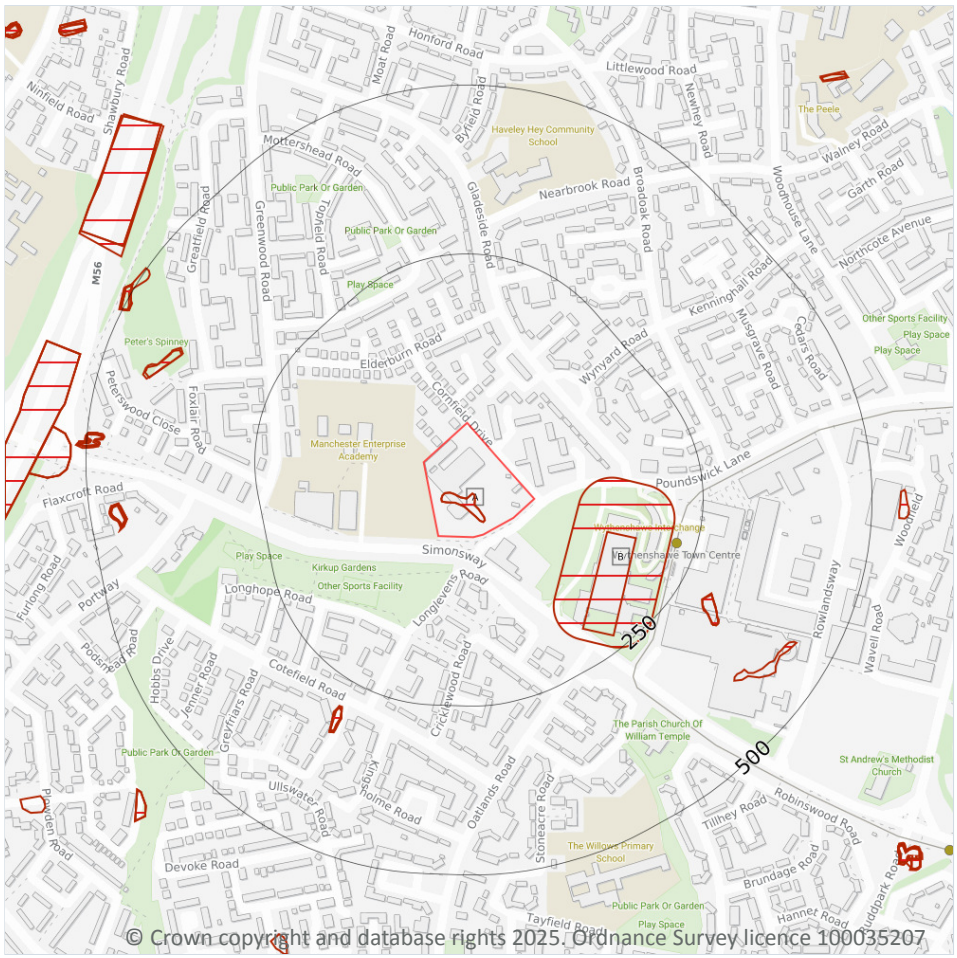
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 77 >**

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

This data is sourced from the British Geological Survey.

18 Mining and ground workings



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18.1 BritPits

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	4

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

Features are displayed on the Mining and ground workings map on **page 79 >**

ID	Location	Land Use	Year of mapping	Mapping scale
A	**On site**	**Pond**	**1977**	**1:10000**
A	**On site**	**Pond**	**1967**	**1:10560**
B	66m E	Pool	1989	1:10000
B	119m SE	Pool	1995	1:10000

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0

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

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m	0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0

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

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	0

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

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0

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

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

18.14 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0

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

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

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

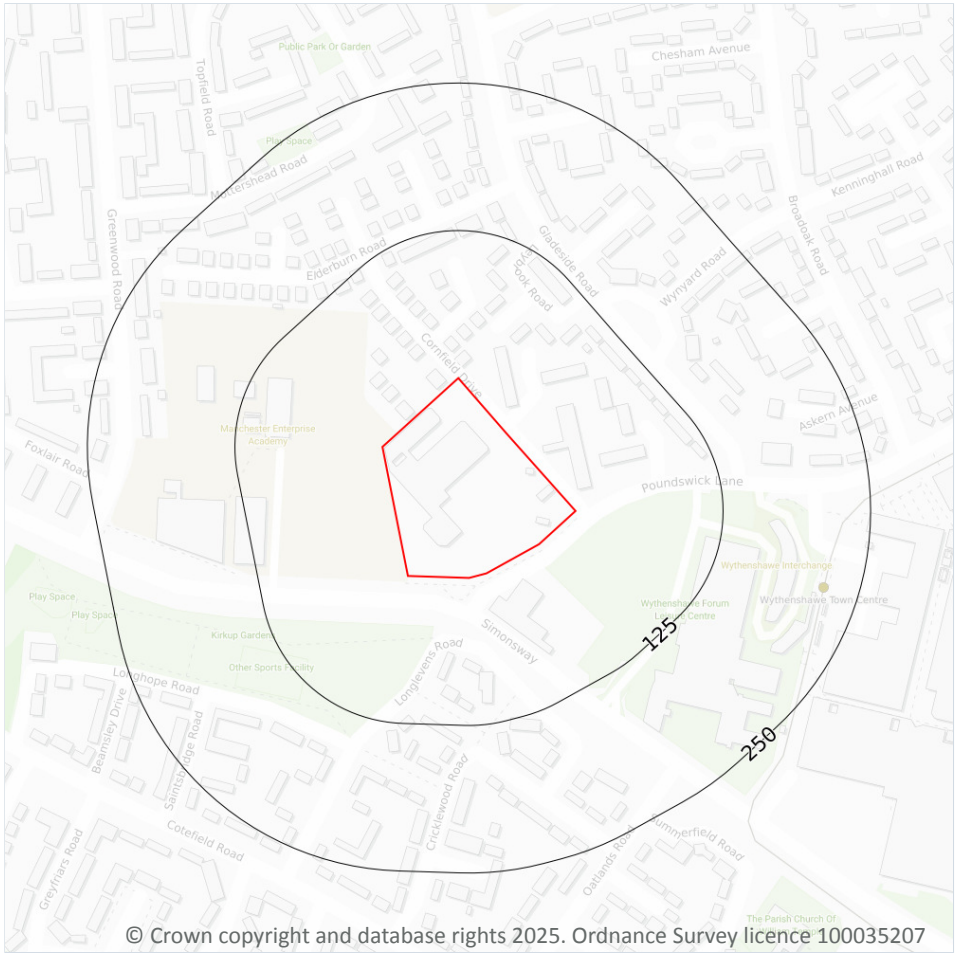
Records within 500m	0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.

This data is sourced from Groundsure.

20 Radon



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20.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 86 >**

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

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

21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m	2

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 mg/kg**

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

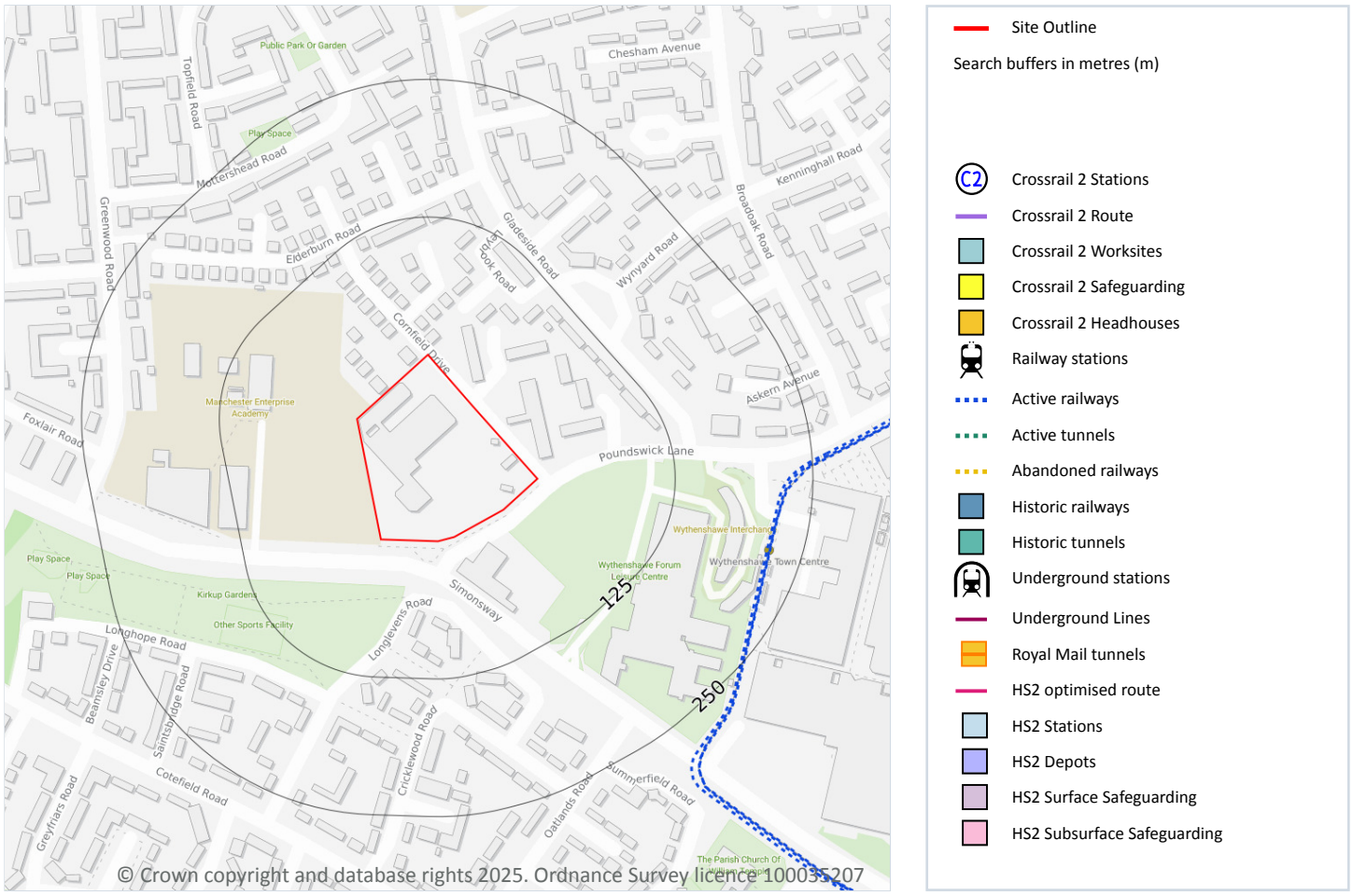
21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects



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22.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m	0

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

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	5

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

Features are displayed on the Railway infrastructure and projects map on **page 89 >**

Location	Name	Type
218m E	Metrolink	light_rail
220m E	Not given	Multi Track
220m E	Not given	Multi Track
220m E	Metrolink	light_rail
242m SE	Not given	Multi Track

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.

Appendix D – RMS UXO Limited Detailed UXO Report

Detailed Unexploded Ordnance (UXO) Risk Assessment

Project Name: Wythenshawe

Prepared for: Civic Earth Limited

Prepared by: H. Merritt

Site: Wythenshawe, Manchester, M22 5RF

Date: 30/07/2025

Document Name: INO5823 - Detailed UXO Risk Assessment - Wythenshawe

Version: INO5823-001

Reviewed By: K. Kneebone

Approved By: C. Reid

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B-3: LAND SERVICE AMMUNITION - ROCKETS

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C-2: HIGH EXPLOSIVE BOMBS

C-3: INCENDIARY BOMBS

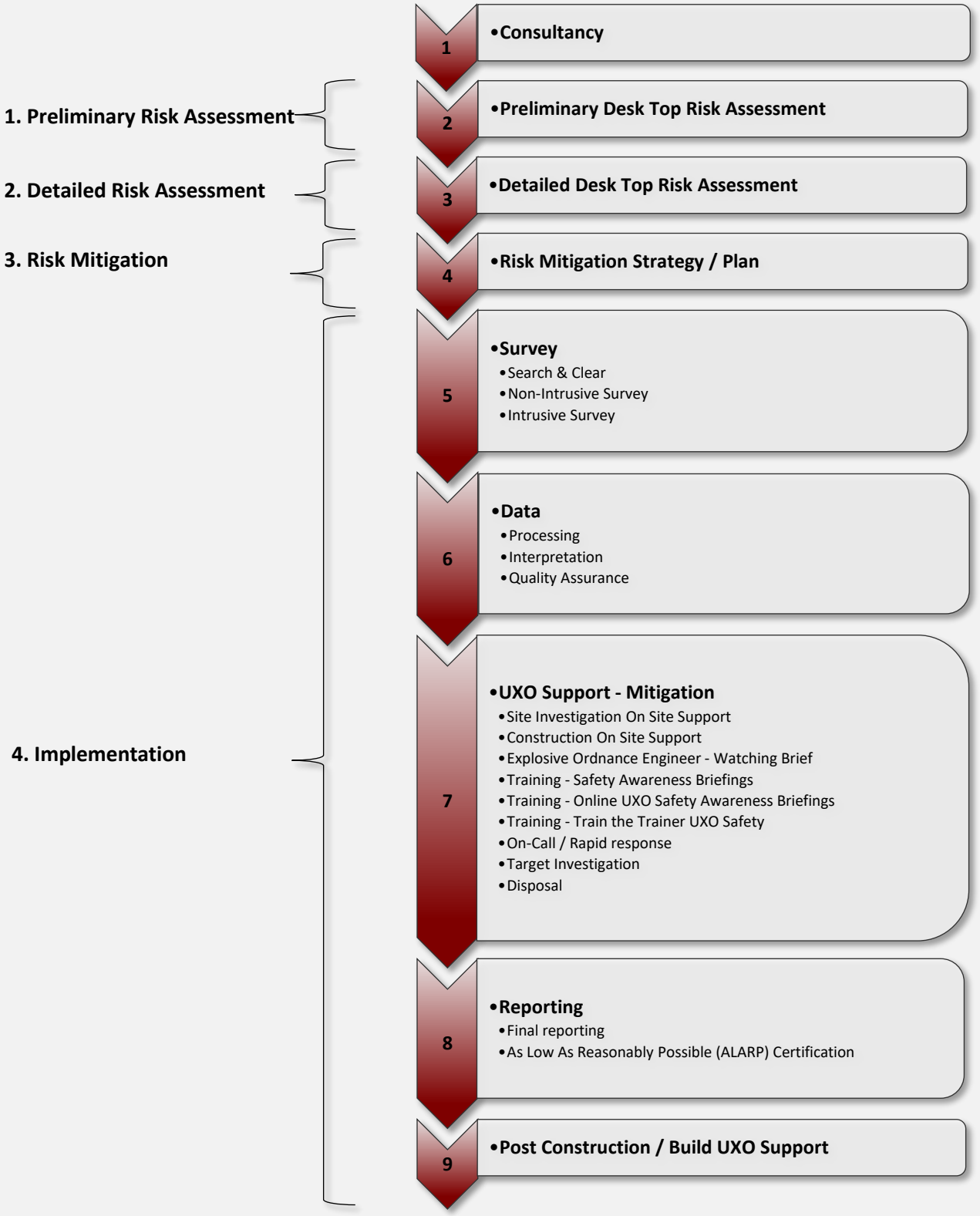
Acronyms & Abbreviations

AA	Anti-Aircraft
AAA	Anti-Aircraft Ammunition
ALARP	As Low As Reasonably Practicable
AOD	Above Ordnance Datum
ARP	Air Raid Precaution
AXO	Abandoned Explosive Ordnance
BD	Bomb Disposal
BDO	Bomb Disposal Officer
bgl	Below Ground Level
BGS	British Geological Survey
BH	Borehole
BPD	Bomb Penetration Depth
CDP	Cast Driven Piles
CFA	Continuous Flight Auger
CIRIA	Construction Industry Research and Information Association
CPT	Cone Penetration Testing
CS	County Series
EO	Explosive Ordnance
EOC	Explosive Ordnance Clearance
EOD	Explosive Ordnance Disposal
GI	Ground Investigation
GIS	Geographic Information Systems
GL	Ground Level
GP	General Purpose
GPS	Global Positioning Systems
HAA	Heavy Anti-Aircraft
HE	High Explosive
HO	Home Office
HSE	Health and Safety Executive
IB	Incendiary Bomb
kg	Kilograms
km	Kilometres
LAA	Light Anti-Aircraft
LCC	London County Council
LE	Low Explosive
LSA	Land Service Ammunition
m	Metres
MoD	Ministry of Defence
mm	Millimetres
NEQ	Net Explosive Quantity
NFF	National Filling Factory
NGR	National Grid Reference
OD	Ordnance Datum
OS	Ordnance Survey
PM	Parachute Mine
PoW	Prisoner of War
RADAR	Radio Detection And Ranging
RAF	Royal Air Force
RN	Royal Navy
RNAS	Royal Naval Air Service
ROF	Royal Ordnance Factory
SAA	Small Arms Ammunition
TA	Territorial Army
TNT	Trinitrotoluene
UK	United Kingdom
UN	United Nations
USAAF	United States Army Air Force
UXB	Unexploded Bomb
UXO	Unexploded Ordnance
V	Weapons Vergeltungswaffe– Vengeance Weapons
WD	War Department
WWI	World War One
WWII	World War Two
ZAA	'Z' Anti-Air Rocket Battery

UK UXO Risk Mitigation Process

CIRIA 681 Phases

RMS UXO Detailed Phases



1. Executive Summary

1.1 Site Overview

The client has specified the site location as Wythenshawe, Manchester, M22 5RF and is approximately centred on the National Grid Reference: SJ 82639 87010.

RMS UXO Limited, (RMS UXO) was commissioned by Civic Earth Limited to conduct an Unexploded Ordnance (UXO) Desk Study Risk Assessment for Wythenshawe. The primary objective of this document is to evaluate the UXO risks present at the specified site and its surrounding areas, in compliance with the Construction Industry Research and Information Association (CIRIA) C681 guide on 'Unexploded Ordnance (UXO), a Guide for the Construction Industry'.

1.2 Proposed Works

The proposed works outlined by the client include Borehole Drilling, foundation inspection pits and Window Sampling.

1.3 Summary of Available Information

- During WWII, the Borough of Bucklow sustained a low-density bombing campaign according to The National Archives statistics, with an average of 5.6 items of ordnance recorded per 1,000 acres.
- There are six bombing incidents known to have occurred within an approximate 1km radius of the site, those being two HE bombs and four Firebombs. The closest HE bomb strike occurred approximately 880m north-east and was dropped on the night of the 10thJanuary 1941. There is a possibility that additional HE bombs, UXBs and IB clusters may have struck certain areas of the site unrecorded due to open ground across the site, masking any evidence of such strikes. It should be noted that incendiary bomb showers were not recorded within these records and therefore may also pose a risk to the site. The entire site being the main risk pathway. It should also be noted that abandoned bombs and UXBs were recorded in the wider surrounds to the site.
- Bomb damage mapping is unavailable for the area of Wythenshawe.
- High-resolution aerial photographs around the Wythenshawe area in 1945 corroborate with pre-war OS mapping and reveal the site comprised open, undeveloped ground. A high-resolution aerial photograph around the Wythenshawe area in 2000 shows the site comprised the structures that are on site in its modern-day composition.
- It should be noted that the majority of the site is anticipated to have received relatively low levels of access and observation due to its undeveloped nature. Although, during any bombing raids or after any consequent damage on site (nonvisible) the anticipated level of access may have dropped significantly. It is possible that the open areas are unlikely to have experienced frequent and regular access during WWII, with some areas potentially experiencing no access at all.
- No evidence has been located to suggest that the site formerly had any military occupation or usage that could have led to contamination with items of British / Allied ordnance.
- It should be noted that during post-war development works, there are no records of UXO being found on the site.

1.4 Risk Assessment Summary

Risk Level
Low

Table 1.1 - Risk Assessment					
Type of work	Potential Hazard	Likelihood (L)	Severity	Risk Rating	Risk Zone
Future developments	HE	1	5	5	Low
Future developments	IBs	1	4	4	Low

It should be noted that the risk associated with UXOs is partially mitigated to the exact depths of post-war redevelopment within the structures' foundations and the hard standing.

1.5 Project Specific Recommendations

The table below provides the recommended methods of UXO risk mitigation required to adequately mitigate the risk of UXO for the project in line with the scope of works detailed within the report and is in accordance with the CIRIA 681 Guidelines.

	Table 1.2 MITIGATION METHOD – Low Risk Areas	YES	TBC*
	Safety Awareness Briefings Explosive Ordnance Safety and Awareness Training is provided to site personnel to make them aware of the potential threat from UXO on the work site, what UXO might look like and what to do if suspected UXO is encountered.	✓	
	Site Specific Safety Instructions – Emergency Response Plan Provides site management teams the training, information and guidance to respond to a UXO related incident. Delivered by experienced EOD qualified personnel and often employed alongside an on-call offsite EOD responder.	✓	
	On-call EOD Engineer – Off-site Responder A retained service whereby a qualified EOD engineer will respond to a suspicious find on-site.		✓
	UXO Removal & Disposal The removal from site of safe to move or inert items of UXO for disposal off-site.		✓
	UXO Disposal The disposal of UXO onsite. This may be through explosive means, burning or mechanical dismantling methods.		✓

*Note: These are mitigation options that may be required as a result of either a non-intrusive or intrusive survey. For the complete list of UXO risk mitigation measures available please refer to section 6 within the report.

2. Project Context

2.1 Project Rational & Scope

Objective

The objective of this assessment is to evaluate the potential for encountering unexploded ordnance (UXO) at the Wythenshawe, Manchester, M22 5RF during the proposed window sampling, foundation inspection pits and rotary borehole drilling. This assessment adheres to the UXO risk management process and follows CIRIA Guidelines.

Aims

The primary aim of this report is to examine the likelihood of encountering explosive ordnance during the planned works at Wythenshawe, Manchester, M22 5RF. Based on the findings, risk mitigation measures will be recommended to either eliminate or minimize the threat from UXO.

Issues Addressed

The report will focus on the following key issues:

- The risk of UXO contamination at the site.
- The possibility of remaining UXO on site.
- The potential for encountering UXO during intrusive works.
- The risk of ordnance initiation.
- The consequences of initiating or encountering ordnance.
- Appropriate risk mitigation measures will be recommended, contingent on the assessed level of risk and specific site conditions.

Tasks:

- **Preliminary Site Assessment:** Conduct an initial review of historical data and previous studies related to the site.
- **Data Collection:** Gather relevant data through field surveys etc.
- **Data Analysis and Risk Assessment:** Analyse the collected data to identify UXO threats and assess risks.
- **Mitigation Planning:** Develop a set of tailored risk mitigation measures.

Responsibilities:

- RMS UXO will be responsible for all data collection, analysis, and reporting.
- The client is responsible for providing access to the site and any existing data or reports.

Limitations and Assumptions:

- The assessment is based on the data available at the time of the study.
- Any changes in project scope or site conditions must be communicated to RMS UXO for re-assessment.

3. Methodology

3.1 Methods

Risk Assessment Process

Our risk evaluation employs a systematic methodology, focusing on several crucial aspects:

- Assessing historical UXO contamination at the location.
- Assessing the likelihood – pathways for UXO to have contaminated the site.
- Assessing the likelihood of UXO being still present
- Estimating the likelihood of encountering UXO during upcoming activities.
- Assessing the chances of UXO functioning as designed.
- Understanding the implications of either encountering or UXO detonating.

To comprehensively cover these aspects, we've considered:

- Past records of bombings and military engagements.
- Conditions and historical context of the site during times of conflict.
- Post-conflict developments and any documented UXO removal efforts.
- The characteristics and scale of the planned activities.
- The variety of munitions that could have affected the area.

Sources of Information

To ensure a thorough and comprehensive report, material from the following sources has been consulted:

- The National Archives.
- Local Historical Archives.
- Relevant Government Departments.
- Information provided by client.
- RMS UXO's comprehensive historical archives and UXO geo-database.
- Open sources such as published books and internet resources.

Reliability and Limitations

As of the date this document was issued, all contained information is verified to be both current and accurate. Our databases undergo systematic updates to include the most recent data, and RMS UXO has employed rigorous precision and specialised expertise in the creation of this document.

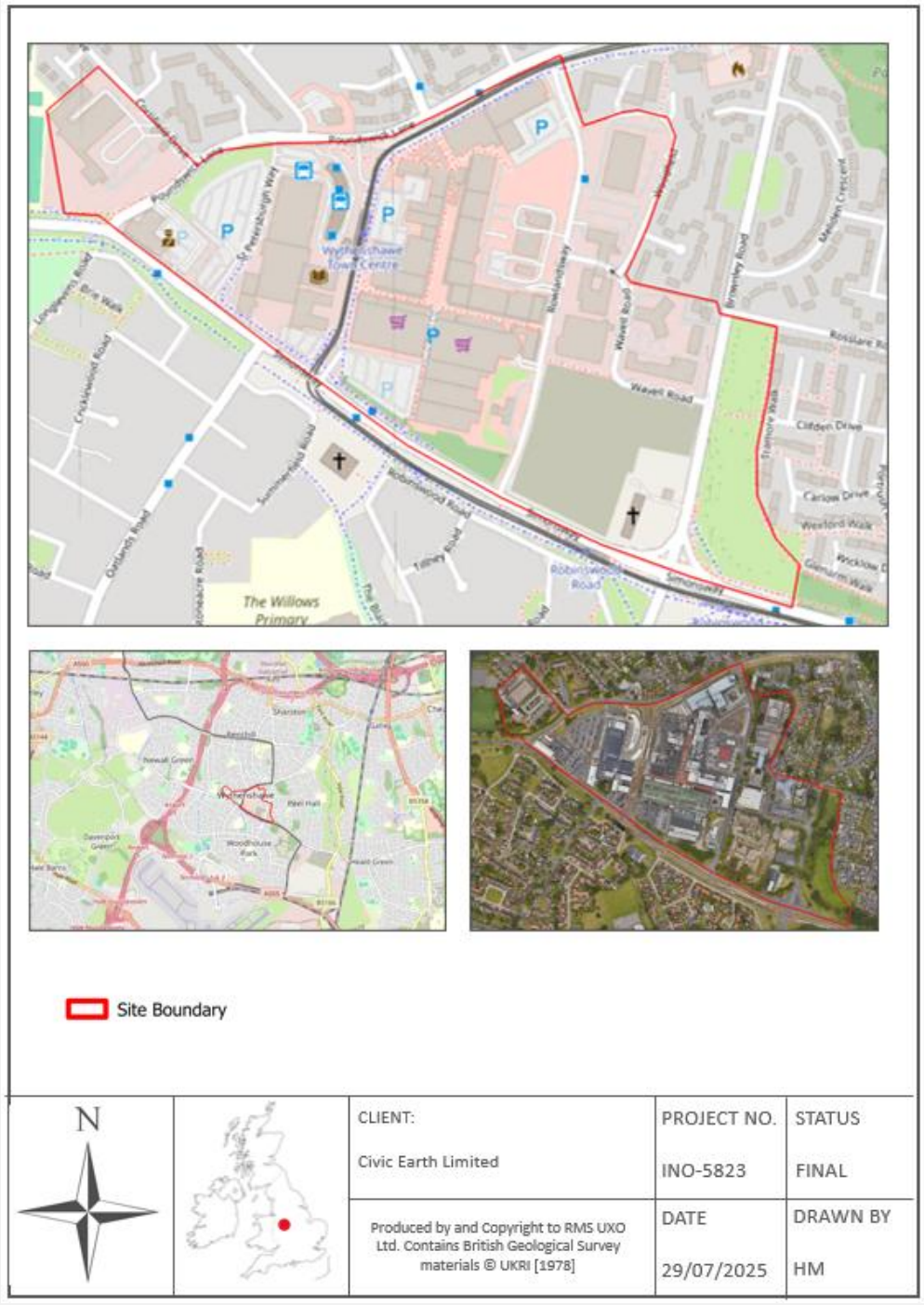
Our risk evaluations are grounded in thorough investigation and supported by data from multiple, verified external sources. While every measure has been taken to ensure the reliability of this data, it is understood that historical records may contain inherent limitations. Consequently, RMS UXO disclaims liability for any inaccuracies present in external data sets beyond our purview.

4. Site Profile

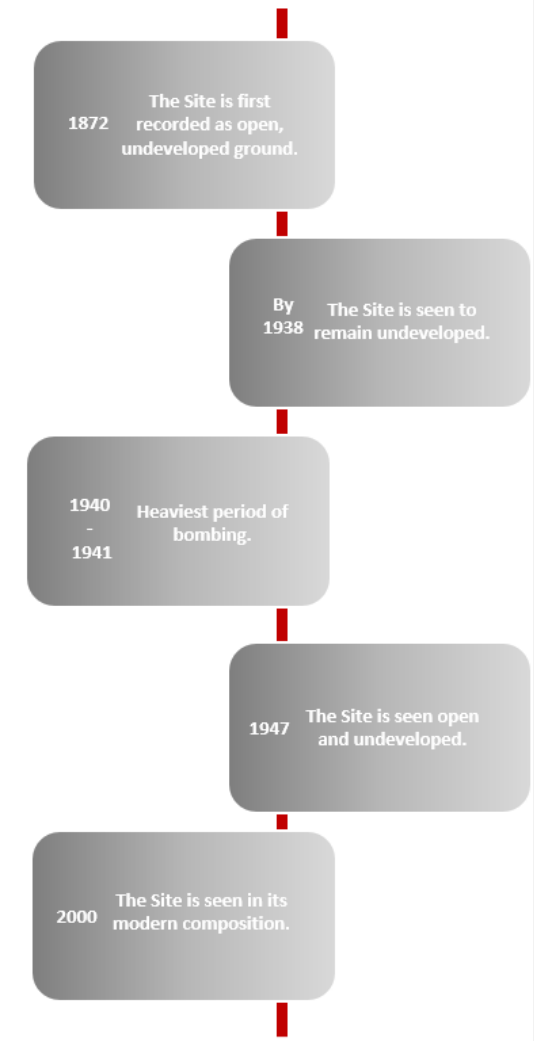
4.1 Location

The Client has defined the site as Wythenshawe, Manchester, M22 5RF and is approximately centred on the National Grid Reference: SJ 82639 87010.

The site is situated in the Rural District of Bucklow, approximately 1.5km west from Heald Green Station.



4.2 Historical Context & Previous Studies



Military Activity & WWII Site Utilisation: The site has not been identified as an area of military activity during the war.

Bombing Decoys: Records indicate no bombing decoys in the immediate area.

Air Delivered Ordnance: Archival records confirm the deployment of HE and Incendiary bombs via aerial delivery in the vicinity of Wythenshawe between 1940 and 1945. At least two HE bomb strikes and four firebomb strikes are known to have occurred within an approximate 1km radius of the site; the closest of these being recorded 880m north-east and was dropped on the night of the 10th January 1941. It should be noted that incendiary bomb showers were not recorded within these records and therefore may also pose a risk to the site. The entire site being the main risk pathway.

Anti-Aircraft Defences: There are 25 Heavy-Anti-Aircraft (HAA) gun batteries located within an approximate 15 kilometres radius from the site. These pose a risk of UXO contamination primarily due to storage of ammunition and partially due to searchlights rendering them clear targets for bombing at night. The closest is located approximately 3km north-west of the site and the risk from buried ammunition is not deemed significant, however the main risk associated with this site is that unexploded HAA shells can land up to an average of 15km from the firing point.

Aerial Photography: High-resolution aerial photographs around the Wythenshawe area in 1945 corroborate with OS mapping and reveal the site comprised open, undeveloped ground.

Access to the Site: It should be noted that the majority of the site is anticipated to have received relatively low levels of access and observation due to its undeveloped nature. Although, during any bombing raids or after any consequent damage on site (nonvisible) the anticipated level of access may have dropped significantly.

Bomb Damage Maps: Research indicates that bomb damage maps are not available for Wythenshawe and therefore are unavailable for this report.

Pre-WWII Maps: Historical maps dated 1938, have been consulted and show the site comprised open, undeveloped ground.

Post-War Maps & Historical Records: A thorough review of post-WWII maps and historical records show post-war the site retained its pre-war composition until at least 1953 as this is the last set of available mapping.

Modern Development: Further development has comprised the development of most of the site. By 2000 multiple structures are seen across the site with associated hardstanding roads and parking areas. Ares of open ground remain to the east of the site. It should be noted that during post-war development works, there are no records of UXO being found on the site.

Intentional or Unintentional Disposal: Records indicate no instances of disposal of UXO, within the confines of site. However, due to UXO finds in the wider study area of Wythenshawe this cannot be entirely discounted.

4.3 Proposed Work & Risk Pathways

The planned activities at Wythenshawe, Manchester, M22 5RF encompass various intrusive engineering tasks, such as Borehole drilling and Window Sampling. These tasks inherently create risk pathways for potential encounters with Unexploded Ordnance. The probability of encountering UXO is contingent upon the type and depth of the intrusive work being conducted. Consequences of UXO initiation could range from critical injuries to personnel to substantial damage to equipment and project delays. To mitigate these risks, a comprehensive approach will be employed, considering historical data, site-specific conditions, and previous UXO clearance operations. Tailored risk mitigation strategies will be developed to address the unique risk pathways associated with the proposed work. Considering the range of UXO that could exist within the site, boring and window sampling could introduce a high-risk scenario. While not every UXO encountered in this manner is guaranteed to activate upon contact, the discovery of one could have severe repercussions. These could range from endangering personnel and damaging equipment to causing substantial delays in project timelines.

4.4 Potential Hazards

German Air Delivered Ordnance

To gain a comprehensive understanding of the impact of air raids on Cheshire during wartime, a comprehensive examination of record sets was conducted at the National Archives and within online sources.

World War I

Wythenshawe was not bombed during WWI and therefore the risk of encountering unexploded WWI bombs today is very low/unlikely.

World War II

Primary strategic targets in Britain included airfields, depots, docks, warehouses, wharves, railways, factories, and power stations. Later in the war the Luftwaffe bombing started to include civilian areas and sites of cultural and historical significance.

The most intensive period of bombing over Wythenshawe occurred between August 1940 and January 1941, as this is when most of the bomb strikes to the wider area occurred.

WWII Home Office Bombing Statistics

The table below shows the quantity of German aerial delivered bombs (excluding 1kg incendiaries and anti-personnel bombs) dropped on the area of Bucklow from 1940 to 1945.

Table 4.1 - Record of German Ordnance Dropped on Bucklow	
Area (Acres)	46,103
High Explosive Bombs	247
Parachute Mines	7
Oil Bombs	4
Phosphorus Bombs	-
Fire Pots	-
V1	1
V2	-
Total	259
Bombs per 1000 Acres	5.6

During WWII, the Rural District of Bucklow sustained a low-density bombing campaign according to The National Archives statistics, with an average of 5.6 items of ordnance recorded per 1,000 acres.

Records of the 1kg incendiary and anti-personnel bombs were not routine as they were too numerous to record. Although risk from IB's is less than that of HE bombs they were still designed to harm. Anti-personnel bombs are rare to find today but are potentially more dangerous. Although statistics for these bombs were not often recorded, it is important to carefully consider when evaluating risk to personnel and equipment.

Primarily HE bombs are most commonly associated with historical military activities in the area of Wythenshawe. These UXO items are typically found in undisturbed soil, up to a standard depth of 9m.

4.2	Type of UXO	Characteristics
HE	High Explosive Bombs	The most commonly deployed German High Explosive (HE) bombs during WWII were the SC50, with 97% of all bombs dropped being in the 50kg, 250kg, and 500kg range. These bombs, which comprised 40-50% explosive fill, were capable of creating entry holes as small as 20cm in diameter and could easily penetrate the ground if they failed to detonate on impact. HE bombs were the primary ordnance used by the Luftwaffe in terms of weight. Post-air raid assessments often struggled to identify unexploded ordnance (UXO) due to the extensive damage caused by detonated bombs, which sometimes rendered the small entry holes of UXO undetectable, especially in certain ground conditions. This is further complicated as Air Raid Precautions (ARP) documents highlight the risk of misidentifying large UXO damage as resulting from an exploded 50kg bomb. As a result, UXO pose a significant risk to current intrusive works.
LIB	Large Incendiary Bombs	Large Incendiary Bombs (IBs) were less common than the 1kg variants but were used more frequently than Parachute Mines and Anti-Personnel bomblets. In instances where these large IBs penetrated the ground, complete combustion did not always take place. As a result, they could remain a hazard for any intrusive works, maintaining a risk due to their potential unburnt components.
IB	1kg Incendiary Bombs	In terms of the number of weapons dropped, small IBs were the most numerous. Millions of these were dropped throughout WWII. Large IB's were not as common as the 1kg IBs, although they were more frequently deployed than PMs and AP bomblets.
PM	Parachute Mine or G Mine	These were deployed less frequently than HE and IBs due to size, cost, and the difficulty of deployment

4.2	Type of UXO	Characteristics
AP	SD-2 Anti-Personnel Bomblets	Anti-Personnel (AP) bomblets, though not widely used, are generally regarded as posing a low risk to most operations in the UK. The SD2 bomblets, typically packed in containers with 6 to 108 submunitions, had limited ability to penetrate the ground. They would have likely been identified during post-raid surveys, barring instances where they landed in water, dense vegetation, or amidst bomb rubble, where their detection might have been more challenging
V-1	Vergeltungswaffe-1, Flying Bomb, Buzz Bomb, or Doodlebug	The V-1 was a pivotal advancement in military weaponry during WWII. It holds the distinction of being the first guided missile utilized in the conflict, serving as a precursor to modern cruise missiles. This innovative design was propelled by a pulsejet, marking a significant technological breakthrough at the time
V-2	Vergeltungswaffe 2 (Reprisal Weapon 2)	The V-2 was the first ballistic missile in military history. It was predominantly employed by the German Army against Belgian and British targets during the latter stages of World War II. Notably, the V-2 holds the distinction of being the first man-made object to reach space, achieving an altitude of 189 km (117 miles) during test flights in 1944.

German Air-delivered Ordnance Failure Rate

It has been estimated that approximately 10% of the HE bombs dropped during WWII failed to explode as designed. This estimate is probably based on the statistics of wartime recovered UXBs and therefore will not have taken account of the unknown numbers of UXBs that were not recorded at the time and is probably an underestimate.

The reasons for failures include:

- Fuse or gaine malfunction due to manufacturing fault, sabotage (by forced labour) or faulty installation.
- Clockwork mechanism failure in delayed action bombs.
- Failure of the bomber aircraft to arm the bombs (e.g. charge the electrical condensers which supplied the energy to initiate the detonation sequence) due to human error or equipment defect.
- Jettison of the bomb before it was armed or from a very low altitude.

Allied Explosive Ordnance

The potential risk of encountering Allied ordnance on construction sites is particularly high in areas with a history of military activity, including munitions from military exercises, poor disposal practices, or defensive placements against enemy occupation. Such areas may contain remnants like Land Service Ammunition (LSA) and Small Arms Ammunition (SAA).

While there's no evidence of military use at the specific site in question that could lead to contamination with Allied ordnance, urban areas like this one are still at risk from unexploded Anti-Aircraft projectiles from WWII. This is particularly relevant considering the Ministry of Defence's WWII defence tactics against the Luftwaffe, which involved heavy and light anti-aircraft artillery and 'Z' batteries to protect major towns, cities, and strategic locations. The table below offers further details on these defence systems and the associated risks.

4.3	Type of UXO	Characteristics
LSA	Land Service Ammunition	LSA resulting from historic military activity is commonly encountered across the UK by the public and construction industry alike. Such finds are much more common in rural areas than in urban environments and can often be anticipated in areas such as former RAF stations or ranges. However, many such items are encountered entirely by surprise where the landowner or developer has no knowledge of any previous military use of the land.
	Mortars	A mortar is typically a simple, lightweight, man-portable, muzzle-loaded cannon, consisting of a smooth-bore metal tube fixed to a base plate (to spread out the recoil) with a lightweight bipod mount and a sight. Mortars are typically used as indirect fire weapons for close fire support with a variety of ammunition. Mortars launch high explosive or carrier shells in high-arching ballistic trajectories.
	Grenades	A grenade is a small explosive weapon typically thrown by hand (also called hand grenade) but can also refer to a shell (explosive projectile) shot from the muzzle of a rifle (as a rifle grenade) or a grenade launcher.
	Mines	A landmine is an explosive weapon often concealed under or camouflaged on the ground and designed to destroy or disable enemy targets as they pass over or near it. Land mines are divided into two types: anti-tank mines, which are designed to disable tanks or other vehicles; and anti-personnel mines, which are designed to injure or kill people
	Rockets	During World War II, a variety of rockets were mounted on planes, including air-to-air rockets, air-to-surface rockets, and guided bombs
SAA	Small Arms Ammunition	The most common type of ordnance encountered on land used by the military are items of Small Arms Ammunition (SAA). SAA refers to the complete round or cartridge designed to be discharged from varying sized hand-held weapons such as rifles, machine guns and pistols. SAA can include bullets, cartridge cases and primers/caps
	.303	It was the standard British and Commonwealth military cartridge for rifles and machine guns (Bren Gun) from 1889 until it was replaced by the 7.62×51mm NATO in the 1950s.
	7.92mm BESA	The British military's Besa machine gun was chambered for the 7.92×57mm Mauser and was used in armoured vehicles during World War II.
	9x19mm	These rounds were issued for use with Sten guns, the Lanchester sub machine gun and the Browning Hi Power pistol and were produced in huge quantities.
	20mm Hispano	Used in the Hispano 20mm Cannon, which was installed in various fighter planes including the spitfire and the hurricane.
	20mm Oerlikon	A semi-rimmed round that was used in the 20mm Oerlikon gun, which was a key weapon in defending ships and aircraft. During WWII, twin and quadruple Oerlikon mounts were developed, both for army and for navy use

4.4	Type of UXO	Characteristics
AAA	Anti-Aircraft Artillery	At the start of WWII, two types of AAA guns were deployed: Heavy Anti-Aircraft Artillery (HAA), firing large shells (3.7” plus calibre) and Light Anti-Aircraft Artillery (LAA) employing smaller calibre weapons, firing .303”, 20mm and 40mm shells.
LAA	Light Anti-Aircraft	The Light Anti-Aircraft (LAA) artillery, notably the 40mm Bofors and 20mm Oerlikon guns, played a significant role in WWII, primarily targeting fast, low-flying aircraft. These mobile units were strategically repositioned along town perimeters and near key industrial sites, enhancing their operational

4.4	Type of UXO	Characteristics
		flexibility. However, this mobility results in limited historical records regarding their exact locations. The 40mm Bofors gun, widely utilized due to its capacity to fire up to 120 projectiles per minute over a range of 1,800 meters, was a common fixture. The RAF Regiment initially employed the 20mm Oerlikon gun, capable of discharging up to 330 rounds per minute up to 4,000 meters, before gradually integrating the Bofors gun from 1943 onwards, often maintaining a mix of both types until the end of the war. All Allied military airfields were fortified with these LAA batteries, strategically placed in isolated positions to optimize defence during aerial attacks. The primary function of these batteries was to intercept fast, low-flying German fighter bombers. The ammunition used in LAA batteries consisted of small projectiles equipped with contact fuses and either a high-explosive or incendiary charge, designed to detonate upon impact. In instances where these projectiles failed to hit their intended targets, they would fall back to the ground with their charges intact. Despite their reduced risk compared to larger ordnance, the 40mm projectiles, resembling large-calibre small arms ammunition, still pose a considerable safety concern.
HAA	Heavy Anti-Aircraft	Heavy Anti-Aircraft (HAA) batteries, equipped with large guns like the 3.7" Quick Firing (QF), were strategically positioned for engaging high-flying bomber aircraft. These installations, often permanent gun emplacements, were a key component of the UK's aerial defence during WWII. In addition to firing large High Explosive (HE) projectiles, triggered by various fuses including impact, area and time delay mechanisms, local ammunition caches were commonly situated near strategic location like defended roadblocks or pillboxes. The closest HAA Batteries to the site in question is located approximately 3 kilometres to the north-west, yet their effective range was up to 15km. This proximity and operational range underscore the potential risk of encountering Allied ordnance, especially in areas with a historical military presence.
ZAA	Z (Rocket) Batteries:	A Z-Battery comprised a grid formation of 64 rocket projectors which fired 2" and later 3" Unrotated Projectile (UP) rockets to a maximum altitude of 5,800m; a ground range of some 9,000m. They were deployed in cities all around the UK from 1941 and proved to be an effective addition to the existing AA guns. The rockets measured 0.9m (2") and 1.8m (3") in length with four stabilising fins at the base and were fitted with 3.5kg or 8.2kg HE warheads. The larger warhead had an effective airborne blast radius of up to 20m. Some variants deployed a form of aerial mine described as a "small yellow bomb" which was designed to detach from the rocket at height and descend on a parachute with the objective of becoming snagged on target aircraft and then detonating.

4.5 Site Geology & Bomb Penetration Depth

Assessing ground conditions is a key factor in determining both the maximum penetration depths of unexploded ordnance (UXO) and the likelihood of hidden munitions.

Should there be any changes in site investigation protocols, construction methods, or focus areas within the project site, immediate communication with RMS UXO is advised. This action allows for a timely reassessment of existing UXO risks and the adjustment of risk mitigation plans. Certain soil and rock

conditions, such as iron-rich or mineralised soils, can impact the effectiveness of UXO risk reduction methods like magnetometer surveys. Identifying the source of altered soil types is essential for accurately assessing the ground state at the time of potential UXO contamination. This information aids in fine-tuning the calculations for average and maximum bomb penetration depths, thereby enabling more targeted risk reduction strategies in line with ALARP guidelines.

Table 4.5 - GROUND TYPE	DEPTH
Topsoil	0.0 – 0.5m
Sandy Silty Clay	0.5 – 3.2m
Clays	3.2 – 16.4m (end of borehole)

Following a review of the BGS borehole log "SJ88NW994 – ROWLANDSWAY WYTHENSHAWE" (located on the site), RMS UXO have been able to provide an estimate of the likely maximum bomb penetration depth:

The estimated average bomb penetration depths accounting for ground composition are:

500kg	<8m

The estimated bomb penetration depth for 50kg and 250kg bombs would be expected to be at shallower depths.

The calculation of bomb penetration depths involves several key factors.

These factors include the bomb being dropped from a significant height, leading to an impact speed of 260 m/s from heights above 5,000m. The angle of impact with the ground varies between 10 and 15 degrees from the vertical, and the bomb remains stable during its descent and upon ground penetration. Additionally, no slowing mechanisms are attached to the bomb, and the soil composition is consistent. When released from a high altitude, the bomb generally enters the ground at an angle of 10 to 15 degrees to the vertical. It maintains this angle until its momentum is nearly depleted, at which point it shifts suddenly to a horizontal position before coming to rest. The term 'offset' refers to the gap between the centre of the entry hole and the bomb's final position. Significant sideways movement from the initial entry path is not uncommon. For attacks from lower altitudes, the angle of impact can be 45 degrees or more, often resulting in increased lateral movement during penetration.

The J-curve effect is an important aspect of bomb trajectory, primarily influenced by the bomb's interaction with the ground upon impact. Bombs would typically fall nose-first and result in a varied deceleration between the nose and tail upon contact with the ground with the nose slowing down before the tail. This differential in speeds leads to a notable shift in trajectory and often results in the bomb either achieving a horizontal orientation or, in certain scenarios, curving upward in a J-shaped trajectory.

Determining the average impact velocity of World War II bombs like the 50kg, 250kg, and 500kg high-explosive (HE) bombs is not straightforward due to several factors, including the altitude from which they were dropped, their design/shape, and the mediums they passed through.

5. Risk Analysis

5.1 Analysis

For each type of investigative method that might be used, RMS UXO has carried out unique calculations to rate the risks. The risks associated with encountering and activating UXO can vary widely. These variations depend on several factors, including the amount of high-explosive material in the UXO and the intensity with which it is encountered. Ground investigation specific to this research location have been prepared to help analyse these risks, as the likelihood of encountering UXO can differ based on the nature of the intrusive activities being conducted.

5.2 Risk Levels and Interpretation

Risk Rating

RMS UXO's Risk Assessment gauges and categorises the dangers presented by the most likely hazardous items during various operations on the site. The Hazard Assessment Score is calculated by evaluating the likelihood of coming across UXO and the potential outcomes of triggering it.

Firstly, the probability of encountering UXO (PE) has been considered and rated for the different construction techniques, as detailed below. The probability of detonating a UXO (PD) has been considered and rated for the different construction techniques, as detailed below.

Table 5.1.1 - Probability of Encounter (PE)	Rating
Highly likely and frequent.	5
Probable and likely to happen.	4
Occasional, increased chance or probability.	3
Remote, unlikely to happen but could	2
Improbable, highly unlikely	1
Impossible	0

Table 5.1.2 - Probability of Detonation (PD)	Rating
Highly likely and frequent.	5
Probable and likely to happen.	4
Occasional, increased chance or probability.	3
Remote, unlikely to happen but could.	2
Improbable, highly unlikely.	1
Impossible	0

Next, the probability of encountering and detonating the UXO (PE x PD) has been used to generate an overall likelihood rating (L).

Each potential risk has been assessed separately to generate the overall likelihood of encountering and detonation a UXO:

For the purpose of this risk assessment, the following values have been applied;

- German HE Bombs - PE= 2 and PD= 2. Therefore, the overall likelihood (L) = 4.
- IBs - PE= 1 and PD= 2. Therefore, the overall likelihood (L) = 2.

Table 5.2 L = PE x PD	Likelihood of Encounter and Detonation	Rating
21 to 25	Frequent, highly likely, almost certain.	5
16 to 20	Probable, more likely to happen than not.	4
10 to 15	Occasional, increased chance or probability.	3
6 to 9	Remote, unlikely to happen but could.	2
1 to 5	Improbable, highly unlikely.	1
0	Impossible	0

L ranges from 25, a certainty of UXO being encountered and detonated on the site by engineering activity, to 0, a certainty that UXO does not occur on the site and will not be detonated by engineering activity.

The likelihood of encountering and detonating UXO during site works is multiplied by the severity of such an event occurring (L x S), in order to provide a risk level using the following matrix.

Table 5.3 - Severity (S)	Rating
Multiple fatalities	5
Major injury, long term health issues, single fatality	4
Minor injury, short term health issues, no fatalities.	3
First aid case but no lost time or ill health.	2
Minor injuries, no first aid.	1
No injuries.	0

This risk matrix is underpinned by historical data, site-specific conditions, and expert analysis. The likelihood and severity ratings assigned are not just theoretical estimates but are grounded in a detailed understanding of the site's past and present characteristics. These factors combine to form a risk profile that guides our UXO mitigation strategy and ensures all necessary precautions are tailored to the site's unique context.

The final risk assessment for the site is given in Table 5.5.

Table 5.4	Severity (s)					
Likelihood (L)		1	2	3	4	5
	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5

Table 5.5 - Risk Assessment Table					
Type of work	Potential Hazard	Likelihood (L)	Severity	Risk Rating	Risk Zone
Future developments	HE	1	5	5	Low
Future developments	IBs	1	4	4	Low

It should be noted that the risk associated with UXOs is partially mitigated to the exact depths of post-war redevelopment within the structures' foundations and the hard standing.

6. Risk Mitigation & Recommendations

6.1 Recommended Risk Mitigation Measures

The recommendation table below is provided as an overview of the methods required to adequately mitigate the risk of UXO and is in accordance with the CIRIA 681 Guidelines. All of the methods listed are acceptable methods of mitigating explosive risk but do have limitations and should be employed only if viable, interpretable data can be collected.

This is particularly true of intrusive surveys, carried out on sites which are not suitable for this type of method, be it as a result of the underlying strata not allowing sufficient depth penetration or the magnetic environment being too high for the sensors to adequately detect a bomb at the distances from the probe as specified. There is also a reluctance by UXO contractors to raise these constraints once identified on site as it is in their interest to have their survey rigs fully employed.

As this is a direct conflict of interest, RMS UXO has made the decision to not own survey rigs and offer this service, when appropriate, in partnership with UK market leading geotechnical providers – combining our UXO knowledge and our partners ground engineering expertise.

	Table 6.1 - MITIGATION METHOD – Low Risk Areas	YES	NO	TBC*
1	**Project Specific Risk Mitigation Strategy** A project specific overarching strategy to manage UXO project risk on more complex sites. Developed in line with the clients construction plan and methods of construction to be used.		✓	
2	**Safety Awareness Briefings** Explosive Ordnance Safety and Awareness Training is provided to site personnel to make them aware of the potential threat from UXO on the work site, what UXO might look like and what to do if suspected UXO is encountered.	✓		
3	**Site Specific Safety Instructions – Emergency Response Plan** Provides site management teams the training, information and guidance to respond to a UXO related incident. Delivered by experienced EOD qualified personnel and often employed alongside an on-call offsite EOD responder.	✓		
4	**On-call EOD Engineer – Off-site Responder** A retained service whereby a qualified EOD engineer will respond to a suspicious find on-site.			✓
5	**Onsite EOD Engineer – Support to Site Investigation** Providing Realtime on-site EOD support to site investigation activities. Delivering safety briefings & employing handheld survey instruments ahead of trial pit excavations, drilling activities etc.		✓	
6	**Onsite EOD Engineer- Watching Brief** Providing a reactive on-site support where pro-active UXO risk mitigation measures, are not practical. Supervising all open/bulk excavations, responding to suspicious finds & managing UXO related incidents.		✓	
7	**Non-Intrusive Survey** The collection of survey data which is then processed & interpreted offsite. The purpose of the survey is to locate sub-surface anomalies/targets which may be UXO related. Usually employed on greenfield sites or sites which have not previously been developed.		✓	

	Table 6.1 - MITIGATION METHOD – Low Risk Areas	YES	NO	TBC*
8	**Intrusive Survey** For sites where a non-intrusive UXO survey cannot reach the maximum depth of UXO risk, or the site is not suitable for a non-intrusive survey such as a brownfield site the intrusive UXO survey provides a suitable alternative. Designed to survey point specific locations where deep engineering works are being undertaken such a piling, pile clusters and sheet piled walls.		✓	
9	**Search & Clearance** For areas where a non-intrusive survey is not viable or cost effective two-man UXO Specialist teams can be deployed to conduct a manual Search & Clear operation of the site location with handheld UXO detection equipment.		✓	
10	**Data Management** Data processing, Interpretation or QA (of third-party survey data) The processing and interpretation of third-party survey data for the purpose of UXO clearance.		✓	
11	**Target Investigation** The investigation of anomalies/targets identified by previously undertaken surveys. Conducted by a two-man EOD team using handheld locators/detectors.		✓	
12	**UXO Removal & Disposal** The removal from site of safe to move or inert items of UXO for disposal off-site.			✓
13	**UXO Disposal** The disposal of UXO onsite. This may be through explosive means, burning or mechanical dismantling methods.			✓

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RMS UXO has consulted its internal databases, as well as reference books and archived information, to gather relevant data. Additionally, historic mapping and aerial photography were sourced from the National Archives and other relevant government offices. Information has also been obtained from local county councils and record offices.

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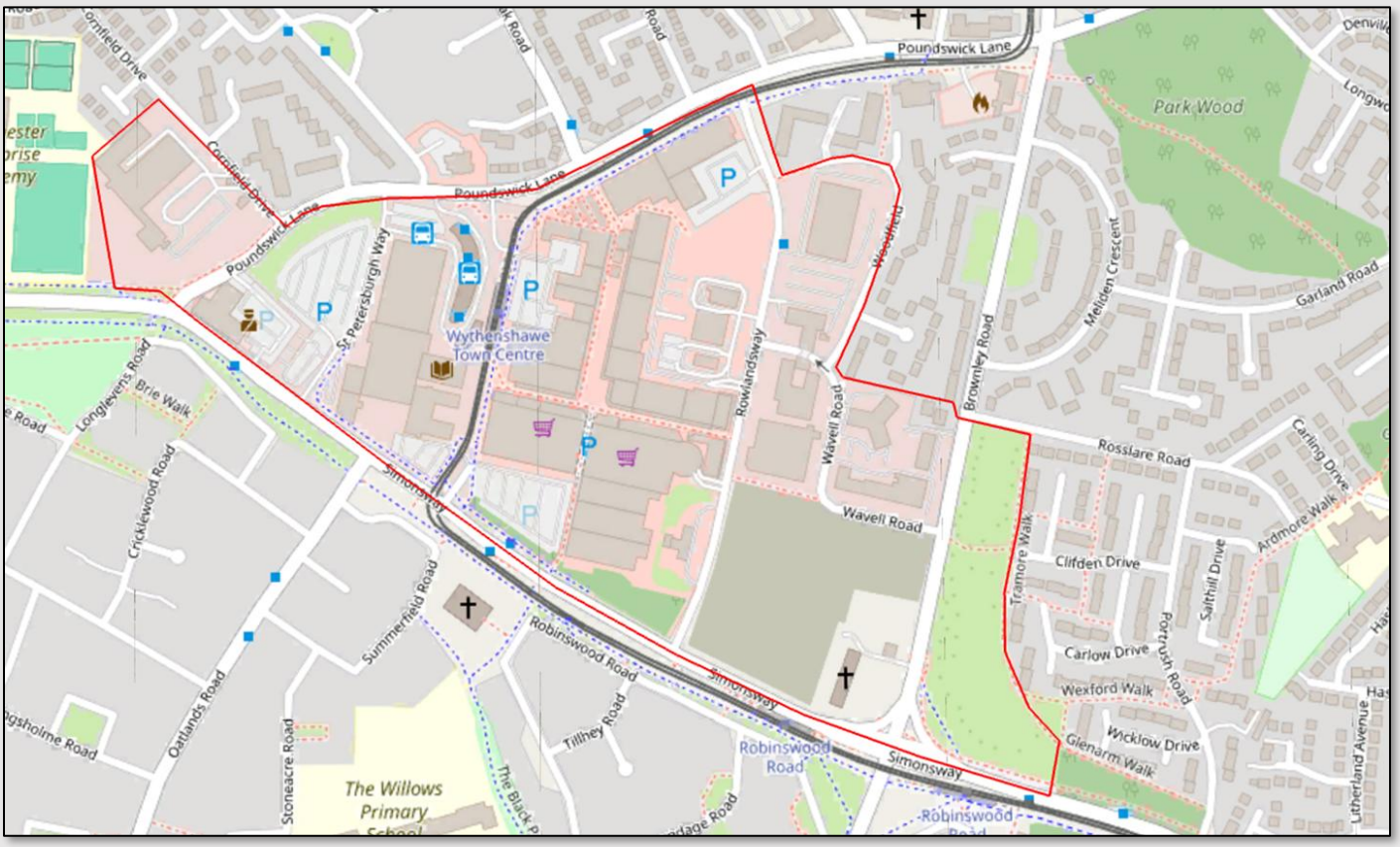
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This report has been constructed with professional thought and care by RMS UXO. Historical data has been meticulously collected and reviewed from third party sources. The validity of this information has been checked to the best of our ability, but RMS UXO holds no accountability for errors resulting from missing or incomplete information. Moreover, despite best efforts to compile a comprehensive historical dataset RMS UXO disclaims responsibility for any subsequent modifications to risk evaluations or mitigation proposals that may be necessitated by the discovery of additional information post factum.

SITE LOCATION

A-1





Approx. Site Boundary	—

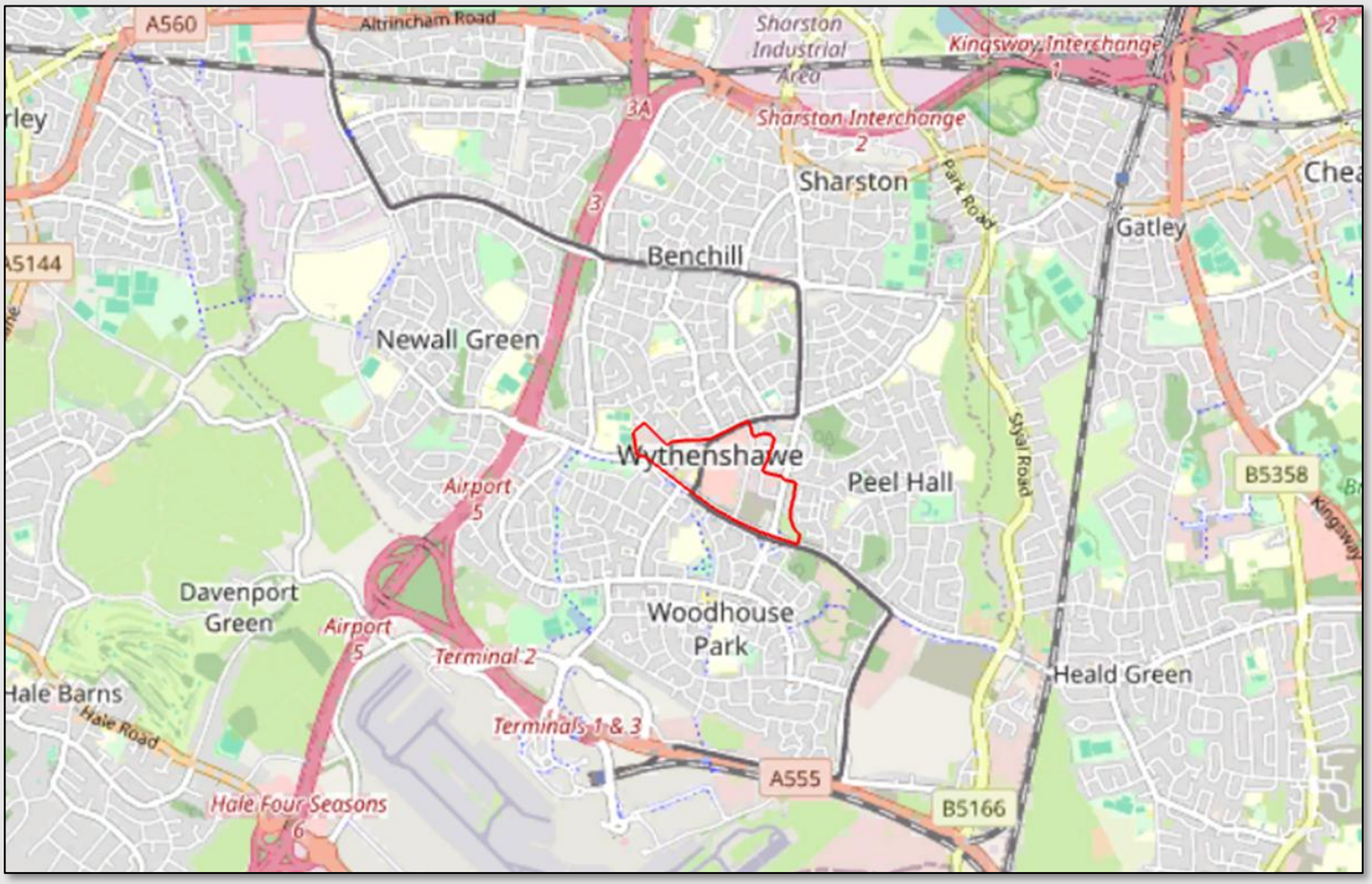
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Civic Earth Limited	Wythenshawe	30/07/2025
SOURCE:	**REPORT REFERENCE:**	N
Google Earth, OpenStreetMap	INO5823	

SITE LOCATION

A-2

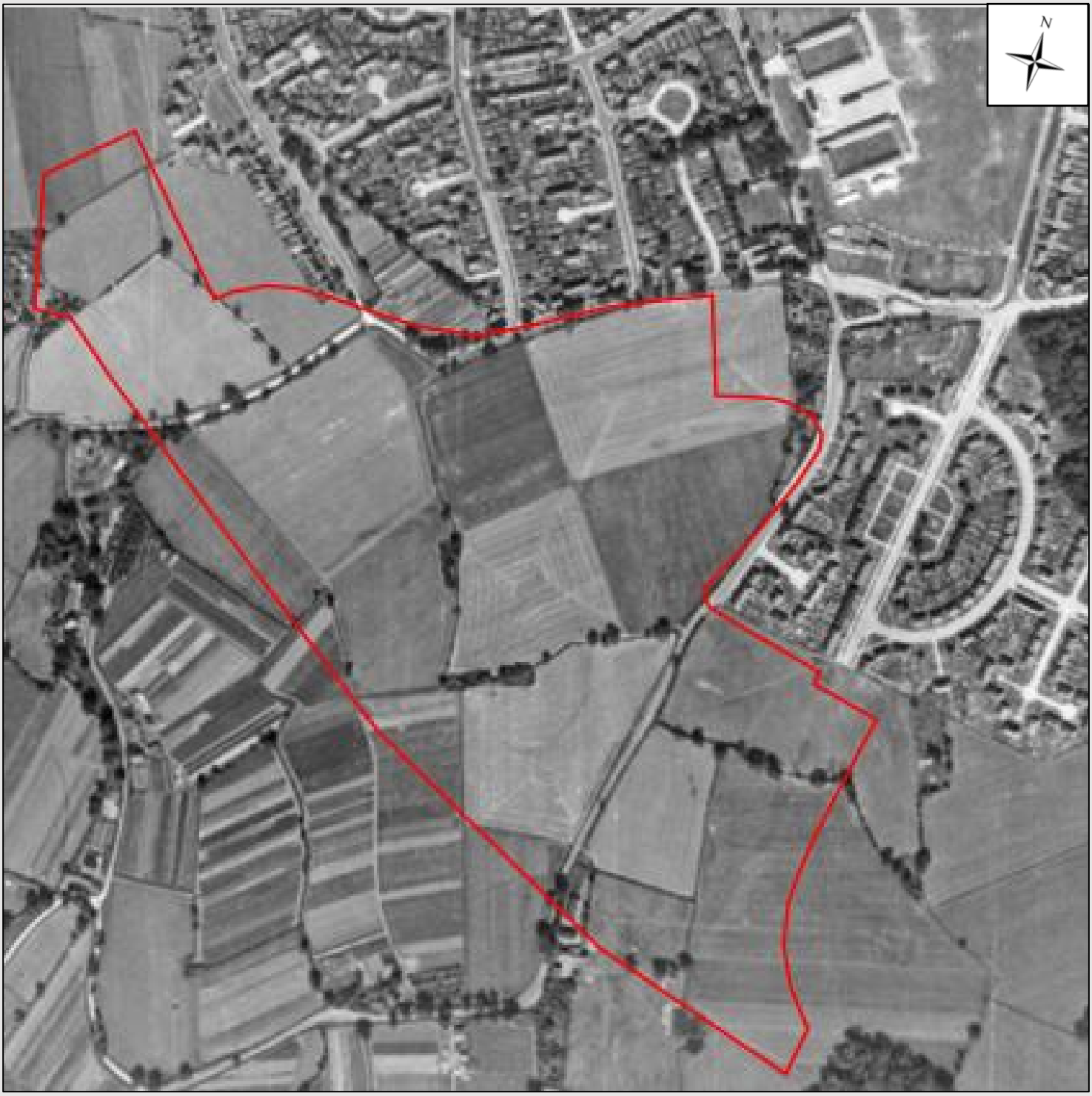


Approx. Site Boundary	

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Wythenshawe – August 1945

Approx. Site Boundary	—

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RECORDED BOMB STRIKES

A-4



Approx. Recorded HE Bomb Strike Locations	
Approx. Recorded Firebomb Strike Locations	
Approx. Site Boundary	

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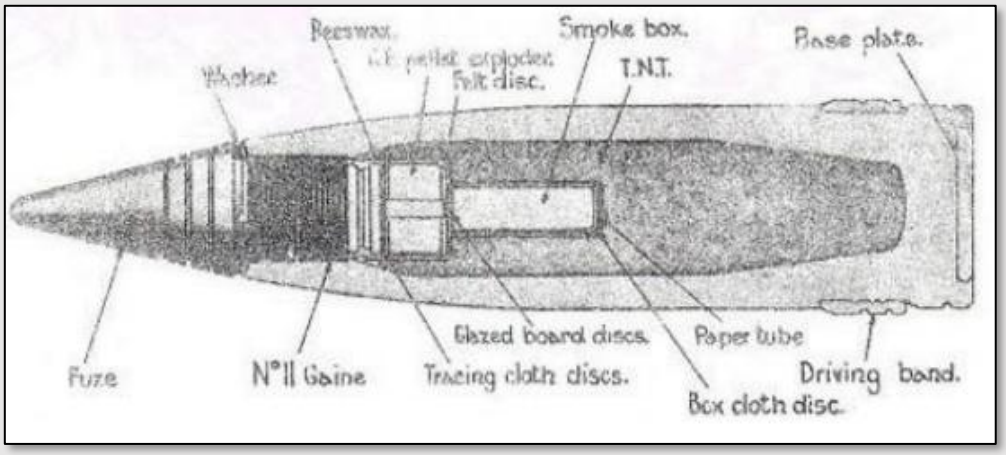
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3.7 Inch QF Anti-Aircraft Projectile







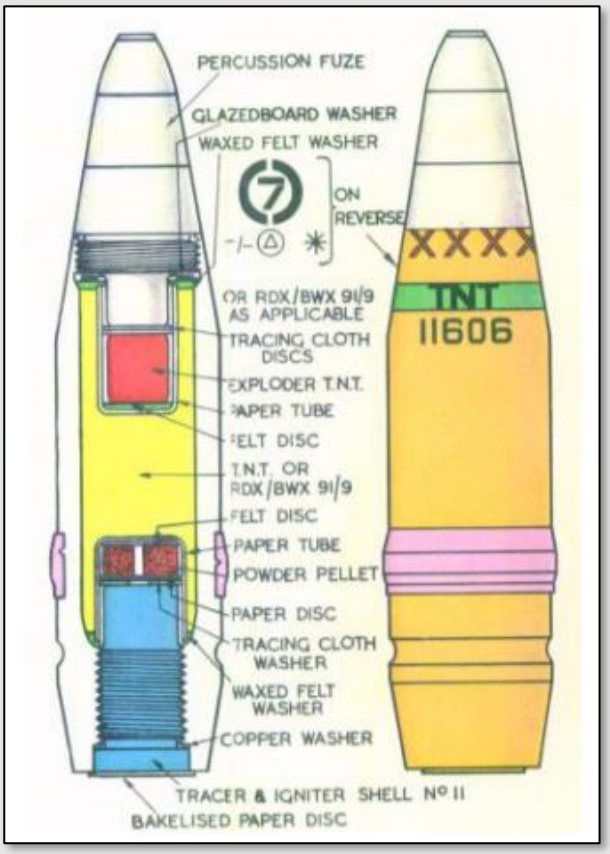
Total Weight	Projectile Weight 28lb (12.6 kg) Explosive Weight 2.52lbs
Dimensions	3.7in x 14.7in (94mm x 360mm) Rate of Fire 10 to 20 rounds per minute
Fuse Type	Mechanical Time Fuze
Use	The 3.7in AA Mks 1-3 were the standard Heavy Anti-Aircraft guns of the British Army. Ceiling 30,000ft to 59,000ft

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40mm Bofors Projectile







Total Weight	Projectile Weight 1.96lb (0.86kg) Explosive Weight 300g (0.6lb)
Dimensions	Dimensions 40 x 180mm
Fuse Type	Impact Fuze
Ceiling	23,000ft (7000m)
Remarks	Light quick fire high explosive antiaircraft projectile. Each projectile fitted with small tracer element. If no target hit, shell would explode when tracer burnt out. Designed to engage aircraft flying below 2,000ft

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3in Unrotated Projectile (UP) Anti-Aircraft Rocket (“Z” Battery)

This antiaircraft artillery, designed specifically for the Royal Navy, saw significant deployment in the initial stages of the Second World War. Known as the UP, it was not only utilised at sea but also found applications on land through single and 128-round launchers, commonly referred to as Z Batteries. The ammunition for this system features a cylindrical steel casing that tapers towards the bottom, equipped with external threading for secure attachment to the rocket motor's shell ring







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SC 50

Bomb Weight: 40-54kg (110-119lb)

Explosive Weight: c25kg (55lb)

Fuze Type: Impact fuze/electro-mechanical time delay fuze

Bomb Dimensions:1,090 x 280mm (42.9 x 11.0in)

Body Diameter: 200mm (7.87in)

Use: Against lightly damageable materials, hangars, railway rolling stock, ammunition depots, light bridges and buildings up to three stories.

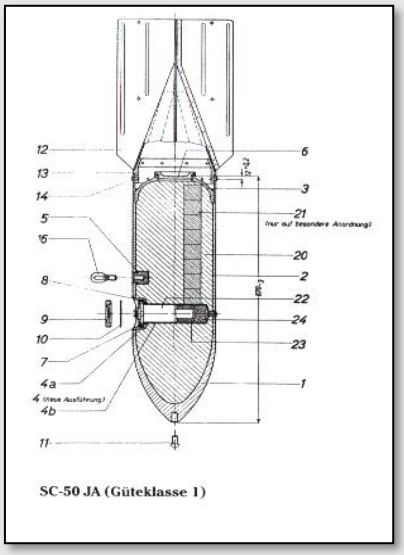
Remarks: The smallest and most common conventional German bomb. Nearly 70% of bombs dropped on the UK were 50kg.



50kg bomb, London Docklands



Minus tail section



SC 250

Bomb weight: 245-256kg (540-564lb)

Explosive weight: 125-130kg (276-287lb)

Fuze type: Electrical impact/mechanical time delay fuze.

Post-1943 – Type 50 (Y) electric anti-disturbance fuze

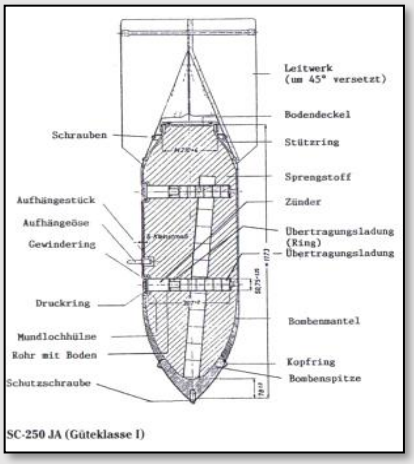
Bomb dimensions: 1640 x 512mm (64.57 x 20.16in)

Body diameter: 368mm (14.5in)

Use: Against railway installations, embankments, flyovers, underpasses, large buildings and below-ground installations.



250kg bomb, Hawkinge



SC 500

Bomb weight: 480-520kg (1,058-1,146lb)

Explosive weight: 250-260kg (551-573lb)

Fuze type: Electrical impact/mechanical time delay fuze.

Post-1943 – Type 50 (Y) electric anti-disturbance fuze

Bomb dimensions: 1957 x 640mm (77 x 25.2in)

Body Diameter: 470mm (18.5in)

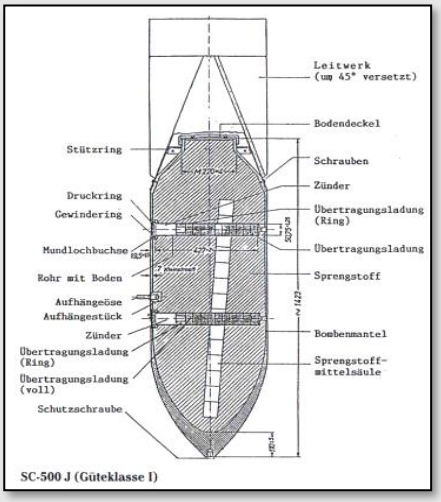
Use: Against fixed airfield installations, hangars, assembly halls, flyovers, underpasses, high-rise buildings and below-ground installations.



50kg bomb included for size comparison (see above)



500kg bomb, Felixstowe beach, April 2008



RMS UXO

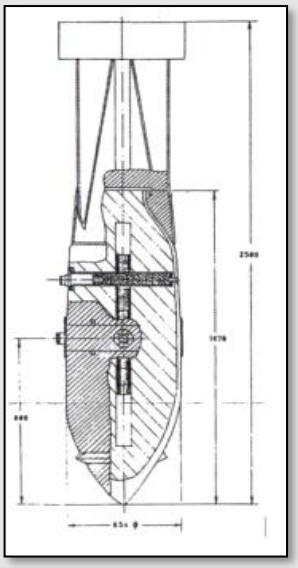
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RMS UXO Limited	INO5823	

SC 1000

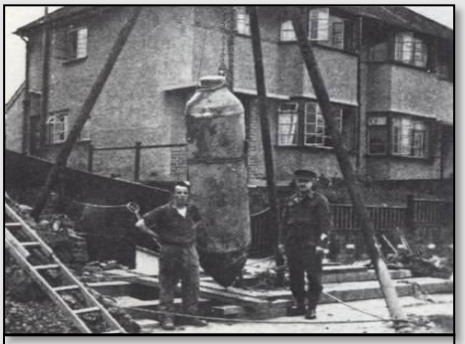
Bomb weight: 993-1,027kg (2189-2,264lb)
Explosive weight: 530-590kg (1,168-1,300lb)
Fuze type: Electrical impact fuze.
Bomb dimensions: 2,580 x 654mm (101.6 x 2.5in)
Body diameter: 654mm (25.75in)
Use: Against unarmoured sea and land targets
Remarks: Known as the 'Hermann'



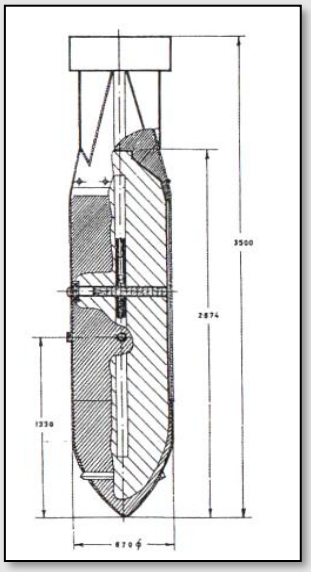


SC 1800

Bomb weight: 1,767-1,879kg (3,896-4,142lb)
Explosive weight: 1,000kg (2,205lb)
Fuze Type: Electrical impact fuze
Bomb Dimensions: 3500 x 670mm (137 x 26in)
Use: Against building complexes and large merchant vessels
Remarks: Known as the 'Satan'

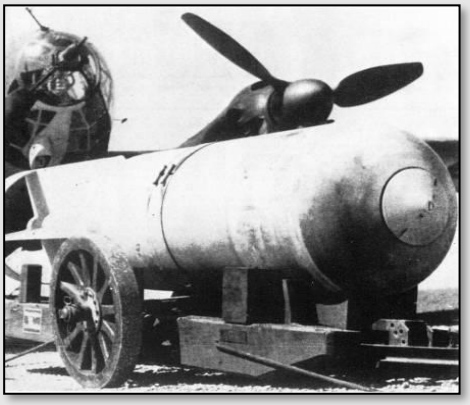


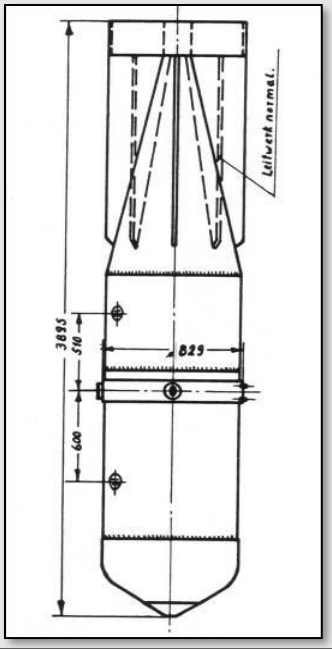
1800kg bomb, Bristol, 1941



SC 2500

Bomb Weight: Bomb weights have been quoted as 1,950kg (4,300lb) and 2,500kg (5,512lb)
Explosive Weight: 1,700kg (3,748lb)
Fuze Type: Electrical impact fuze
Bomb Dimensions: 3,895 x 829mm (153.3 x 32.6in)
Body Diameter: 829mm (32.6in)
Use: Against building complexes and merchant vessels.
Remarks: The SC 2500 has an aluminium body with a welded head and tailpiece. Known as the 'Max'. Only a limited number were deployed.





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CLIENT:	PROJECT:	DATE:
Civic Earth Limited	Wythenshawe	30/07/2025
SOURCE:	REPORT REFERENCE:	
RMS UXO Limited	INO5823	

1kg Incendiary Bomb

Bomb weight: 1.0 and 1.3kg (2.2 and 2.87lb)

Filling: 680gm (1.3lb) Thermite

Fuze type: Impact fuze

Bomb dimensions: 350 x 50mm (13.8 x 1.97in)

Body diameter: 50mm (1.97in)

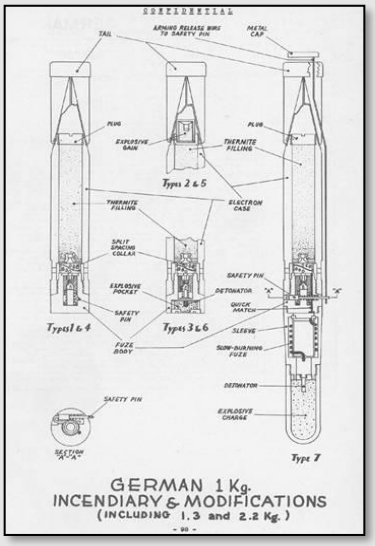
Use: As incendiary – dropped in clusters against towns and industrial complexes

Remarks: Jettisoned from air-dropped containers. Magnesium alloy case. Sometimes fitted with high explosive charge





1. Scaffold pipe
2. Incendiary 1kg bomb
3. Incendiary bomb recently found on site in UK



C-50 A Phosphorous Bomb

Bomb weight: 41kg (90.4lb)

Explosive weight: 0.03kg (0.066lb)

Incendiary filling: 12kg (25.5lb) liquid filling with phosphor igniters in glass phials

Fuze type: Electrical impact fuze

Bomb dimensions: 1,100 x 2800mm (43.3 x 11in)

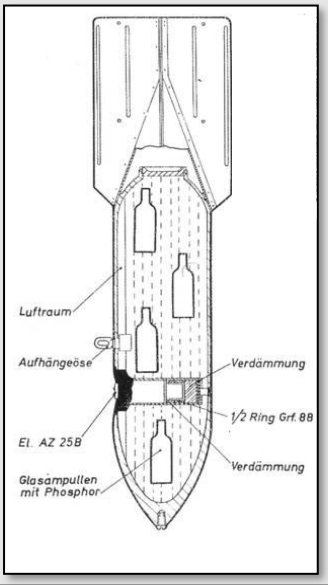
Body diameter: 200mm (2.87in)

Use: Against all targets where an incendiary effect is to be expected

Remarks: Early fill was a phosphorous/carbon disulphide incendiary mixture



Phosphorous Bomb, M25/A2, Kent



Flam C-250 'Oil Bomb'

Bomb weight: 125kg (276lb)

Explosive weight: 1kg (2.2lb)

Flammable weight: 74kg (163lb)

Filling: Mixture of 30% petrol and 70% crude oil

Fuze type: Super-fast electrical impact fuze

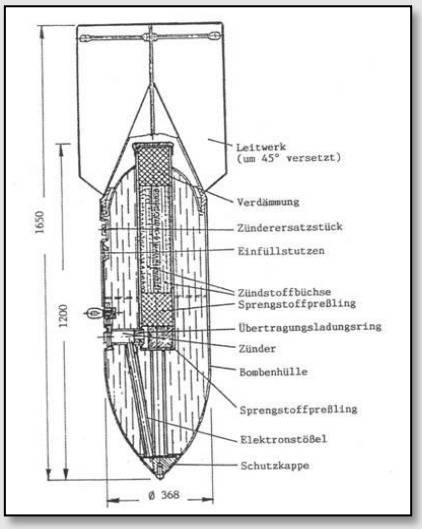
Bomb dimensions: 1,650 x 512.2mm (65 x 20.2in)

Body diameter: 368mm (14.5in)

Use: Often used for surprise attacks on living targets, against troop barracks and industrial installations

Remarks: Thin casing – not designed for ground penetration





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CLIENT:	PROJECT:	DATE:
Civic Earth Limited	Wythenshawe	30/07/2025
SOURCE:	REPORT REFERENCE:	
RMS UXO Limited	INO5823	

EXPERTISE, INTEGRITY, PROFESSIONALISM

RMS UXO Limited

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Company Reg: 14666538
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Appendix E – BGS Borehole Records

British Geological Survey

BGS ID: 915678 : BGS Reference: SJ88NW997
British National Grid (27700) : 382550,387220

SJ88NW 8255 8722 997

BOREHOLE RECORD SHEET

STRATA SURVEYS LTD.,
HOLMES CHAPEL ROAD.
MIDDLEWICH. CHESHIRE.
Telephone: Middlewich (STD 0606 84) 4637

BOREHOLE No. 1
Sheet 1 of 1

Job No.: 3258/42 Location: ASKERN AVENUE, BENCHILL, MANCHESTER
Client: MANCHESTER CITY COUNCIL
Scale: 1:50
Diam. & Boring Type 150MM SHA

Description of Strata (Ground Level)	Reduced Level	Legend	Thickness (m)	Depth (m)	Samples from	Samples to	Samples Type	N Value	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
TOPSOIL			0.30	0.30							3/3/87
FIRM TO STIFF, TO STIFF BROWN/GREY SLIGHTLY GRAVELLY SANDY CLAY					0.50	0.96	U1		125	7	
					1.00		D1				
			1.20	1.50	1.50	1.95	U2		72	0	
FIRM TO STIFF BROWN SILTY CLAY					2.00		D2				
			0.85	2.35	2.30	2.40	U3				
					2.40		D4				
VERY WEAK LIGHT GREY BECOMING BROWN MODERATELY TO SLIGHTLY WEATHERED SILTSTONE					2.500	2.725	P1	59			BOREHOLE REMAINED DRY.
			(0.75)	3.10	3.000	3.050	P2	50			
BOREHOLE COMPLETE AT 3.10M											

U - undisturbed D - disturbed B - bulk W - groundwater P - standard penetration CP - cone penetration V - vane test

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 915679 : BGS Reference: SJ88NW998
British National Grid (27700) : 382560,387210

SJ88NW 8256 8721 998

TRIAL PIT RECORDS

STRATA SURVEYS LTD.,
HOLMES CHAPEL ROAD,
MIDDLEWICH, CHESHIRE.
Telephone: Middlewich (STD 0606 84) 4637

Job No: 3258/42 Location: ASKERN AVENUE, BENCHILL, MANCHESTER Scale 1:50

Client: MANCHESTER CITY COUNCIL

T.P. No. A(1)

Description of Strata (Ground Level)	Reduced Level	Legend	Thickness	Depth	Samples from	Samples to	Samples Type	NMC	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
TOPSOIL			0.50	0.50							24/2/87
FIRM TO STIFF BROWN/GREY SANDY CLAY			1.20	1.70							
FIRM TO STIFF BECOMING STIFF BROWN SILTY CLAY			0.80	2.50							
VERY STIFF BROWN SILTY CLAY (COMPLETELY WEATHERED SILTSTONE)			(0.30)	2.80							TRIAL PIT REMAINED DRY
TRIAL PIT COMPLETE AT 2.80											TRIAL PIT STABLE

SJ88NW 8255 8721 999

T.P. No. B

Description of Strata (Ground Level)	Reduced Level	Legend	Thickness	Depth	Samples from	Samples to	Samples Type	NMC	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
TOPSOIL			0.25	0.25							24/2/87
MEDIUM DENSE YELLOW ORANGE/BROWN CLAYEY SAND			0.35	0.60							
FIRM TO STIFF GREY BROWN SILTY TO VERY SILTY CLAY			0.60	1.20							
STIFF GREY BROWN SILTY TO VERY SILTY CLAY			1.00	2.20							
VERY WEAK LIGHT GREY SANDY SLIGHTLY TO MODERATELY WEATHERED SILTSTONE			0.40	2.60							TRIAL PIT REMAINED DRY
STIFF TO VERY STIFF BROWN VERY SILTY CLAY. (HIGHLY TO COMPLETELY WEATHERED SILTSTONE)			(0.10)	2.70							TRIAL PIT STABLE
TRIAL PIT COMPLETE AT 2.70											

U - undisturbed D - disturbed B - bulk W - groundwater P - standard penetration CP - cone penetration V - vane test

Webberley

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 915680 : BGS Reference: SJ88NW999
British National Grid (27700) : 382550,387210

SJ88NW 8256 8721 998

TRIAL PIT RECORDS

STRATA SURVEYS LTD.,
HOLMES CHAPEL ROAD,
MIDDLEWICH, CHESHIRE.
Telephone: Middlewich (STD 0606 84) 4637

Job No: 3258/42 Location: ASKERN AVENUE, BENCHILL, MANCHESTER Scale 1:50

Client: MANCHESTER CITY COUNCIL

T.P. No. A(1)

Description of Strata — Ground Level

Description of Strata	Reduced Level	Legend	Thickness	Depth	Samples from	Samples to	Samples Type	NMC	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
TOPSOIL			0.50	0.50							24/2/87
FIRM TO STIFF BROWN/GREY SANDY CLAY			1.20	1.70							
FIRM TO STIFF BECOMING STIFF BROWN SILTY CLAY			0.80	2.50							
VERY STIFF BROWN SILTY CLAY (COMPLETELY WEATHERED SILTSTONE)			(0.30)	2.80							TRIAL PIT REMAINED DRY
TRIAL PIT COMPLETE AT 2.80											TRIAL PIT STABLE

SJ88NW 8255 8721 999

T.P. No. B

Description of Strata — Ground Level

Description of Strata	Reduced Level	Legend	Thickness	Depth	Samples from	Samples to	Samples Type	NMC	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
TOPSOIL			0.25	0.25							24/2/87
MEDIUM DENSE YELLOW ORANGE/BROWN CLAYEY SAND			0.35	0.60							
FIRM TO STIFF GREY BROWN SILTY TO VERY SILTY CLAY			0.60	1.20							
STIFF GREY BROWN SILTY TO VERY SILTY CLAY			1.00	2.20							
VERY WEAK LIGHT GREY SANDY SLIGHTLY TO MODERATELY WEATHERED SILTSTONE			0.40	2.60							TRIAL PIT REMAINED DRY
STIFF TO VERY STIFF BROWN VERY SILTY CLAY. (HIGHLY TO COMPLETELY WEATHERED SILTSTONE)			(0.10)	2.70							TRIAL PIT STABLE
TRIAL PIT COMPLETE AT 2.70											

U - undisturbed D - disturbed B - bulk W - groundwater P - standard penetration CP - cone penetration V - vane test

Webberley

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 915682 : BGS Reference: SJ88NW1001
British National Grid (27700) : 382530,387220

SJ88NW 8255 8723 1000

TRIAL PIT RECORDS

STRATA SURVEYS LTD.,
HOLMES CHAPEL ROAD,
MIDDLEWICH, CHESHIRE.
Telephone: Middlewich (STD 0606 84) 4637

Job No: 3258/42 Location: ASKERN AVENUE, BENCHILL, MANCHESTER Scale 1:50

Client: MANCHESTER CITY COUNCIL

T.P. No. C

Description of Strata (Ground Level)	Reduced Level	Legend	Thickness	Depth	Samples from	Samples to	Samples Type	NMC	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
DARK GREY ASH FILL			0.15	0.15							24/2/87
FIRM TO STIFF GREY/ORANGE BROWN SLIGHTLY GRAVELLY SANDY CLAY			0.55	0.70							
FIRM TO STIFF BROWN/GREY SANDY TO VERY SANDY CLAY. (SAND LENSE AT BASE).			0.90	1.60							
FIRM TO STIFF BROWN SILTY CLAY			0.50	2.10							
VERY STIFF TO HARD BROWN SILTY TO VERY SILTY CLAY. (HIGHLY TO COMPLETELY WEATHERED SILTSTONE)			(0.70)	2.80							TRIAL PIT REMAINED DRY
TRIAL PIT COMPLETE AT 2.80M											TRIAL PIT STABLE

SJ88NW 8253 8722 1001

T.P. No. D

Description of Strata (Ground Level)	Reduced Level	Legend	Thickness	Depth	Samples from	Samples to	Samples Type	NMC	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
DARK GREY ASH & LIMESTONE GRAVEL FILL			0.05	0.05							24/2/87
BROWN SLIGHTLY CLAYEY SLIGHTLY SANDY GRAVEL FILL			0.30	0.35							
FIRM TO STIFF DARK BROWN SANDY CLAY FILL			0.15	0.50							
FIRM TO STIFF BROWN/GREY SANDY TO VERY SANDY GRAVELLY CLAY			0.90	1.40							
FIRM TO STIFF BROWN SLIGHTLY GRAVELLY SILTY CLAY			0.70	2.10							
VERY WEAK BROWN THINLY LAMINATED MODERATELY WEATHERED SILTSTONE			(0.50)	2.60							TRIAL PIT REMAINED DRY
											TRIAL PIT STABLE.

U - undisturbed D - disturbed B - bulk W - groundwater P - standard penetration CP - cone penetration V - vane test

Webberley

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 915683 : BGS Reference: SJ88NW1002
British National Grid (27700) : 382520,387220

SJ88NW. 8252 8722 1002

TRIAL PIT RECORDS

STRATA SURVEYS LTD.,
HOLMES CHAPEL ROAD,
MIDDLEWICH, CHESHIRE.
Telephone: Middlewich (STD 0606 84) 4637

Job No: 3258/42 Location: ASKERN AVENUE, BENCHILL, MANCHESTER Scale 1:50

Client: MANCHESTER CITY COUNCIL

T.P. No. E

Description of Strata	Reduced Level	Legend	Thickness	Depth	Samples from	Samples to	Samples Type	NMC	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
Ground Level											24/2/87
DARK GREY ASH & LIMESTONE GRAVEL FILL			0.20	0.05							
YELLOW BROWN SLIGHTLY SANDY GRAVEL FILL				0.25							
STIFF GREY VERY SANDY CLAY FILL			0.25	0.50							
FIRM LIGHT GREY / ORANGE BROWN MOTTLED VERY SANDY SLIGHTLY GRAVELLY CLAY.			0.60	1.10							
FIRM LIGHT GREY GRAVELLY SANDY CLAY			0.30	1.40							
FIRM TO STIFF BROWN SILTY SLIGHTLY GRAVELLY CLAY			0.90	2.30							TRIAL PIT REMAINED DRY.
VERY WEAK BROWN THINLY LAMINATED MODERATELY WEATHERED SILTSTONE			(0.20)	2.50							TRIAL PIT STABLE.
TRIAL PIT COMPLETE AT 2.50M											

T.P. No.

Description of Strata	Reduced Level	Legend	Thickness	Depth	Samples from	Samples to	Samples Type	NMC	Apparent Cohesion kN/m2	Ø degrees	Daily Progress Water Levels Remarks
Ground Level											

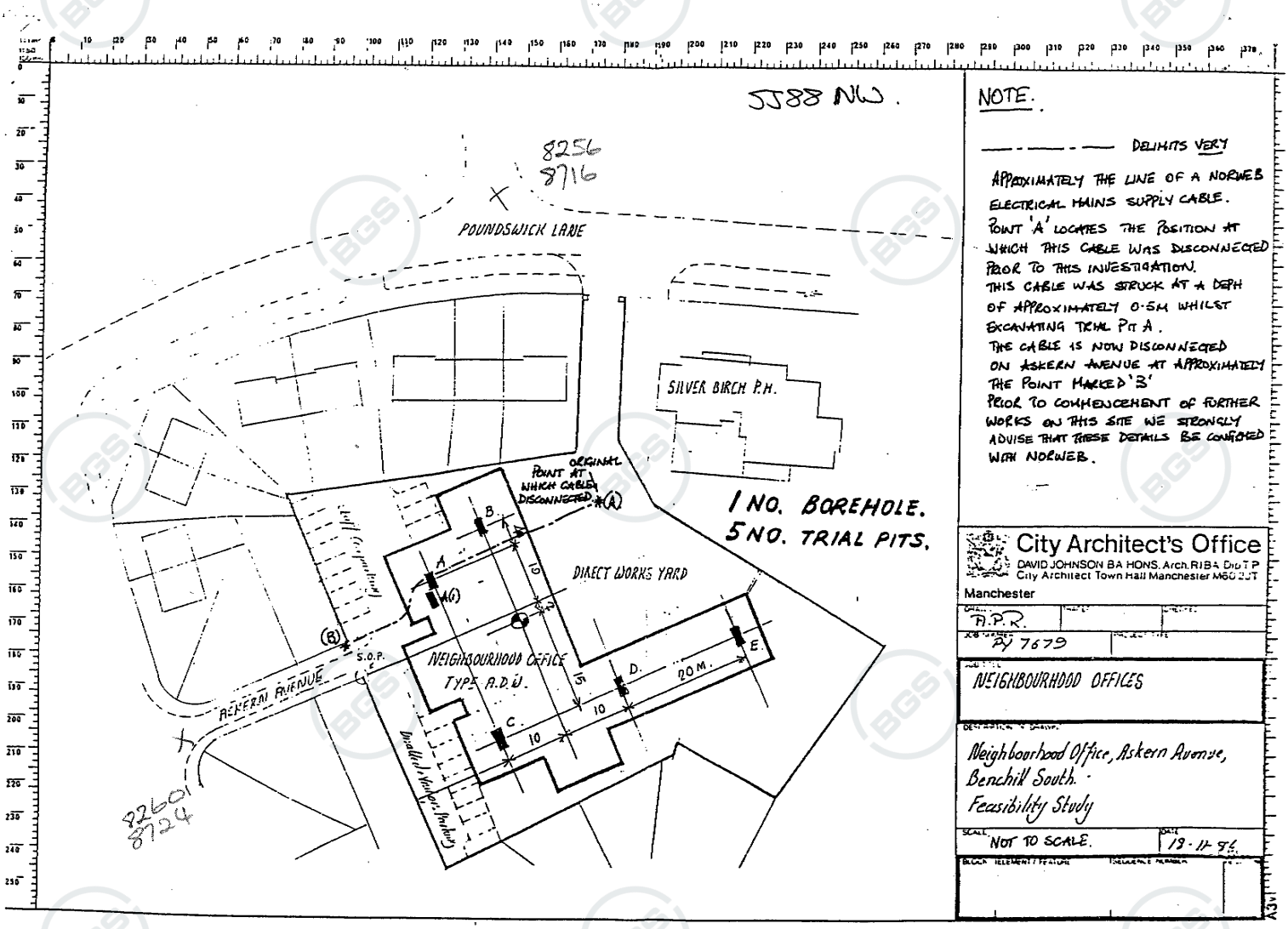
U - undisturbed D - disturbed B - bulk W - groundwater P - standard penetration CP - cone penetration V - vane test

Webberley

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

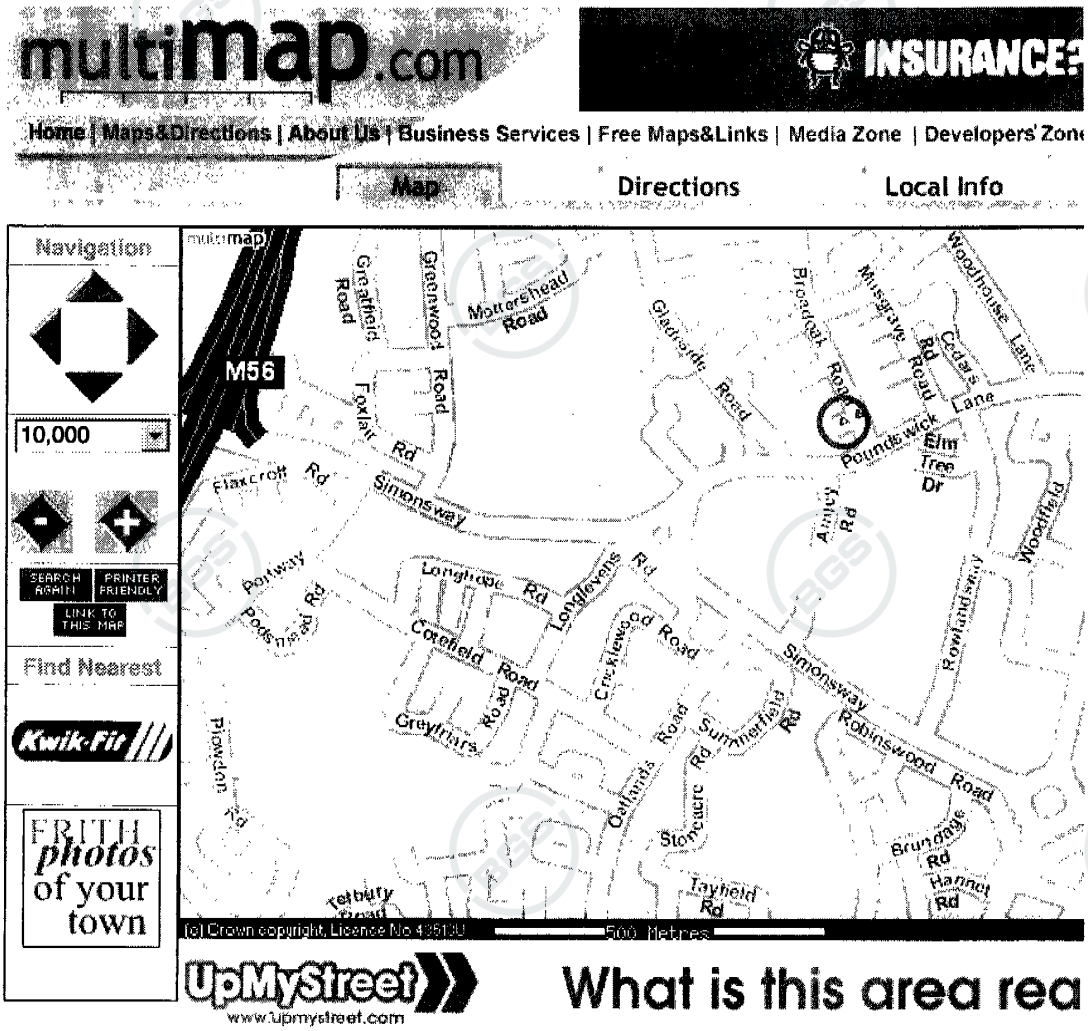
BGS ID: 915683 : BGS Reference: SJ88NW1002
British National Grid (27700) : 382520,387220



Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 915683 : BGS Reference: SJ88NW1002
British National Grid (27700) : 382520,387220



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Contact BGS: ngdc@bgs.ac.uk

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Site	Number
MANCHESTER METROLINK PHASE 3B - AIRPORT EXTENSION	WS41_AIR

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Drive-in Window Sampler		61.04	JACOBS ENGINEERING UK LTD	PN102241
	Location	**Dates**	**Engineer**	**Sheet**
	382547.175 E 387081.56 N	18/06/2010	MPACT	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
			None encountered.(1) at 0.00m.		(0.60)	Grass over TOPSOIL: Dark brown slightly gravelly silty sand with some rootlets and a low cobble content. Gravel is fine to coarse angular to subangular of brick and glass		▽1
0.50	E			60.44	0.60	Reddish brown slightly gravelly silty fine to medium SAND . Gravel is fine to medium and subangular of mudstone		
					(0.50)			
				59.94	1.10	Extremely weak reddish brown MUDSTONE recovered as clay. With occasional bands of sandstone.		
1.20-1.65 1.20 1.50	SPT N=27 D DN2276		5,6/6,6,7,8					
					(1.20)			
2.00-2.37	SPT 50/215		11,13/15,18,17,0					
			18/06/2010:	58.74	2.30	Extremely weak light grey SANDSTONE.		
			18/06/2010:	58.67	2.37	Complete at 2.37m		

Remarks	Scale (approx)	Logged By
	1:50	TC
	Figure No.	

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British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Site	Number
MANCHESTER METROLINK PHASE 3B - AIRPORT EXTENSION	WS42_AIR

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Drive-in Window Sampler		60.88	JACOBS ENGINEERING UK LTD	PN102241
	Location	**Dates**	**Engineer**	**Sheet**
	382540.321 E 387049.563 N	18/06/2010	MPACT	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
			None encountered(1) at 0.00m.		(0.40)	Grass over TOPSOIL: Brown sandy gravelly silt with some rootlets. Gravel is fine to coarse and subangular of limestone, coal, clinker and brick fragments.		▽1
				60.48	0.40			
0.50	E			60.28	(0.20) 0.60	MADE GROUND: Yellowish grey medium to coarse gravel of limestone.		
1.00	E				(0.80)	MADE GROUND: Soft to firm reddish brown slightly sandy slightly gravelly clay with low subangular cobble content. Gravel is fine to coarse subangular to subrounded of various lithologies and brick fragments.		
1.30	D			59.48	1.40			
				59.43	(0.25)	Extremely weak light grey SILTSTONE.		
1.60	DN2274			59.23	1.65			
			18/06/2010:	59.18	1.70	Extremely weak reddish brown MUDSTONE recovered as clay.		
			18/06/2010:			Extremely weak light grey SILTSTONE		
						Complete at 1.70m		

Remarks	Scale (approx)	Logged By
	1:50	TC
	Figure No.	

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British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Site	Number
MANCHESTER METROLINK PHASE 3B - AIRPORT EXTENSION	WS43_AIR

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Drive-in Window Sampler		60.04	JACOBS ENGINEERING UK LTD	PN102241
	Location	**Dates**	**Engineer**	**Sheet**
	382557.588 E 387026.903 N	18/06/2010	MPACT	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
			None encountered(1) at 0.00m.	59.89	(0.15) 0.15	Grass over TOPSOIL: Dark brown slightly silty slightly gravelly sand with rootlets. Gravel is fine to coarse subangular to rounded of various lithologies including limestone.		▽1
0.10	E			59.64	(0.25) 0.40	MADE GROUND: Greyish brown slightly sandy fine to coarse subangular gravel of limestone		
0.50	E							
0.80	DN2274				(1.16)	Very dense reddish brown slightly silty gravelly fine to coarse SAND. Gravel is fine to medium subangular to subrounded of various lithologies.		
1.20-1.56	SPT 50/205		10,12/14,19,17,0	58.48	1.56			
			18/06/2010:			Complete at 2.65m		
			18/06/2010: 18/06/2010:					
2.20-2.65	DN2232							

Remarks	Scale (approx)	Logged By
	1:50	TC
	Figure No.	

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British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Site	Number
MANCHESTER METROLINK PHASE 3B - AIRPORT EXTENSION	WSTP100_AIR

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Drive-in Window Sampler		60.28	JACOBS ENGINEERING UK LTD	PN102241
	Location	**Dates**	**Engineer**	**Sheet**
	382569.315 E 387070.499 N	18/06/2010	MPACT	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.15	E			60.08	(0.20) 0.20	Grass over TOPSOIL: Dark brown slightly gravelly silty sand with rootlets. Gravel is fine to coarse subangular to subrounded of various lithologies.		
				59.88	(0.20) 0.40	Light grey slightly sandy fine to coarse GRAVEL of various lithologies.		
0.70	E				(1.10)	Stiff reddish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is fine to medium subangular to angular of various lithologies. At 1.20m, low strength		▽1
1.00	DN2270		Slow inflow(1) at 1.10m.					
1.20-1.50	UN2270		18/06/2010:	58.78	1.50	Complete at 1.50m		
			18/06/2010:					

Remarks

Scale (approx)	Logged By
1:50	TC

Figure No.

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Appendix F – Risk Assessment Methodology

Civic Earth Risk Assessment Methodology

Civic Earth's risk assessment methodology is based on the CIRIA C552 (2001) Contaminated Land Risk Assessment – A Guide to Good Practice[1].

The assessment approach is to quantify the potential risk at Phase 1 Stage via risk estimation and risk evaluation. This defines the overall risk category that can be used to identify likely actions to address the potential risk or undertake further risk evaluation.

The methodology is a qualitative approach and is undertaken for each identified potential contaminant linkage (source-pathway-receptor) identified for the site in accordance with the October 2020 Land Contamination Risk Management Guidance (LCRM)[2].

The methodology requires the classification of the following:

- The magnitude of the consequence (severity) of a risk occurring; and
- The magnitude of the probability (likelihood) of a risk occurring.

The potential consequences of contamination risks occurring at a site are classified in accordance with Table 1 below, which is based on CIRIA guidance[1].

Table 1: Classification of Consequence Ratings

Classification	Definition of Consequence	Examples
Severe	Short-term (acute) risks to human health. Short-term (acute) risk of pollution of sensitive water resource or ecosystem Catastrophic damage to crops/ building/ property/ infrastructure, including off-site soils	High concentration of cyanide on the surface of an informal recreation area Major spillage of contaminants from site into controlled waters Explosion causing building collapse
Medium	Long-term (chronic) risks to human health Long-term (chronic) pollution of sensitive water resource Significant change in an ecosystem/contamination of off-site soils	Concentrations of a contaminant on site exceeding the generic or site specific assessment criteria Leaching of contaminants from a site into a major or minor aquifer Death of species within a designated nature reserve
Mild	Pollution of non-sensitive water resource Significant damage to crops/ buildings/ property /infrastructure Damage to an ecosystem or sensitive buildings/structures/services	Pollution of a non-classified groundwater Damage to a building rendering it unsafe to occupy (e.g. foundation damage resulting in instability)
Minor	Easily preventable non-permanent effects Harm, although not necessarily significant harm, which may result in financial loss or expenditure resolve Easily repairable effects of damage to building/ structures/ services	Presence of contamination at concentrations which require the use of personal protective equipment during site work Loss of plants in a landscaping scheme/discolouration of concrete

The potential probability of the risks being realised are classified in accordance with the ratings set out in Table 2, which are based on CIRIA guidance[1]. It should be noted that where a potential contaminant linkage has not been identified the likelihood is considered to be negligible.

[1] CIRIA, (2001). Contaminated Land Risk Assessment. A Guide to Good Practice. CIRIA C552.

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

Table 2: Classification of Probability Ratings

Classification	Definition of Consequence
High likelihood	There is a contaminant linkage and an event that either appears very likely in the short term and almost inevitable in the long term, or there is evidence at the receptor that an event has occurred
Likely	There is a contaminant linkage and all the elements are present in the right place which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term
Low likelihood	There is a contaminant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such an event would take place and is less likely in the short term
Unlikely	There is a contaminant linkage but circumstances are such that it is improbable that an event would occur even in the very long term

In accordance with C552, the risk classifications for each potential contaminant linkage are classified in accordance with the matrix of consequence and probability set out in Table 3. The definitions for the risk classifications are presented in Table 4.

Table 3: Risk Classification Matrix

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High	High	Moderate	Moderate/Low
	Likely	High	Moderate	Moderate/Low	Low
	Low Likelihood	Moderate	Moderate/Low	Low	Very Low
	Unlikely	Moderate/Low	Low	Very Low	Very Low

Table 4: Risk Classification Definitions

Classification	Definition
Very High	There is a high probability that severe harm could arise to a designated receptor from the identified hazard or there is evidence that severe harm is currently happening. This risk, if realised, is likely to result in substantial liability. Urgent investigation (if not already undertaken) and remediation are likely to be required.
High	Harm is likely to arise to a designated receptor from the identified hazard. Realisation of the risk is likely to result in substantial liability. Urgent investigation (if not already undertaken) and remediation are likely to be required.
Moderate	It is possible that harm could arise to a designated receptor from the identified hazard. However, it is either relatively unlikely that such harm would be severe or if any harm were to occur it is more than likely that the harm would be relatively mild. Urgent investigation (if not already undertaken) is normally required to clarify the potential risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low	It is possible that harm could arise to a designated receptor from the identified hazard, but it is considered likely that this harm, if realised, would at worse normally be mild.
Very Low	There is a low possibility that harm could arise to a designated receptor from the identified hazard. In the event of such harm being realised it is not likely to be severe.

Appendix G – Exploratory Hole Records

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF / Checked By: KP	
Location ID:	**RC01**	Location Type: Rotary cored	
		Coords: 382229.28E/387207.51N	Level: 58.50mOD
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 1 of 2		Date Start: 21/08/2025	Date End: 22/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	5.10	-	-
1.20	15.00	RC	Beretta GT			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm) min avg max
						58.30	0.20		Tarmacadam hardstanding.					
						58.25	0.25		[MADE GROUND]					
		0.40 0.40	B 1 ES 1			57.90	0.60		Light grey slightly silty sandy gravel. Gravel is angular to subangular fine to coarse of limestone. Sand is fine to coarse. [MADE GROUND]					
	1.0	1.20 - 1.65	D 1	SPT(S) 1.20m N=22 (4,3/4,5,5,8)					Black to red slightly silty sandy gravel. Gravel is angular to subangular fine to coarse of brick, tile, mudstone and limestone. Sand is fine to coarse. [MADE GROUND]					
		1.50 - 3.00 1.60 1.60	C 1 B 2 ES 2			57.00	1.50		Firm orangish brown mottled grey slightly sandy gravelly CLAY. Gravel is angular fine to coarse of mudstone lithorelics. Sand is fine to coarse. [GLACIAL TILL]					
						56.95	1.55		No recovery.					
	2.0								Firm orangish brown mottled grey slightly sandy gravelly CLAY. Gravel is angular fine to coarse of mudstone lithorelics. Sand is fine to coarse. [GLACIAL TILL] *from 2.20 to 3.00mbgl - Gravel content increases with depth.*	1.50 3.00	97	43	0	- - -
	3.0	3.00 - 3.45 3.00 - 4.50	D 2 C 2	SPT(C) 3.00m 50 (25 for 10mm/50 for 13mm)		55.50	3.00							
						55.35	3.15		No recovery.					
						55.10	3.40		Extremely weak light grey thinly bedded SILTSTONE. [BOLLIN MUDSTONE MEMBER]					
						55.05	3.45		MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	3.00 4.50	27	17	0	- - -
	4.0								No recovery.					
						54.10	4.40							
		4.50 - 4.95 4.50 - 6.00	D 3 C 3	SPT(C) 4.50m 50 (25 for 6mm/50 for 10mm)		54.00	4.50		MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER] No recovery.	4.50 6.00				- - -
	5.0				▼									
	6.0	6.00 - 7.50	C 4						MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
									Extremely weak thinly laminated brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean. [BOLLIN MUDSTONE MEMBER]	6.00 7.50	40	17	0	5 20 80
						51.60	6.90							
	7.0					51.40	7.10		MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
						51.10	7.40		Extremely weak thinly laminated brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean; 2) 80 degrees closely spaced rough planar clean. [BOLLIN MUDSTONE MEMBER]					
		7.50 - 9.00	C 5			50.75	7.75		Extremely weak to weak thinly to medium bedded MUDSTONE. Discontinuities: 1) 5 degrees close to wide spaced rough planar with orangish brown clay infill. [BOLLIN MUDSTONE MEMBER]	7.50 9.00	87	70	41	5 135 400
	8.0					50.35	8.15		No recovery.					
						49.70	8.80		Extremely weak to weak thinly to medium bedded MUDSTONE. Discontinuities: 1) 5 degrees close to wide spaced rough planar with orangish brown clay infill. [BOLLIN MUDSTONE MEMBER]					
	9.0	9.00 - 10.50	C 6			49.50	9.00		Extremely weak to weak thinly laminated to thinly bedded orangish brown mottled reddish brown and grey MUDSTONE. Discontinuities: 1) 5 degrees close spaced rough undulating mostly clean with rare clay infill; 2) 80 to 85 degrees close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]	9.00 10.50	100	100	7	5 39 100
						49.00	9.50							
	10.0													

Stratum continues onto next page

Notes:

1. Groundwater strike encountered at 5.10mbgl.
2. ES = Environmental Sample; D = Disturbed Sample; B = Bulk Sample; C = Core Sample.
3. Installation Details: 0.00m to 3.00m plain 63mm diameter pipe with bentonite; 3.00m to 15.00m slotted 63mm diameter pipe with gravel filter and geosock. Gas tap, bung and flush cover.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio	Serial No.
65%	BBL4

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	3.00	15.00

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF Checked By: KP	
Location ID:	**RC01**	Location Type: Rotary cored	
		Coords: 382229.28E/387207.51N	Level: 58.50mOD
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 2 of 2		Date Start: 21/08/2025	Date End: 22/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	5.10	-	-
1.20	15.00	RC	Beretta GT			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm) min avg max
						48.00	10.50		Extremely weak to weak thinly laminated to thinly bedded orangish brown mottled reddish brown and grey MUDSTONE. Discontinuities: 1) 5 degrees close spaced rough undulating mostly clean with rare clay infill; 2) 80 to 85 degrees close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
		10.50 - 12.00	C 7			47.80	10.70		MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	10.50 12.00	77	63	0	5 33 220
	11.0					47.20	11.30		Extremely weak to weak thinly laminated to thinly bedded orangish brown mottled reddish brown and grey MUDSTONE. Discontinuities: 1) 5 degrees close spaced rough undulating mostly clean with rare clay infill; 2) 80 to 85 degrees close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
						46.85	11.65		No recovery.					
						46.55	11.95		Extremely weak to weak thinly laminated to thinly bedded orangish brown mottled reddish brown and grey MUDSTONE. Discontinuities: 1) 5 degrees close spaced rough undulating mostly clean with rare clay infill; 2) 80 to 85 degrees close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
	12.0	12.00 - 13.50	C 8			46.40	12.10		No recovery.	12.00 13.50	97	83	0	5 64 310
						45.30	13.20		Extremely weak to weak thinly laminated to thinly bedded orangish brown mottled reddish brown and grey MUDSTONE. Discontinuities: 1) 5 degrees close spaced rough undulating mostly clean with rare clay infill; 2) 80 to 85 degrees close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
	13.0					45.20	13.30		MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
		13.50 - 15.00	C 9			45.05	13.45		Extremely weak to weak thinly laminated to thinly bedded orangish brown mottled reddish brown and grey MUDSTONE. Discontinuities: 1) 5 degrees close spaced rough undulating mostly clean with rare clay infill; 2) 80 to 85 degrees close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
	14.0					45.00	13.50		MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	13.50 15.00	100	97	30	5 46 140
						43.50	15.00		Very weak thinly to thickly laminated SILTSTONE. Discontinuities: 1) 5 degrees close spaced rough undulating clean; 2) 80 degrees etremely close to very close rough planar clean. [BOLLIN MUDSTONE MEMBER]					
	15.0								No recovery.					
									Extremely weak to weak thinly laminated to thinly bedded orangish greyt mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar mostly clean with occasional clay infill. [BOLLIN MUDSTONE MEMBER]					
									EOH at 15.00m - Achieved target depth					
	16.0													
	17.0													
	18.0													
	19.0													
	20.0													

Notes:

1. Groundwater strike encountered at 5.10mbgl.
2. ES = Environmental Sample; D = Disturbed Sample; B = Bulk Sample; C = Core Sample.
3. Installation Details: 0.00m to 3.00m plain 63mm diameter pipe with bentonite; 3.00m to 15.00m slotted 63mm diameter pipe with gravel filter and geosock. Gas tap, bung and flush cover.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio	Serial No.
65%	BBL4

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

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF Checked By: KP	
Location ID:	**RC02**	Location Type: Rotary cored	
Coords: 382252.47E/387145.44N	Level: 58.92mOD		
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 1 of 3		Date Start: 19/08/2025	Date End: 20/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	12.00	-	-
1.20	3.00	WS	Window Sample			
3.00	15.00	RC	Rig Beretta GT			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm) min avg max
						58.77	0.15		Tarmacadam hardstanding.					
		0.30	ES 1						[MADE GROUND]					
						58.47	0.45		Blackish brown slightly sandy clayey gravel. Gravel is angular to subangular fine to coarse of mudstone and bituminous material.					
						58.32	0.60		[MADE GROUND]					
									Soft to firm reddish brown gravelly clay. Gravel is subangular to subrounded fine to coarse of mudstone and brick.					
	1.0								[MADE GROUND]					
		1.20 - 2.00	D 1	SPT(S) 1.20m N=10 (2,2/2,2,2,4)					Firm reddish brown gravelly CLAY. Gravel is subangular to subrounded fine to coarse of mudstone.					
				HSV 1.40m (p)= 51 kPa					[GLACIAL TILL]					
						57.22	1.70		Firm to stiff red gravelly CLAY. Gravel is subangular to rounded fine to coarse of coal and mudstone.					
				HSV 1.85m (p)= 60 kPa					[GLACIAL TILL]					
	2.0	2.00 - 3.00	D 2	SPT(S) 2.00m N=30 (1,8/7,8,7,8)					MUDSTONE recovered as brown slightly silty gravel. Gravel is angular fine to coarse of mudstone lithorelics.					
				HSV 2.10m (p)= 56 kPa					[WEATHERED BOLLIN MUDSTONE MEMBER]					
									Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth clean; 2) 80 degrees close spaced stepped rough clean.					
						55.92	3.00		[BOLLIN MUDSTONE MEMBER]					
	3.0	3.00 - 4.50	C 1	SPT(S) 3.00m N=28 (1,2/3,8,9,8)		55.62	3.30		MUDSTONE recovered as brown slightly silty gravel. Gravel is angular fine to coarse of mudstone lithorelics.					
									[BOLLIN MUDSTONE MEMBER]					
									SILTSTONE recovered as light grey slightly silty gravel. Gravel is angular fine to coarse of siltstone lithorelics.	3.00 4.50	100	83	23	5 38 120
									[BOLLIN MUDSTONE MEMBER]					
	4.0								Extremely weak thinly laminated greenish grey SILTSTONE.					
						54.62	4.30		[BOLLIN MUDSTONE MEMBER]					
		4.50 - 6.00	C 2						Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth clean; 2) 80 degrees close spaced stepped rough clean.					
									[BOLLIN MUDSTONE MEMBER]					
	5.0								MUDSTONE recovered as orangish brown gravelly cobbles. Cobbles are angular of mudstone. Gravel is angular fine to coarse of mudstone lithorelics.	4.50 6.00	100	78	23	5 47 140
									[BOLLIN MUDSTONE MEMBER]					
						53.12	5.80		Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth clean; 2) 80 degrees close spaced stepped rough clean.					
						53.02	5.90		[BOLLIN MUDSTONE MEMBER]					
						~~52.97~~	~~5.95~~		MUDSTONE recovered as orangish brown gravelly cobbles. Cobbles are angular of mudstone. Gravel is angular fine to coarse of mudstone lithorelics.					
	6.0	6.00 - 7.50	C 3			52.92	6.00		[BOLLIN MUDSTONE MEMBER]	6.00 7.50	100	0	9	5 35 140
						52.82	6.10		Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth clean; 2) 80 degrees close spaced stepped rough clean.					
						52.52	6.40		[BOLLIN MUDSTONE MEMBER]					
						~~52.47~~	~~6.45~~		MUDSTONE recovered as orangish brown gravelly cobbles. Cobbles are angular of mudstone. Gravel is angular fine to coarse of mudstone lithorelics.					
									[BOLLIN MUDSTONE MEMBER]					
	7.0								Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth clean; 2) 80 degrees close spaced stepped rough clean.					
						51.37	7.55		[BOLLIN MUDSTONE MEMBER]					
		7.50 - 9.00	C 4						MUDSTONE recovered as orangish brown gravelly cobbles. Cobbles are angular of mudstone. Gravel is angular fine to coarse of mudstone lithorelics.					
						51.17	7.75		[BOLLIN MUDSTONE MEMBER]					
	8.0								Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth clean.	7.50 9.00	100	80	7	5 44 100
						50.62	8.30		[BOLLIN MUDSTONE MEMBER]					
						~~50.57~~	~~8.35~~		MUDSTONE recovered as orangish brown clayey gravel. Gravel is angular fine to coarse of mudstone lithorelics.					
						50.32	8.60		[BOLLIN MUDSTONE MEMBER]					
						50.22	8.70		Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth clean.					
						49.92	9.00		[BOLLIN MUDSTONE MEMBER]					
	9.0	9.00 - 10.50	C 5			49.82	9.10		MUDSTONE recovered as orangish brown gravelly cobbles. Cobbles are angular of mudstone. Gravel is angular fine to coarse of	9.00 10.50	100	80	56	5 114 310
	10.0													

Stratum continues onto next page

Notes:

1. Groundwater strike encountered at 12.00mbgl.
2. ES = Environmental Sample; D = Disturbed Sample; B = Bulk Sample; C = Core Sample.
3. Installation Details: 0.00m to 3.00m plain 63mm diameter pipe with bentonite; 3.00m to 15.00m slotted 63mm diameter pipe with gravel filter and geosock. Gas tap, bung and flush cover.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio	Serial No.
60%	BBL7

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	3.00	15.00

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF Checked By: KP	
Location ID:	**RC02**	Location Type: Rotary cored	
		Coords: 382252.47E/387145.44N	Level: 58.92mOD
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 2 of 3		Date Start: 19/08/2025	Date End: 20/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	12.00	-	-
1.20	3.00	WS	Window Sample Rig			
3.00	15.00	RC	Beretta GT			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm) min avg max
									MUDSTONE recovered as orangish brown gravelly cobbles. Cobbles are angular of mudstone. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
		10.50 - 12.00	C 6			48.32	10.60							
						48.12	10.80		Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth with clayey gravel infill; 2) 80 degrees close spaced stepped rough with clayey gravel infill. [BOLLIN MUDSTONE MEMBER]	10.50 12.00	100	95	65	5 155 480
	11.0								MUDSTONE recovered as orangish brown gravelly cobbles. Cobbles are angular of mudstone. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
	12.0	12.00 - 13.50	C 7		▼	46.92	12.00		Extremely weak to weak thinly laminated to thinly bedded orangish brown mottled grey SILTSTONE. Discontinuities: 1) 5 to 20 degrees extremely close to medium close spaced stepped rough with clayey gravel infill. Gravel is angular fine to medium of mudstone; 2) 80 degrees medium close spaced undulating rough clean. [BOLLIN MUDSTONE MEMBER]					
						46.82	12.10							
						46.72	12.20							
						~~46.67~~	~~12.25~~							
						~~46.57~~	~~12.35~~							
									MUDSTONE recovered as orangish brown clayey gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	12.00 13.50	93	73	28	10 57 130
	13.0					45.77	13.15							
		13.50 - 15.00	C 8			~~45.72~~	~~13.20~~		Extremely weak to weak thinly laminated orangish brown to dark grey SILTSTONE. Discontinuities: 1) 5 degrees extremely close to medium close spaced rough smooth clean; 2) 80 degrees medium close spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
						45.22	13.70							
						45.07	13.85		No recovery.					
	14.0								MUDSTONE recovered as orangish brown gravelly cobbles. Cobbles are angular of mudstone. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	13.50 15.00	100	49	15	5 41 110
						44.62	14.30							
						~~44.57~~	~~14.35~~							
						~~44.47~~	~~14.45~~							
						44.42	14.50		Extremely weak to weak thinly laminated orangish brown to dark grey SILTSTONE. Discontinuities: 1) 5 degrees extremely close to medium close spaced rough smooth clean; 2) 80 degrees medium close spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
	15.0					43.92	15.00		MUDSTONE recovered as orangish brown clayey gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
									Extremely weak to weak thinly laminated orangish brown to dark grey SILTSTONE. Discontinuities: 1) 5 degrees extremely close to medium close spaced rough undulating clean. [BOLLIN MUDSTONE MEMBER]					
									No recovery.					
	16.0								Extremely weak to weak thinly laminated orangish brown to dark grey SILTSTONE. Discontinuities: 1) 5 degrees extremely close to medium close spaced rough undulating clean. [BOLLIN MUDSTONE MEMBER]					
									MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
	17.0								Extremely weak to weak thinly laminated to thinly bedded reddish brown to drak grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth with brown clay infill; 2) 75 degrees close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]					
									MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
	18.0								Extremely weak to weak thinly laminated to thinly bedded reddish brown to drak grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth with brown clay infill; 2) 75 degrees close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]					
									MUDSTONE recovered as orangish brown gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
	19.0								Extremely weak to weak thinly laminated to thinly bedded reddish brown to drak grey MUDSTONE. Discontinuities: 1) 5 degrees					
	20.0													

Stratum continues onto next page

Notes:

1. Groundwater strike encountered at 12.00mbgl.
2. ES = Environmental Sample; D = Disturbed Sample; B = Bulk Sample; C = Core Sample.
3. Installation Details: 0.00m to 3.00m plain 63mm diameter pipe with bentonite; 3.00m to 15.00m slotted 63mm diameter pipe with gravel filter and geosock. Gas tap, bung and flush cover.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
				60%	BBL7

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

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF / Checked By: KP	
Location ID:	**RC02**	Location Type: Rotary cored	
Coords: 382252.47E/387145.44N	Level: 58.92mOD		
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 3 of 3		Date Start: 19/08/2025	Date End: 20/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	12.00	-	-
1.20	3.00	WS	Window Sample			
3.00	15.00	RC	Rig Beretta GT			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Rotary Coring: Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm): min avg max
	21.0								Extremely weak to weak thinly laminated to thinly bedded reddish brown to drak grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough smooth with brown clay infill; 2) 75 degrees close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]					
	22.0													
	23.0													
	24.0													
	25.0													
	26.0													
	27.0													
	28.0													
	29.0													
	30.0								EOH at 15.00m - Achieved target depth					

Notes:

1. Groundwater strike encountered at 12.00mbgl.
2. ES = Environmental Sample; D = Disturbed Sample; B = Bulk Sample; C = Core Sample.
3. Installation Details: 0.00m to 3.00m plain 63mm diameter pipe with bentonite; 3.00m to 15.00m slotted 63mm diameter pipe with gravel filter and geosock. Gas tap, bung and flush cover.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
				60%	BBL7

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

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF Checked By: KP	
Location ID:	**RC03**	Location Type: Rotary cored	
		Coords: 382297.58E/387140.25N	Level: 59.71mOD
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 1 of 2		Date Start: 18/08/2025	Date End: 19/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	12.00	-	-
1.20	15.00	RC	Beretta GT			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm) min avg max
						59.51	0.20		Tarmacadam hardstanding. [MADE GROUND]					
		0.50	ES 1			59.11	0.60		Light brown to light grey sandy gravel. Gravel is angular to subangular fine to coarse of limestone. Sand is fine to coarse. Rare angular to subangular cobbles of limestone and tarmac.					
						58.91	0.80		[MADE GROUND]					
	1.0								Grey concrete. [MADE GROUND]					
									Soft to firm dark reddish brown mottled grey slightly sandy slightly silty CLAY. Sand is fine to coarse. Rare angular to subangular fine to medium gravel of mudstone lithorelics. [GLACIAL TILL]	1.50 3.00	80	77	0	
	2.0													
									No recovery.					
	3.0					56.71	3.00		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey interbedded SILTSTONE and MUDSTONE. Discontinuities: 1) 5 to 10 degrees extremely close to medium spaced stepped rough clean; 2) 80 degrees extremely close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
						56.11	3.60		No recovery.	3.00 4.50	60	45	23	
	4.0								MUDSTONE recovered as slightly sandy gravel. Gravel is angular fine to coarse of mudstone lithorelics. Sand is fine to coarse. [BOLLIN MUDSTONE MEMBER]					
		4.50 - 6.00	C 1			55.21	4.50		Extremely weak to weak thinly laminated to thinly bedded orangish brown mottled greenish grey MUDSTONE. Discontinuities: 1) 5 degrees very close to close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]					
						54.91	4.80		Extremely weak to weak thinly laminated greenish grey SILTSTONE. Discontinuities: 1) 5 degrees closely spaced undulating rough clean; 2) 80 degrees closely spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
	5.0					54.71	5.00			4.50 6.00	80	69	21	20 76 110
						54.16	5.55		SILTSTONE recovered as slightly clayey silty gravel. Gravel is angular fine to coarse of siltstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
						53.91	5.80		Extremely weak to weak orangish brown to greenish grey thinly laminated interbedded SILTSTONE and MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium close spaced rough undulating clean; 2) 70 to 80 degrees close spaced stepped rough with slightly gravelly clay infill. Gravel is angular fine to medium of mudstone. [BOLLIN MUDSTONE MEMBER]					
	6.0	6.00 - 7.50	C 2			53.71	6.00			6.00 7.50	100	100	25	5 68 220
									Weak thickly laminated greenish grey SILTSTONE. Discontinuities: 1) 5 degrees close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]					
	7.0					52.46	7.25		No recovery.					
		7.50 - 9.00	C 3			52.21	7.50		Weak thickly laminated greenish grey SILTSTONE. Discontinuities: 1) 5 degrees close spaced rough smooth clean; 2) 80 degrees close spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
						52.11	7.60							
	8.0								Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees very close to close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]	7.50 9.00	93	80	43	5 60 170
						51.41	8.30		MUDSTONE recovered as brown slightly clayey gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
						51.01	8.70							
						50.91	8.80		Extremely weak to weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees very close to close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]					
	9.0	9.00 - 10.50	C 4			50.71	9.00		No recovery.					
									MUDSTONE recovered as brown silty clayey gravel. Gravel is angular to subangular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	9.00 10.50	40	21	7	20 54 100
						49.81	9.90							
	10.0													

Stratum continues onto next page

Notes:

1. Groundwater strike encountered at 12.00mbgl.
2. ES = Environmental Sample; C = Core Sample.
3. Installation Details: 0.00m to 2.00m plain 63mm diameter pipe with bentonite; 2.00m to 14.00m slotted 63mm diameter pipe with gravel filter and geosock; 14.00m to 15.00m backfilled with bentonite. Gas tap, bung and flush cover.
4. Strength / Density based on site Engineer's observations only.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio %	Serial No.

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	2.00	14.00

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF Checked By: KP	
Location ID:	**RC03**	Location Type: Rotary cored	
		Coords: 382297.58E/387140.25N	Level: 59.71mOD
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 2 of 2		Date Start: 18/08/2025	Date End: 19/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	12.00	-	-
1.20	15.00	RC	Beretta GT			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Rotary Coring: Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm): min avg max
						49.51	10.20		MUDSTONE recovered as brown silty clayey gravel. Gravel is angular to subangular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
		10.50 - 12.00	C 5			49.21	10.50		Extremely weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees very closely spaced rough smooth clean; 2) 80 degrees close spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
						49.01	10.70		No recovery.					
	11.0					48.66	11.05		Extremely weak to weak thinly laminated to thinly bedded greenish grey to light grey SILTSTONE. Discontinuities: 1) 5 degrees very close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]	10.50 12.00	10	87	65	5 23 90
						48.56	11.15							
						48.46	11.25							
						48.36	11.35							
						48.16	11.55							
						48.11	11.60							
	12.0	12.00 - 13.50	C 6		▼	47.71	12.00		SILTSTONE recovered as brown clayey gravel. Gravel is angular fine to coarse of siltstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
						47.51	12.20		Extremely weak to weak thinly laminated to thinly bedded greenish grey to light grey SILTSTONE. Discontinuities: 1) 5 degrees very close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]					
						47.01	12.70		SILTSTONE recovered as brown clayey gravel. Gravel is angular fine to coarse of siltstone lithorelics. [BOLLIN MUDSTONE MEMBER]	12.00 13.50	80	77	37	5 52 150
	13.0					46.31	13.40		Extremely weak to weak thinly laminated to thinly bedded greenish grey to light grey SILTSTONE. Discontinuities: 1) 5 degrees very close spaced rough smooth clean; 2) 80 degrees very close to close spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
		13.50 - 15.00	C 7						SILTSTONE recovered as brown slightly silty gravel. Gravel is angular fine to coarse of siltstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
	14.0								Extremely weak to weak thinly laminated to thinly bedded greenish grey to light grey SILTSTONE. Discontinuities: 1) 5 degrees very close spaced rough smooth clean. [BOLLIN MUDSTONE MEMBER]	13.50 15.00				- - -
						44.71	15.00		No recovery.					
	15.0								SILTSTONE recovered as brown clayey gravel. Gravel is angular fine to coarse of siltstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
									SILTSTONE recovered as brown slightly silty gravel. Gravel is angular fine to coarse of siltstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
									No recovery.					
									EOH at 15.00m - Achieved target depth					
	16.0													
	17.0													
	18.0													
	19.0													
	20.0													

Notes:

1. Groundwater strike encountered at 12.00mbgl.
2. ES = Environmental Sample; C = Core Sample.
3. Installation Details: 0.00m to 2.00m plain 63mm diameter pipe with bentonite; 2.00m to 14.00m slotted 63mm diameter pipe with gravel filter and geosock; 14.00m to 15.00m backfilled with bentonite. Gas tap, bung and flush cover.
4. Strength / Density based on site Engineer's observations only.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio %	Serial No.
				Install Response Zones	
				Ref	From (m) / To (m)

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF / Checked By: KP	
Location ID:	**RC06**	Location Type: Rotary cored	
Coords: 382266.98E/387174.45N	Level: 58.68mOD		
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 1 of 3		Date Start: 21/08/2025	Date End: 21/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	11.00	-	-
1.20	15.00	RC	Beretta GT			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Rotary Coring: Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm) min avg max
						58.48	0.20		Tarmacadam hardstanding.					
						58.38	0.30		[MADE GROUND]					
						57.88	0.80		Light grey slightly silty sandy gravel. Gravel is angular to subangular fine to coarse of limestone. Sand is fine to coarse. [MADE GROUND]					
	1.0			SPT(S) 1.20m 50 (25 for 95mm/50 for 90mm)		57.18	1.50		Black to red slightly silty sandy gravel. Gravel is angular to subangular fine to coarse of brick, tile, mudstone and limestone. Sand is fine to coarse. [MADE GROUND]					
		1.50 - 3.00	C 1			57.03	1.65		Firm orangish brown mottled grey slightly sandy gravelly CLAY. Gravel is angular fine to coarse of mudstone lithorelics. Sand is fine to coarse. [GLACIAL TILL]					
	2.0					56.48	2.20		No recovery.	1.50 3.00	90	77	49	5 141 550
						56.13	2.55		Soft to firm orangish brown slightly silty gravelly CLAY. Gravel is angular to subangular fine to coarse of mudstone and siltstone lithorelics. [GLACIAL TILL]					
						56.03	2.65		Extremely weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close spaced rough undulating clean.					
	3.0	3.00 - 4.50	C 2			55.68	3.00		[WEATHERED BOLLIN MUDSTONE MEMBER]					
						55.58	3.10		MUDSTONE recovered as slightly clayey gravel. Gravel is angular to subangular fine to coarse of mudstone lithorelics. [WEATHERED BOLLIN MUDSTONE MEMBER]					
	4.0								Extremely weak thinly laminated orangish brown MUDSTONE. Discontinuities: 1) 5 degrees extremely close spaced rough undulating clean; 2) 80 degrees medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]	3.00 4.50	93	93	34	5 30 220
						54.18	4.50		No recovery.					
		4.50 - 6.00	C 3			54.03	4.65		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium spaced rough undulating clean; 2) 80 to 85 degrees very close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
	5.0					53.78	4.90		MUDSTONE recovered as orangish brown slightly silty gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	4.50 6.00	90	63	23	5 46 130
						53.73	4.95		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium spaced rough undulating clean. [BOLLIN MUDSTONE MEMBER]					
						53.08	5.60		No recovery.					
	6.0	6.00 - 7.50	C 4			52.83	5.85		MUDSTONE recovered as orangish brown slightly silty gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	6.00 7.50	60	53	7	5 37 100
						52.68	6.00		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium spaced rough undulating clean. [BOLLIN MUDSTONE MEMBER]					
						52.58	6.10		MUDSTONE recovered as orangish brown slightly silty gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
						52.28	6.40		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium spaced rough undulating clean; 2) 80 to 85 degrees very close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
	7.0					51.78	6.90		MUDSTONE recovered as orangish brown slightly silty gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	7.50 9.00	200	53	0	5 23 60
		7.50 - 9.00	C 5			51.28	7.40		No recovery.					
						51.18	7.50		MUDSTONE recovered as orangish brown slightly silty gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]					
						51.08	7.60		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium spaced rough undulating clean; 2) 80 to 85 degrees very close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
	8.0					50.88	7.80		No recovery.					
						50.38	8.30		MUDSTONE recovered as orangish brown slightly silty gravel. Gravel is angular fine to coarse of mudstone lithorelics. [BOLLIN MUDSTONE MEMBER]	9.00 10.50	100	93	38	5 43 180
						49.83	8.85		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium spaced rough undulating clean; 2) 80 to 85 degrees very close to medium spaced stepped rough clean. [BOLLIN MUDSTONE MEMBER]					
	9.0	9.00 - 10.50	C 6			49.68	9.00		No recovery.					
						49.58	9.10		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium spaced rough undulating clean;					
	10.0													

Stratum continues onto next page

Notes:

1. Groundwater strike encountered at 11.00mbgl.
2. C = Core Sample.
3. Installation Details: 0.00m to 3.00m plain 63mm diameter pipe with bentonite; 3.00m to 15.00m slotted 63mm diameter pipe with gravel filter and geosock. Gas tap, bung and flush cover.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
				65%	BBL4

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	3.00	15.00

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF Checked By: KP	
Location ID:	**RC06**	Location Type: Rotary cored	
		Coords: 382266.98E/387174.45N	Level: 58.68mOD
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 2 of 3		Date Start: 21/08/2025	Date End: 21/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	11.00	-	-
1.20	15.00	RC	Beretta GT			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Rotary Coring: Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm): min avg max
		10.50 - 12.00	C 7			48.18	10.50		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium spaced rough undulating clean; 2) 80 to 85 degrees very close to medium spaced stepped rough clean.					
						47.93	10.75		[BOLLIN MUDSTONE MEMBER]					
	11.0				▼				No recovery.					
						47.38	11.30		Extremely weak to very weak thinly laminated to thinly bedded orangish brown mottled grey MUDSTONE. Discontinuities: 1) 5 degrees extremely close to medium spaced rough undulating clean.	10.50 12.00	83	77	11	5 31 280
						~~47.33~~	~~11.35~~							
						47.13	11.55		[BOLLIN MUDSTONE MEMBER]					
						~~47.08~~	~~11.60~~		MUDSTONE recovered as orangish brown slightly silty gravel. Gravel is angular fine to coarse of mudstone lithorelics.					
	12.0	12.00 - 13.50	C 8			46.68	12.00							
						46.53	12.15		[BOLLIN MUDSTONE MEMBER]					
						46.23	12.45		Extremely weak to weak thinly laminated to thinly bedded light grey to dark grey mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean.					
						46.13	12.55		[BOLLIN MUDSTONE MEMBER]	12.00 13.50	90	77	11	5 41 160
						45.93	12.75		*from 7.80 to 8.30mbgl - Mica noted on laminations.*					
						~~45.88~~	~~12.80~~							
	13.0					45.58	13.10		SILTSTONE recovered as gravel. Gravel is angular fine to coarse of siltstone lithorelics.					
						~~45.53~~	~~13.15~~		[BOLLIN MUDSTONE MEMBER]					
		13.50 - 15.00	C 9			45.18	13.50		Extremely weak to weak thinly laminated to thinly bedded light grey to dark grey mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean.					
	14.0								[BOLLIN MUDSTONE MEMBER]					
									SILTSTONE recovered as gravel. Gravel is angular fine to coarse of siltstone lithorelics.					
									[BOLLIN MUDSTONE MEMBER]	13.50 15.00	100	100	0	5 16 70
									Extremely weak to weak thinly laminated to thinly bedded light grey to dark grey mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean; 2) 85 degrees extremely close spaced stepped rough clean.					
	15.0					43.68	15.00		[BOLLIN MUDSTONE MEMBER]					
									No recovery.					
									Extremely weak to weak thinly laminated to thinly bedded light grey to dark grey mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean.					
									[BOLLIN MUDSTONE MEMBER]					
	16.0								SILTSTONE recovered as gravel. Gravel is angular fine to coarse of siltstone lithorelics.					
									[BOLLIN MUDSTONE MEMBER]					
									Extremely weak to weak thinly laminated to thinly bedded light grey to dark grey mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean.					
									[BOLLIN MUDSTONE MEMBER]					
	17.0								SILTSTONE recovered as gravel. Gravel is angular fine to coarse of siltstone lithorelics.					
									[BOLLIN MUDSTONE MEMBER]					
									Extremely weak to weak thinly laminated to thinly bedded light grey to dark grey mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean.					
									[BOLLIN MUDSTONE MEMBER]					
	18.0								No recovery.					
									Very weak thinly laminated to thinly bedded greenish SILTSTONE. Discontinuities: 1) 5 degrees extremely close to very close spaced rough undulating clean.					
									[BOLLIN MUDSTONE MEMBER]					
									SILTSTONE recovered as gravel. Gravel is angular fine to coarse of siltstone lithorelics.					
	19.0								[BOLLIN MUDSTONE MEMBER]					
									Extremely weak to weak thinly laminated to thinly bedded light grey to dark grey mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean.					
									[BOLLIN MUDSTONE MEMBER]					
									SILTSTONE recovered as gravel. Gravel is angular fine to coarse of siltstone lithorelics.					
	20.0								[BOLLIN MUDSTONE MEMBER]					

Stratum continues onto next page

Notes:

1. Groundwater strike encountered at 11.00mbgl.
2. C = Core Sample.
3. Installation Details: 0.00m to 3.00m plain 63mm diameter pipe with bentonite; 3.00m to 15.00m slotted 63mm diameter pipe with gravel filter and geosock. Gas tap, bung and flush cover.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
				65%	BBL4

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

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: JF / Checked By: KP	
Location ID:	**RC06**	Location Type: Rotary cored	
		Coords: 382266.98E/387174.45N	Level: 58.68mOD
Status:	FINAL	Scale: 1:50	Final Depth: 15.00
Sheet 3 of 3		Date Start: 21/08/2025	Date End: 21/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	11.00	-	-
1.20	15.00	RC	Beretta GT			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Rotary Coring: Core Run	TCR (%)	SCR (%)	RQD (%)	Fract (mm) min avg max
	21.0								Extremely weak to weak thinly laminated to thinly bedded light grey to dark grey mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean. [BOLLIN MUDSTONE MEMBER]					
									No recovery.					
									Extremely weak to weak thinly laminated to thinly bedded light grey to dark grey mottled orangish brown SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean. [BOLLIN MUDSTONE MEMBER]					
	22.0								Extremely weak to weak thinly laminated to thinly bedded light greenish grey SILTSTONE. Discontinuities: 1) 5 degrees extremely close to close spaced rough planar clean. [BOLLIN MUDSTONE MEMBER]					
									EOH at 15.00m - Achieved target depth					
	23.0													
	24.0													
	25.0													
	26.0													
	27.0													
	28.0													
	29.0													
	30.0													

Notes:

1. Groundwater strike encountered at 11.00mbgl.
2. C = Core Sample.
3. Installation Details: 0.00m to 3.00m plain 63mm diameter pipe with bentonite; 3.00m to 15.00m slotted 63mm diameter pipe with gravel filter and geosock. Gas tap, bung and flush cover.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
				65%	BBL4

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

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA Checked By: KP	
Location ID:	**TP01**	Location Type: Inspection pit	
		Coords: 382232.95E/387115.23N	Level: 60.00mOD
Status:	FINAL	Scale: 1:30	Final Depth: 2.00
Sheet 1 of 1		Date Start: 13/08/2025	Date End: 18/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug			
1.20	2.00	IP	Tracked Excavator			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Samples & Tests: Type/Ref	Samples & Tests: Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
						59.95	0.05		Concrete hardstanding.
						59.90	0.10		[MADE GROUND]
									Red sand. Sand is fine to medium.
									[MADE GROUND]
		0.40	ES 1						Pale brown slightly clayey sandy gravel. Gravel is angular to subangular fine to coarse of brick, dolomite, sandstone, coal, metal, rebar, wires, concrete, plastic and rubber. Sand is fine to coarse.
						59.50	0.50		[MADE GROUND]
	1.0								Firm red sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone.
									[GLACIAL TILL]
	2.0					58.00	2.00		EOH at 2.00m - Achieved target depth
	3.0								
	4.0								
	5.0								
	6.0								

Notes:

1. Inspection Pit terminated at target depth.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Inspection Pit backfilled with arisings in order upon completion.
5. Strength / Density based on site Engineer's observations only.

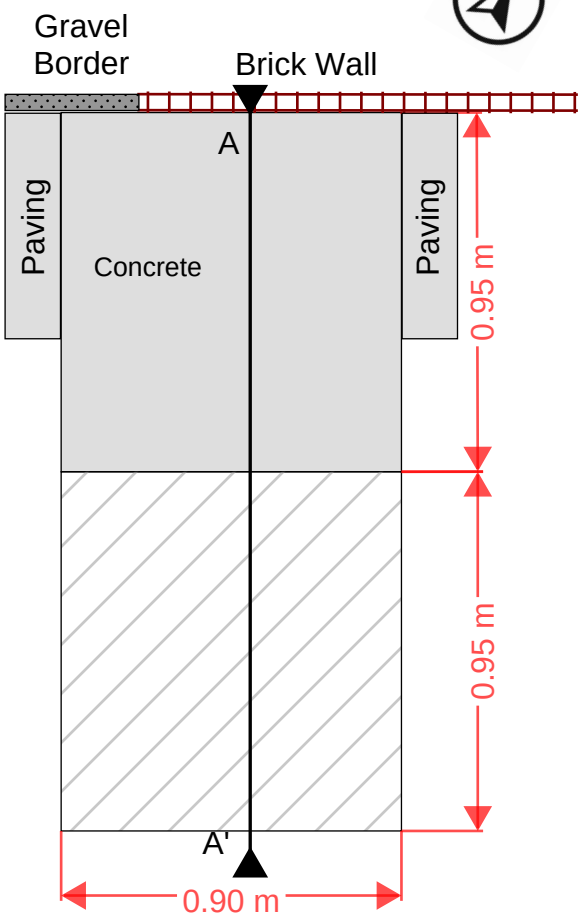
Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

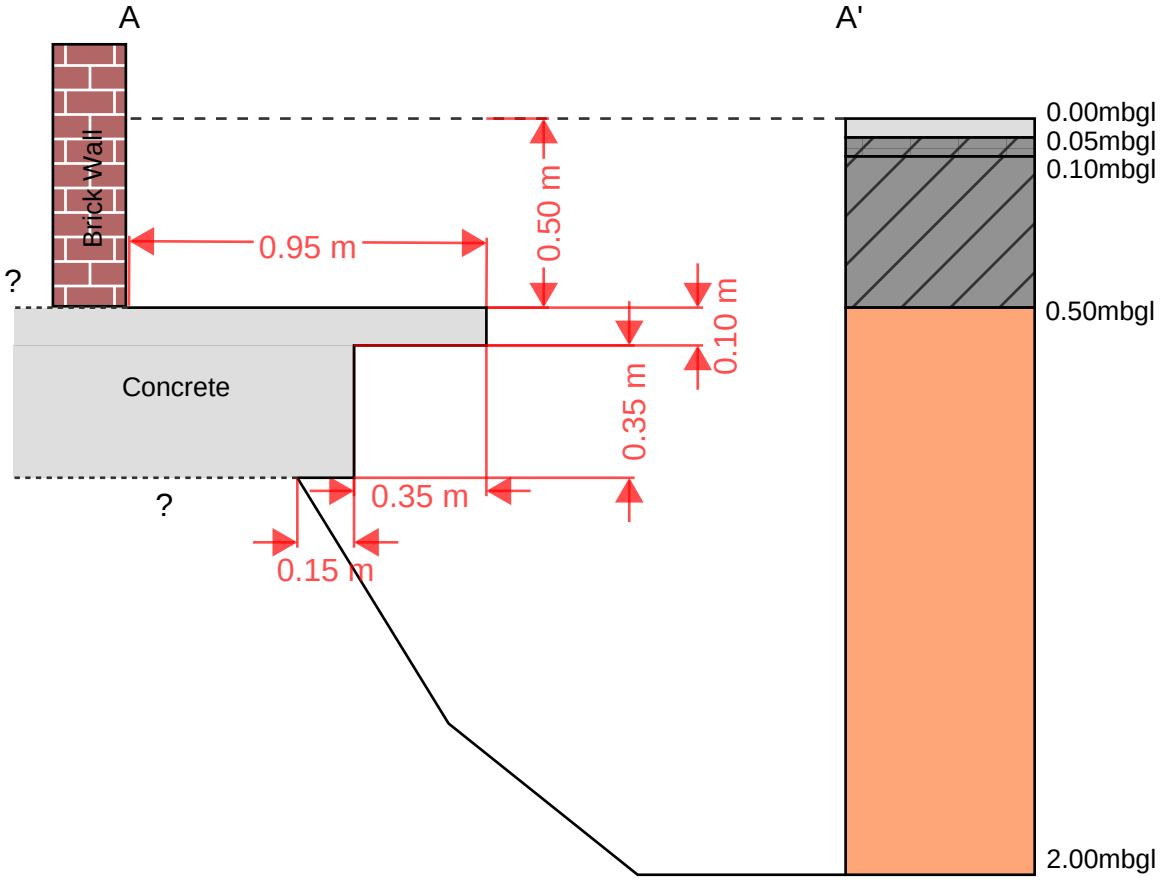
Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable		1.90	0.90

Plan of Excavation



Section of Excavation



0.00 to 0.05mbgl: Concrete hardstanding. [MADE GROUND]
0.05 to 0.10mbgl: Red sand. Sand is fine to medium. [MADE GROUND]
0.10 to 0.50mbgl: Pale brown slightly clayey sandy gravel. Gravel is angular to subangular fine to coarse of brick, dolomite, sandstone, coal, metal, rebar, wires, concrete, plastic and rubber. Sand is fine to coarse. [MADE GROUND]
0.50 to 2.00mbgl: Firm red sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone. [GLACIAL TILL]

Notes:
No groundwater recorded.
Environmental sample at 0.40mbgl.
Strength / density based on site engineers observations only.
Pit excavated between 13.08.25 - 18.08.25.

PROJECT NAME						DRAWING STATUS	SCALE
Preliminary Site Investigation, Wythenshawe						FOR INFORMATION	1 : 20
TITLE	DRAWING No.	PROJECT No.	DATE CREATED	DRAWN	REV		
Foundation Inspection Pit - TP01	51143-CIV-01-XX-R-G-1002	51143/01	21/10/25	JF	P01	CIVIC EARTH	

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Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA / Checked By: KP	
Location ID:	**TP02**	Location Type: Inspection pit	
		Coords: 382250.95E/387130.96N	Level: 59.21mOD
Status:	FINAL	Scale: 1:30	Final Depth: 1.55
Sheet 1 of 1		Date Start: 14/08/2025	Date End: 20/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.55	IP	Hand Dug	1.30	-	-

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
						59.16	0.05		Concrete hardstanding.
						59.11	0.10		[MADE GROUND]
		0.20	ES 1			59.06	0.15		Red sand. Sand is fine to medium.
						58.91	0.30		[MADE GROUND]
		0.40	ES 2						Dark grey sandy gravel. Gravel is angular to subangular fine to coarse of dolomite and mudstone. Sand is fine to medium. Rare metal noted.
									[MADE GROUND]
									Purple brown gravelly sand. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of dolomite and sandstone. Frequent subrounded to angular cobbles of brick noted. Rare metal and plastic noted.
									[MADE GROUND]
	1.0								Brown gravelly clayey sand. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of brick and dolomite. Frequent subangular to angular cobbles of dolomite noted.
									[MADE GROUND]
						57.66	1.55		EOH at 1.55m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								
	6.0								

Notes:

1. Inspection Pit terminated at target depth.
2. Groundwater encountered at 1.3mbgl.
3. ES = Environmental Sample.
4. Inspection Pit backfilled with arisings in order upon completion.
5. Ground level extrapolated from topographic survey as location too close to building to GPS.
6. Strength / Density based on site Engineer's observations only.

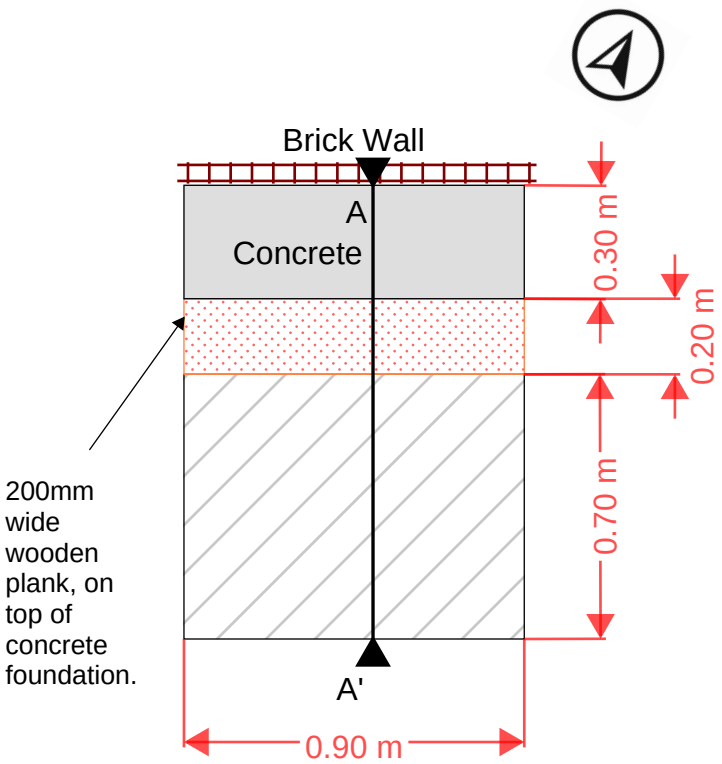
Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

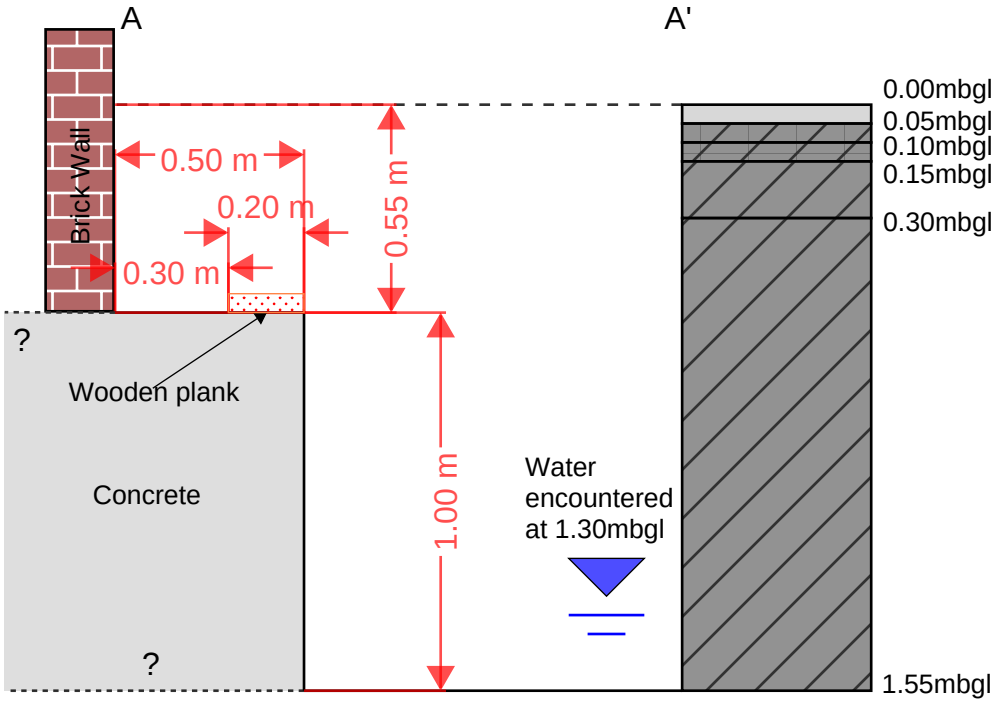
Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable		1.20	0.90

Plan of Excavation



Section of Excavation



0.00 to 0.05mbgl:	Concrete hardstanding. [MADE GROUND]
0.05 to 0.10mbgl:	Red sand. Sand is fine to medium. [MADE GROUND]
0.10 to 0.15mbgl:	Dark grey sandy gravel. Gravel is angular to subangular fine to coarse of dolomite and mudstone. Sand is fine to medium. Rare metal noted. [MADE GROUND]
0.15 to 0.30mbgl:	Purple brown gravelly sand. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of dolomite and sandstone. Frequent subrounded to angular cobbles of brick noted. Rare metal and plastic noted. [MADE GROUND]
0.30 to 1.55mbgl:	Brown gravelly clayey sand. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of brick and dolomite. Frequent subangular to angular cobbles of dolomite noted. [MADE GROUND]

Notes:
Groundwater encountered at 1.30mbgl.
Environmental samples taken at 0.20mbgl and 0.40mbgl.
Strength / density based on site engineers observations only.
Depth to base of foundation unproven.
Pit excavated between 14.08.2025 - 20.08.2025.

PROJECT NAME	DRAWING STATUS	SCALE
Preliminary Site Investigation, Wythenshawe	FOR INFORMATION	1 : 20

TITLE	DRAWING No.	PROJECT No.	DATE CREATED	DRAWN	REV
Foundation Inspection Pit - TP02	51143-CIV-01-XX-R-G-1003	51143/01	21/10/25	JF	P01

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Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA Checked By: KP	
Location ID:	**FIP03**	Location Type: Inspection pit	
		Coords: 382224.70E/387123.78N	Level: 59.14mOD
Status:	FINAL	Scale: 1:30	Final Depth: 1.70
Sheet 1 of 1		Date Start: 13/08/2025	Date End: 20/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug			
1.20	1.70	TP	Tracked Excavator			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
						59.09	0.05		Concrete hardstanding.
						59.06	0.08		[MADE GROUND]
		0.20	ES 1						Red sand. Sand is fine to medium.
		0.30	ES 2			58.84	0.30		[MADE GROUND]
									Pale brown sandy gravel. Gravel is angular to subangular fine to medium of dolomite. Sand is fine to medium.
									[MADE GROUND]
		0.70	ES 3						Purple brown gravelly sand. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of dolomite and sandstone. Occasional angular to subrounded cobles of sandstone and dolomite noted. Rare ceramic material noted.
	1.0								[MADE GROUND]
						57.94	1.20		Firm red sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone.
						57.44	1.70		[GLACIAL TILL]
									EOH at 1.70m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								
	6.0								

Notes:

1. Inspection Pit terminated at target depth.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Inspection Pit backfilled with arisings in order upon completion.

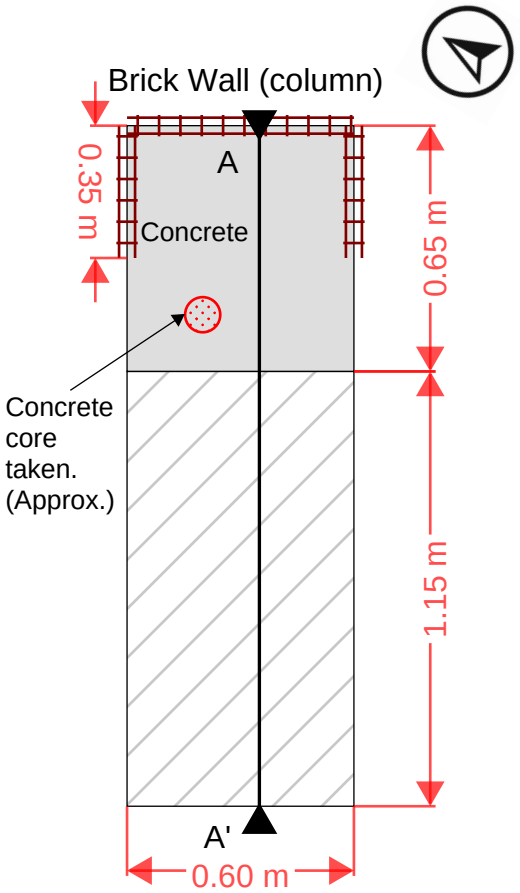
Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

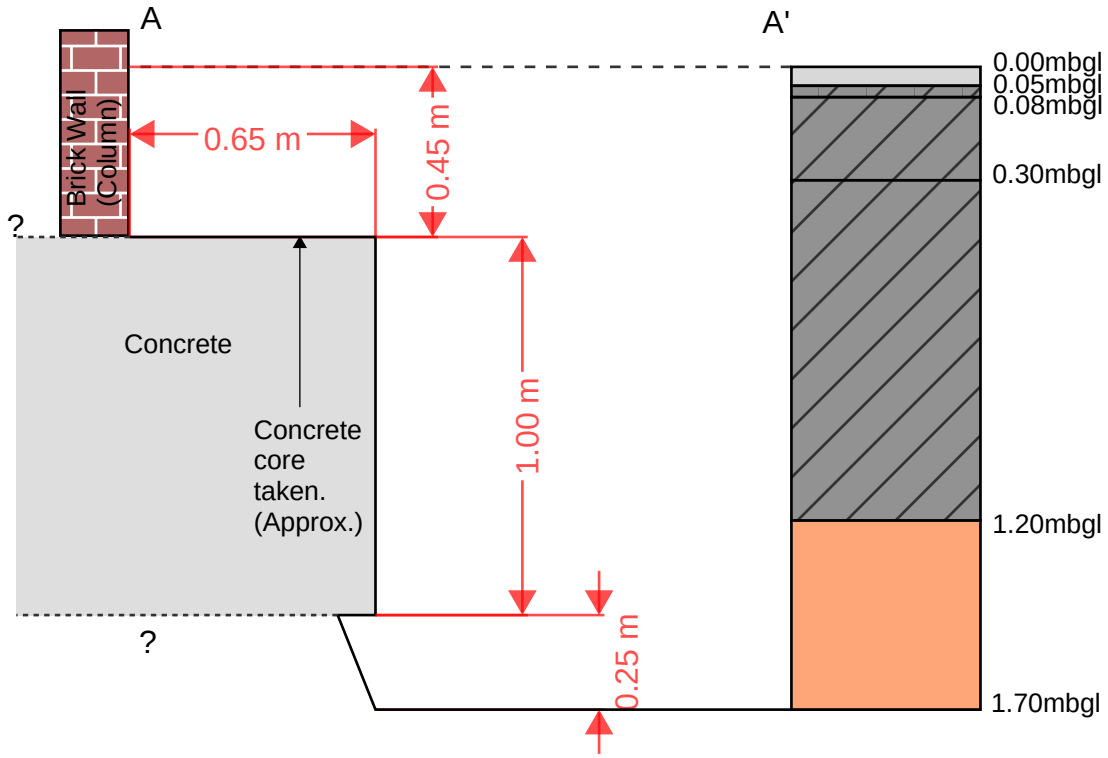
Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable		1.40	1.20

Plan of Excavation



Section of Excavation



0.00 to 0.05mbgl:	Concrete hardstanding. [MADE GROUND]
0.05 to 0.08mbgl:	Red sand. Sand is fine to medium. [MADE GROUND]
0.08 to 0.30mbgl:	Pale brown sandy gravel. Gravel is angular to subangular fine to medium of dolomite. Sand is fine to medium. [MADE GROUND]
0.30 to 1.20mbgl:	Purple brown gravelly sand. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of dolomite and sandstone. Occasional angular to subrounded cobbles of sandstone and dolomite noted. Rare ceramic material noted. [MADE GROUND]
1.20 to 1.70mbgl:	Firm red sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone. [GLACIAL TILL]

Notes:
No groundwater recorded.
Environmental samples taken at 0.20mbgl, 0.30mbgl and 0.70mbgl.
Strength / density based on site engineers observations only.
Drillers comment: No evidence of shuttering having been used during construction within side wall of excavation.
Pit excavated between 13.08.25 - 20.08.25.

PROJECT NAME	DRAWING STATUS	SCALE
Preliminary Site Investigation, Wythenshawe	FOR INFORMATION	1 : 20

TITLE	DRAWING No.	PROJECT No.	DATE CREATED	DRAWN	REV
Foundation Inspection Pit - FIP03	51143-CIV-01-XX-R-G-1004	51143/01	21/10/25	JF	P01

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Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA Checked By: KP	
Location ID:	**TP04**	Location Type: Inspection pit	
		Coords: 382263.42E/387183.49N	Level: 58.71mOD
Status:	FINAL	Scale: 1:30	Final Depth: 1.80
Sheet 1 of 1		Date Start: 14/08/2025	Date End: 20/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug			
1.20	1.80	TP	Tracked Excavator			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		0.05	ES 1			58.66	0.05		Concrete hardstanding.
						58.61	0.10		[MADE GROUND]
		0.20	ES 2			58.41	0.30		Red sand. Sand is fine to medium.
									[MADE GROUND]
		0.40	ES 3						Pale yellowish grey sandy gravel. Gravel is angular to subangular fine to coarse of dolomite. Sand is fine to medium.
									[MADE GROUND]
						57.91	0.80		Brown clayey gravelly sand. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of dolomite, concrete, brick and sandstone. Frequent plastic, metal and wood noted.
									[MADE GROUND]
	1.0					57.51	1.20		Firm red brown gravelly clay. Gravel is angular to subrounded fine to coarse of dolomite, sandstone, mudstone and brick.
									[MADE GROUND]
						57.11	1.60		Firm red sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone.
									[GLACIAL TILL]
						56.91	1.80		Extremely weak to weak red laminated MUDSTONE.
									[WEATHERED BOLLIN MUDSTONE MEMBER]
	2.0								EOH at 1.80m - Achieved target depth
	3.0								
	4.0								
	5.0								
	6.0								

Notes:

1. Inspection Pit terminated at target depth.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Inspection Pit backfilled with arisings in order upon completion.
5. Strength / Density based on site Engineer's observations only.

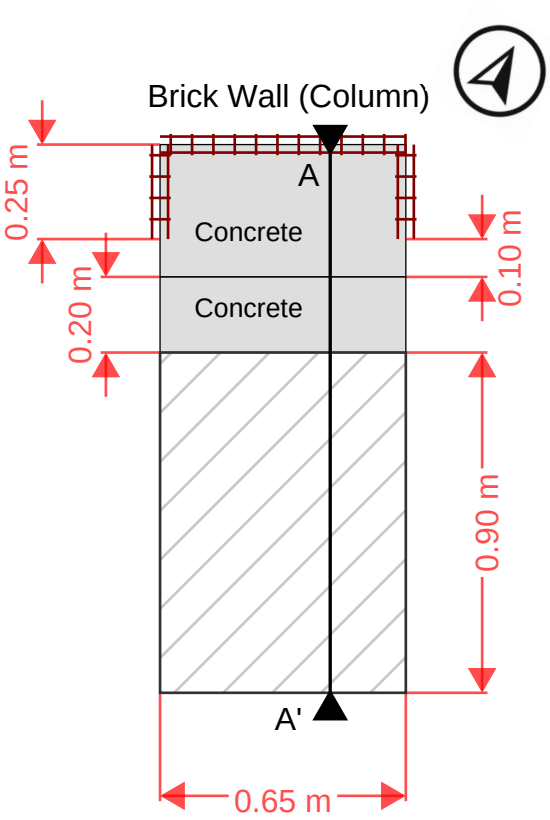
Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

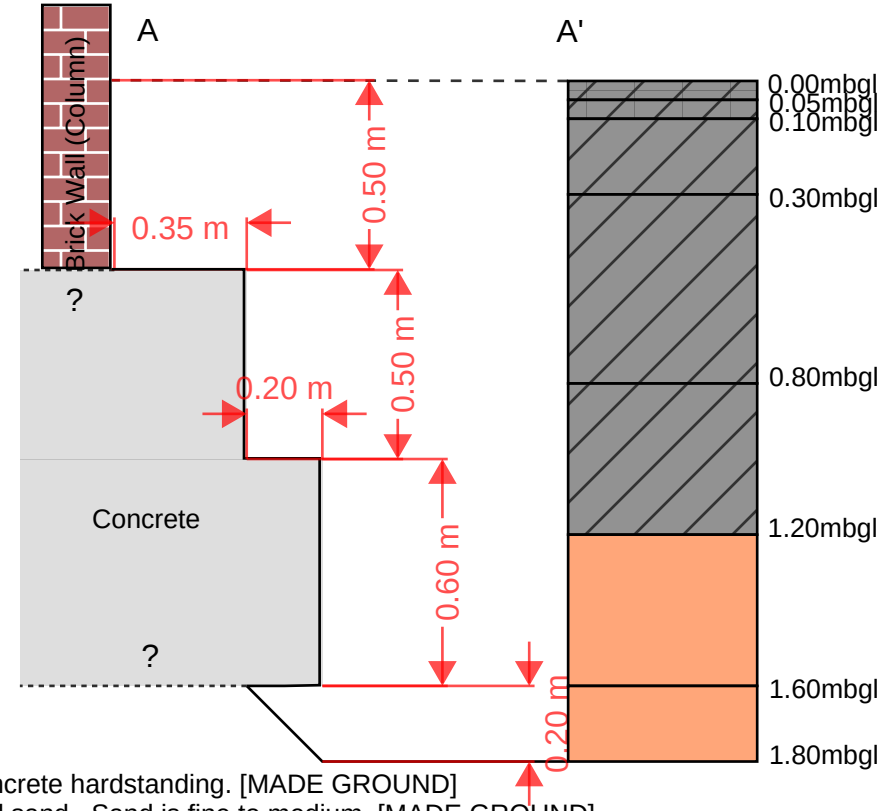
Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable		1.20	0.60
Stable		1.20	0.60

Plan of Excavation



Section of Excavation



0.00 to 0.05mbgl: Concrete hardstanding. [MADE GROUND]
0.05 to 0.10mbgl: Red sand. Sand is fine to medium. [MADE GROUND]
0.10 to 0.30mbgl: Firm light orange brown mottled light blue grey slightly sandy silty clay. Occasional fragments of subangular to subrounded brick and concrete. [MADE GROUND]
0.30 to 0.80mbgl: Brown clayey gravelly sand. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of dolomite, concrete, brick and sandstone. Frequent plastic, metal and wood noted. [MADE GROUND]
0.80 to 1.20mbgl: Firm red brown gravelly clay. Gravel is angular to subrounded fine to coarse of dolomite, sandstone, mudstone and brick. [MADE GROUND]
1.20 to 1.60mbgl: Firm red sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone. [GLACIAL TILL]
1.60 to 1.80mbgl: Extremely weak to weak red laminated MUDSTONE. [WEATHERED BOLLIN MUDSTONE MEMBER]

Notes:
No groundwater recorded.
Environmental samples taken at 0.05mbgl, 0.20mbgl and 0.40mbgl.
Strength / density based on site engineers observations only.
Pit excavated between 14.08.25 - 20.08.25.

PROJECT NAME						DRAWING STATUS	SCALE
Preliminary Site Investigation, Wythenshawe						FOR INFORMATION	1 : 20
TITLE	DRAWING No.	PROJECT No.	DATE CREATED	DRAWN	REV		
Foundation Inspection Pit - TP04	51143-CIV-01-XX-R-G-1005	51143/01	21/10/25	JF	P01	CIVIC EARTH	

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Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA Checked By: KP	
Location ID:	**WS21**	Location Type: Window Sampler	
		Coords: 382274.97E/387182.49N	Level: 58.70mOD
Status:	FINAL	Scale: 1:30	Final Depth: 2.80 m
Sheet 1 of 1		Date Start: 12/08/2025	Date End: 12/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00 1.20	1.20 2.80	IP WS	Hand Dug Window Sampler	1.90	-	-

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						58.60	0.10		Tarmacadam hardstanding.			
		0.25	ES 1						[MADE GROUND]			
		0.35	D 1			58.40	0.30		Pale yellow / white brown slightly sandy slightly silty gravel. Gravel is angular to subangular fine to coarse of dolomite and bituminous material. Sand is fine to coarse.			
						58.20	0.50		[MADE GROUND]			
		0.70	D 2						Firm to stiff reddish purple gravelly CLAY. Gravel is subangular to rounded fine to medium of coal, quartz and mudstone. [GLACIAL TILL]			
	1.0			SPT(S) 1.20m N=10 (2,2/2,2,3,3)					Firm reddish brown slightly clayey slightly gravelly sandy SILT. Sand is fine to coarse. Gravel is subangular to rounded fine to medium of coal, quartz and mudstone. [GLACIAL TILL]			
		1.60	D 3	HSV 1.70m (p)= 30 kPa						1.20 2.00	110	100
	2.0			SPT(S) 2.00m N=21 (4,8/7,6,4,4)		56.70	2.00		Very stiff brown mottled red clay with mudstone lithorelics / extremely weathered MUDSTONE. Mudstone is laminated with mica along surfaces. [WEATHERED BOLLIN MUDSTONE MEMBER]	2.00 2.80	77	80
				SPT(S) 2.80m 50 (25 for 10mm/50 for 15mm)		55.90	2.80		EOH at 2.80m - Terminated due to refusal			
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated due to refusal.
2. Groundwater encountered at 1.9mbgl.
3. ES = Environmental Sample; D = Disturbed Sample.
4. Installation Details: 0.00m to 1.50m plain 63mm diameter pipe with bentonite; 1.50m to 2.50m slotted 63mm diameter pipe with gravel filter and geosock; 2.50m to 2.80m backfilled with bentonite. Gas tap, bung and flush cover.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio	Serial No.
60%	BBL7

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	1.50	2.50

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA Checked By: KP	
Location ID:	**WS22**	Location Type: Window Sampler	
		Coords: 382205.65E/387164.38N	Level: 59.23mOD
Status:	FINAL	Scale: 1:30	Final Depth: 2.00 m
Sheet 1 of 1		Date Start: 11/08/2025	Date End: 11/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug			
1.20	2.00	WS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						59.13	0.10		Brown slightly clayey gravelly sand. Gravel is angular fine of mudstone and flint. Frequent rootlets and wood noted. [TOPSOIL]			
		0.40	ES 1						Pale brown slightly clayey, gravelly sand. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of dolomite, sandstone, brick, mudstone and chalk. Rare metal noted. [MADE GROUND]			
		0.50	ES 2			58.68	0.55					
						58.63	0.60		Light grey sandy gravel. Gravel is angular to subangular fine to medium of dolomite and bituminous material. Sand is fine to medium. Occasional subangular cobbles of dolomite. [MADE GROUND]			
		0.70	D 1									
	1.0								Soft to firm pale grey slightly gravelly CLAY. Gravel is subrounded fine to medium of dolomite and mudstone. [GLACIAL TILL]			
		1.20	D 2	SPT(S) 1.20m N=19 (2,4/4,5,4,6)		58.03	1.20					
									Very stiff brown mottled red clay with mudstone lithorelics / extremely weathered MUDSTONE. [WEATHERED BOLLIN MUDSTONE MEMBER]			
				HSV 1.60m (p)= 18 kPa						1.20 2.00	110	80
	2.0			SPT(S) 2.00m 50 (25 for 5mm/50 for 10mm)		57.23	2.00		EOH at 2.00m - Terminated due to refusal			
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated due to refusal.
2. No groundwater encountered.
3. ES = Environmental Sample; D = Disturbed Sample.
4. Borehole backfilled with arisings in order upon completion.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
				60%	BBL7

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

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA Checked By: KP	
Location ID:	**WS23**	Location Type: Window Sampler	
		Coords: 382241.17E/387233.99N	Level: 58.37mOD
Status:	FINAL	Scale: 1:30	Final Depth: 2.00 m
Sheet 1 of 1		Date Start: 12/08/2025	Date End: 12/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug			
1.20	2.00	WS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						58.27	0.10		Tarmacadam hardstanding.			
						58.17	0.20		[MADE GROUND]			
		0.20	ES 1						White gravel. Gravel is angular to subangular fine to coarse of dolomite.			
		0.30	ES 2						[MADE GROUND]			
		0.60	ES 3						Brown clayey GRAVEL. Gravel is angular to subangular fine to coarse of dolomite. Frequent angular to subangular cobbles of dolomite. [GLACIAL TILL]			
	1.0			SPT(S) 1.20m N=3 (7,1/1,1,0,1)		57.17	1.20					
									No recovery.	1.20 2.00	110	0
	2.0					56.37	2.00		EOH at 2.00m - Terminated due to sides collapsing			
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated due to sides collapsing.
2. No groundwater encountered.
3. ES = Environmental Sample; D = Disturbed Sample.
4. Installation Details: 0.00m to 0.50m plain 63mm diameter pipe with bentonite; 0.50m to 1.00m slotted 63mm diameter pipe with gravel filter and geosock; 1.00m to 2.00m backfilled with bentonite. Gas tap, bung and flush cover.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio	Serial No.
60%	BBL7

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

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA Checked By: KP	
Location ID:	**WS24**	Location Type: Window Sampler	
		Coords: 382222.04E/387139.58N	Level: 59.84mOD
Status:	FINAL	Scale: 1:30	Final Depth: 2.20 m
Sheet 1 of 1		Date Start: 11/08/2025	Date End: 11/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug			
1.20	2.20	WS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						59.64	0.20		Brown slightly clayey gravelly sand. Sand is fine to medium. Gravel is angular fine of brick, ceramic, mudstone, flint and dolomite. Frequent rootlets and wood noted. [MADE GROUND]			
		0.40	ES 1			59.34	0.50		Brown slightly clayey gravelly sand. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of dolomite and brick. Rare wood noted. [MADE GROUND]			
		0.60	ES 2			58.94	0.90		Light brown slightly sandy very clayey gravel. Gravel is angular to subangular fine to coarse of dolomite. Sand is fine to coarse. Rare brick fragments noted. [MADE GROUND]			
	1.0	1.20	D 1	SPT(S) 1.20m N=7 (1,2/1,2,2,2) HSV 1.30m (p)= 18 kPa		58.64	1.20		Soft dark black brown gravelly clay. Gravel is angular to rounded fine to coarse of dolomite and mudstone. [MADE GROUND]	1.20 2.00	110	100
				HSV 1.70m (p)= 50 kPa					Soft to firm brown black mottled red slightly gravelly CLAY. Gravel is rounded fine of mudstone. [GLACIAL TILL]			
		1.80	D 2			58.04	1.80		Soft red slightly gravelly CLAY with mudstone lithorelics. Gravel is angular fine to medium of mudstone. [GLACIAL TILL]			
	2.0			SPT(S) 2.00m 50 (25 for 5mm/50 for 10mm)		57.69	2.15					
						57.64	2.20		MUDSTONE/SILTSTONE. [BOLLIN MUDSTONE MEMBER]			
									EOH at 2.20m - Terminated due to refusal			
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated due to refusal.
2. No groundwater encountered.
3. ES = Environmental Sample; D = Disturbed Sample.
4. Installation Details: 0.00m to 1.00m plain 63mm diameter pipe with bentonite; 1.00m to 2.00m slotted 63mm diameter pipe with gravel filter and geosock; 2.00m to 2.20m backfilled with bentonite. Gas tap, bung and flush cover.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio	Serial No.
60%	BBL7

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	1.00	2.00

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA / Checked By: KP	
Location ID:	**WS25**	Location Type: Window Sampler	
		Coords: 382271.64E/387115.04N	Level: 59.90mOD
Status:	FINAL	Scale: 1:30	Final Depth: 2.80 m
Sheet 1 of 1		Date Start: 11/08/2025	Date End: 11/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug			
1.20	2.80	WS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						59.73	0.17		Tarmacadam hardstanding. [MADE GROUND]			
		0.20	ES 1			59.55	0.35		Light grey sandy gravel. Gravel is angular to subangular fine to medium of dolomite and bituminous material. Sand is fine to medium. Occasional subrounded to angular cobbles of dolomite noted. [MADE GROUND]			
		0.60	ES 2						Yellow brown slightly sandy slightly clayey gravel. Gravel is angular to subangular fine to coarse of dolomite. Sand is fine to coarse. [MADE GROUND] *from 0.40 to 1.00mbgl - Moderate hydrocarbon odour.*			
	1.0	1.10	ES 3	SPT(S) 1.20m N=4 (1,1/1,1,1,1)		58.80	1.10		Soft to firm dark brown mottled yellow very gravelly clay. Gravel is angular to rounded fine to coarse of dolomite, sandstone and mudstone. [MADE GROUND]			
						58.50	1.40		Soft to firm dark grey / brown mottled yellow slightly sandy gravelly CLAY. Gravel is subangular to rounded of sandstone and mudstone. Sand is fine to medium. [GLACIAL TILL]	1.20 2.00	110	100
				HSV 1.80m (p)= 65 kPa								
	2.0	2.00	D 1	SPT(S) 2.00m N=6 (0,0/0,1,1,4)		57.90	2.00					
		2.60	D 2			57.15	2.75		Soft to firm dark grey / black slightly gravelly CLAY. Gravel is angular fine to medium of mudstone. Frequent fiberous organic material noted. [GLACIAL TILL]	2.00 2.80	77	90
				SPT(S) 2.80m 50 (25 for 5mm/50 for 10mm)		57.10	2.80		MUDSTONE. [BOLLIN MUDSTONE MEMBER] EOH at 2.80m - Terminated due to refusal			
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated due to refusal.
2. No groundwater encountered.
3. ES = Environmental Sample; D = Disturbed Sample.
4. Installation Details: 0.00m to 0.50m plain 63mm diameter pipe with bentonite; 0.50m to 1.00m slotted 63mm diameter pipe with gravel filter and geosock; 1.00m to 2.80m backfilled with bentonite. Gas tap, bung and flush cover.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio	Serial No.
60%	BBL7

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

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA / Checked By: KP	
Location ID:	**WS26**	Location Type: Window Sampler	
		Coords: 382328.45E/387145.40N	Level: 59.78mOD
Status:	FINAL	Scale: 1:30	Final Depth: 2.50 m
Sheet 1 of 1		Date Start: 11/08/2025	Date End: 11/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug			
1.20	2.50	WS	Window Sampler			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	Window Sampling: WS Run	Dia (mm)	Recovery (%)
						59.68	0.10		Tarmacadam hardstanding.			
		0.30	ES 1						[MADE GROUND] Pale brown to white sandy gravel. Gravel is angular to subrounded fine to coarse of dolomite and bituminous material. Sand is fine to coarse.			
						59.38	0.40					
		0.50	ES 2						[MADE GROUND] Dark grey gravelly clayey sand. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of dolomite. [MADE GROUND]			
						58.88	0.90					
	1.0								Firm brown slightly gravelly clay. Gravel is subangular to angular fine to coarse of dolomite and mudstone. [MADE GROUND]			
		1.20	D 1	SPT(S) 1.20m N=6 (1,1/1,1,2,2)		58.48	1.30					
				HSV 1.60m (p)= 28 kPa					Firm to stiff red mottled grey slightly gravelly silty CLAY. Gravel is angular medium to coarse of mudstone and siltstone. [GLACIAL TILL]	1.20 2.00	110	90
				HSV 1.90m (p)= 82 kPa		57.98	1.80					
	2.0	2.00	D 2	SPT(S) 2.00m N=30 (4,5/5,8,8,9)					Very stiff grey mottled red CLAY with mudstone lithorelics / extremely weathered mudstone. [WEATHERED BOLLIN MUDSTONE MEMBER]	2.00 2.50	77	100
		2.50	D 3	SPT(S) 2.50m 50 (25 for 5mm/50 for 5mm)		57.28	2.50		EOH at 2.50m - Terminated due to refusal			
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated due to refusal.
2. No groundwater encountered.
3. ES = Environmental Sample; D = Disturbed Sample.
4. Installation Details: 0.00m to 0.50m plain 63mm diameter pipe with bentonite; 0.50m to 1.00m slotted 63mm diameter pipe with gravel filter and geosock; 1.00m to 2.50m backfilled with bentonite. Gas tap, bung and flush cover.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio	Serial No.
60%	BBL7

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

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA / Checked By: KP	
Location ID:	**WS27**	Location Type: Window Sampler	
		Coords: 382248.52E/387236.97N	Level: 58.41mOD
Status:	FINAL	Scale: 1:30	Final Depth: 2.50 m
Sheet 1 of 1		Date Start: 12/08/2025	Date End: 12/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug	2.30	-	-
1.20	2.50	WS	Window Sampler			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	WS Run	Dia (mm)	Recovery (%)
		0.15	ES 1			58.26	0.15		Tarmacadam hardstanding. [MADE GROUND]			
		0.40	ES 2			57.91	0.50		Pale yellowish brown slightly sandy clayey gravel. Gravel is subangular to subrounded medium to coarse of dolomite. Sand is fine to medium. [MADE GROUND]			
		0.60	ES 3			57.81	0.60		Soft brown gravelly clay. Gravel is angular to subangular fine to coarse of brick and dolomite. [MADE GROUND]			
		0.70	D 1						Dark brown mottled dark grey silty sandy gravelly CLAY. Gravel is subangular to rounded fine to medium of mudstone, coal and sandstone. [GLACIAL TILL]			
	1.0			SPT(S) 1.20m N=7 (1,1/1,2,2,2)		57.41	1.00		Very stiff red mottled grey CLAY. [GLACIAL TILL]			
		1.50	D 2	HSV 1.60m (p)= 98 kPa						1.20 2.00	100	100
	2.0	2.00	D 3	SPT(S) 2.00m N=43 (5,6/19,11,7,6)		56.46	1.95		Very stiff red clay with mudstone lithorelics / extremely weathered MUDSTONE. [WEATHERED BOLLIN MUDSTONE MEMBER]	2.00 2.50	77	80
				SPT(S) 2.50m 50 (25 for 10mm/50 for 20mm)		55.91	2.50		EOH at 2.50m - Terminated due to refusal			
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated due to refusal.
2. Groundwater encountered at 2.3mbgl.
3. ES = Environmental Sample; D = Disturbed Sample.
4. Installation Details: 0.00m to 1.50m plain 63mm diameter pipe with bentonite; 1.50m to 2.50m slotted 63mm diameter pipe with gravel filter and geosock. Gas tap, bung and flush cover.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)

Hammer Information	
Energy Ratio	Serial No.
60%	BBL7

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	1.50	2.50

CIVIC EARTH

Project Title:	**Wythenshawe**	Client:	**Muse**
Project Number:	**51143/01**	Logged By: KIA Checked By: KP	
Location ID:	**WS28**	Location Type: Window Sampler	
Coords: 382278.25E/387204.12N	Level: 58.59mOD		
Status:	FINAL	Scale: 1:30	Final Depth: 2.50 m
Sheet 1 of 1		Date Start: 12/08/2025	Date End: 12/08/2025

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.20	IP	Hand Dug			
1.20	2.50	WS	Window Sampler			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description	WS Run	Dia (mm)	Recovery (%)
		0.10	ES 1			58.49	0.10		Tarmacadam hardstanding.			
									[MADE GROUND]			
		0.30	ES 2			58.29	0.30		Grey slightly silty slightly sandy gravel. Gravel is angular to subangular fine to coarse of dolomite and bituminous material. Sand is fine to coarse.			
						58.09	0.50		[MADE GROUND]			
						57.99	0.60		Soft to firm light yellow brown slightly silty slightly sandy gravelly clay. Gravel is angular to subangular fine to coarse of dolomite and bituminous material. Sand is fine to coarse.			
		0.70	D 1						[MADE GROUND]			
	1.0					57.59	1.00		Stiff yellow orange gravelly CLAY. Gravel is angular to subrounded fine to coarse of dolomite, sandstone and coal.			
									[GLACIAL TILL]			
		1.20	D 2	SPT(S) 1.20m N=6 (2,2/1,1,2,2)					Firm to stiff red gravelly CLAY. Gravel is angular to subangular fine to coarse of coal, sandstone and mudstone.			
									[GLACIAL TILL]			
		1.40	D 3						Stiff red CLAY with mudstone and siltstone lithorelics.			
									[WEATHERED BOLLIN MUDSTONE MEMBER]			
		1.60	D 4	HSV 1.60m (p)= 54 kPa					*from 1.40 to 1.45mbgl - Layer of silt.*	1.20 2.00	110	100
	2.0			SPT(S) 2.00m N=29 (6,6/6,7,8,8)		56.59	2.00		Grey SILTSTONE.			
									[BOLLIN MUDSTONE MEMBER]	2.00 2.50	77	75
				SPT(S) 2.50m 50 (25 for 10mm/50 for 25mm)		56.09	2.50		EOH at 2.50m - Terminated due to refusal			
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated due to refusal.
2. No groundwater encountered.
3. ES = Environmental Sample; D = Disturbed Sample.
4. Borehole backfilled with arisings in order upon completion.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
				60%	BBL7

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

Appendix H – Ground Gas and Groundwater Monitoring Records

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**JF**
Date of Visit:	**4 & 5 September 2025**	**Time of Visit:**	**08:30 - 17:30**

Atm. Pressure:	**1002mb to 1019mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**13°C to 17°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**	**X**	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**	**X**	**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)
RC01 (14:30)	-	0	-	-	-	-	-	-	1.77	14.43
		15	-	-	-	-	-	-		
		30	-	-	-	-	-	-		
		45	-	-	-	-	-	-		
		60	-	-	-	-	-	-		
		90	-	-	-	-	-	-		
		120	-	-	-	-	-	-		
		150	-	-	-	-	-	-		
		180	-	-	-	-	-	-		
		240	-	-	-	-	-	-		
		300	-	-	-	-	-	-		
RC02 (12:42)	-	0	-	-	-	-	-	-	2.23	14.46
		15	-	-	-	-	-	-		
		30	-	-	-	-	-	-		
		45	-	-	-	-	-	-		
		60	-	-	-	-	-	-		
		90	-	-	-	-	-	-		
		120	-	-	-	-	-	-		
		150	-	-	-	-	-	-		
		180	-	-	-	-	-	-		
		240	-	-	-	-	-	-		
		300	-	-	-	-	-	-		
RC03 (10:50)		0	-	-	-	-	-	-	3.04	13.89
		15	-	-	-	-	-	-		
		30	-	-	-	-	-	-		
		45	-	-	-	-	-	-		
		60	-	-	-	-	-	-		
		90	-	-	-	-	-	-		
		120	-	-	-	-	-	-		
		150	-	-	-	-	-	-		
		180	-	-	-	-	-	-		
		240	-	-	-	-	-	-		
		300	-	-	-	-	-	-		
RC06 (12:55)	1003	0	-	-	-	-	-	-	0.00	-
		15	-	-	-	-	-	-		
		30	-	-	-	-	-	-		
		45	-	-	-	-	-	-		
		60	-	-	-	-	-	-		
		90	-	-	-	-	-	-		
		120	-	-	-	-	-	-		
		150	-	-	-	-	-	-		
		180	-	-	-	-	-	-		
		240	-	-	-	-	-	-		
		300	-	-	-	-	-	-		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
RC01 - No gas monitoring undertaken
RC02 - No gas monitoring undertaken
RC03 - No gas monitoring undertaken
RC05 - Headworks flooded unable to monitor, bung wedged too low into pipe.
RC06 - No gas monitoring undertaken. Borehole flooded to surface. Unable to open bung to measure depth to base of well.

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**JF**
Date of Visit:	**4 & 5 September 2025**	**Time of Visit:**	**08:30 - 17:30**

Atm. Pressure:	**1002mb to 1019mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**13°C to 17°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**	**X**	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**	**X**	**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)
WS01 (10:42)	1008	0	0.0	0.0	20.7	0.0	0.0	0.0	1.12	1.45
		15	0.0	0.0	15.8	3.1	0.0	0.0		
		30	0.0	0.0	16.3	2.7	0.0	0.0		
		45	0.0	0.0	16.8	2.3	0.0	0.0		
		60	0.0	0.0	17.1	2.3	0.0	0.0		
		90	0.0	0.0	17.3	2.1	0.0	0.0		
		120	0.0	0.0	17.5	2.1	0.0	0.0		
		150	0.0	0.0	17.5	2.1	0.0	0.0		
		180	0.0	0.0	17.6	2.0	0.0	0.0		
		240	0.0	0.0	17.7	2.0	0.0	0.0		
		300	0.0	0.0	17.7	2.0	0.0	0.0		
WS02A	-	0	-	-	-	-	-	-	-	-
		15	-	-	-	-	-	-		
		30	-	-	-	-	-	-		
		45	-	-	-	-	-	-		
		60	-	-	-	-	-	-		
		90	-	-	-	-	-	-		
		120	-	-	-	-	-	-		
		150	-	-	-	-	-	-		
		180	-	-	-	-	-	-		
		240	-	-	-	-	-	-		
		300	-	-	-	-	-	-		
WS04 (12:06)	1008	0	0.0	0.0	21.1	0.0	0.0	0.0	Dry	1.32
		15	0.0	0.0	20.4	0.5	0.0	0.0		
		30	0.0	0.0	20.3	0.6	0.0	0.0		
		45	0.0	0.0	20.2	0.6	0.0	0.0		
		60	0.0	0.0	20.2	0.6	0.0	0.0		
		90	0.0	0.0	20.2	0.6	0.0	0.0		
		120	0.0	0.0	20.2	0.6	0.0	0.0		
		150	0.0	0.0	20.2	0.6	0.0	0.0		
		180	0.0	0.0	20.2	0.6	0.0	0.0		
		240	0.0	0.0	20.2	0.6	0.0	0.0		
		300	0.0	0.0	20.2	0.6	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
WS02A - Not monitored

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**JF**
Date of Visit:	**4 & 5 September 2025**	**Time of Visit:**	**08:30 - 17:30**

Atm. Pressure:	**1002mb to 1019mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**13°C to 17°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**	**X**	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**	**X**	**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)
WS05 (12:48)	1009	0	40.0	400.0	20.9	0.0	0.0	0.0	0.96	2.57
		15	15.0	80.0	10.5	5.8	0.0	0.0		
		30	3.0	16.0	9.8	6.9	0.0	0.0		
		45	1.0	6.0	9.6	7.0	0.0	0.0		
		60	0.8	5.0	9.5	7.0	0.0	0.0		
		90	0.2	1.0	9.6	7.0	0.0	0.0		
		120	0.0	0.0	9.6	6.9	0.0	0.0		
		150	0.0	0.0	9.7	6.9	0.0	0.0		
		180	0.0	0.0	9.8	6.8	0.0	0.0		
		240	0.0	0.0	9.7	6.9	0.0	0.0		
		300	0.0	0.0	9.8	6.8	0.0	0.0		
WS07 (08:40)	1007	0	0.0	0.0	20.7	0.0	0.0	0.0	Dry	2.53
		15	0.0	0.0	18.9	2.8	0.0	0.0		
		30	0.0	0.0	18.3	3.2	0.0	0.0		
		45	0.0	0.0	18.3	3.2	0.0	0.0		
		60	0.0	0.0	18.3	3.2	0.0	0.0		
		90	0.0	0.0	18.2	3.2	0.0	0.0		
		120	0.0	0.0	18.2	3.2	0.0	0.0		
		150	0.0	0.0	18.2	3.2	0.0	0.0		
		180	0.0	0.0	18.2	3.2	0.0	0.0		
		240	0.0	0.0	18.2	3.2	0.0	0.0		
		300	0.0	0.0	18.2	3.3	0.0	0.0		
WS08 (09:50)	1007	0	0.0	0.0	20.8	0.0	0.0	0.0	2.19	2.86
		15	0.0	0.0	18.1	0.0	0.0	0.0		
		30	0.0	0.0	16.5	0.0	0.0	0.0		
		45	0.0	0.0	16.7	0.0	0.0	0.0		
		60	0.0	0.0	17.0	0.0	0.0	0.0		
		90	0.0	0.0	17.5	0.0	0.0	0.0		
		120	0.0	0.0	17.6	0.0	0.0	0.0		
		150	0.0	0.0	17.6	0.0	0.0	0.0		
		180	0.0	0.0	17.8	0.0	0.0	0.0		
		240	0.0	0.0	18.0	0.0	0.0	0.0		
		300	0.0	0.0	18.3	0.0	0.0	0.0		
WS13 (17:17)	997	0	0.0	0.0	20.9	0.0	0.0	0.0	Dry	1.44
		15	0.0	0.0	20.3	0.6	0.0	0.0		
		30	0.0	0.0	20.0	0.7	0.0	0.0		
		45	0.0	0.0	20.0	0.7	0.0	0.0		
		60	0.0	0.0	20.0	0.7	0.0	0.0		
		90	0.0	0.0	20.0	0.7	0.0	0.0		
		120	0.0	0.0	19.9	0.7	0.0	0.0		
		150	0.0	0.0	19.9	0.7	0.0	0.0		
		180	0.0	0.0	19.9	0.7	0.0	0.0		
		240	0.0	0.0	19.9	0.7	0.0	0.0		
		300	0.0	0.0	19.9	0.7	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
WS05 - Peak flow recorded as 48.7l/hr

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**JF**
Date of Visit:	**4 & 5 September 2025**	**Time of Visit:**	**08:30 - 17:30**

Atm. Pressure:	**1002mb to 1019mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**13°C to 17°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**	**X**	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**	**X**	**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)
WS15 (09:14)	1006	0	0.0	0.0	20.6	0.2	0.0	0.0	2.10	2.38
		15	0.0	0.0	20.2	0.9	0.0	0.0		
		30	0.0	0.0	20.0	0.9	0.0	0.0		
		45	0.0	0.0	20.0	0.9	0.0	0.0		
		60	0.0	0.0	20.0	0.9	0.0	0.0		
		90	0.0	0.0	20.0	0.9	0.0	0.0		
		120	0.0	0.0	20.0	0.9	0.0	0.0		
		150	0.0	0.0	20.0	0.9	0.0	0.0		
		180	0.0	0.0	20.0	0.9	0.0	0.0		
		240	0.0	0.0	20.0	0.9	0.0	0.0		
		300	0.0	0.0	20.0	0.9	0.0	0.0		
WS17 (16:30)	1005	0	-	-	-	-	-	-	2.19	2.84
		15	-	-	-	-	-	-		
		30	-	-	-	-	-	-		
		45	-	-	-	-	-	-		
		60	-	-	-	-	-	-		
		90	-	-	-	-	-	-		
		120	-	-	-	-	-	-		
		150	-	-	-	-	-	-		
		180	-	-	-	-	-	-		
		240	-	-	-	-	-	-		
		300	-	-	-	-	-	-		
WS18 (16:40)	996	0	0.0	0.0	20.9	0.0	0.0	0.0	Damp	1.68
		15	0.0	0.0	17.9	2.2	0.0	0.0		
		30	0.0	0.0	17.0	2.3	0.0	0.0		
		45	0.0	0.0	16.9	2.3	0.0	0.0		
		60	0.0	0.0	16.9	2.3	0.0	0.0		
		90	0.0	0.0	16.8	2.4	0.0	0.0		
		120	0.0	0.0	16.8	2.4	0.0	0.0		
		150	0.0	0.0	16.8	2.4	0.0	0.0		
		180	0.0	0.0	16.8	2.4	0.0	0.0		
		240	0.0	0.0	16.8	2.4	0.0	0.0		
		300	0.0	0.0	16.8	2.4	0.0	0.0		
WS19A (15:13)	995	0	0.0	0.0	20.7	0.0	0.0	0.0	Dry	1.71
		15	0.0	0.0	13.1	3.7	0.0	0.0		
		30	0.0	0.0	8.7	4.3	0.0	0.0		
		45	0.0	0.0	8.2	4.4	0.0	0.0		
		60	0.0	0.0	8.1	4.4	0.0	0.0		
		90	0.0	0.0	7.9	4.4	0.0	0.0		
		120	0.0	0.0	7.8	4.4	0.0	0.0		
		150	0.0	0.0	7.8	4.4	0.0	0.0		
		180	0.0	0.0	7.7	4.4	0.0	0.0		
		240	0.0	0.0	7.6	4.5	0.0	0.0		
		300	0.0	0.0	7.6	4.5	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
WS17 - No gas monitoring undertaken

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**JF**
Date of Visit:	**4 & 5 September 2025**	**Time of Visit:**	**08:30 - 17:30**

Atm. Pressure:	**1002mb to 1019mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**13°C to 17°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**	**X**	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**	**X**	**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)
WS20 (15:44)	996	0	0.0	0.0	20.9	0.0	0.0	0.0	0.50	1.13
		15	0.0	0.0	19.8	0.4	0.0	0.0		
		30	0.0	0.0	19.7	0.4	0.0	0.0		
		45	0.0	0.0	19.7	0.4	0.0	0.0		
		60	0.0	0.0	19.7	0.4	0.0	0.0		
		90	0.0	0.0	19.7	0.4	0.0	0.0		
		120	0.0	0.0	19.8	0.4	0.0	0.0		
		150	0.0	0.0	19.8	0.4	0.0	0.0		
		180	0.0	0.0	19.9	0.4	0.0	0.0		
		240	0.0	0.0	19.9	0.4	0.0	0.0		
		300	0.0	0.0	21.0	0.0	0.0	0.0		
WS21 (13:15)	-	0	-	-	-	-	-	-	1.62	2.53
		15	-	-	-	-	-	-		
		30	-	-	-	-	-	-		
		45	-	-	-	-	-	-		
		60	-	-	-	-	-	-		
		90	-	-	-	-	-	-		
		120	-	-	-	-	-	-		
		150	-	-	-	-	-	-		
		180	-	-	-	-	-	-		
		240	-	-	-	-	-	-		
		300	-	-	-	-	-	-		
WS23 (14:03)	994	0	0.0	0.0	20.9	0.0	0.0	0.0	Dry	1.04
		15	0.0	0.0	20.4	0.6	0.0	0.0		
		30	0.0	0.0	20.3	0.6	0.0	0.0		
		45	0.0	0.0	20.3	0.6	0.0	0.0		
		60	0.0	0.0	20.2	0.6	0.0	0.0		
		90	0.0	0.0	20.2	0.6	0.0	0.0		
		120	0.0	0.0	20.2	0.6	0.0	0.0		
		150	0.0	0.0	20.2	0.6	0.0	0.0		
		180	0.0	0.0	20.2	0.6	0.0	0.0		
		240	0.0	0.0	20.2	0.6	0.0	0.0		
		300	0.0	0.0	20.2	0.6	0.0	0.0		
WS24 (12:05)	992	0	0.0	0.0	20.9	0.0	0.0	0.0	1.56	1.98
		15	0.0	0.0	20.5	0.7	0.0	0.0		
		30	0.0	0.0	20.3	0.7	0.0	0.0		
		45	0.0	0.0	20.3	0.7	0.0	0.0		
		60	0.0	0.0	20.3	0.7	0.0	0.0		
		90	0.0	0.0	20.3	0.7	0.0	0.0		
		120	0.0	0.0	20.3	0.7	0.0	0.0		
		150	0.0	0.0	20.2	0.7	0.0	0.0		
		180	0.0	0.0	20.2	0.7	0.0	0.0		
		240	0.0	0.0	20.2	0.7	0.0	0.0		
		300	0.0	0.0	20.2	0.7	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
WS21 - No gas monitoring undertaken

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**JF**
Date of Visit:	**4 & 5 September 2025**	**Time of Visit:**	**08:30 - 17:30**

Atm. Pressure:	**1002mb to 1019mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**13°C to 17°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**	**X**	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**	**X**	**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)
WS25 (11:10)	992	0	0.0	0.0	20.8	0.0	0.0	0.0	Dry	1.11
		15	0.0	0.0	20.8	0.2	0.0	0.0		
		30	0.0	0.0	20.6	0.3	0.0	0.0		
		45	0.0	0.0	20.5	0.5	0.0	0.0		
		60	0.0	0.0	20.3	0.6	0.0	0.0		
		90	0.0	0.0	20.5	0.5	0.0	0.0		
		120	0.0	0.0	20.3	0.7	0.0	0.0		
		150	0.0	0.0	20.3	0.7	0.0	0.0		
		180	0.0	0.0	20.2	0.7	0.0	0.0		
		240	0.0	0.0	19.8	1.1	0.0	0.0		
		300	0.0	0.0	19.4	1.4	0.0	0.0		
		360	-	-	19.5	1.3	0.0	-		
		420	-	-	19.6	1.2	0.0	-		
		480	-	-	20.1	0.8	0.0	-		
		540	-	-	19.7	1.2	0.0	-		
		600	-	-	20.1	0.8	0.0	-		
WS26 (10:05)	993	0	0.0	0.0	20.7	0.1	0.0	0.0	Damp	1.09
		15	0.0	0.0	16.9	2.4	0.0	0.0		
		30	0.0	0.0	16.3	2.4	0.0	0.0		
		45	0.0	0.0	16.2	2.4	0.0	0.0		
		60	0.0	0.0	16.2	2.4	0.0	0.0		
		90	0.0	0.0	16.1	2.4	0.0	0.0		
		120	0.0	0.0	16.1	2.4	0.0	0.0		
		150	0.0	0.0	16.0	2.5	0.0	0.0		
		180	0.0	0.0	15.9	2.6	0.0	0.0		
		240	0.0	0.0	15.9	2.6	0.0	0.0		
		300	0.0	0.0	16.3	2.4	0.0	0.0		
WS27 (13:27)	994	0	0.0	0.0	20.8	0.0	0.0	0.0	1.61	2.48
		15	0.0	0.0	20.0	0.6	0.0	0.0		
		30	0.0	0.0	19.8	0.6	0.0	0.0		
		45	0.0	0.0	20.0	0.6	0.0	0.0		
		60	0.0	0.0	20.0	0.5	0.0	0.0		
		90	0.0	0.0	20.1	0.5	0.0	0.0		
		120	0.0	0.0	20.1	0.4	0.0	0.0		
		150	0.0	0.0	20.2	0.4	0.0	0.0		
		180	0.0	0.0	20.3	0.3	0.0	0.0		
		240	0.0	0.0	20.4	0.3	0.0	0.0		
		300	0.0	0.0	20.5	0.2	0.0	0.0		

Notes:

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

*Atm. = Atmospheric

CIVIC

Groundwater Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**JF**
Date of Visit:	**4 & 5 September 2025**	**Time of Visit:**	**08:30 - 17:30**

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

Borehole Reference	**RC01**	**RC02**	**RC03**	**RC05**	**RC06**	**WS01**	**WS02A**	**WS04**
Target Stratum	Bedrock	Bedrock	Glacial Till / Bedrock	Bedrock	Bedrock	Made Ground	Glacial Till	Made Ground
Ground Level (mOD)	58.50	58.92	59.71	59.87	58.68	62.86	62.70	62.13
Groundwater Depth (mbgl)	1.77	2.23	3.04	0.00	0.00	1.12	-	Dry
Groundwater Level (mOD)	56.73	56.69	56.67	59.87	58.68	61.74	-	Dry
Base of Well (mbgl)	14.43	14.46	13.89	-	-	1.45	-	1.32
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Condition of Well	Good	Good	Good	Good	Good	Good	Good	Good
Top of Response Zone (mbgl)	3.00	3.00	2.00	3.00	3.00	0.50	1.00	0.50
Base of Response Zone (mbgl)	15.00	15.00	14.00	15.00	15.00	1.20	2.00	1.00
Top of Response Zone (mOD)	55.50	55.92	57.71	56.87	55.68	62.36	61.70	61.63
Base of Response Zone (mOD)	43.50	43.92	45.71	44.87	43.68	61.66	60.70	61.13
Hydrocarbon Sheen Observed?	No	No	No	No	No	No	No	No
Thickness of Free Product (m)	-	-	-	-	-	-	-	-

Groundwater Sampling Details								
Purge Method	-	-	-	-	-	-	-	-
Purged Volume	-	-	-	-	-	-	-	-
Recharge (Good / Poor)	-	-	-	-	-	-	-	-
Sampling Method	-	-	-	-	-	-	-	-
Volume of Water Sampled (ltrs)	-	-	-	-	-	-	-	-
Volume of Free Product Sampled (ltrs)	-	-	-	-	-	-	-	-
Colour / Odours Noted	-	-	-	-	-	-	-	-
In-situ pH	-	-	-	-	-	-	-	-
In-situ Temperature (°C)	-	-	-	-	-	-	-	-
In-situ Dissolved Oxygen (%)	-	-	-	-	-	-	-	-
In-situ Electrical Conductivity (µS/cm)	-	-	-	-	-	-	-	-
In-situ Total Dissolved Solids (ppt)	-	-	-	-	-	-	-	-

Notes:

RC05 - Bung wedged too low into pipe, unable to remove. Headworks flooded to surface level.
RC06 - Unable to open bung. Headworks flooded to surface level.
WS02A - Not monitored.

CIVIC

Groundwater Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**JF**
Date of Visit:	**4 & 5 September 2025**	**Time of Visit:**	**08:30 - 17:30**

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

Borehole Reference	**WS05**	**WS07**	**WS08**	**WS13**	**WS15**	**WS17**	**WS18**	**WS19A**
Target Stratum	Made Ground / Glacial Till / W Bedrock	Drift	Drift	Made Ground	Drift	Drift	Made Ground	Drift
Ground Level (mOD)	63.10	61.51	61.68	59.47	61.68	59.28	59.46	59.95
Groundwater Depth (mbgl)	0.96	Dry	2.19	Dry	2.10	2.19	Dry	Dry
Groundwater Level (mOD)	62.14	Dry	59.49	Dry	59.58	57.09	Dry	Dry
Base of Well (mbgl)	2.57	2.53	2.86	1.44	2.38	2.84	1.68	1.71
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Condition of Well	Good	Good	Good	Good	Good	Good	Good	Good
Top of Response Zone (mbgl)	1.50	1.00	1.00	0.50	1.00	1.00	0.80	0.80
Base of Response Zone (mbgl)	3.00	2.70	2.80	1.40	2.60	3.00	1.50	1.80
Top of Response Zone (mOD)	61.60	60.51	60.68	58.97	60.68	58.28	58.66	59.15
Base of Response Zone (mOD)	60.10	58.81	58.88	58.07	59.08	56.28	57.96	58.15
Hydrocarbon Sheen Observed?	No	No	No	No	No	No	No	No
Thickness of Free Product (m)	-	-	-	-	-	-	-	-

Groundwater Sampling Details								
Purge Method	-	-	-	-	-	-	-	-
Purged Volume	-	-	-	-	-	-	-	-
Recharge (Good / Poor)	-	-	-	-	-	-	-	-
Sampling Method	-	-	-	-	-	-	-	-
Volume of Water Sampled (ltrs)	-	-	-	-	-	-	-	-
Volume of Free Product Sampled (ltrs)	-	-	-	-	-	-	-	-
Colour / Odours Noted	-	-	-	-	-	-	-	-
In-situ pH	-	-	-	-	-	-	-	-
In-situ Temperature (°C)	-	-	-	-	-	-	-	-
In-situ Dissolved Oxygen (%)	-	-	-	-	-	-	-	-
In-situ Electrical Conductivity (µS/cm)	-	-	-	-	-	-	-	-
In-situ Total Dissolved Solids (ppt)	-	-	-	-	-	-	-	-

Notes:

CIVIC

Groundwater Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**JF**
Date of Visit:	**4 & 5 September 2025**	**Time of Visit:**	**08:30 - 17:30**

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

Borehole Reference	**WS20**	**WS21**	**WS23**	**WS24**	**WS25**	**WS26**	**WS27**	
Target Stratum	Made Ground	Glacial Till / W Bedrock	Glacial Till	Glacial Till	Made Ground	Made Ground	Glacial Till / W Bedrock	
Ground Level (mOD)	59.90	58.70	58.37	59.84	59.90	59.78	58.41	
Groundwater Depth (mbgl)	0.50	1.62	Dry	1.56	Dry	Dry	1.61	
Groundwater Level (mOD)	59.40	57.08	Dry	58.28	Dry	Dry	56.80	
Base of Well (mbgl)	1.13	2.53	1.04	1.98	1.11	1.09	2.48	
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
Condition of Well	Good	Good	Good	Good	Good	Good	Good	
Top of Response Zone (mbgl)	0.50	1.50	0.50	1.00	0.50	0.50	1.50	
Base of Response Zone (mbgl)	1.00	2.50	1.00	2.00	1.00	1.00	2.50	
Top of Response Zone (mOD)	59.40	57.20	57.87	58.84	59.40	59.28	56.91	
Base of Response Zone (mOD)	58.90	56.20	57.37	57.84	58.90	58.78	55.91	
Hydrocarbon Sheen Observed?	No	No	No	No	No	No	No	
Thickness of Free Product (m)	-	-	-	-	-	-	-	

Groundwater Sampling Details								
Purge Method	-	-	-	-	-	-	-	
Purged Volume	-	-	-	-	-	-	-	
Recharge (Good / Poor)	-	-	-	-	-	-	-	
Sampling Method	-	-	-	-	-	-	-	
Volume of Water Sampled (ltrs)	-	-	-	-	-	-	-	
Volume of Free Product Sampled (ltrs)	-	-	-	-	-	-	-	
Colour / Odours Noted	-	-	-	-	-	-	-	
In-situ pH	-	-	-	-	-	-	-	
In-situ Temperature (°C)	-	-	-	-	-	-	-	
In-situ Dissolved Oxygen (%)	-	-	-	-	-	-	-	
In-situ Electrical Conductivity (µS/cm)	-	-	-	-	-	-	-	
In-situ Total Dissolved Solids (ppt)	-	-	-	-	-	-	-	

Notes:

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**16 & 17 September 2025**	**Time of Visit:**	**08:00 - 17:30**

Atm. Pressure:	**999mb to 1007mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**10°C to 12°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**		**Moderate**	**X**	**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**		**Moderate**	**X**	**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)
RC01 (14:50)	1000	0	24.7	298.0	20.9	0.0	0.0	0.0	1.29	14.40
		15	11.5	100.0	20.9	0.0	0.0	0.0		
		30	5.0	39.0	20.8	0.0	0.0	0.0		
		45	3.0	20.0	20.8	0.0	0.0	0.0		
		60	2.9	5.0	20.8	0.0	0.0	0.0		
		90	0.0	0.0	20.8	0.0	0.0	0.0		
		120	0.0	0.0	20.8	0.0	0.0	0.0		
		150	0.0	0.0	20.8	0.0	0.0	0.0		
		180	0.0	0.0	20.8	0.0	0.0	0.0		
		240	0.0	0.0	20.8	0.0	0.0	0.0		
		300	0.0	0.0	20.8	0.0	0.0	0.0		
RC02 (12:40)	999	0	55.8	800.0	20.6	0.3	0.0	0.0	2.03	14.42
		15	24.9	165.0	20.6	0.3	0.0	0.0		
		30	2.1	23.0	20.6	0.3	0.0	0.0		
		45	0.0	0.0	20.5	0.3	0.0	0.0		
		60	0.0	0.0	20.5	0.3	0.0	0.0		
		90	0.0	0.0	20.5	0.3	0.0	0.0		
		120	0.0	0.0	20.5	0.3	0.0	0.0		
		150	0.0	0.0	20.5	0.3	0.0	0.0		
		180	0.0	0.0	20.5	0.3	0.0	0.0		
		240	0.0	0.0	20.5	0.3	0.0	0.0		
		300	0.0	0.0	20.5	0.3	0.0	0.0		
RC03 (11:30)	999	0	5.5	50.0	20.1	0.0	0.0	0.0	2.87	13.90
		15	0.0	0.0	16.2	1.9	0.0	0.0		
		30	0.0	0.0	15.5	2.0	0.0	0.0		
		45	0.0	0.0	15.5	2.0	0.0	0.0		
		60	0.0	0.0	15.5	2.0	0.0	0.0		
		90	0.0	0.0	15.5	1.9	0.0	0.0		
		120	0.0	0.0	15.6	1.9	0.0	0.0		
		150	0.0	0.0	15.7	1.9	0.0	0.0		
		180	0.0	0.0	15.7	1.9	0.0	0.0		
		240	0.0	0.0	15.7	1.9	0.0	0.0		
		300	0.0	0.0	15.8	1.8	0.0	0.0		
RC06 (13:20)	999	0	28.7	250.0	20.2	0.2	0.0	0.0	2.39	14.75
		15	3.2	18.0	20.6	0.3	0.0	0.0		
		30	0.4	2.0	20.6	0.3	0.0	0.0		
		45	0.0	0.0	20.6	0.3	0.0	0.0		
		60	0.0	0.0	20.7	0.1	0.0	0.0		
		90	0.0	0.0	20.7	0.1	0.0	0.0		
		120	0.0	0.0	20.7	0.1	0.0	0.0		
		150	0.0	0.0	20.8	0.1	0.0	0.0		
		180	0.0	0.0	20.8	0.1	0.0	0.0		
		240	0.0	0.0	20.8	0.1	0.0	0.0		
		300	0.0	0.0	20.8	0.1	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
RC05 - No gas tap, gas monitoring not undertaken.

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**16 & 17 September 2025**	**Time of Visit:**	**08:00 - 17:30**

Atm. Pressure:	**999mb to 1007mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**10°C to 12°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**		**Moderate**	**X**	**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**		**Moderate**	**X**	**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)
WS01 (10:15)	1003	0	0.0	0.0	20.6	0.0	0.0	0.0	0.78	1.40
		15	0.0	0.0	16.2	3.1	0.0	0.0		
		30	0.0	0.0	17.0	2.2	0.0	0.0		
		45	0.0	0.0	17.3	2.1	0.0	0.0		
		60	0.0	0.0	17.6	2.0	0.0	0.0		
		90	0.0	0.0	18.2	1.7	0.0	0.0		
		120	0.0	0.0	18.6	1.4	0.0	0.0		
		150	0.0	0.0	18.7	1.3	0.0	0.0		
		180	0.0	0.0	18.6	1.2	0.0	0.0		
		240	0.0	0.0	19.0	1.1	0.0	0.0		
		300	0.0	0.0	19.1	1.0	0.0	0.0		
		360	-	-	19.2	0.9	0.0	-		
		420	-	-	19.2	0.9	0.0	-		
		480	-	-	19.3	0.9	0.0	-		
		540	-	-	19.3	0.9	0.0	-		
		600	-	-	19.3	0.9	0.0	-		
WS02A (11:00)	1004	0	0.0	0.0	20.7	0.0	0.0	0.0	1.08	1.90
		15	0.0	0.0	20.5	0.2	0.0	0.0		
		30	0.0	0.0	20.3	0.4	0.0	0.0		
		45	0.0	0.0	20.0	0.6	0.0	0.0		
		60	0.0	0.0	19.7	0.7	0.0	0.0		
		90	0.0	0.0	19.6	0.8	0.0	0.0		
		120	0.0	0.0	19.6	0.8	0.0	0.0		
		150	0.0	0.0	19.6	0.8	0.0	0.0		
		180	0.0	0.0	19.6	0.8	0.0	0.0		
		240	0.0	0.0	19.6	0.8	0.0	0.0		
		300	0.0	0.0	19.6	0.8	0.0	0.0		
WS04 (09:15)	1003	0	-0.5	-1.0	20.2	0.3	0.0	0.0	0.33	1.30
		15	0.0	0.0	19.2	0.4	0.0	0.0		
		30	0.0	0.0	19.2	0.4	0.0	0.0		
		45	0.0	0.0	19.2	0.4	0.0	0.0		
		60	0.0	0.0	-	-	0.0	0.0		
		90	0.0	0.0	-	-	0.0	0.0		
		120	0.0	0.0	-	-	0.0	0.0		
		150	0.0	0.0	-	-	0.0	0.0		
		180	0.0	0.0	-	-	0.0	0.0		
		240	0.0	0.0	-	-	0.0	0.0		
		300	0.0	0.0	-	-	0.0	0.0		

Notes:

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

*Atm. = Atmospheric

WS04 - Gas monitoring stopped after 45 seconds due to groundwater being sucked up gas monitoring tube.

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**16 & 17 September 2025**	**Time of Visit:**	**08:00 - 17:30**

Atm. Pressure:	**999mb to 1007mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**10°C to 12°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**		**Moderate**	**X**	**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**		**Moderate**	**X**	**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)
WS05 (11:40)	1005	0	0.0	0.0	20.5	0.0	0.0	0.0	0.82	3.01
		15	0.0	0.0	20.4	0.2	0.0	0.0		
		30	0.0	0.0	19.9	0.8	0.0	0.0		
		45	0.0	0.0	19.5	1.5	0.0	0.0		
		60	0.0	0.0	19.2	2.2	0.0	0.0		
		90	0.0	0.0	19.3	2.1	0.0	0.0		
		120	0.0	0.0	19.4	2.0	0.0	0.0		
		150	0.0	0.0	19.5	1.9	0.0	0.0		
		180	0.0	0.0	19.7	1.6	0.0	0.0		
		240	0.0	0.0	20.1	0.9	0.0	0.0		
		300	0.0	0.0	20.3	0.7	0.0	0.0		
		360	-	-	20.4	0.7	0.0	-		
		420	-	-	20.4	0.6	0.0	-		
		480	-	-	20.5	0.4	0.0	-		
		540	-	-	20.5	0.4	0.0	-		
		600	-	-	20.5	0.4	0.0	-		
WS07 (14:10)	1006	0	0.0	0.0	20.8	0.2	0.0	0.0	Dry	2.46
		15	0.0	0.0	20.7	1.5	0.0	0.0		
		30	0.0	0.0	19.7	2.0	0.0	0.0		
		45	0.0	0.0	19.4	2.1	0.0	0.0		
		60	0.0	0.0	19.0	2.1	0.0	0.0		
		90	0.0	0.0	19.0	2.1	0.0	0.0		
		120	0.0	0.0	18.9	2.1	0.0	0.0		
		150	0.0	0.0	18.9	2.1	0.0	0.0		
		180	0.0	0.0	18.9	2.1	0.0	0.0		
		240	0.0	0.0	18.9	2.1	0.0	0.0		
		300	0.0	0.0	18.9	2.1	0.0	0.0		
WS08 (12:40)	1006	0	0.0	0.0	20.7	0.3	0.0	0.0	2.08	2.89
		15	0.0	0.0	17.3	0.1	0.0	0.0		
		30	0.0	0.0	13.2	0.1	0.0	0.0		
		45	0.0	0.0	13.2	0.1	0.0	0.0		
		60	0.0	0.0	13.2	0.1	0.0	0.0		
		90	0.0	0.0	13.2	0.1	0.0	0.0		
		120	0.0	0.0	13.2	0.1	0.0	0.0		
		150	0.0	0.0	13.6	0.1	0.0	0.0		
		180	0.0	0.0	13.6	0.1	0.0	0.0		
		240	0.0	0.0	14.0	0.1	0.0	0.0		
		300	0.0	0.0	14.7	0.1	0.0	0.0		
WS13 (15:40)	1008	0	0.0	0.0	20.7	0.2	0.0	0.0	0.40	1.40
		15	0.0	0.0	19.7	0.3	0.0	0.0		
		30	0.0	0.0	19.5	0.4	0.0	0.0		
		45	0.0	0.0	9.6	0.3	0.0	0.0		
		60	0.0	0.0	19.9	0.3	0.0	0.0		
		90	0.0	0.0	20.2	0.2	0.0	0.0		
		120	0.0	0.0	20.4	0.1	0.0	0.0		
		150	0.0	0.0	20.5	0.1	0.0	0.0		
		180	0.0	0.0	20.5	0.1	0.0	0.0		
		240	0.0	0.0	20.5	0.1	0.0	0.0		
		300	0.0	0.0	20.5	0.1	0.0	0.0		

Notes:

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

*Atm. = Atmospheric

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**16 & 17 September 2025**	**Time of Visit:**	**08:00 - 17:30**

Atm. Pressure:	**999mb to 1007mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**10°C to 12°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**		**Moderate**	**X**	**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**		**Moderate**	**X**	**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)
WS15 (13:45)	1005	0	-2.1	-7.0	20.5	0.2	0.0	0.0	1.32	2.34
		15	0.0	0.0	20.2	0.7	0.0	0.0		
		30	0.0	0.0	20.1	0.8	0.0	0.0		
		45	0.0	0.0	20.0	0.9	0.0	0.0		
		60	0.0	0.0	20.0	0.9	0.0	0.0		
		90	0.0	0.0	20.1	0.8	0.0	0.0		
		120	0.0	0.0	20.1	0.8	0.0	0.0		
		150	0.0	0.0	20.1	0.7	0.0	0.0		
		180	0.0	0.0	20.1	0.7	0.0	0.0		
		240	0.0	0.0	20.1	0.7	0.0	0.0		
		300	0.0	0.0	20.1	0.7	0.0	0.0		
WS17 (15:00)	1006	0	0.0	0.0	20.5	0.3	0.0	0.0	0.53	2.80
		15	0.0	0.0	20.5	0.3	0.0	0.0		
		30	0.0	0.0	20.5	0.3	0.0	0.0		
		45	0.0	0.0	20.5	0.3	0.0	0.0		
		60	0.0	0.0	20.5	0.3	0.0	0.0		
		90	0.0	0.0	20.5	0.3	0.0	0.0		
		120	0.0	0.0	20.6	0.2	0.0	0.0		
		150	0.0	0.0	20.6	0.2	0.0	0.0		
		180	0.0	0.0	20.6	0.2	0.0	0.0		
		240	0.0	0.0	20.6	0.2	0.0	0.0		
		300	0.0	0.0	20.6	0.2	0.0	0.0		
WS18 (16:15)	1008	0	22.0	50.0	20.7	0.2	0.0	0.0	0.88	1.63
		15	3.0	5.0	17.9	1.7	0.0	0.0		
		30	0.0	0.0	17.3	1.8	0.0	0.0		
		45	0.0	0.0	17.3	1.7	0.0	0.0		
		60	0.0	0.0	17.4	1.7	0.0	0.0		
		90	0.0	0.0	17.6	1.6	0.0	0.0		
		120	0.0	0.0	17.8	1.5	0.0	0.0		
		150	0.0	0.0	17.8	1.5	0.0	0.0		
		180	0.0	0.0	17.9	1.4	0.0	0.0		
		240	0.0	0.0	18.0	1.4	0.0	0.0		
		300	0.0	0.0	18.0	1.4	0.0	0.0		
WS19A (09:30)	999	0	0.0	0.0	20.6	0.0	0.0	0.0	Dry	1.65
		15	0.0	0.0	8.9	4.0	0.0	0.0		
		30	0.0	0.0	6.2	5.0	0.0	0.0		
		45	0.0	0.0	6.0	5.1	0.0	0.0		
		60	0.0	0.0	5.7	5.2	0.0	0.0		
		90	0.0	0.0	5.1	5.3	0.0	0.0		
		120	0.0	0.0	5.0	5.4	0.0	0.0		
		150	0.0	0.0	4.8	5.4	0.0	0.0		
		180	0.0	0.0	4.8	5.4	0.0	0.0		
		240	0.0	0.0	4.8	5.4	0.0	0.0		
		300	0.0	0.0	4.8	5.4	0.0	0.0		
		360	-	-	9.5	3.9	-	-		
		420	-	-	9.5	3.9	-	-		
		480	-	-	9.9	3.8	-	-		
		540	-	-	9.9	3.8	-	-		
		600	-	-	9.9	3.8	-	-		

Notes:

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

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**16 & 17 September 2025**	**Time of Visit:**	**08:00 - 17:30**

Atm. Pressure:	**999mb to 1007mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**10°C to 12°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**		**Moderate**	**X**	**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**		**Moderate**	**X**	**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)
WS20 (10:30)	999	0	0.0	0.0	20.2	0.1	0.0	0.0	0.48	1.06
		15	0.0	0.0	20.0	0.1	0.0	0.0		
		30	0.0	0.0	19.4	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	19.3	0.1	0.0	0.0		
		120	0.0	0.0	19.3	0.1	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	19.3	0.1	0.0	0.0		
		300	0.0	0.0	19.3	0.1	0.0	0.0		
WS21 (13:45)	999	0	0.0	0.0	20.2	0.0	0.0	0.0	1.46	2.46
		15	0.0	0.0	20.1	0.4	0.0	0.0		
		30	0.0	0.0	19.9	0.4	0.0	0.0		
		45	0.0	0.0	20.0	0.4	0.0	0.0		
		60	0.0	0.0	20.0	0.4	0.0	0.0		
		90	0.0	0.0	20.0	0.4	0.0	0.0		
		120	0.0	0.0	20.0	0.4	0.0	0.0		
		150	0.0	0.0	20.0	0.4	0.0	0.0		
		180	0.0	0.0	20.0	0.4	0.0	0.0		
		240	0.0	0.0	20.0	0.4	0.0	0.0		
		300	0.0	0.0	20.0	0.4	0.0	0.0		
WS23 (14:35)	999	0	0.0	0.0	20.7	0.0	0.0	0.0	Dry	0.99
		15	0.0	0.0	20.7	0.3	0.0	0.0		
		30	0.0	0.0	20.6	0.3	0.0	0.0		
		45	0.0	0.0	20.6	0.3	0.0	0.0		
		60	0.0	0.0	20.6	0.3	0.0	0.0		
		90	0.0	0.0	20.6	0.3	0.0	0.0		
		120	0.0	0.0	20.5	0.3	0.0	0.0		
		150	0.0	0.0	20.5	0.3	0.0	0.0		
		180	0.0	0.0	20.5	0.3	0.0	0.0		
		240	0.0	0.0	20.5	0.3	0.0	0.0		
		300	0.0	0.0	20.5	0.3	0.0	0.0		
WS24 (15:10)	1002	0	0.0	0.0	20.9	0.1	0.0	0.0	1.39	1.89
		15	0.0	0.0	20.6	0.4	0.0	0.0		
		30	0.0	0.0	20.5	0.5	0.0	0.0		
		45	0.0	0.0	20.5	0.5	0.0	0.0		
		60	0.0	0.0	20.5	0.5	0.0	0.0		
		90	0.0	0.0	20.5	0.5	0.0	0.0		
		120	0.0	0.0	20.4	0.5	0.0	0.0		
		150	0.0	0.0	20.4	0.5	0.0	0.0		
		180	0.0	0.0	20.4	0.5	0.0	0.0		
		240	0.0	0.0	20.4	0.5	0.0	0.0		
		300	0.0	0.0	20.4	0.5	0.0	0.0		

Notes:

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

*Atm. = Atmospheric

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**16 & 17 September 2025**	**Time of Visit:**	**08:00 - 17:30**

Atm. Pressure:	**999mb to 1007mb**	**Local Pressure System*:**	**Rising**
Air Temperature:	**10°C to 12°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**		**Damp**		**Wet**	**X**	**Saturated**	
Wind Strength:	**Calm**		**Light**		**Moderate**	**X**	**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**		**Overcast**	**X**
Precipitation Level:	**None**		**Slight**		**Moderate**	**X**	**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)
WS25 (12:15)	999	0	0.0	0.0	20.3	0.3	0.0	0.0	0.80	1.01
		15	0.0	0.0	20.3	0.6	0.0	0.0		
		30	0.0	0.0	20.3	0.7	0.0	0.0		
		45	0.0	0.0	20.3	0.7	0.0	0.0		
		60	0.0	0.0	20.3	0.7	0.0	0.0		
		90	0.0	0.0	20.4	0.4	0.0	0.0		
		120	0.0	0.0	20.5	0.3	0.0	0.0		
		150	0.0	0.0	20.4	0.4	0.0	0.0		
		180	0.0	0.0	20.4	0.4	0.0	0.0		
		240	0.0	0.0	20.4	0.4	0.0	0.0		
		300	0.0	0.0	20.4	0.4	0.0	0.0		
WS26 (11:15)	999	0	0.0	0.0	20.6	0.0	0.0	0.0	Dry	1.02
		15	0.0	0.0	19.5	1.0	0.0	0.0		
		30	0.0	0.0	18.0	1.3	0.0	0.0		
		45	0.0	0.0	17.9	1.3	0.0	0.0		
		60	0.0	0.0	18.0	1.3	0.0	0.0		
		90	0.0	0.0	18.2	1.3	0.0	0.0		
		120	0.0	0.0	18.2	1.2	0.0	0.0		
		150	0.0	0.0	18.2	1.1	0.0	0.0		
		180	0.0	0.0	18.2	1.1	0.0	0.0		
		240	0.0	0.0	18.3	1.1	0.0	0.0		
		300	0.0	0.0	18.3	1.1	0.0	0.0		
WS27 (14:15)	1000	0	24.0	200.0	20.6	0.0	0.0	0.0	1.34	2.42
		15	2.0	20.0	20.4	0.5	0.0	0.0		
		30	0.0	0.0	20.3	0.6	0.0	0.0		
		45	0.0	0.0	20.3	0.6	0.0	0.0		
		60	0.0	0.0	20.4	0.5	0.0	0.0		
		90	0.0	0.0	20.5	0.3	0.0	0.0		
		120	0.0	0.0	20.6	0.3	0.0	0.0		
		150	0.0	0.0	20.6	0.3	0.0	0.0		
		180	0.0	0.0	20.7	0.2	0.0	0.0		
		240	0.0	0.0	20.7	0.2	0.0	0.0		
		300	0.0	0.0	20.7	0.2	0.0	0.0		

Notes:

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

*Atm. = Atmospheric

CIVIC

Groundwater Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**16 & 17 September 2025**	**Time of Visit:**	**08:00 - 17:30**

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

Borehole Reference	**RC01**	**RC02**	**RC03**	**RC05**	**RC06**	**WS01**	**WS02A**	**WS04**
Target Stratum	Bedrock	Bedrock	acial Till / Bedrc	Bedrock	Bedrock	Made Ground	Glacial Till	Made Ground
Ground Level (mOD)	58.50	58.92	59.71	59.87	58.68	62.86	62.70	62.13
Groundwater Depth (mbgl)	1.29	2.03	2.87	2.14	2.39	0.78	1.08	0.33
Groundwater Level (mOD)	57.21	56.89	56.84	57.73	56.29	62.08	61.62	61.80
Base of Well (mbgl)	14.40	14.42	13.90	14.63	14.75	1.40	1.90	1.30
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Condition of Well	Good	Good	Good	Good	Good	Good	Good	Good
Top of Response Zone (mbgl)	3.00	3.00	2.00	3.00	3.00	0.50	1.00	0.50
Base of Response Zone (mbgl)	15.00	15.00	14.00	15.00	15.00	1.20	2.00	1.00
Top of Response Zone (mOD)	55.50	55.92	57.71	56.87	55.68	62.36	61.70	61.63
Base of Response Zone (mOD)	43.50	43.92	45.71	44.87	43.68	61.66	60.70	61.13
Hydrocarbon Sheen Observed?	No	No	No	No	No	No	No	No
Thickness of Free Product (m)	-	-	-	-	-	-	-	-

Groundwater Sampling Details								
Purge Method	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
Purged Volume	24.5	23.2	20.5	23.5	23.2	1.2	1.5	1.8
Recharge (Good / Poor)	Good	Good	Good	Good	Good	Poor	Good	Good
Sampling Method	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
Volume of Water Sampled (ltrs)	2J + 2V	2J + 2V	2J + 2V	2J + 2V	2J + 2V	2J + 2V	2J + 2V	2J + 2V
Volume of Free Product Sampled (ltrs)	-	-	-	-	-	-	-	-
Colour / Odours Noted	Brown silty water. No odour.	Light brown slightly silty water. No odour.	Light brown silty water. No odour.	Light brown silty water. No odour.	Brown silty water. No odour.	Black silty water. Sewage odour.	Brown silty water. No odour.	Brown silty water. No odour.
In-situ pH	7.79	7.30	7.13	7.64	7.01	7.07	7.47	7.71
In-situ Temperature (°C)	18.00	18.50	16.50	16.20	17.60	16.40	17.20	15.80
In-situ Dissolved Oxygen (%)	7.50	7.60	10.10	10.00	7.60	2.80	1.46	15.00
In-situ Electrical Conductivity (µS/cm)	1.51	1.96	1.27	0.71	2.18	2.10	2.31	1.72
In-situ Total Dissolved Solids (ppt)	0.75	0.98	0.64	0.35	1.09	1.05	1.18	0.79

Notes:

CIVIC

Groundwater Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**16 & 17 September 2025**	**Time of Visit:**	**08:00 - 17:30**

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

Borehole Reference	**WS05**	**WS07**	**WS08**	**WS13**	**WS15**	**WS17**	**WS18**	**WS19A**
Target Stratum	Made Ground / Glacial Till / W Bedrock	Glacial Till	Glacial Till	Made Ground	Glacial Till	Glacial Till	Made Ground	Glacial Till
Ground Level (mOD)	63.10	61.51	61.68	59.47	61.68	59.28	59.46	59.95
Groundwater Depth (mbgl)	0.82	Dry	2.08	0.40	1.32	0.53	0.88	Dry
Groundwater Level (mOD)	62.28	Dry	59.60	59.07	60.36	58.75	58.58	Dry
Base of Well (mbgl)	3.01	2.46	2.89	1.40	2.34	2.80	1.63	1.65
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Condition of Well	Good	Good	Good	Good	Good	Good	Good	Good
Top of Response Zone (mbgl)	1.50	1.00	1.00	0.50	1.00	1.00	0.80	0.80
Base of Response Zone (mbgl)	3.00	2.70	2.80	1.40	2.60	3.00	1.50	1.80
Top of Response Zone (mOD)	61.60	60.51	60.68	58.97	60.68	58.28	58.66	59.15
Base of Response Zone (mOD)	60.10	58.81	58.88	58.07	59.08	56.28	57.96	58.15
Hydrocarbon Sheen Observed?	Slight	-	No	No	No	No	No	-
Thickness of Free Product (m)	-	-	-	-	-	-	-	-

Groundwater Sampling Details								
Purge Method	Bailer	-	Bailer	Bailer	Bailer	Bailer	Bailer	-
Purged Volume	4.1	-	1.5	1.9	1.9	4.3	1.4	-
Recharge (Good / Poor)	Good	-	Poor	Poor	Poor	Good	Poor	-
Sampling Method	Bailer	-	Bailer	Bailer	Bailer	Bailer	Bailer	-
Volume of Water Sampled (ltrs)	2J + 2V	-	2J + 2V	2J + 2V	2J + 2V	2J + 2V	2J + 2V	-
Volume of Free Product Sampled (ltrs)	-	-	-	-	-	-	-	-
Colour / Odours Noted	Light brown slightly silty water. No odour.	-	Brown silty water. No odour.	Brown becoming dark grey silty water. No odour.	Brown very silty water. No odour.	Brown silty water. No odour.	Light brown silty water. No odour.	-
In-situ pH	7.61	-	7.87	7.87	7.77	6.97	7.16	-
In-situ Temperature (°C)	18.10	-	15.90	16.50	17.20	18.60	18.10	-
In-situ Dissolved Oxygen (%)	5.70	-	13.00	12.00	15.40	9.60	9.00	-
In-situ Electrical Conductivity (µS/cm)	1.04	-	1.58	2.13	0.42	0.93	1.62	-
In-situ Total Dissolved Solids (ppt)	0.53	-	0.81	1.09	0.20	0.47	0.82	-

Notes:

CIVIC

Groundwater Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**16 & 17 September 2025**	**Time of Visit:**	**08:00 - 17:30**

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

Borehole Reference	**WS20**	**WS21**	**WS23**	**WS24**	**WS25**	**WS26**	**WS27**	
Target Stratum	Made Ground	Glacial Till / W Bedrock	Glacial Till	Glacial Till	Made Ground	Made Ground	Glacial Till / W Bedrock	
Ground Level (mOD)	59.90	58.70	58.37	59.84	59.90	59.78	58.41	
Groundwater Depth (mbgl)	0.48	1.46	Dry	1.39	0.80	Dry	1.34	
Groundwater Level (mOD)	59.42	57.24	Dry	58.45	59.10	Dry	57.07	
Base of Well (mbgl)	1.06	2.46	0.99	1.89	1.01	1.02	2.42	
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
Condition of Well	Good	Good	Good	Good	Good	Good	Good	
Top of Response Zone (mbgl)	0.50	1.50	0.50	1.00	0.50	0.50	1.50	
Base of Response Zone (mbgl)	1.00	2.50	1.00	2.00	1.00	1.00	2.50	
Top of Response Zone (mOD)	59.40	57.20	57.87	58.84	59.40	59.28	56.91	
Base of Response Zone (mOD)	58.90	56.20	57.37	57.84	58.90	58.78	55.91	
Hydrocarbon Sheen Observed?	No	No	-	No	No	-	No	
Thickness of Free Product (m)	-	-	-	-	-	-	-	

Groundwater Sampling Details								
Purge Method	Bailer	Bailer	-	Bailer	Bailer	-	Bailer	
Purged Volume	1.1	1.8	-	0.9	-	-	2	
Recharge (Good / Poor)	Good	Poor	-	Poor	Poor	-	Poor	
Sampling Method	Bailer	Bailer	-	Bailer	Bailer	-	Bailer	
Volume of Water Sampled (ltrs)	2J + 2V	2J + 2V	-	1J + 2V	2J + 2V	-	2J + 2V	
Volume of Free Product Sampled (ltrs)	-	-	-	-	-	-	-	
Colour / Odours Noted	Light brown silty water. No odour.	Light brown silty water. No odour.	-	Greyish brown silty water. No odour.	Light greyish brown, slightly cloudy water. No odour.	-	Brown silty water. No odour.	
In-situ pH	8.66	7.80	-	7.01	7.30	-	7.52	
In-situ Temperature (°C)	16.40	19.00	-	16.40	17.80	-	18.50	
In-situ Dissolved Oxygen (%)	7.40	10.40	-	6.60	14.90	-	10.70	
In-situ Electrical Conductivity (µS/cm)	1.89	2.59	-	0.67	0.62	-	2.42	
In-situ Total Dissolved Solids (ppt)	0.93	1.30	-	0.33	0.31	-	1.21	

Notes:

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**30 September 2025**	**Time of Visit:**	**07:30 - 16:30**

Atm. Pressure:	**1013mb to 1014mb**	**Local Pressure System*:**	**Steady**
Air Temperature:	**12°C to 15°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**	**X**	**Damp**		**Wet**		**Saturated**	
Wind Strength:	**Calm**	**X**	**Light**		**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	**X**	**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)
RC01 (11:00)	1014	0	0.0	0.0	20.4	0.1	0.0	0.0	1.46	14.38
		15	0.0	0.0	20.3	0.1	0.0	0.0		
		30	0.0	0.0	20.6	0.1	0.0	0.0		
		45	0.0	0.0	20.6	0.1	0.0	0.0		
		60	0.0	0.0	20.6	0.1	0.0	0.0		
		90	0.0	0.0	20.6	0.1	0.0	0.0		
		120	0.0	0.0	20.6	0.0	0.0	0.0		
		150	0.0	0.0	20.6	0.0	0.0	0.0		
		180	0.0	0.0	20.6	0.0	0.0	0.0		
		240	0.0	0.0	20.6	0.0	0.0	0.0		
		300	0.0	0.0	20.6	0.0	0.0	0.0		
RC02 (09:05)	1013	0	72.0	1560.0	20.2	0.1	0.0	0.0	2.03	14.39
		15	25.2	390.0	20.4	0.3	0.0	0.0		
		30	4.3	30.0	20.4	0.3	0.0	0.0		
		45	0.6	3.0	20.3	0.3	0.0	0.0		
		60	0.0	0.0	20.4	0.3	0.0	0.0		
		90	0.0	0.0	20.5	0.2	0.0	0.0		
		120	0.0	0.0	20.5	0.2	0.0	0.0		
		150	0.0	0.0	20.5	0.1	0.0	0.0		
		180	0.0	0.0	20.5	0.1	0.0	0.0		
		240	0.0	0.0	20.5	0.1	0.0	0.0		
		300	0.0	0.0	20.5	0.1	0.0	0.0		
RC03 (08:10)	1014	0	2.0	25.0	20.1	0.1	0.0	0.0	2.77	13.87
		15	0.0	0.0	16.8	2.1	0.0	0.0		
		30	0.0	0.0	14.7	2.3	0.0	0.0		
		45	0.0	0.0	14.6	2.3	0.0	0.0		
		60	0.0	0.0	14.6	2.3	0.0	0.0		
		90	0.0	0.0	14.8	2.2	0.0	0.0		
		120	0.0	0.0	14.9	2.2	0.0	0.0		
		150	0.0	0.0	15.0	2.2	0.0	0.0		
		180	0.0	0.0	15.1	2.1	0.0	0.0		
		240	0.0	0.0	15.1	2.1	0.0	0.0		
		300	0.0	0.0	15.2	2.1	0.0	0.0		
RC06 (09:25)	1013	0	110.1	>2500	20.5	0.2	0.0	0.0	2.11	14.65
		15	70.0	2500.0	20.5	0.4	0.0	0.0		
		30	16.0	150.0	20.5	0.3	0.0	0.0		
		45	5.0	80.0	20.5	0.3	0.0	0.0		
		60	3.0	60.0	20.5	0.3	0.0	0.0		
		90	4.0	50.0	20.5	0.2	0.0	0.0		
		120	4.0	40.0	20.5	0.2	0.0	0.0		
		150	0.0	0.0	20.6	0.2	0.0	0.0		
		180	0.0	0.0	20.6	0.2	0.0	0.0		
		240	0.0	0.0	20.6	0.2	0.0	0.0		
		300	0.0	0.0	20.6	0.1	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
RC05 - No gas tap, gas monitoring not undertaken.

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**30 September 2025**	**Time of Visit:**	**07:30 - 16:30**

Atm. Pressure:	**1013mb to 1014mb**	**Local Pressure System*:**	**Steady**
Air Temperature:	**12°C to 15°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**	X	**Damp**		**Wet**		**Saturated**	
Wind Strength:	**Calm**	X	**Light**		**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	X	**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)
WS01 (15:25)	1014	0	0.0	0.0	20.1	0.2	0.0	0.0	0.57	1.38
		15	0.0	0.0	18.9	2.3	0.8	0.0		
		30	0.0	0.0	18.8	2.0	0.9	0.0		
		45	0.0	0.0	19.2	1.6	0.6	0.0		
		60	0.0	0.0	19.5	1.3	0.2	0.0		
		90	0.0	0.0	20.1	0.8	0.0	0.0		
		120	0.0	0.0	20.2	0.7	0.0	0.0		
		150	0.0	0.0	20.4	0.6	0.0	0.0		
		180	0.0	0.0	20.5	0.5	0.0	0.0		
		240	0.0	0.0	20.6	0.5	0.0	0.0		
		300	0.0	0.0	20.6	0.4	0.0	0.0		
WS02A (15:00)	1014	0	0.0	0.0	20.7	0.1	0.0	0.0	1.08	1.90
		15	0.0	0.0	16.8	1.9	0.0	0.0		
		30	0.0	0.0	16.4	2.0	0.0	0.0		
		45	0.0	0.0	16.2	2.0	0.0	0.0		
		60	0.0	0.0	16.2	2.0	0.0	0.0		
		90	0.0	0.0	16.2	2.0	0.0	0.0		
		120	0.0	0.0	16.2	2.0	0.0	0.0		
		150	0.0	0.0	16.2	2.0	0.0	0.0		
		180	0.0	0.0	16.1	2.0	0.0	0.0		
		240	0.0	0.0	16.1	2.0	0.0	0.0		
		300	0.0	0.0	16.1	2.0	0.0	0.0		
WS04 (14:30)	1013	0	-4.0	-25.0	20.5	0.4	0.0	0.0	0.48	1.33
		15	0.0	0.0	19.9	0.5	0.0	0.0		
		30	0.0	0.0	19.4	0.5	0.0	0.0		
		45	0.0	0.0	19.4	0.5	0.0	0.0		
		60	0.0	0.0	19.5	0.5	0.0	0.0		
		90	0.0	0.0	19.7	0.4	0.0	0.0		
		120	0.0	0.0	-	-	0.0	0.0		
		150	0.0	0.0	-	-	0.0	0.0		
		180	0.0	0.0	-	-	0.0	0.0		
		240	0.0	0.0	-	-	0.0	0.0		
		300	0.0	0.0	-	-	0.0	0.0		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
WS04 - Gas monitoring stopped after 90 seconds due to groundwater being sucked up gas monitoring tube.

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**30 September 2025**	**Time of Visit:**	**07:30 - 16:30**

Atm. Pressure:	**1013mb to 1014mb**	**Local Pressure System*:**	**Steady**
Air Temperature:	**12°C to 15°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**	X	**Damp**		**Wet**		**Saturated**	
Wind Strength:	**Calm**	X	**Light**		**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	X	**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)
WS05 (14:10)	1014	0	0.0	0.0	19.9	0.3	0.0	0.0	0.88	3.01
		15	0.0	0.0	20.3	0.9	0.0	0.0		
		30	0.0	0.0	20.6	0.7	0.0	0.0		
		45	0.0	0.0	20.7	0.6	0.0	0.0		
		60	0.0	0.0	20.7	0.5	0.0	0.0		
		90	0.0	0.0	20.8	0.4	0.0	0.0		
		120	0.0	0.0	20.8	0.4	0.0	0.0		
		150	0.0	0.0	20.8	0.4	0.0	0.0		
		180	0.0	0.0	20.8	0.3	0.0	0.0		
		240	0.0	0.0	20.8	0.3	0.0	0.0		
		300	0.0	0.0	20.8	0.3	0.0	0.0		
WS07 (13:50)	1014	0	0.0	0.0	19.9	0.1	0.0	0.0	Dry	2.47
		15	0.0	0.0	15.6	3.9	0.0	0.0		
		30	0.0	0.0	14.7	4.1	0.0	0.0		
		45	0.0	0.0	14.5	4.2	0.0	0.0		
		60	0.0	0.0	14.5	4.2	0.0	0.0		
		90	0.0	0.0	14.5	4.2	0.0	0.0		
		120	0.0	0.0	14.5	4.2	0.0	0.0		
		150	0.0	0.0	14.4	4.2	0.0	0.0		
		180	0.0	0.0	14.4	4.2	0.0	0.0		
		240	0.0	0.0	14.5	4.1	0.0	0.0		
		300	0.0	0.0	14.5	4.1	0.0	0.0		
WS08 (13:10)	1015	0	-27.5	-360.0	20.7	0.1	0.0	0.0	1.81	2.87
		15	-0.4	-2.0	3.3	0.4	0.0	0.0		
		30	0.0	0.0	2.2	0.4	0.0	0.0		
		45	0.0	0.0	2.0	0.4	0.0	0.0		
		60	0.0	0.0	2.1	0.4	0.0	0.0		
		90	0.0	0.0	2.2	0.4	0.0	0.0		
		120	0.0	0.0	2.9	0.4	0.0	0.0		
		150	0.0	0.0	4.7	0.3	0.0	0.0		
		180	0.0	0.0	7.4	0.3	0.0	0.0		
		240	0.0	0.0	9.2	0.3	0.0	0.0		
		300	0.0	0.0	9.7	0.2	0.0	0.0		
WS13 (12:20)	1015	0	0.0	0.0	20.8	0.0	0.0	0.0	0.96	1.40
		15	0.0	0.0	20.7	0.1	0.0	0.0		
		30	0.0	0.0	20.6	0.1	0.0	0.0		
		45	0.0	0.0	20.6	0.1	0.0	0.0		
		60	0.0	0.0	20.6	0.1	0.0	0.0		
		90	0.0	0.0	20.6	0.0	0.0	0.0		
		120	0.0	0.0	20.7	0.0	0.0	0.0		
		150	0.0	0.0	20.7	0.0	0.0	0.0		
		180	0.0	0.0	20.7	0.0	0.0	0.0		
		240	0.0	0.0	20.7	0.0	0.0	0.0		
		300	0.0	0.0	20.7	0.0	0.0	0.0		

Notes:

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

*Atm. = Atmospheric

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**30 September 2025**	**Time of Visit:**	**07:30 - 16:30**

Atm. Pressure:	**1013mb to 1014mb**	**Local Pressure System*:**	**Steady**
Air Temperature:	**12°C to 15°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**	X	**Damp**		**Wet**		**Saturated**	
Wind Strength:	**Calm**	X	**Light**		**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	X	**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)
WS15 (13:25)	1014	0	3.1	10.0	19.9	0.3	0.0	0.0	1.98	2.32
		15	0.0	0.0	18.7	0.7	0.0	0.0		
		30	0.0	0.0	16.9	1.4	0.0	0.0		
		45	0.0	0.0	18.8	1.4	0.0	0.0		
		60	0.0	0.0	18.8	1.4	0.0	0.0		
		90	0.0	0.0	18.8	1.4	0.0	0.0		
		120	0.0	0.0	18.8	1.4	0.0	0.0		
		150	0.0	0.0	18.8	1.4	0.0	0.0		
		180	0.0	0.0	18.8	1.4	0.0	0.0		
		240	0.0	0.0	18.8	1.4	0.0	0.0		
		300	0.0	0.0	18.8	1.4	0.0	0.0		
WS17 (12:05)	1015	0	-150.0	Error	20.5	0.3	0.0	0.0	1.69	2.79
		15	0.0	0.0	18.1	1.2	0.0	0.0		
		30	0.0	0.0	13.4	0.4	0.0	0.0		
		45	0.0	0.0	20.4	0.1	0.0	0.0		
		60	0.0	0.0	20.6	0.0	0.0	0.0		
		90	0.0	0.0	20.7	0.0	0.0	0.0		
		120	0.0	0.0	20.7	0.0	0.0	0.0		
		150	0.0	0.0	20.7	0.0	0.0	0.0		
		180	0.0	0.0	20.7	0.0	0.0	0.0		
		240	0.0	0.0	20.7	0.0	0.0	0.0		
		300	0.0	0.0	20.7	0.0	0.0	0.0		
WS18 (12:40)	1014	0	23.6	65.0	19.8	0.1	0.0	0.0	1.21	1.63
		15	0.0	0.0	11.2	2.2	0.0	0.0		
		30	0.0	0.0	11.7	2.1	0.0	0.0		
		45	0.0	0.0	13.0	1.9	0.0	0.0		
		60	0.0	0.0	13.0	1.9	0.0	0.0		
		90	0.0	0.0	12.8	1.9	0.0	0.0		
		120	0.0	0.0	12.7	1.9	0.0	0.0		
		150	0.0	0.0	12.5	2.0	0.0	0.0		
		180	0.0	0.0	12.0	2.1	0.0	0.0		
		240	0.0	0.0	10.5	2.5	0.0	0.0		
		300	0.0	0.0	10.7	2.3	0.0	0.0		
WS19A (11:20)	1014	0	0.0	0.0	20.6	0.0	0.0	0.0	Dry	1.65
		15	0.0	0.0	17.5	2.0	0.0	0.0		
		30	0.0	0.0	13.1	2.5	0.0	0.0		
		45	0.0	0.0	15.7	1.5	0.0	0.0		
		60	0.0	0.0	17.1	1.2	0.0	0.0		
		90	0.0	0.0	17.9	1.0	0.0	0.0		
		120	0.0	0.0	18.1	0.9	0.0	0.0		
		150	0.0	0.0	18.2	0.9	0.0	0.0		
		180	0.0	0.0	18.3	0.9	0.0	0.0		
		240	0.0	0.0	18.3	0.9	0.0	0.0		
		300	0.0	0.0	18.3	0.9	0.0	0.0		

Notes:

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

*Atm. = Atmospheric

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**30 September 2025**	**Time of Visit:**	**07:30 - 16:30**

Atm. Pressure:	**1013mb to 1014mb**	**Local Pressure System*:**	**Steady**
Air Temperature:	**12°C to 15°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**	**X**	**Damp**		**Wet**		**Saturated**	
Wind Strength:	**Calm**	**X**	**Light**		**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	**X**	**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)
WS20 (11:45)	1014	0	0.0	0.0	20.2	0.1	0.0	0.0	0.51	1.06
		15	0.0	0.0	20.0	0.2	0.0	0.0		
		30	0.0	0.0	20.6	0.1	0.0	0.0		
		45	0.0	0.0	20.7	0.0	0.0	0.0		
		60	0.0	0.0	20.6	0.0	0.0	0.0		
		90	0.0	0.0	20.6	0.0	0.0	0.0		
		120	0.0	0.0	20.6	0.0	0.0	0.0		
		150	0.0	0.0	20.6	0.0	0.0	0.0		
		180	0.0	0.0	20.6	0.0	0.0	0.0		
		240	0.0	0.0	20.6	0.0	0.0	0.0		
		300	0.0	0.0	20.6	0.0	0.0	0.0		
WS21 (10:00)	1014	0	0.0	0.0	20.6	0.0	0.0	0.0	1.47	2.47
		15	0.0	0.0	17.9	0.8	0.0	0.0		
		30	0.0	0.0	17.4	0.8	0.0	0.0		
		45	0.0	0.0	17.2	0.8	0.0	0.0		
		60	0.0	0.0	17.2	0.8	0.0	0.0		
		90	0.0	0.0	17.1	0.8	0.0	0.0		
		120	0.0	0.0	17.1	0.8	0.0	0.0		
		150	0.0	0.0	17.1	0.8	0.0	0.0		
		180	0.0	0.0	17.1	0.8	0.0	0.0		
		240	0.0	0.0	17.0	0.9	0.0	0.0		
		300	0.0	0.0	17.0	0.9	0.0	0.0		
WS23 (10:45)	1014	0	0.0	0.0	20.7	0.0	0.0	0.0	Dry	0.99
		15	0.0	0.0	20.5	0.3	0.0	0.0		
		30	0.0	0.0	20.5	0.3	0.0	0.0		
		45	0.0	0.0	20.5	0.3	0.0	0.0		
		60	0.0	0.0	20.4	0.3	0.0	0.0		
		90	0.0	0.0	20.4	0.3	0.0	0.0		
		120	0.0	0.0	20.4	0.3	0.0	0.0		
		150	0.0	0.0	20.4	0.3	0.0	0.0		
		180	0.0	0.0	20.4	0.3	0.0	0.0		
		240	0.0	0.0	20.4	0.3	0.0	0.0		
		300	0.0	0.0	20.4	0.3	0.0	0.0		
WS24 (08:50)	1013	0	0.0	0.0	20.3	0.1	0.0	0.0	0.94	1.90
		15	0.0	0.0	20.2	0.7	0.0	0.0		
		30	0.0	0.0	20.1	0.7	0.0	0.0		
		45	0.0	0.0	20.2	0.6	0.0	0.0		
		60	0.0	0.0	20.2	0.5	0.0	0.0		
		90	0.0	0.0	20.3	0.5	0.0	0.0		
		120	0.0	0.0	20.3	0.4	0.0	0.0		
		150	0.0	0.0	20.4	0.3	0.0	0.0		
		180	0.0	0.0	20.5	0.3	0.0	0.0		
		240	0.0	0.0	20.5	0.2	0.0	0.0		
		300	0.0	0.0	20.5	0.2	0.0	0.0		

Notes:

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

*Atm. = Atmospheric

CIVIC

Ground Gas Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**30 September 2025**	**Time of Visit:**	**07:30 - 16:30**

Atm. Pressure:	**1013mb to 1014mb**	**Local Pressure System*:**	**Steady**
Air Temperature:	**12°C to 15°C**	**Gas Monitor Model:**	**GFM436**

State of Ground:	**Dry**	**X**	**Damp**		**Wet**		**Saturated**	
Wind Strength:	**Calm**	**X**	**Light**		**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	**X**	**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)
WS25 (08:35)	1014	0	0.0	0.0	20.5	0.1	0.0	0.0	Dry	1.04
		15	0.0	0.0	20.5	0.4	0.0	0.0		
		30	0.0	0.0	20.3	0.4	0.0	0.0		
		45	0.0	0.0	20.3	0.4	0.0	0.0		
		60	0.0	0.0	20.3	0.4	0.0	0.0		
		90	0.0	0.0	20.2	0.5	0.0	0.0		
		120	0.0	0.0	20.2	0.5	0.0	0.0		
		150	0.0	0.0	20.3	0.5	0.0	0.0		
		180	0.0	0.0	20.3	0.5	0.0	0.0		
		240	0.0	0.0	20.3	0.4	0.0	0.0		
		300	0.0	0.0	20.3	0.4	0.0	0.0		
WS26 (07:45)	1015	0	0.0	0.0	20.4	0.0	0.0	0.0	Dry	1.03
		15	0.0	0.0	16.2	1.8	0.0	0.0		
		30	0.0	0.0	15.4	1.8	0.0	0.0		
		45	0.0	0.0	15.6	1.7	0.0	0.0		
		60	0.0	0.0	15.9	1.7	0.0	0.0		
		90	0.0	0.0	16.6	1.4	0.0	0.0		
		120	0.0	0.0	17.0	1.2	0.0	0.0		
		150	0.0	0.0	17.8	1.0	0.0	0.0		
		180	0.0	0.0	18.1	0.9	0.0	0.0		
		240	0.0	0.0	18.7	0.7	0.0	0.0		
		300	0.0	0.0	19.2	0.6	0.0	0.0		
WS27 (10:20)	1013	0	-30.0	-350.0	20.3	0.4	0.0	0.0	1.25	2.41
		15	-3.0	-50.0	20.3	0.4	0.0	0.0		
		30	0.0	0.0	20.3	0.4	0.0	0.0		
		45	0.0	0.0	20.3	0.4	0.0	0.0		
		60	0.0	0.0	20.3	0.3	0.0	0.0		
		90	0.0	0.0	20.3	0.3	0.0	0.0		
		120	0.0	0.0	20.4	0.3	0.0	0.0		
		150	0.0	0.0	20.5	0.2	0.0	0.0		
		180	0.0	0.0	20.5	0.2	0.0	0.0		
		240	0.0	0.0	20.5	0.2	0.0	0.0		
		300	0.0	0.0	20.5	0.2	0.0	0.0		

Notes:

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

*Atm. = Atmospheric

CIVIC

Groundwater Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**30 September 2025**	**Time of Visit:**	**07:30 - 16:30**

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

Borehole Reference	**RC01**	**RC02**	**RC03**	**RC05**	**RC06**	**WS01**	**WS02A**	**WS04**
Target Stratum	Bedrock	Bedrock	acial Till / Bedrc	Bedrock	Bedrock	Made Ground	Glacial Till	Made Ground
Ground Level (mOD)	58.50	58.92	59.71	59.87	58.68	62.86	62.70	62.13
Groundwater Depth (mbgl)	1.46	2.03	2.77	2.10	2.14	0.57	1.08	0.48
Groundwater Level (mOD)	57.04	56.89	56.94	57.77	56.54	62.29	61.62	61.65
Base of Well (mbgl)	14.38	14.39	13.87	14.57	14.65	1.38	1.90	1.33
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Condition of Well	Good	Good	Good	Good	Good	Good	Good	Good
Top of Response Zone (mbgl)	3.00	3.00	2.00	3.00	3.00	0.50	1.00	0.50
Base of Response Zone (mbgl)	15.00	15.00	14.00	15.00	15.00	1.20	2.00	1.00
Top of Response Zone (mOD)	55.50	55.92	57.71	56.87	55.68	62.36	61.70	61.63
Base of Response Zone (mOD)	43.50	43.92	45.71	44.87	43.68	61.66	60.70	61.13
Hydrocarbon Sheen Observed?	-	-	-	-	-	-	-	-
Thickness of Free Product (m)	-	-	-	-	-	-	-	-

Groundwater Sampling Details								
Purge Method	-	-	-	-	-	-	-	-
Purged Volume	-	-	-	-	-	-	-	-
Recharge (Good / Poor)	-	-	-	-	-	-	-	-
Sampling Method	-	-	-	-	-	-	-	-
Volume of Water Sampled (ltrs)	-	-	-	-	-	-	-	-
Volume of Free Product Sampled (ltrs)	-	-	-	-	-	-	-	-
Colour / Odours Noted	-	-	-	-	-	-	-	-
In-situ pH	-	-	-	-	-	-	-	-
In-situ Temperature (°C)	-	-	-	-	-	-	-	-
In-situ Dissolved Oxygen (%)	-	-	-	-	-	-	-	-
In-situ Electrical Conductivity (µS/cm)	-	-	-	-	-	-	-	-
In-situ Total Dissolved Solids (ppt)	-	-	-	-	-	-	-	-

Notes:

CIVIC

Groundwater Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**30 September 2025**	**Time of Visit:**	**07:30 - 16:30**

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

Borehole Reference	**WS05**	**WS07**	**WS08**	**WS13**	**WS15**	**WS17**	**WS18**	**WS19A**
Target Stratum	Made Ground / Glacial Till / W Bedrock	Glacial Till	Glacial Till	Made Ground	Glacial Till	Glacial Till	Made Ground	Glacial Till
Ground Level (mOD)	63.10	61.51	61.68	59.47	61.68	59.28	59.46	59.95
Groundwater Depth (mbgl)	0.88	Dry	1.81	0.96	1.98	1.69	1.21	Dry
Groundwater Level (mOD)	62.22	Dry	59.87	58.51	59.70	57.59	58.25	Dry
Base of Well (mbgl)	3.01	2.46	2.87	1.40	2.32	2.80	1.63	1.65
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Condition of Well	Good	Good	Good	Good	Good	Good	Good	Good
Top of Response Zone (mbgl)	1.50	1.00	1.00	0.50	1.00	1.00	0.80	0.80
Base of Response Zone (mbgl)	3.00	2.70	2.80	1.40	2.60	3.00	1.50	1.80
Top of Response Zone (mOD)	61.60	60.51	60.68	58.97	60.68	58.28	58.66	59.15
Base of Response Zone (mOD)	60.10	58.81	58.88	58.07	59.08	56.28	57.96	58.15
Hydrocarbon Sheen Observed?	-	-	-	-	-	-	-	-
Thickness of Free Product (m)	-	-	-	-	-	-	-	-

Groundwater Sampling Details								
Purge Method	-	-	-	-	-	-	-	-
Purged Volume	-	-	-	-	-	-	-	-
Recharge (Good / Poor)	-	-	-	-	-	-	-	-
Sampling Method	-	-	-	-	-	-	-	-
Volume of Water Sampled (ltrs)	-	-	-	-	-	-	-	-
Volume of Free Product Sampled (ltrs)	-	-	-	-	-	-	-	-
Colour / Odours Noted	-	-	-	-	-	-	-	-
In-situ pH	-	-	-	-	-	-	-	-
In-situ Temperature (°C)	-	-	-	-	-	-	-	-
In-situ Dissolved Oxygen (%)	-	-	-	-	-	-	-	-
In-situ Electrical Conductivity (µS/cm)	-	-	-	-	-	-	-	-
In-situ Total Dissolved Solids (ppt)	-	-	-	-	-	-	-	-

Notes:

CIVIC

Groundwater Monitoring Record

Project Name:	**Wythenshawe**	**Client:**	**Muse**
Project Reference:	**51143/01**	**Engineer:**	**AP**
Date of Visit:	**30 September 2025**	**Time of Visit:**	**07:30 - 16:30**

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

Borehole Reference	**WS20**	**WS21**	**WS23**	**WS24**	**WS25**	**WS26**	**WS27**	
Target Stratum	Made Ground	Glacial Till / W Bedrock	Glacial Till	Glacial Till	Made Ground	Made Ground	Glacial Till / W Bedrock	
Ground Level (mOD)	59.90	58.70	58.37	59.84	59.90	59.78	58.41	
Groundwater Depth (mbgl)	0.51	1.47	Dry	0.94	Dry	Dry	1.25	
Groundwater Level (mOD)	59.39	57.23	Dry	58.90	Dry	Dry	57.16	
Base of Well (mbgl)	1.06	2.46	0.99	1.90	1.04	1.03	2.41	
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
Condition of Well	Good	Good	Good	Good	Good	Good	Good	
Top of Response Zone (mbgl)	0.50	1.50	0.50	1.00	0.50	0.50	1.50	
Base of Response Zone (mbgl)	1.00	2.50	1.00	2.00	1.00	1.00	2.50	
Top of Response Zone (mOD)	59.40	57.20	57.87	58.84	59.40	59.28	56.91	
Base of Response Zone (mOD)	58.90	56.20	57.37	57.84	58.90	58.78	55.91	
Hydrocarbon Sheen Observed?	-	-	-	-	-	-	-	
Thickness of Free Product (m)	-	-	-	-	-	-	-	

Groundwater Sampling Details								
Purge Method	-	-	-	-	-	-	-	
Purged Volume	-	-	-	-	-	-	-	
Recharge (Good / Poor)	-	-	-	-	-	-	-	
Sampling Method	-	-	-	-	-	-	-	
Volume of Water Sampled (ltrs)	-	-	-	-	-	-	-	
Volume of Free Product Sampled (ltrs)	-	-	-	-	-	-	-	
Colour / Odours Noted	-	-	-	-	-	-	-	
In-situ pH	-	-	-	-	-	-	-	
In-situ Temperature (°C)	-	-	-	-	-	-	-	
In-situ Dissolved Oxygen (%)	-	-	-	-	-	-	-	
In-situ Electrical Conductivity (µS/cm)	-	-	-	-	-	-	-	
In-situ Total Dissolved Solids (ppt)	-	-	-	-	-	-	-	

Notes:

Appendix I – Chemical Laboratory Analysis Results

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

e: Joseph.Foster@civicearth.com
kirsty.poore@civicearth.com

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

t: 01923 225404
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e: reception@i2analytical.com

Analytical Report Number : 25-043851

Project / Site name:	Wythenshawe	**Samples received on:**	15/08/2025
Your job number:	51143	**Samples instructed on/ Analysis started on:**	15/08/2025
Your order number:	PO-0343	**Analysis completed by:**	26/08/2025
Report Issue Number:	1	**Report issued on:**	26/08/2025
Samples Analysed:	17 soil samples		

Signed:

Rafał Szczepańczyk
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

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

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

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

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

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651216	651217	651218	651219	651220
Sample Reference				WS25	WS25	WS25	WS26	WS26
Sample Number				1	2	3	1	2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.60	1.10	0.30	0.50
Date Sampled				11/08/2025	11/08/2025	11/08/2025	11/08/2025	11/08/2025
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	50.9	63.9	46.6	80.7	< 0.1
Moisture Content	%	0.01	NONE	1.5	2.6	7.8	1	9.5
Total mass of sample received	kg	0.1	NONE	2	2	2	2	2
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KMC	KMC	KMC	MWI	MWI
Analysis completed	N/A	N/A	N/A	25/08/2025	25/08/2025	25/08/2025	25/08/2025	25/08/2025
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.9	10	11	8.6	8.2
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	360	510	1600	330	400
Organic Matter (automated)	%	0.1	MCERTS	3.4	0.3	1.1	0.8	1.1
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 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	0.09	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.06	< 0.05	0.53	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.11	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.28	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.62	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.32	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.59	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.18	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.19	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
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	< 0.05	< 0.05	0.06	< 0.05	< 0.05
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	< 0.85	< 0.85	2.97	< 0.85	< 0.85

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651216	651217	651218	651219	651220
Sample Reference				WS25	WS25	WS25	WS26	WS26
Sample Number				1	2	3	1	2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.60	1.10	0.30	0.50
Date Sampled				11/08/2025	11/08/2025	11/08/2025	11/08/2025	11/08/2025
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	< 1.0	< 1.0	< 1.0	< 1.0	1.4
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	1.3	1.9	3.7	< 1.0	4.5
Barium (aqua regia extractable)	mg/kg	1	MCERTS	33	240	180	76	59
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	< 0.06	0.17	0.38	0.07	0.45
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.3	1	0.2	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	1	0.8	1.3	< 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	4.6	3.9	11	3.2	14
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	4.6	3.9	11	3.2	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	5.1	6.6	12	7.8	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	3.6	18	22	15	13
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	6.2	4.4	11	3	11
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	6.1	3.7	13	3.7	18
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	16	20	57	17	31
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	0.08	< 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	6.1	< 2.0	46	2.7	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	56	< 8.0	130	13	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	900	< 8.0	88	51	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	960	< 10	270	67	< 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	0.07	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	1.1	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	13	< 2.0	23	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	77	< 10	100	11	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	1000	< 10	150	70	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	1100	< 10	280	81	< 10
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	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	MCERTS	-	< 5.0	-	-	-

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

Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651216	651217	651218	651219	651220
Sample Reference				WS25	WS25	WS25	WS26	WS26
Sample Number				1	2	3	1	2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.60	1.10	0.30	0.50
Date Sampled				11/08/2025	11/08/2025	11/08/2025	11/08/2025	11/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
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	< 5.0	< 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	< 5.0	< 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	14	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	33	< 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	17	< 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	-	-	-
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	-	-	-

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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651216	651217	651218	651219	651220
Sample Reference				WS25	WS25	WS25	WS26	WS26
Sample Number				1	2	3	1	2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.60	1.10	0.30	0.50
Date Sampled				11/08/2025	11/08/2025	11/08/2025	11/08/2025	11/08/2025
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	-	< 0.1	-	-	-
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	-	-	-

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

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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651221	651222	651223	651224	651225
Sample Reference				WS22	WS24	WS24	WS21	WS28
Sample Number				1	1	2	1	2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.50	0.40	0.60	0.25	0.30
Date Sampled				11/08/2025	11/08/2025	11/08/2025	12/08/2025	12/08/2025
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	21.4	39.7	46.3	31.5	57.3
Moisture Content	%	0.01	NONE	6.7	3.1	4.4	4.6	1.9
Total mass of sample received	kg	0.1	NONE	2	2	2	2	2
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	MWI	MWI	MWI	MWI	MWI
Analysis completed	N/A	N/A	N/A	25/08/2025	25/08/2025	25/08/2025	25/08/2025	25/08/2025
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	7.7	8.1	8.4	8.7	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	510	420	320	370	280
Organic Matter (automated)	%	0.1	MCERTS	3.8	1.3	0.7	1.5	1.1
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.49	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.49	0.06	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.3	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	2.7	0.44	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.68	0.09	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	2.9	0.68	0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	2.6	0.66	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.2	0.28	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.3	0.33	< 0.05	< 0.05	0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.4	0.34	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.55	0.17	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.1	0.3	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.56	0.14	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.09	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.63	0.18	< 0.05	< 0.05	< 0.05
Coronene	mg/kg	0.05	NONE	0.3	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Total WAC-17 PAHs	mg/kg	0.85	NONE	17.3	3.68	< 0.85	< 0.85	< 0.85

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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651221	651222	651223	651224	651225
Sample Reference				WS22	WS24	WS24	WS21	WS28
Sample Number				1	1	2	1	2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.50	0.40	0.60	0.25	0.30
Date Sampled				11/08/2025	11/08/2025	11/08/2025	12/08/2025	12/08/2025
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	2.1	< 1.0	< 1.0	< 1.0	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	4.2	2.7	2.7	1.1
Barium (aqua regia extractable)	mg/kg	1	MCERTS	87	87	51	97	14
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.57	0.25	0.19	0.35	0.08
Boron (water soluble)	mg/kg	0.2	MCERTS	0.3	0.3	0.2	0.3	0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.4	0.5	0.7	1.1
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	15	6.5	5.9	11	6.1
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	6.5	5.9	11	6.1
Copper (aqua regia extractable)	mg/kg	1	MCERTS	28	13	13	8.3	9.3
Lead (aqua regia extractable)	mg/kg	1	MCERTS	61	26	17	9.7	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	14	6	5.5	12	7.6
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	20	7.9	6.1	14	6.2
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	64	42	36	31	23
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	1.7	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	14	3
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	40	11
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	11	< 8.0	15	420	170
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	11	< 10	15	480	180
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	< 2.0	< 2.0	7.8	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	49	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	15	< 10	20	450	190
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	15	< 10	20	510	190
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	-	-	-	-	-

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

Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651221	651222	651223	651224	651225
Sample Reference				WS22	WS24	WS24	WS21	WS28
Sample Number				1	1	2	1	2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.50	0.40	0.60	0.25	0.30
Date Sampled				11/08/2025	11/08/2025	11/08/2025	12/08/2025	12/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
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	-	-	-	-	-
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	-	-	-	-	-

Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651221	651222	651223	651224	651225
Sample Reference				WS22	WS24	WS24	WS21	WS28
Sample Number				1	1	2	1	2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.50	0.40	0.60	0.25	0.30
Date Sampled				11/08/2025	11/08/2025	11/08/2025	12/08/2025	12/08/2025
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	-	-	-	-	-

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

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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651226	651227	651228	651229	651230
Sample Reference				WS27	WS23	WS23	FIP03	TP02
Sample Number				2	1	2	3	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.40	0.20	0.60	0.70	0.20
Date Sampled				12/08/2025	12/08/2025	12/08/2025	13/08/2025	14/08/2025
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	23.6	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	2.8	2.8	13	5.8
Total mass of sample received	kg	0.1	NONE	0.6	2	2	2	2
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	MJN	MJN	MJN	MJN	MJN
Analysis completed	N/A	N/A	N/A	25/08/2025	25/08/2025	25/08/2025	25/08/2025	25/08/2025
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.3	9.2	9.1	9.1	9.2
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	360	280	320	900
Organic Matter (automated)	%	0.1	MCERTS	0.8	0.4	0.2	0.3	0.5
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 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	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
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	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
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	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85

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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651226	651227	651228	651229	651230
Sample Reference				WS27	WS23	WS23	FIP03	TP02
Sample Number				2	1	2	3	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.40	0.20	0.60	0.70	0.20
Date Sampled				12/08/2025	12/08/2025	12/08/2025	13/08/2025	14/08/2025
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	< 1.0	< 1.0	1.7	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8	1.5	1.7	5.2	3.9
Barium (aqua regia extractable)	mg/kg	1	MCERTS	81	100	89	85	150
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.43	0.19	0.18	0.94	0.28
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.2	0.3	0.3	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.7	0.6	< 0.2	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	20	5.3	6	30	10
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	5.3	6	30	10
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.7	7.9	9.4	30	12
Lead (aqua regia extractable)	mg/kg	1	MCERTS	16	15	12	4.8	9.3
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	12	5.8	5.6	28	8.5
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	25	5.4	5.1	32	11
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	42	46	39	46	45
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	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	17	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	17	< 10	< 10	< 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	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	31	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	31	< 10	< 10	< 10
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	-	-	-	-	-

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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651226	651227	651228	651229	651230
Sample Reference				WS27	WS23	WS23	FIP03	TP02
Sample Number				2	1	2	3	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.40	0.20	0.60	0.70	0.20
Date Sampled				12/08/2025	12/08/2025	12/08/2025	13/08/2025	14/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
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	-	-	-	-	-
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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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651226	651227	651228	651229	651230
Sample Reference				WS27	WS23	WS23	FIP03	TP02
Sample Number				2	1	2	3	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.40	0.20	0.60	0.70	0.20
Date Sampled				12/08/2025	12/08/2025	12/08/2025	13/08/2025	14/08/2025
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	-	-	-	-	-

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

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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651231	651232
Sample Reference				TP02	TP04
Sample Number				2	3
Water Matrix				N/A	N/A
Depth (m)				0.40	0.40
Date Sampled				14/08/2025	14/08/2025
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	< 0.1
Moisture Content	%	0.01	NONE	6.8	7.9
Total mass of sample received	kg	0.1	NONE	2	2
Asbestos					
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	MJN	MJN
Analysis completed	N/A	N/A	N/A	25/08/2025	25/08/2025
General Inorganics					
pH (L099)	pH Units	N/A	MCERTS	8.7	9
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	470	1000
Organic Matter (automated)	%	0.1	MCERTS	0.5	0.3
Total Phenols					
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
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	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.15
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.13
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.08
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.09
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.09
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.06
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05
Total PAH					
Total WAC-17 PAHs	mg/kg	0.85	NONE	< 0.85	< 0.85

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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651231	651232
Sample Reference				TP02	TP04
Sample Number				2	3
Water Matrix				N/A	N/A
Depth (m)				0.40	0.40
Date Sampled				14/08/2025	14/08/2025
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	< 1.0	1
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.9	4.7
Barium (aqua regia extractable)	mg/kg	1	MCERTS	63	120
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.27	0.31
Boron (water soluble)	mg/kg	0.2	MCERTS	0.3	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	7.4	11
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	7.4	11
Copper (aqua regia extractable)	mg/kg	1	MCERTS	9.8	9.9
Lead (aqua regia extractable)	mg/kg	1	MCERTS	6.6	14
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.4	8.3
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	10	13
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	29	66
Petroleum Hydrocarbons					
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	2.3
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	12
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	15
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	< 10
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
1,1-Dichloroethane	µg/kg	5	MCERTS	-	-

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Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651231	651232
Sample Reference				TP02	TP04
Sample Number				2	3
Water Matrix				N/A	N/A
Depth (m)				0.40	0.40
Date Sampled				14/08/2025	14/08/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**		
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
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
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
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0
Styrene	µg/kg	5	MCERTS	-	-
Bromoform	µg/kg	5	MCERTS	-	-
o-Xylene	µg/kg	5	MCERTS	< 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	-	-
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	-	-

Analytical Report Number: 25-043851
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				651231	651232
Sample Reference				TP02	TP04
Sample Number				2	3
Water Matrix				N/A	N/A
Depth (m)				0.40	0.40
Date Sampled				14/08/2025	14/08/2025
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	-	-
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	-	-

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

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Analytical Report Number : 25-043851
Project / Site name: Wythenshawe

* 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 *
651216	WS25	1	0.2	Brown loam and sand with stones
651217	WS25	2	0.6	Brown clay and sand with stones
651218	WS25	3	1.1	Brown clay and sand with vegetation and stones
651219	WS26	1	0.3	Brown sand with stones
651220	WS26	2	0.5	Brown loam and sand with gravel
651221	WS22	1	0.5	Brown loam and sand with vegetation and stones
651222	WS24	1	0.4	Brown loam and sand with stones
651223	WS24	2	0.6	Brown clay and sand with stones
651224	WS21	1	0.25	Brown clay and sand with stones
651225	WS28	2	0.3	Brown loam and sand with stones
651226	WS27	2	0.4	Brown clay and sand with stones
651227	WS23	1	0.2	Brown clay and sand with gravel
651228	WS23	2	0.6	Brown clay and sand with gravel
651229	FIP03	3	0.7	Brown clay and sand
651230	TP02	1	0.2	Brown sand with gravel
651231	TP02	2	0.4	Brown sand with gravel
651232	TP04	3	0.4	Brown sand with gravel

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Analytical Report Number : 25-043851
Project / Site name: Wythenshawe

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
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 in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
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
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
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	MCERTS

Analytical Report Number : 25-043851
Project / Site name: Wythenshawe

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 in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

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

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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Analytical Report Number : 25-043851
Project / Site name: Wythenshawe

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/Insufficient material provided c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
FIP03	3	S	651229	b	Asbestos identification in Soil	A001B	b
TP02	1	S	651230	b	Asbestos identification in Soil	A001B	b
TP02	2	S	651231	b	Asbestos identification in Soil	A001B	b
TP04	3	S	651232	b	Asbestos identification in Soil	A001B	b
WS21	1	S	651224	b	Asbestos identification in Soil	A001B	b
WS22	1	S	651221	b	Asbestos identification in Soil	A001B	b
WS23	1	S	651227	b	Asbestos identification in Soil	A001B	b
WS23	2	S	651228	b	Asbestos identification in Soil	A001B	b
WS24	1	S	651222	b	Asbestos identification in Soil	A001B	b
WS24	2	S	651223	b	Asbestos identification in Soil	A001B	b
WS25	1	S	651216	b	Asbestos identification in Soil	A001B	b
WS25	2	S	651217	b	Asbestos identification in Soil	A001B	b
WS25	3	S	651218	b	Asbestos identification in Soil	A001B	b
WS26	1	S	651219	b	Asbestos identification in Soil	A001B	b
WS26	2	S	651220	b	Asbestos identification in Soil	A001B	b
WS27	2	S	651226	b	Asbestos identification in Soil	A001B	b
WS28	2	S	651225	b	Asbestos identification in Soil	A001B	b

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Analytical Report Number : 25-045129

Project / Site name:	Wythenshawe	**Samples received on:**	22/08/2025
Your job number:	51143	**Samples instructed on/ Analysis started on:**	22/08/2025
Your order number:	PO 0343	**Analysis completed by:**	04/09/2025
Report Issue Number:	1	**Report issued on:**	04/09/2025
Samples Analysed:	11 soil samples		

Signed:

Tuhina Mukerjee
Senior Customer Services Advisor
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.

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658131	658132	658133	658134	658135
Sample Reference				WS07	WS15	WS08	RC02	WS05
Sample Number				ES2	ES1	ES1	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.60	0.60	0.20	0.30	0.40
Date Sampled				18/08/2025	18/08/2025	18/08/2025	19/08/2025	19/08/2025
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	42	64	87.1	88.9
Moisture Content	%	0.01	NONE	14	11	4.8	1.7	1.8
Total mass of sample received	kg	0.1	NONE	2	2	2	2	1.3
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KJK	KJK	KJK	KJK	KJK
Analysis completed	N/A	N/A	N/A	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Actinolite detected	Type	N/A	ISO 17025	-	Not-detected	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	Not-detected	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	Not-detected	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	Detected	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	Not-detected	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	Not-detected	-	-	-
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	0.001	-	-	-
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	Loose Fibres	-	-	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	7.5	7.8	7.8	9.1	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	630	780	570	160	390
Organic Matter (automated)	%	0.1	MCERTS	3.4	5	2.2	0.4	1.5
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658131	658132	658133	658134	658135
Sample Reference				WS07	WS15	WS08	RC02	WS05
Sample Number				ES2	ES1	ES1	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.60	0.60	0.20	0.30	0.40
Date Sampled				18/08/2025	18/08/2025	18/08/2025	19/08/2025	19/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.07	0.27	0.23	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.06	0.2	0.63	< 0.05	0.14
Acenaphthene	mg/kg	0.05	MCERTS	0.11	0.18	3.5	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.07	0.21	2.1	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.85	2.3	20	< 0.05	0.11
Anthracene	mg/kg	0.05	MCERTS	0.27	0.72	9.4	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	2.4	5	84	< 0.05	0.15
Pyrene	mg/kg	0.05	MCERTS	2.3	4.8	72	< 0.05	0.17
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.2	2.6	34	< 0.05	0.07
Chrysene	mg/kg	0.05	MCERTS	1.2	2.5	31	< 0.05	0.11
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.6	2.9	35	< 0.05	0.11
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.61	1.2	18	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.3	2.5	33	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.72	1.5	16	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.13	0.39	3.9	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.89	1.9	17	< 0.05	< 0.05
Coronene	mg/kg	0.05	NONE	0.57	0.56	5.9	< 0.05	< 0.05
Total PAH								
Total WAC-17 PAHs	mg/kg	0.85	NONE	14.3	29.6	386	< 0.85	0.87
Heavy Metals / Metalloids								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	3	6.1	< 1.0	< 1.0	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	22	3.8	1.4	3.3
Barium (aqua regia extractable)	mg/kg	1	MCERTS	150	510	48	25	97
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.88	1.4	0.29	0.13	0.21
Boron (water soluble)	mg/kg	0.2	MCERTS	1.1	0.5	0.5	0.2	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	0.5	0.3	1.2	0.4
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S *U/S g	U/S *U/S g	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	U/S *U/S g	U/S *U/S g	10	5.6	14
Chromium (VI) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	-	-	-
Chromium (III) by IC	mg/kg	1	NONE	41	83	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	41	83	10	5.6	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	33	88	11	8.8	22
Lead (aqua regia extractable)	mg/kg	1	MCERTS	96	170	16	43	25
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.4	0.5	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	19	38	9.4	5.3	41
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	26	36	11	4.6	16
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	91	190	35	29	45

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658131	658132	658133	658134	658135
Sample Reference				WS07	WS15	WS08	RC02	WS05
Sample Number				ES2	ES1	ES1	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.60	0.60	0.20	0.30	0.40
Date Sampled				18/08/2025	18/08/2025	18/08/2025	19/08/2025	19/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
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	1.6
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	13	2.1	2.6
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	31	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	62	140	43	31
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	62	180	45	36
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	2.9	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	2.2	3.6	30	2.3	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	12	31	360	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	37	140	670	44	38
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	51	170	1100	46	38
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	< 5.0	< 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	< 5.0	< 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	< 5.0	< 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

Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658131	658132	658133	658134	658135
Sample Reference				WS07	WS15	WS08	RC02	WS05
Sample Number				ES2	ES1	ES1	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.60	0.60	0.20	0.30	0.40
Date Sampled				18/08/2025	18/08/2025	18/08/2025	19/08/2025	19/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
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	< 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
Bromoform	µg/kg	5	MCERTS	-	-	-	-	< 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
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
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

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658131	658132	658133	658134	658135
Sample Reference				WS07	WS15	WS08	RC02	WS05
Sample Number				ES2	ES1	ES1	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.60	0.60	0.20	0.30	0.40
Date Sampled				18/08/2025	18/08/2025	18/08/2025	19/08/2025	19/08/2025
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	-	-	-	-	< 0.1
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

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

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658136	658137	658138	658139	658140
Sample Reference				WS05	TP09	TP09	RC01	RC01
Sample Number				ES3	ES1	ES2	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.70	0.60	1.00	0.40	1.60
Date Sampled				19/08/2025	19/08/2025	19/08/2025	22/08/2025	22/08/2025
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	46.6	< 0.1	16.4	< 0.1
Moisture Content	%	0.01	NONE	14	3.8	11	14	16
Total mass of sample received	kg	0.1	NONE	1.3	1.3	0.7	2	0.7
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	KJK	KJK	-	KJK	-
Analysis completed	N/A	N/A	N/A	02/09/2025	02/09/2025	-	02/09/2025	-
Actinolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Amosite detected	Type	N/A	ISO 17025	-	-	-	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-	-	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-	-	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	7.7	9.8	6.6	7.7	8.1
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	400	990	400	2500	520
Organic Matter (automated)	%	0.1	MCERTS	2.9	0.3	0.4	0.7	0.3
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658136	658137	658138	658139	658140
Sample Reference				WS05	TP09	TP09	RC01	RC01
Sample Number				ES3	ES1	ES2	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.70	0.60	1.00	0.40	1.60
Date Sampled				19/08/2025	19/08/2025	19/08/2025	22/08/2025	22/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.59	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.15	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.12	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.37	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.07	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.43	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.44	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.29	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.36	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.41	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.15	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.3	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.14	< 0.05	< 0.05	< 0.05	< 0.05
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	0.19	< 0.05	< 0.05	< 0.05	< 0.05
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	4.03	< 0.85	< 0.85	< 0.85	< 0.85
Heavy Metals / Metalloids								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	3.8	< 1.0	2.3	2.1	1.7
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	1.7	7.2	8.5	4
Barium (aqua regia extractable)	mg/kg	1	MCERTS	170	840	110	150	76
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	3.9	0.2	1.5	1.5	0.99
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.7	0.5	1	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	1.8	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	20	5.2	31	37	31
Chromium (VI) by IC	mg/kg	1.8	NONE	-	-	-	-	-
Chromium (III) by IC	mg/kg	1	NONE	-	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	5.2	31	37	31
Copper (aqua regia extractable)	mg/kg	1	MCERTS	83	23	21	64	19
Lead (aqua regia extractable)	mg/kg	1	MCERTS	57	44	8.3	13	3.2
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	48	8.6	28	32	27
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	52	6.1	29	39	30
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	56	53	45	50	48

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658136	658137	658138	658139	658140
Sample Reference				WS05	TP09	TP09	RC01	RC01
Sample Number				ES3	ES1	ES2	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.70	0.60	1.00	0.40	1.60
Date Sampled				19/08/2025	19/08/2025	19/08/2025	22/08/2025	22/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
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	< 2.0	2.1	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	10	50	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	13	50	< 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	< 2.0	< 2.0	2.8	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	38	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	< 10	< 10	41	< 10
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	< 5.0	< 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	< 5.0	< 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	< 5.0	< 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	-	-	-	-

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658136	658137	658138	658139	658140
Sample Reference				WS05	TP09	TP09	RC01	RC01
Sample Number				ES3	ES1	ES2	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.70	0.60	1.00	0.40	1.60
Date Sampled				19/08/2025	19/08/2025	19/08/2025	22/08/2025	22/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
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	< 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	-	-	-	-
Bromoform	µg/kg	5	MCERTS	< 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	-	-	-	-
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	-	-	-	-
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	-	-	-	-

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658136	658137	658138	658139	658140
Sample Reference				WS05	TP09	TP09	RC01	RC01
Sample Number				ES3	ES1	ES2	ES1	ES2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.70	0.60	1.00	0.40	1.60
Date Sampled				19/08/2025	19/08/2025	19/08/2025	22/08/2025	22/08/2025
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	< 0.1	-	-	-	-
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	0.2	-	-	-	-
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	-	-	-	-

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

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658141
Sample Reference				RC03
Sample Number				ES1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				18/08/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
Stone Content	%	0.1	NONE	35
Moisture Content	%	0.01	NONE	3.8
Total mass of sample received	kg	0.1	NONE	0.8

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KJK
Analysis completed	N/A	N/A	N/A	02/09/2025
Actinolite detected	Type	N/A	ISO 17025	-
Amosite detected	Type	N/A	ISO 17025	-
Anthophyllite detected	Type	N/A	ISO 17025	-
Chrysotile detected	Type	N/A	ISO 17025	-
Crocidolite detected	Type	N/A	ISO 17025	-
Tremolite detected	Type	N/A	ISO 17025	-
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.3
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	530
Organic Matter (automated)	%	0.1	MCERTS	0.9

Total Phenols

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

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Your Order No: PO 0343

Lab Sample Number				658141
Sample Reference				RC03
Sample Number				ES1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				18/08/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
Speciated PAHs				
Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.06
Pyrene	mg/kg	0.05	MCERTS	0.07
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05
Total PAH				
Total WAC-17 PAHs	mg/kg	0.85	NONE	< 0.85
Heavy Metals / Metalloids				
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	3
Barium (aqua regia extractable)	mg/kg	1	MCERTS	400
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.27
Boron (water soluble)	mg/kg	0.2	MCERTS	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.9
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (III)	mg/kg	1	NONE	11
Chromium (VI) by IC	mg/kg	1.8	NONE	-
Chromium (III) by IC	mg/kg	1	NONE	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	11
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	34
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	13
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	38

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Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658141
Sample Reference				RC03
Sample Number				ES1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				18/08/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
Petroleum Hydrocarbons				
TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	33
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	130
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	170
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	330
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	< 0.020
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	23
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	110
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	240
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	380
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
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
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
1,1,2-Trichloroethane	µg/kg	6	MCERTS	-
1,3-Dichloropropane	µg/kg	5	MCERTS	-
Dibromochloromethane	µg/kg	5	MCERTS	-

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Analytical Report Number: 25-045129
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				658141
Sample Reference				RC03
Sample Number				ES1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				18/08/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
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
p & m-Xylene	µg/kg	8	MCERTS	< 8.0
Styrene	µg/kg	5	MCERTS	-
Bromoform	µg/kg	5	MCERTS	-
o-Xylene	µg/kg	5	MCERTS	< 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	-
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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Your Order No: PO 0343

Lab Sample Number				658141
Sample Reference				RC03
Sample Number				ES1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				18/08/2025
Time Taken				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	-

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

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Analytical Report Number: **25-045129**
Project / Site name: **Wythenshawe**
Your Order No: **PO 0343**

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

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

Quantitative Analysis

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

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

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

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample	Analysis completed	Analyst ID
658132	WS15	0.60-	164	Loose Fibres	**Chrysotile**	0.001	**0.001**	02/09/2025	KJK

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

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Project / Site name: Wythenshawe

* 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 *
658131	WS07	ES2	0.6	Brown loam and clay with gravel and brick
658132	WS15	ES1	0.6	Brown loam and clay with brick and stones
658133	WS08	ES1	0.2	Brown loam and clay with gravel and stones
658134	RC02	ES1	0.3	Brown loam and clay with gravel and stones
658135	WS05	ES2	0.4	Brown loam with gravel and stones
658136	WS05	ES3	0.7	Brown loam and sand with clinker and brick
658137	TP09	ES1	0.6	Brown clay and sand with gravel and stones
658138	TP09	ES2	1	Brown loam and clay with gravel
658139	RC01	ES1	0.4	Brown loam and clay with brick and stones
658140	RC01	ES2	1.6	Brown clay and sand with gravel
658141	RC03	ES1	0.5	Brown clay and sand with gravel and stones

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Analytical Report Number : 25-045129
Project / Site name: Wythenshawe

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
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
Cr(VI) in soils by Ion chromatography	Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection	In-house method	L130B	W	NONE
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 in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
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 : 25-045129
Project / Site name: Wythenshawe

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
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-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
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025

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

*U/S g- Unsuitable for analysis due to high colour intensity.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number : 25-045129
Project / Site name: Wythenshawe

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/Insufficient material provided c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
RC02	ES1	S	658134	b	Asbestos identification in Soil	A001B	b
RC03	ES1	S	658141	b	Asbestos identification in Soil	A001B	b
WS07	ES2	S	658131	b	Asbestos identification in Soil	A001B	b
WS08	ES1	S	658133	b	Asbestos identification in Soil	A001B	b
WS15	ES1	S	658132	b	Asbestos Quantification - Gravimetric	A006B	b
WS15	ES1	S	658132	b	Asbestos identification in Soil	A001B	b

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Analytical Report Number : 25-046508

Project / Site name:	Wythenshawe	**Samples received on:**	29/08/2025
Your job number:	51143	**Samples instructed on/ Analysis started on:**	02/09/2025
Your order number:	PO 0343	**Analysis completed by:**	10/09/2025
Report Issue Number:	1	**Report issued on:**	10/09/2025
Samples Analysed:	1 soil sample		

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

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.

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

Analytical Report Number: 25-046508
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				665315
Sample Reference				RC05
Sample Number				1
Water Matrix				N/A
Depth (m)				0.80
Date Sampled				28/08/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	11
Total mass of sample received	kg	0.1	NONE	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM
Analysis completed	N/A	N/A	N/A	08/09/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.1
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	900
Organic Matter (automated)	%	0.1	MCERTS	1.1

Total Phenols

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

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.42
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.09
Fluorene	mg/kg	0.05	MCERTS	0.12
Phenanthrene	mg/kg	0.05	MCERTS	0.74
Anthracene	mg/kg	0.05	MCERTS	0.18
Fluoranthene	mg/kg	0.05	MCERTS	1.2
Pyrene	mg/kg	0.05	MCERTS	1.1
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.54
Chrysene	mg/kg	0.05	MCERTS	0.55
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.72
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.21
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.52
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.27
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.33
Coronene	mg/kg	0.05	NONE	< 0.05

Total PAH

Total WAC-17 PAHs	mg/kg	0.85	NONE	7.07

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Analytical Report Number: 25-046508
Project / Site name: Wythenshawe
Your Order No: PO 0343

Lab Sample Number				665315
Sample Reference				RC05
Sample Number				1
Water Matrix				N/A
Depth (m)				0.80
Date Sampled				28/08/2025
Time Taken				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
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12
Barium (aqua regia extractable)	mg/kg	1	MCERTS	250
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.4
Boron (water soluble)	mg/kg	0.2	MCERTS	1.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (III)	mg/kg	1	NONE	30
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	30
Copper (aqua regia extractable)	mg/kg	1	MCERTS	30
Lead (aqua regia extractable)	mg/kg	1	MCERTS	12
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	31
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	41
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	39
Petroleum Hydrocarbons				
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10
VOCs				
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0

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

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Analytical Report Number : 25-046508
Project / Site name: Wythenshawe

* 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 *
665315	RC05	1	0.8	Brown clay and sand with gravel

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Analytical Report Number : 25-046508
Project / Site name: Wythenshawe

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
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 in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
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
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
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	MCERTS

Analytical Report Number : 25-046508
Project / Site name: Wythenshawe

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 in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

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

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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Analytical Report Number : 25-049318

Project / Site name:	Wythenshawe	**Samples received on:**	12/09/2025
Your job number:	51143-01	**Samples instructed on/ Analysis started on:**	12/09/2025
Your order number:	PO-0343	**Analysis completed by:**	23/09/2025
Report Issue Number:	1	**Report issued on:**	23/09/2025
Samples Analysed:	9 10:1 WAC 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.

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

Analytical Report Number: 25-049318
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				680905	680906	680907	680908	680909
Sample Reference				WS08	WS25	WS19A	WS20	WS21
Sample Number				1	1	1	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.20	0.50	0.70	0.25
Date Sampled				18/08/2025	11/08/2025	06/08/2025	06/08/2025	12/08/2025
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	64	50.9	< 0.1	36.4	31.5
Moisture Content	%	0.01	NONE	4.8	1.5	15	9.5	4.6
Total mass of sample received	kg	0.1	NONE	2	2	2	2	2
General Inorganics								
pH (L005B)	pH Units	N/A	MCERTS	8	8.1	8.1	8.9	8.2
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.9	1.4	1.2	0.4	0.5
Loss on Ignition @ 450°C	%	0.2	MCERTS	1.6	2.4	4.4	1.4	1.4
Acid Neutralisation Capacity	+/- mmol/kg	-9999	NONE	13	24	12	34	28
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	-	-	0.23	0.06	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	-	0.11	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	-	0.07	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	-	-	0.74	0.22	0.09
Anthracene	mg/kg	0.05	MCERTS	-	-	0.2	0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	-	2.3	0.37	0.14
Pyrene	mg/kg	0.05	MCERTS	-	-	2.1	0.39	0.15
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	1.4	0.21	0.07
Chrysene	mg/kg	0.05	MCERTS	-	-	1.4	0.19	0.12
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	-	1.8	0.25	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	-	0.62	0.12	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	1.3	0.21	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	0.73	0.11	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	0.16	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	0.82	0.15	< 0.05
Coronene	mg/kg	0.05	NONE	-	-	0.19	0.07	< 0.05
Total PAH								
Total WAC-17 PAHs	mg/kg	0.85	NONE	-	-	14	2.41	< 0.85
Petroleum Hydrocarbons								
Mineral Oil (EC10 - EC40) EH_CU_1D_AL	mg/kg	10	NONE	-	-	< 10	< 10	78
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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The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 25-049318
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				680905	680906	680907	680908	680909
Sample Reference				WS08	WS25	WS19A	WS20	WS21
Sample Number				1	1	1	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.20	0.50	0.70	0.25
Date Sampled				18/08/2025	11/08/2025	06/08/2025	06/08/2025	12/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
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

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Analytical Report Number: 25-049318
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				680910	680911	680912	680913
Sample Reference				WS25	TP02	TP09	RC02
Sample Number				3	1	1	1
Water Matrix				N/A	N/A	N/A	N/A
Depth (m)				1.10	0.20	0.60	0.30
Date Sampled				11/08/2025	14/08/2025	19/08/2025	19/08/2025
Time Taken				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	46.6	< 0.1	46.6	87.1
Moisture Content	%	0.01	NONE	7.8	5.8	3.8	1.7
Total mass of sample received	kg	0.1	NONE	2	2	1.3	2
General Inorganics							
pH (L005B)	pH Units	N/A	MCERTS	8.4	8.1	9.5	8.5
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.5	0.2	0.2	0.2
Loss on Ignition @ 450°C	%	0.2	MCERTS	1.1	0.6	0.5	1.1
Acid Neutralisation Capacity	+/- mmol/kg	-9999	NONE	21	16	73	28
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.07	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.15	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.87	< 0.05	< 0.05	0.24
Anthracene	mg/kg	0.05	MCERTS	0.24	< 0.05	< 0.05	0.1
Fluoranthene	mg/kg	0.05	MCERTS	0.79	0.08	0.07	1.1
Pyrene	mg/kg	0.05	MCERTS	1.3	0.09	0.08	0.91
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.63	< 0.05	< 0.05	0.43
Chrysene	mg/kg	0.05	MCERTS	0.97	< 0.05	< 0.05	0.44
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.36	< 0.05	< 0.05	0.46
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.17	< 0.05	< 0.05	0.18
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.43	< 0.05	< 0.05	0.41
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.11	< 0.05	< 0.05	0.16
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.14	< 0.05	< 0.05	0.18
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH							
Total WAC-17 PAHs	mg/kg	0.85	NONE	6.2	< 0.85	< 0.85	4.56
Petroleum Hydrocarbons							
Mineral Oil (EC10 - EC40) EH_CU_1D_AL	mg/kg	10	NONE	150	< 10	< 10	35
VOCs							
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Total BTEX	µg/kg	10	MCERTS	< 10	< 10	< 10	< 10

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Analytical Report Number: 25-049318
Project / Site name: Wythenshawe
Your Order No: PO-0343

Lab Sample Number				680910	680911	680912	680913
Sample Reference				WS25	TP02	TP09	RC02
Sample Number				3	1	1	1
Water Matrix				N/A	N/A	N/A	N/A
Depth (m)				1.10	0.20	0.60	0.30
Date Sampled				11/08/2025	14/08/2025	19/08/2025	19/08/2025
Time Taken				None Supplied	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	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
Total PCBs	mg/kg	0.007	MCERTS	< 0.007	< 0.007	< 0.007	< 0.007

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

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Waste Acceptance Criteria Analytical Results

Report No:	25-049318						
					Client:	Civic Earth Limited	
Location	Wythenshawe						
Lab Reference (Sample Number)	680905				Landfill Waste Acceptance Criteria Limits		
Sampling Date	18/08/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS08 1						
Depth (m)	0.20						
Solid Waste Analysis							
TOC (%)**	0.9				3%	5%	6%
Loss on Ignition (%) **	1.6				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	8				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	13				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.00100			< 0.0100	0.5	2	25
Barium *	0.0185			0.185	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	< 0.00040			< 0.0040	0.5	10	70
Copper *	0.02			0.2	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00346			0.0346	0.5	10	30
Nickel *	0.0074			0.074	0.4	10	40
Lead *	< 0.0010			< 0.010	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 *	0.081			0.81	4	50	200
Chloride *	1			10	800	15000	25000
Fluoride*	0.28			2.8	10	150	500
Sulphate *	26			260	1000	20000	50000
TDS*	66			660	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	6.69			66.9	500	800	1000
Leach Test Information							
Stone Content (%)	64						
Sample Mass (kg)	2						
Dry Matter (%)	95						
Moisture (%)	4.8						

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

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Waste Acceptance Criteria Analytical Results

Report No:	**25-049318**						
					Client:	**Civic Earth Limited**	
Location	**Wythenshawe**						
Lab Reference (Sample Number)	680906				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	11/08/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS25 1						
Depth (m)	0.20						
Solid Waste Analysis							
TOC (%)**	1.4				3%	5%	6%
Loss on Ignition (%) **	2.4				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	8.1				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	24				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.00165			0.0165	0.5	2	25
Barium *	0.0205			0.205	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	< 0.00040			< 0.0040	0.5	10	70
Copper *	0.0069			0.069	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00105			0.0105	0.5	10	30
Nickel *	0.00088			0.0088	0.4	10	40
Lead *	0.0011			0.011	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 *	0.0073			0.073	4	50	200
Chloride *	2.7			27	800	15000	25000
Fluoride*	0.097			0.97	10	150	500
Sulphate *	3.2			32	1000	20000	50000
TDS*	39			390	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	7.1			71	500	800	1000
Leach Test Information							
Stone Content (%)	50.9						
Sample Mass (kg)	2						
Dry Matter (%)	99						
Moisture (%)	1.5						

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

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Waste Acceptance Criteria Analytical Results

Report No:	25-049318						
					Client:	Civic Earth Limited	
Location	Wythenshawe						
Lab Reference (Sample Number)	680907				Landfill Waste Acceptance Criteria Limits		
Sampling Date	06/08/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS19A 1						
Depth (m)	0.50						
Solid Waste Analysis							
TOC (%)**	1.2				3%	5%	6%
Loss on Ignition (%) **	4.4				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	14				100	--	--
pH (units)**	8.1				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	12				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.009			0.09	0.5	2	25
Barium *	0.0116			0.116	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	< 0.00040			< 0.0040	0.5	10	70
Copper *	0.015			0.15	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00377			0.0377	0.5	10	30
Nickel *	0.001			0.01	0.4	10	40
Lead *	< 0.0010			< 0.010	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 *	0.0022			0.022	4	50	200
Chloride *	28			280	800	15000	25000
Fluoride*	0.65			6.5	10	150	500
Sulphate *	24			240	1000	20000	50000
TDS*	110			1100	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	4.26			42.6	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	2						
Dry Matter (%)	85						
Moisture (%)	15						

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

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Waste Acceptance Criteria Analytical Results

Report No:	25-049318						
					Client:	Civic Earth Limited	
Location	Wythenshawe						
Lab Reference (Sample Number)	680908				Landfill Waste Acceptance Criteria Limits		
Sampling Date	06/08/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS20 1						
Depth (m)	0.70						
Solid Waste Analysis							
TOC (%)**	0.4				3%	5%	6%
Loss on Ignition (%) **	1.4				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	2.41				100	--	--
pH (units)**	8.9				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	34				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1 mg/l			10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.00167			0.0167	0.5	2	25
Barium *	0.0111			0.111	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0016			0.016	0.5	10	70
Copper *	0.0058			0.058	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.000822			0.00822	0.5	10	30
Nickel *	0.00036			0.0036	0.4	10	40
Lead *	< 0.0010			< 0.010	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 *	0.00061			0.0061	4	50	200
Chloride *	1.8			18	800	15000	25000
Fluoride*	0.4			4	10	150	500
Sulphate *	26			260	1000	20000	50000
TDS*	74			740	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	5.51			55.1	500	800	1000
Leach Test Information							
Stone Content (%)	36.4						
Sample Mass (kg)	2						
Dry Matter (%)	91						
Moisture (%)	9.5						

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Waste Acceptance Criteria Analytical Results

Report No:	25-049318						
					Client:	Civic Earth Limited	
Location	Wythenshawe						
Lab Reference (Sample Number)	680909				Landfill Waste Acceptance Criteria Limits		
Sampling Date	12/08/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS21 1						
Depth (m)	0.25						
Solid Waste Analysis							
TOC (%)**	0.5				3%	5%	6%
Loss on Ignition (%) **	1.4				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	78				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	8.2				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	28				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1 mg/l			10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0013			0.013	0.5	2	25
Barium *	0.0288			0.288	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	< 0.00040			< 0.0040	0.5	10	70
Copper *	0.0059			0.059	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00054			0.0054	0.5	10	30
Nickel *	< 0.00030			< 0.0030	0.4	10	40
Lead *	< 0.0010			< 0.010	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 *	0.0022			0.022	4	50	200
Chloride *	1.7			17	800	15000	25000
Fluoride*	0.11			1.1	10	150	500
Sulphate *	3.4			34	1000	20000	50000
TDS*	34			340	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	5.58			55.8	500	800	1000
Leach Test Information							
Stone Content (%)	31.5						
Sample Mass (kg)	2						
Dry Matter (%)	95						
Moisture (%)	4.6						

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Waste Acceptance Criteria Analytical Results

Report No:	**25-049318**						
					Client:	**Civic Earth Limited**	
Location	**Wythenshawe**						
Lab Reference (Sample Number)	680910				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	11/08/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS25 3						
Depth (m)	1.10						
Solid Waste Analysis							
TOC (%)**	0.5				3%	5%	6%
Loss on Ignition (%) **	1.1				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	150				500	--	--
Total PAH (WAC-17) (mg/kg)	6.2				100	--	--
pH (units)**	8.4				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	21				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1 mg/l			10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.00159			0.0159	0.5	2	25
Barium *	0.0289			0.289	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	< 0.00040			< 0.0040	0.5	10	70
Copper *	0.018			0.18	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.000647			0.00647	0.5	10	30
Nickel *	0.0042			0.042	0.4	10	40
Lead *	< 0.0010			< 0.010	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 *	0.0021			0.021	4	50	200
Chloride *	3.3			33	800	15000	25000
Fluoride*	0.28			2.8	10	150	500
Sulphate *	13			130	1000	20000	50000
TDS*	62			620	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	12.9			129	500	800	1000
Leach Test Information							
Stone Content (%)	46.6						
Sample Mass (kg)	2						
Dry Matter (%)	92						
Moisture (%)	7.8						

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

*= UKAS accredited (liquid eluate analysis only)

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Waste Acceptance Criteria Analytical Results

Report No:	25-049318						
					Client:	Civic Earth Limited	
Location	Wythenshawe						
Lab Reference (Sample Number)	680911				Landfill Waste Acceptance Criteria Limits		
Sampling Date	14/08/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	TP02 1						
Depth (m)	0.20						
Solid Waste Analysis							
TOC (%)**	0.2				3%	5%	6%
Loss on Ignition (%) **	0.6				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	8.1				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	16				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0022			0.022	0.5	2	25
Barium *	0.0236			0.236	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	< 0.00040			< 0.0040	0.5	10	70
Copper *	0.016			0.16	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	< 0.000400			< 0.00400	0.5	10	30
Nickel *	< 0.00030			< 0.0030	0.4	10	40
Lead *	< 0.0010			< 0.010	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 *	0.0031			0.031	4	50	200
Chloride *	0.98			9.8	800	15000	25000
Fluoride*	0.27			2.7	10	150	500
Sulphate *	2.5			25	1000	20000	50000
TDS*	41			410	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	5.96			59.6	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	2						
Dry Matter (%)	94						
Moisture (%)	5.8						

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

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Waste Acceptance Criteria Analytical Results

Report No:	**25-049318**						
					Client:	**Civic Earth Limited**	
Location	**Wythenshawe**						
Lab Reference (Sample Number)	680912				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	19/08/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	TP09 1						
Depth (m)	0.60						
Solid Waste Analysis							
TOC (%)**	0.2				3%	5%	6%
Loss on Ignition (%) **	0.5				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	9.5				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	73				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.00185			0.0185	0.5	2	25
Barium *	0.146			1.46	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.00066			0.0066	0.5	10	70
Copper *	0.0096			0.096	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	< 0.000400			< 0.00400	0.5	10	30
Nickel *	0.00042			0.0042	0.4	10	40
Lead *	0.0025			0.025	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 *	0.0031			0.031	4	50	200
Chloride *	1.1			11	800	15000	25000
Fluoride*	0.18			1.8	10	150	500
Sulphate *	7.4			74	1000	20000	50000
TDS*	56			560	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	2.39			23.9	500	800	1000
Leach Test Information							
Stone Content (%)	46.6						
Sample Mass (kg)	1.3						
Dry Matter (%)	96						
Moisture (%)	3.8						

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

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Waste Acceptance Criteria Analytical Results

Report No:	**25-049318**						
					Client:	**Civic Earth Limited**	
Location	**Wythenshawe**						
Lab Reference (Sample Number)	680913				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	19/08/2025				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	RC02 1						
Depth (m)	0.30						
Solid Waste Analysis							
TOC (%)**	0.2				3%	5%	6%
Loss on Ignition (%) **	1.1				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	35				500	--	--
Total PAH (WAC-17) (mg/kg)	4.56				100	--	--
pH (units)**	8.5				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	28				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.00189			0.0189	0.5	2	25
Barium *	0.00741			0.0741	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	< 0.00040			< 0.0040	0.5	10	70
Copper *	0.045			0.45	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00264			0.0264	0.5	10	30
Nickel *	0.00096			0.0096	0.4	10	40
Lead *	< 0.0010			< 0.010	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 *	0.004			0.04	4	50	200
Chloride *	2.2			22	800	15000	25000
Fluoride*	0.26			2.6	10	150	500
Sulphate *	2.2			22	1000	20000	50000
TDS*	44			440	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	6.81			68.1	500	800	1000
Leach Test Information							
Stone Content (%)	87.1						
Sample Mass (kg)	2						
Dry Matter (%)	98						
Moisture (%)	1.7						

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

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Analytical Report Number : 25-049318
Project / Site name: Wythenshawe

* 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 *
680905	WS08	1	0.2	Brown loam and clay with gravel and stones
680906	WS25	1	0.2	Brown loam and sand with stones
680907	WS19A	1	0.5	Brown loam and gravel
680908	WS20	1	0.7	Brown loam and clay with stones
680909	WS21	1	0.25	Brown clay and sand with stones
680910	WS25	3	1.1	Brown clay and sand with vegetation and stones
680911	TP02	1	0.2	Brown sand with gravel
680912	TP09	1	0.6	Brown clay and sand with gravel and stones
680913	RC02	1	0.3	Brown loam and clay with gravel and stones

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Project / Site name: Wythenshawe

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
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
One stage WAC 10:1 leachate preparation	One stage batch test at a liquid to solid ratio of 10 L/kg	BS EN 12457-2-2002	L043B	W	ISO 17025
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe	In-house method based on Guidance an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046B	W	NONE
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047-PL	D	MCERTS
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
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025
Soil Descriptions	Textural classification	In-house method	L019B	W	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
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

Analytical Report Number : 25-049318
Project / Site name: Wythenshawe

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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
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 in soil	Determination of total petroleum hydrocarbons in soil by GC-FID	In-house method	L076B	D	NONE

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

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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Analytical Report Number : 25-049318
Project / Site name: Wythenshawe

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/Insufficient material provided c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
RC02	1	S	680913	c	BTEX and/or Volatile organic compounds in soil	L073B	c
RC02	1	S	680913	c	Loss on ignition of soil @ 450°C	L047-PL	c
RC02	1	S	680913	c	PCB's By GC-MS in soil	L027B	c
RC02	1	S	680913	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
RC02	1	S	680913	c	Total organic carbon (Automated) in soil	L009B	c
RC02	1	S	680913	c	Total petroleum hydrocarbons by GC-FID in soil	L076B	c
RC02	1	S	680913	c	pH at 20°C in soil	L005B	c
TP02	1	S	680911	c	BTEX and/or Volatile organic compounds in soil	L073B	c
TP02	1	S	680911	c	Loss on ignition of soil @ 450°C	L047-PL	c
TP02	1	S	680911	c	PCB's By GC-MS in soil	L027B	c
TP02	1	S	680911	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
TP02	1	S	680911	c	Total organic carbon (Automated) in soil	L009B	c
TP02	1	S	680911	c	Total petroleum hydrocarbons by GC-FID in soil	L076B	c
TP02	1	S	680911	c	pH at 20°C in soil	L005B	c
TP09	1	L	680912	bc	One stage WAC 10:1 leachate preparation	L043B	b
TP09	1	S	680912	bc	BTEX and/or Volatile organic compounds in soil	L073B	c
TP09	1	S	680912	bc	Loss on ignition of soil @ 450°C	L047-PL	c
TP09	1	S	680912	bc	PCB's By GC-MS in soil	L027B	c
TP09	1	S	680912	bc	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
TP09	1	S	680912	bc	Total organic carbon (Automated) in soil	L009B	c
TP09	1	S	680912	bc	Total petroleum hydrocarbons by GC-FID in soil	L076B	c
TP09	1	S	680912	bc	pH at 20°C in soil	L005B	c
WS08	1	S	680905	c	Loss on ignition of soil @ 450°C	L047-PL	c
WS08	1	S	680905	c	Total organic carbon (Automated) in soil	L009B	c
WS08	1	S	680905	c	pH at 20°C in soil	L005B	c
WS19A	1	S	680907	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS19A	1	S	680907	c	Loss on ignition of soil @ 450°C	L047-PL	c
WS19A	1	S	680907	c	PCB's By GC-MS in soil	L027B	c
WS19A	1	S	680907	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS19A	1	S	680907	c	Total organic carbon (Automated) in soil	L009B	c
WS19A	1	S	680907	c	Total petroleum hydrocarbons by GC-FID in soil	L076B	c
WS19A	1	S	680907	c	pH at 20°C in soil	L005B	c
WS20	1	S	680908	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS20	1	S	680908	c	Loss on ignition of soil @ 450°C	L047-PL	c
WS20	1	S	680908	c	PCB's By GC-MS in soil	L027B	c
WS20	1	S	680908	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS20	1	S	680908	c	Total organic carbon (Automated) in soil	L009B	c
WS20	1	S	680908	c	Total petroleum hydrocarbons by GC-FID in soil	L076B	c
WS20	1	S	680908	c	pH at 20°C in soil	L005B	c
WS21	1	S	680909	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS21	1	S	680909	c	Loss on ignition of soil @ 450°C	L047-PL	c
WS21	1	S	680909	c	PCB's By GC-MS in soil	L027B	c
WS21	1	S	680909	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS21	1	S	680909	c	Total organic carbon (Automated) in soil	L009B	c
WS21	1	S	680909	c	Total petroleum hydrocarbons by GC-FID in soil	L076B	c
WS21	1	S	680909	c	pH at 20°C in soil	L005B	c
WS25	1	S	680906	c	Loss on ignition of soil @ 450°C	L047-PL	c
WS25	1	S	680906	c	Total organic carbon (Automated) in soil	L009B	c
WS25	1	S	680906	c	pH at 20°C in soil	L005B	c
WS25	3	S	680910	c	BTEX and/or Volatile organic compounds in soil	L073B	c
WS25	3	S	680910	c	Loss on ignition of soil @ 450°C	L047-PL	c
WS25	3	S	680910	c	PCB's By GC-MS in soil	L027B	c
WS25	3	S	680910	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
WS25	3	S	680910	c	Total organic carbon (Automated) in soil	L009B	c
WS25	3	S	680910	c	Total petroleum hydrocarbons by GC-FID in soil	L076B	c
WS25	3	S	680910	c	pH at 20°C in soil	L005B	c

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Analytical Report Number : 25-050306

Project / Site name:	Wythenshawe	**Samples received on:**	18/09/2025
Your job number:	51143-01	**Samples instructed on/ Analysis started on:**	18/09/2025
Your order number:	PO-0343	**Analysis completed by:**	26/09/2025
Report Issue Number:	1	**Report issued on:**	26/09/2025
Samples Analysed:	12 water 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.

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Normec i2 Analytical

Analytical Report Number: 25-050306
Project / Site name: Wythenshawe

Your Order No: PO-0343

Lab Sample Number				685919	685920	685921	685922	685923
Sample Reference				RC01	RC02	RC05	RC06	WS01
Sample Number				1	1	1	1	1
Water Matrix				Ground water	Ground water	Ground water	Ground water	Ground water
Depth (m)				2.50	4.00	4.00	4.00	1.00
Date Sampled				17/09/2025	17/09/2025	17/09/2025	17/09/2025	16/09/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status					
General Inorganics								
pH (L099)	pH Units	N/A	ISO 17025	7.7	7.4	7.7	7.2	7.2
Total Cyanide (Low Level 1 µg/l)	µg/l	1	NONE	1.3	< 1.0	< 1.0	1.4	4.4
Free Cyanide (Low Level)	µg/l	1	NONE	< 1.0	-	-	< 1.0	< 1.0
Sulphate as SO_4	mg/l	0.045	ISO 17025	126	34.2	38.1	47.8	2.88
Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	< 15	26	< 15	< 15	7800
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	2.56	3.46	2.11	2.92	152
Hardness - Total	mgCaCO3/l	1	ISO 17025	342	629	264	796	967
Total Phenols								
Total Phenols (Monohydric) Low Level	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	20
Speciated PAHs								
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.03	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.05	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	0.03	0.12	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.05	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.02	0.09	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.02	0.08	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.08	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.08	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	0.58	< 0.16	< 0.16
Heavy Metals / Metalloids								
Antimony (dissolved)	µg/l	0.4	ISO 17025	< 0.4	< 0.4	< 0.4	< 0.4	1
Arsenic (dissolved)	µg/l	0.15	ISO 17025	1.24	0.4	0.85	0.63	32.2
Barium (dissolved)	µg/l	0.06	ISO 17025	160	610	130	830	510
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.1	1.3	0.43	2	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	1	0.3	0.4	0.7	1.2
Copper (dissolved)	µg/l	0.5	ISO 17025	1.7	1.6	2.9	1.9	1.4
Lead (dissolved)	µg/l	0.2	ISO 17025	0.9	2.4	2	2.9	3.5
Mercury (dissolved)	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.3	3	2.3	2.4	4
Selenium (dissolved)	µg/l	0.6	ISO 17025	3.2	1.5	< 0.6	0.8	1.1
Vanadium (dissolved)	µg/l	0.2	ISO 17025	2.8	1.1	1.9	0.8	2.4
Zinc (dissolved)	µg/l	0.5	ISO 17025	4.6	53	24	150	6.5

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Normec i2 Analytical

Analytical Report Number: 25-050306
Project / Site name: Wythenshawe

Your Order No: PO-0343

Lab Sample Number				685919	685920	685921	685922	685923
Sample Reference				RC01	RC02	RC05	RC06	WS01
Sample Number				1	1	1	1	1
Water Matrix				Ground water	Ground water	Ground water	Ground water	Ground water
Depth (m)				2.50	4.00	4.00	4.00	1.00
Date Sampled				17/09/2025	17/09/2025	17/09/2025	17/09/2025	16/09/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Antimony (dissolved)	µg/l	1.7	ISO 17025	-	-	-	-	-
Arsenic (dissolved)	µg/l	1	ISO 17025	-	-	-	-	-
Barium (dissolved)	µg/l	0.05	ISO 17025	-	-	-	-	-
Beryllium (dissolved)	µg/l	0.2	ISO 17025	-	-	-	-	-
Boron (dissolved)	µg/l	10	ISO 17025	27	25	23	33	96
Cadmium (dissolved)	µg/l	0.08	ISO 17025	-	-	-	-	-
Calcium (dissolved)	mg/l	0.012	ISO 17025	75	130	58	160	300
Chromium (dissolved)	µg/l	0.4	ISO 17025	-	-	-	-	-
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Copper (dissolved)	µg/l	0.7	ISO 17025	-	-	-	-	-
Lead (dissolved)	µg/l	1	ISO 17025	-	-	-	-	-
Mercury (dissolved)	µg/l	0.5	ISO 17025	-	-	-	-	-
Nickel (dissolved)	µg/l	0.3	ISO 17025	-	-	-	-	-
Selenium (dissolved)	µg/l	4	ISO 17025	-	-	-	-	-
Vanadium (dissolved)	µg/l	1.7	ISO 17025	-	-	-	-	-
Zinc (dissolved)	µg/l	0.4	ISO 17025	-	-	-	-	-
Petroleum Hydrocarbons								
TPH - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >EC10 - EC12 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC12 - EC16 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC16 - EC21 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC21 - EC35 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC5 - EC35 $_{HS+EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC12 - EC16 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC16 - EC21 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC21 - EC35 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC35 $_{HS+EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

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

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Normec i2 Analytical

Analytical Report Number: 25-050306
Project / Site name: Wythenshawe

Your Order No: PO-0343

Lab Sample Number				685924	685925	685926	685927	685928
Sample Reference				WS02A	WS05	WS13	WS18	WS24
Sample Number				1	1	1	1	1
Water Matrix				Ground water	Ground water	Ground water	Ground water	Ground water
Depth (m)				1.20	1.50	1.00	1.50	1.50
Date Sampled				16/09/2025	16/09/2025	16/09/2025	16/09/2025	17/09/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status					
General Inorganics								
pH (L099)	pH Units	N/A	ISO 17025	7.4	7	7.8	7.4	7.2
Total Cyanide (Low Level 1 µg/l)	µg/l	1	NONE	1.6	< 1.0	< 1.0	< 1.0	< 1.0
Free Cyanide (Low Level)	µg/l	1	NONE	< 1.0	-	-	-	-
Sulphate as SO_4	mg/l	0.045	ISO 17025	666	32.4	535	454	50.1
Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	< 15	98	28	140	2000
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	3.4	5.84	5.28	4.05	11.5
Hardness - Total	mgCaCO3/l	1	ISO 17025	689	428	224	294	267
Total Phenols								
Total Phenols (Monohydric) Low Level	µg/l	1	NONE	1.3	1.1	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	0.04
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.02	< 0.01	< 0.01	0.06
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.02	< 0.01	< 0.01	0.06
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	0.02	< 0.01	< 0.01	0.05
Chrysene	µg/l	0.01	ISO 17025	< 0.01	0.01	< 0.01	< 0.01	0.04
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	< 0.16	0.26
Heavy Metals / Metalloids								
Antimony (dissolved)	µg/l	0.4	ISO 17025	-	1.9	0.7	2.8	1.3
Arsenic (dissolved)	µg/l	0.15	ISO 17025	-	1.74	1.21	0.62	2.72
Barium (dissolved)	µg/l	0.06	ISO 17025	-	260	42	61	210
Beryllium (dissolved)	µg/l	0.1	ISO 17025	-	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	-	0.1	< 0.02	0.26	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	-	0.4	2.9	0.3	0.4
Copper (dissolved)	µg/l	0.5	ISO 17025	-	2	4.1	2.8	3
Lead (dissolved)	µg/l	0.2	ISO 17025	-	< 0.2	< 0.2	< 0.2	< 0.2
Mercury (dissolved)	µg/l	0.05	NONE	-	< 0.05	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	-	5.9	1.7	2.8	2.4
Selenium (dissolved)	µg/l	0.6	ISO 17025	-	4.4	32	28	2.3
Vanadium (dissolved)	µg/l	0.2	ISO 17025	-	1.9	2.2	0.5	1.1
Zinc (dissolved)	µg/l	0.5	ISO 17025	-	5.4	2.3	1.9	1.9

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Normec i2 Analytical

Analytical Report Number: 25-050306
Project / Site name: Wythenshawe

Your Order No: PO-0343

Lab Sample Number				685924	685925	685926	685927	685928
Sample Reference				WS02A	WS05	WS13	WS18	WS24
Sample Number				1	1	1	1	1
Water Matrix				Ground water	Ground water	Ground water	Ground water	Ground water
Depth (m)				1.20	1.50	1.00	1.50	1.50
Date Sampled				16/09/2025	16/09/2025	16/09/2025	16/09/2025	17/09/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Antimony (dissolved)	µg/l	1.7	ISO 17025	< 1.7	-	-	-	-
Arsenic (dissolved)	µg/l	1	ISO 17025	7.4	-	-	-	-
Barium (dissolved)	µg/l	0.05	ISO 17025	52	-	-	-	-
Beryllium (dissolved)	µg/l	0.2	ISO 17025	< 0.2	-	-	-	-
Boron (dissolved)	µg/l	10	ISO 17025	100	79	73	12	34
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	-	-	-	-
Calcium (dissolved)	mg/l	0.012	ISO 17025	150	160	66	110	86
Chromium (dissolved)	µg/l	0.4	ISO 17025	0.9	-	-	-	-
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Copper (dissolved)	µg/l	0.7	ISO 17025	1.5	-	-	-	-
Lead (dissolved)	µg/l	1	ISO 17025	2.6	-	-	-	-
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	-	-	-	-
Nickel (dissolved)	µg/l	0.3	ISO 17025	1.9	-	-	-	-
Selenium (dissolved)	µg/l	4	ISO 17025	29	-	-	-	-
Vanadium (dissolved)	µg/l	1.7	ISO 17025	3.1	-	-	-	-
Zinc (dissolved)	µg/l	0.4	ISO 17025	4.7	-	-	-	-

Petroleum Hydrocarbons

TPH - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >EC10 - EC12 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC12 - EC16 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC16 - EC21 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC21 - EC35 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC5 - EC35 $_{HS+EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	20	< 10	< 10	< 10
TPH - Aromatic >EC12 - EC16 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	45	< 10	< 10	< 10
TPH - Aromatic >EC16 - EC21 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	25	< 10	< 10	< 10
TPH - Aromatic >EC21 - EC35 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC35 $_{HS+EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	90	< 10	< 10	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

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

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Analytical Report Number: 25-050306
Project / Site name: Wythenshawe

Your Order No: PO-0343

Lab Sample Number				685929	685930
Sample Reference				WS25	WS27
Sample Number				1	1
Water Matrix				Ground water	Ground water
Depth (m)				0.80	2.00
Date Sampled				17/09/2025	17/09/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status		
General Inorganics					
pH (L099)	pH Units	N/A	ISO 17025	7.5	7.4
Total Cyanide (Low Level 1 µg/l)	µg/l	1	NONE	25	< 1.0
Free Cyanide (Low Level)	µg/l	1	NONE	< 1.0	-
Sulphate as SO_4	mg/l	0.045	ISO 17025	15.2	47.7
Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	30	< 15
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	11.8	3.13
Hardness - Total	mgCaCO3/l	1	ISO 17025	213	636
Total Phenols					
Total Phenols (Monohydric) Low Level	µg/l	1	NONE	< 1.0	< 1.0
Speciated PAHs					
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Total PAH					
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16
Heavy Metals / Metalloids					
Antimony (dissolved)	µg/l	0.4	ISO 17025	1.4	< 0.4
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.72	0.49
Barium (dissolved)	µg/l	0.06	ISO 17025	240	170
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.04	0.1
Chromium (dissolved)	µg/l	0.2	ISO 17025	2.9	0.3
Copper (dissolved)	µg/l	0.5	ISO 17025	12	1.2
Lead (dissolved)	µg/l	0.2	ISO 17025	0.7	< 0.2
Mercury (dissolved)	µg/l	0.05	NONE	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.8	2.5
Selenium (dissolved)	µg/l	0.6	ISO 17025	1	1
Vanadium (dissolved)	µg/l	0.2	ISO 17025	0.6	0.5
Zinc (dissolved)	µg/l	0.5	ISO 17025	6.3	2.6

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

4041

Analytical Report Number: 25-050306
Project / Site name: Wythenshawe

Your Order No: PO-0343

Lab Sample Number				685929	685930
Sample Reference				WS25	WS27
Sample Number				1	1
Water Matrix				Ground water	Ground water
Depth (m)				0.80	2.00
Date Sampled				17/09/2025	17/09/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status		
Antimony (dissolved)	µg/l	1.7	ISO 17025	-	-
Arsenic (dissolved)	µg/l	1	ISO 17025	-	-
Barium (dissolved)	µg/l	0.05	ISO 17025	-	-
Beryllium (dissolved)	µg/l	0.2	ISO 17025	-	-
Boron (dissolved)	µg/l	10	ISO 17025	15	40
Cadmium (dissolved)	µg/l	0.08	ISO 17025	-	-
Calcium (dissolved)	mg/l	0.012	ISO 17025	78	140
Chromium (dissolved)	µg/l	0.4	ISO 17025	-	-
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0	< 5.0
Copper (dissolved)	µg/l	0.7	ISO 17025	-	-
Lead (dissolved)	µg/l	1	ISO 17025	-	-
Mercury (dissolved)	µg/l	0.5	ISO 17025	-	-
Nickel (dissolved)	µg/l	0.3	ISO 17025	-	-
Selenium (dissolved)	µg/l	4	ISO 17025	-	-
Vanadium (dissolved)	µg/l	1.7	ISO 17025	-	-
Zinc (dissolved)	µg/l	0.4	ISO 17025	-	-
Petroleum Hydrocarbons					
TPH - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aliphatic >EC10 - EC12 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10
TPH - Aliphatic >EC12 - EC16 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10
TPH - Aliphatic >EC16 - EC21 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10
TPH - Aliphatic >EC21 - EC35 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10
TPH - Aliphatic >EC5 - EC35 $_{HS+EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10
TPH - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10
TPH - Aromatic >EC12 - EC16 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10
TPH - Aromatic >EC16 - EC21 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10
TPH - Aromatic >EC21 - EC35 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10
TPH - Aromatic >EC5 - EC35 $_{HS+EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10
VOCs					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0

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

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Analytical Report Number : 25-050306
Project / Site name: Wythenshawe

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
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited matrices: SW, PW, GW, except B - SW,GW, Hg - SW,PW, Al - SW,PW	In-house method based on USEPA Method 6020 & 200.8 for the determination of trace elements in water by ICP-MS	L012B	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved organic carbon in water by TOC/DOC NDIR Analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, FSE, LL; PrW, DI PrW (Al, Cu, Fe,Zn)	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Total Hardness of water	Determination of total hardness of water by calculation from calcium and magnesium. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045B	W	ISO 17025
Total Petroleum Hydrocarbons with carbon banding 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
Total Petroleum Hydrocarbons with carbon banding in water by GC-MS/HS-GC-MS	Determination of total petroleum hydrocarbons in water by GC-MS/HS-GC-MS with carbon banding aliphatic and aromatic (Summed Bands)	Calculation	L070B/L088-PL	W	NONE
BTEX and/or Volatile Organic Compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW, PW, GW	In-house method based on USEPA 8260	L073B	W	ISO 17025
Chromium(III) in water	In-house method by calculation from total Cr and Cr(VI)	In-house method by calculation	L080-PL	W	NONE
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5-diphenylcarbazide, followed by colorimetry. Accredited matrices: SW, PW, GW, FSE, LL	In-house method by continuous flow analyser	L080-PL	W	ISO 17025
Free cyanide (low level) in water	Determination of free cyanide in water by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	NONE
Monohydric phenols (low level) in water	Determination of phenols in water by continuous flow analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	NONE
Total cyanide (low level) in water	Determination of total cyanide in water by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	NONE
Total Petroleum Hydrocarbons in water by HS-GC/MS	Determination of total petroleum hydrocarbons in water by headspace HS-GC/MS . Accredited matrices: SW, PW, GW	In-house method	L088-PL	W	ISO 17025
pH of water at 20°C (automated)	Determination of pH of water by electrochemical measurement. Accredited matrices: SW, PW, GW, FSE, LL	In-house method	L099-PL	W	ISO 17025
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	ISO 17025
Ammoniacal Nitrogen as N in water	Determination of ammonium/ammonia/ammoniacal nitrogen by the colorimetric salicylate/nitroprusside method using discrete analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082B	W	ISO 17025

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4041

Analytical Report Number : 25-050306
Project / Site name: Wythenshawe

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
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, PrW, DI PrW, FSE, LL	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025

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

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

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

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Appendix J – Geotechnical Laboratory Analysis Results

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WD25 9XX
Tel: +44(0) 1923 892 190

email: admin@geolabs.co.uk
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Civic Earth Limited
Carvers Warehouse
77 Dale Street
Manchester
M1 2HG

09 October 2025
Report No : GEO/43308/02

For the attention of Lindsay Reid / Mr J Foster

		Date samples received	10/09/2025
Our ref	**GEO / 43308**	Date written instructions received	12/09/2025
Your ref	**51143/01**	Date testing commenced	13/09/2025
Order ref	**PO-0384**	**Date of sample disposal**	**06/11/2025**

Project **WYTHENSHAWE**

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
~	14	Water Content
~	13	Liquid & Plastic Limits
2	1	Particle Size Distribution
3	1	Shear Strength by Hand Vane
4	1	Unconfined Compressive Strength with Young's Modulus and Poisson's Ratio
5	30	Point Load Strength Index

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**

I Tabios
Laboratory Manager

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Registered Office: Bucknalls Lane Garston Watford Hertfordshire WD25 9XX Registered in England and Wales No: 3177641

BS EN ISO 17892-12 : 2018+A2:2022

SUMMARY OF LIQUID AND PLASTIC LIMIT TESTS

Location	Depth m	Sample Ref	Sample Type	Description	Water Content BS EN ISO 17892-1 : 2014 +A1:2022 %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Percentage Passing 425µm %	Atterberg Classification BS EN ISO 14688-2:2018	Test Type	Sample Condition
RC05	0.40		B	Red brown very sandy GRAVEL.	10.7	~	~	~	~	~	~	~
WS01	1.60	D1	D	Orangish brown and grey siltstone sandy silty CLAY. Sand is fine.	17.1	29	19	10	84	CIL	2	3
WS04	1.90	D2	D	Reddish brown and grey slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine.	26.2	39	23	16	99	CIM	2	1
WS08	1.20	D1	D	Reddish brown slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine.	14.6	36	19	17	99	CIM	2	1
WS08	2.90	D3	D	Reddish brown slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine.	12.3	29	19	10	99	CIL	2	1
WS12	2.80	D2	D	Reddish brown and grey sandy silty CLAY. Sand is fine.	13.1	29	18	11	100	CIL	2	1
WS13	2.00-2.45	D2	D	Reddish brown and grey mottled yellowish brown sandy silty CLAY. Sand is fine.	11.8	26	15	11	98	CIL	2	1
WS17	1.20-1.65	D1	D	Reddish brown and grey gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	13.0	31	15	16	98	CIL	2	1
WS19A	1.20-1.65	D1	D	Reddish brown and grey gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	9.3	28	14	14	83	CIL	2	3
WS20	1.20-1.65	D1	D	Reddish brown and grey sandy silty CLAY. Sand is fine.	11.6	31	15	16	98	CIL	2	1
WS20	2.70	D3	D	Reddish brown and grey gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	11.7	31	19	12	55	CIL	2	3
WS21	2.50	D4	D	Reddish brown and grey gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	12.7	31	19	12	64	CIL	2	3
WS22	0.70	D1	D	Light grey mottled orangish brown sandy silty CLAY. Sand is fine.	22.2	44	20	24	100	CIM	2	1
WS27	0.70	D1	D	Brown and orangish brown and grey slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	20.7	40	21	19	98	CIM	2	1

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
06/10/2025

Project Number:

GEO / 43308

Project Name:

WYTHENSHAWE
51143/01

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BS EN ISO 17892-4 : 2016

PARTICLE SIZE DISTRIBUTION

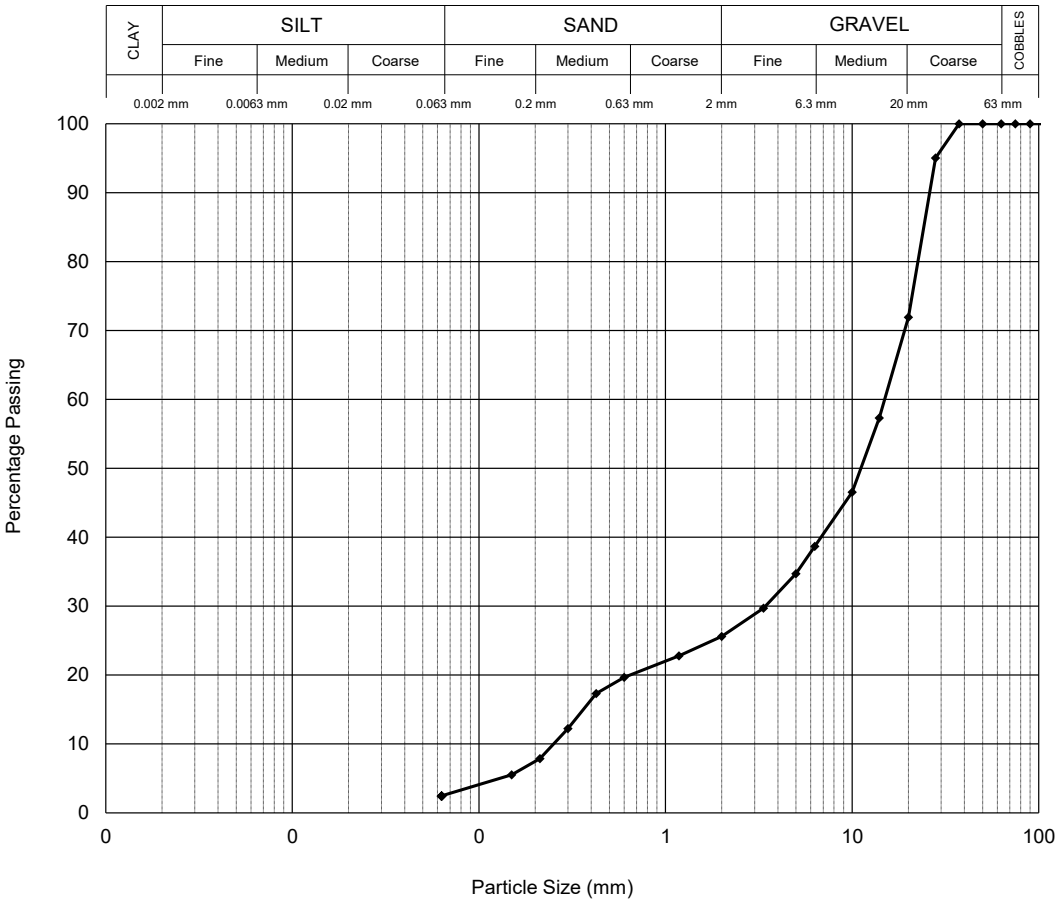
Location	RC05
Sample Depth	0.40 m
Sample Type	B

Description

Red brown very sandy GRAVEL.

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

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	95
20.0 mm	72
14.0 mm	57
10.0 mm	47
6.30 mm	39
5.00 mm	35
3.35 mm	30
2.00 mm	26
1.18 mm	23
600 µm	20
425 µm	17
300 µm	12
212 µm	8
150 µm	6
63 µm	2



Particle Proportions	
Cobbles	0.0
Gravel	74.4
Sand	23.1
Silt & Clay	2.5

Tested by XW
Checked and Approved by

S Burke - Senior Technician
06/10/2025

Project Number:

GEO / 43308

Project Name:

WYTHENSHAWE
51143/01

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SHEAR STRENGTH BY VANE METHODS

Location	Depth m	Sample Ref	Specimen Ref / Depth (m)	Sample Type	Description	Water Content BS EN ISO 17892-1 : 2014 %	Laboratory Vane - Peak BS 1377-2 : 2022 : 24 kPa	Laboratory Vane - Remoulded BS 1377-2 : 2022 : 24 kPa	Torvane kPa	Pilcon Hand Vane kPa	Pocket Penetrometer kPa
RC05	1.50-2.60			C	Very stiff sandy gravelly silty CLAY.	12.8				>150	

Checked and Approved by:

S Burke

S Burke - Senior Technician
06/10/2025

Project Number: **GEO / 43308**

Project Name: **WYTHENSHAWE 51143/01**

GEOLABS

ISRM Suggested Methods - Rock Characterization Testing and Monitoring 1974 - 2006

UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Sample details				Density				Uniaxial Compression Test (LF0879C (1000kN) compression frame used)							
								Mean after prep.							
Borehole Ref.	Sample Ref.	Depth (m)	Description	MC (%)	Degree of Saturation (%)	Bulk (Mg/m³)	Dry (Mg/m³)	Diameter (mm)	Height (mm)	H/D Ratio	Load at Failure (kN)	UCS (MPa) 3 sig. fig.	Failure Sketch	D. Tested	Remarks
RC01		8.29-8.55	Extremely weak reddish brown MUDSTONE. Slightly weathered	11	83.0	2.32	2.09	100.50	228.70	2.3	6.7	0.845		08/10/25	Nonstandard test as sample H/D ratio did not meet the required minimum of 2.5:1

Note: The dimensional requirements of flatness (<0.02 mm), perpendicularity (<0.05 / 50 mm) and straightness (0.3 mm deviation) are all met. Specific Gravity used for Degree of Saturation is assumed unless specified by the client.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 09/10/2025

Project Number:

GEO / 43308

Project Name:

WYTHENSHAWE
51143/01

GEOLABS®

UKAS TESTING 1982

ISRM Suggested Methods - Rock Characterization Testing and Monitoring 1974 - 2006

UNCONFINED COMPRESSIVE STRENGTH WITH YOUNG'S MODULUS AND POISSON'S RATIO

Borehole Ref.:	RC01
Sample Ref.:	-
Depth (m):	8.29-8.55

Description:
Extremely weak reddish brown MUDSTONE. Slightly weathered

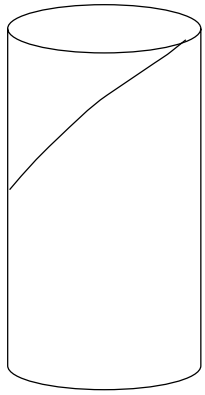
LF0879C (1000kN) compression frame used

Diameter	100.50 mm
Height	228.70 mm
Bulk Density	2.32 Mg/m³
Dry Density	2.09 Mg/m³
Water Content	11 %

Degree of Saturation: 83.0 % Specific Gravity: 2.9 Mg/m³ (Assumed)

Failure Sketch

Mode of failure: Diagonal shearing



Solid lines for material failures.
Dashed lines for apparent weakness failure.

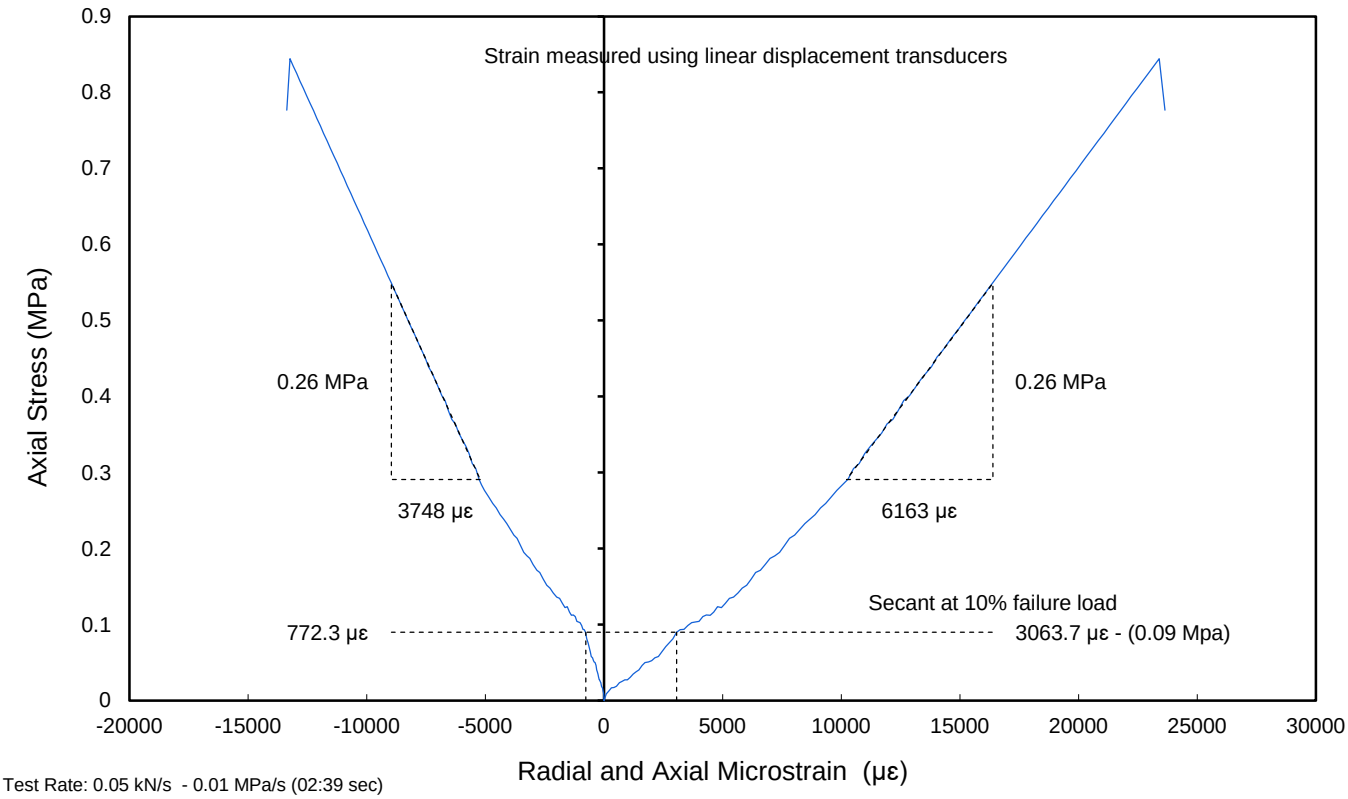
Angle of foliation/Axis of loading: n/a
Angle of shear plane/Axis of loading: n/a

Sample type	C

Date tested: 08/10/2025

Test results

Unconfined Compressive Strength Maximum load (kN): 6.70	0.845 MPa
Young's Modulus (tangential at 50% failure load)	0.0419 GPa
Poisson's Ratio (tangential at 50% failure load)	0.61
Young's Modulus (secant at 10% failure load)	0.0294 GPa
Poisson's Ratio (secant at 10% failure load)	0.25



Test Rate: 0.05 kN/s - 0.01 MPa/s (02:39 sec)

Remarks: Nonstandard test as sample H/D ratio did not meet the required minimum of 2.5:1

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 09/10/2025

Project Number:

GEO / 43308

Project Name:

WYTHENSHAWE
51143/01

GEOLABS®

ISRM Suggested Methods - Rock Characterization Testing and Monitoring 1974 - 2006 In-house Technical Procedure TP35

DETERMINATION OF POINT LOAD STRENGTH ON ROCK

Sample details				Point Load test											
Borehole Ref.	Sample Ref.	Depth (m)	Description	D. Tested	Test type & Direction		Sample width W (mm)	Platen separation (mm) Start D	Platen separation (mm) End D'	Water Content (%)	Equiv. Diameter D_e (mm)	Failure Load P (kN)	I_s P/De^2 (MPa)	Correction Factor F	Point Load Index $I_{s(50)}$ (MPa)
RC03		3.85-3.94	Extremely weak dark brown MUDSTONE. Slightly weathered	07/10/25	A	U	98.0	71.8	70.4		93.7	0.14	0.02	1.33	0.03
RC03		7.05-7.25	Extremely weak to very weak thinly laminated brown and grey MUDSTONE. Slightly weathered	08/10/25	D	L	98.6	98.6	98.2		98.4	0.21	0.02	1.36	0.03
			Determination 2	08/10/25	A	P	99.9	89.9	88.9		106.3	0.59	0.05	1.40	0.07
			Determination 3	08/10/25	A	P	99.8	88.8	86.8		105.0	0.21	0.02	1.40	0.03
RC03		8.74-8.85	Very weak thinly laminated brown MUDSTONE. Slightly weathered	07/10/25	A	P	100.0	50.7	49.5		79.4	0.52	0.08	1.23	0.1
RC02		5.40-5.44	Very weak thinly laminated brown and grey MUDSTONE. Slightly weathered	07/10/25	I	P	37.1	37.1	36.1		41.3	0.15	0.09	0.92	0.08
RC02		7.10-7.18	Very weak thinly laminated brown and grey MUDSTONE. Slightly weathered	07/10/25	A	P	100.0	36.9	35.5		67.2	0.72	0.16	1.14	0.18
RC02		8.07-8.16	Very weak thinly laminated brown fine grained SANDSTONE / MUDSTONE. Slightly weathered	07/10/25	A	P	101.4	47.1	44.6		75.9	0.69	0.12	1.21	0.14
RC02		9.75-10.00	Extremely weak to very weak thinly laminated brown and yellowish brown MUDSTONE. Slightly weathered	08/10/25	D	L	100.6	100.6	99.6		100.1	0.25	0.02	1.37	0.03
			Determination 2	08/10/25	A	P	100.5	87.6	84.9		104.2	0.96	0.09	1.39	0.13

(*) Sample failed on weakness

Test type and direction: **D** - Diametral **A** - Axial **B** - Block **I** - Irregular lump **P** - Perpendicular to planes of weakness **U** - Random or unknown orientation **L** - Parallel to planes of weakness

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 09/10/2025

Project Number:

GEO / 43308

Project Name:

WYTHENSHAWE

51143/01

GEOLABS

UKAS TESTING 1982

ISRM Suggested Methods - Rock Characterization Testing and Monitoring 1974 - 2006 In-house Technical Procedure TP35

DETERMINATION OF POINT LOAD STRENGTH ON ROCK

Sample details				Point Load test											
Borehole Ref.	Sample Ref.	Depth (m)	Description	D. Tested	Test type & Direction		Sample width W (mm)	Platen separation (mm) Start D	Platen separation (mm) End D'	Water Content (%)	Equiv. Diameter D_e (mm)	Failure Load P (kN)	I_s P/De^2 (MPa)	Correction Factor F	Point Load Index $I_{s(50)}$ (MPa)
RC02		9.75-10.00	Determination 3	08/10/25	A	P	100.2	65.0	63.5		90.0	0.22	0.03	1.30	0.04
RC02		11.12-11.17	Extremely weak thinly laminated brown MUDSTONE. Slightly weathered	07/10/25	A	P	100.6	53.1	51.0		80.8	0.22	0.03	1.24	0.04
RC06		3.87-3.95	Weak thinly laminated brown MUDSTONE. Slightly weathered	07/10/25	A	P	99.0	30.5	29.2		60.7	2.60	0.71	1.09	0.77
RC06		4.57-4.74	Extremely weak brown MUDSTONE. Slightly weathered	07/10/25	D	U	100.5	100.3	97.1		98.7	0.33	0.03	1.36	0.04
RC06		7.05-7.10	Weak thinly laminated yellowish brown MUDSTONE. Slightly weathered	07/10/25	A	P	100.3	30.8	26.9		58.6	1.77	0.51	1.07	0.55
RC06		10.03-10.12	Weak thinly laminated brown and grey MUDSTONE. Slightly weathered	07/10/25	I	P	44.9	36.8	34.6		44.5	1.72	0.87	0.95	0.83
RC06		12.81-12.98	Extremely weak thinly laminated brown and yellowish brown MUDSTONE. Slightly weathered	08/10/25	D	L	98.8	98.8	97.8		98.3	0.16	0.02	1.36	0.03
			Determination 2	08/10/25	A	P	98.2	49.6	48.0		77.5	0.61	0.10	1.22	0.12
			Determination 3	08/10/25	A	P	101.3	44.1	41.6		73.2	0.44	0.08	1.19	0.09
RC01		9.09-9.12	Very weak thinly laminated brown MUDSTONE. Slightly weathered	07/10/25	A	P	99.3	99.3	99.0		111.9	0.99	0.08	1.44	0.11

(*) Sample failed on weakness

Test type and direction: **D** - Diametral **A** - Axial **B** - Block **I** - Irregular lump **P** - Perpendicular to planes of weakness **U** - Random or unknown orientation **L** - Parallel to planes of weakness

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Date: 09/10/2025

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ISRM Suggested Methods - Rock Characterization Testing and Monitoring 1974 - 2006 In-house Technical Procedure TP35

DETERMINATION OF POINT LOAD STRENGTH ON ROCK

Sample details				Point Load test											
Borehole Ref.	Sample Ref.	Depth (m)	Description	D. Tested	Test type & Direction		Sample width W (mm)	Platen separation (mm) Start D	Platen separation (mm) End D'	Water Content (%)	Equiv. Diameter D_e (mm)	Failure Load P (kN)	I_s P/De^2 (MPa)	Correction Factor F	Point Load Index $I_{s(50)}$ (MPa)
RC01		15.14-15.23	Weak thinly laminated brown and grey MUDSTONE. Slightly weathered	07/10/25	A	P	96.5	43.3	41.9		71.8	1.17	0.23	1.18	0.27
RC05		3.63-3.72	Very weak thinly laminated brown MUDSTONE. Slightly weathered	07/10/25	A	P	97.2	57.2	56.6		83.7	1.33	0.19	1.26	0.24
RC05		6.94-7.07	Very weak to weak brown MUDSTONE. Slightly weathered	08/10/25	D	U	99.6	98.7	96.5		97.6	1.36	0.14	1.35	0.19
			Determination 2	08/10/25	A	U	100.1	56.8	55.2		83.9	2.22	0.31	1.26	0.39
			Determination 3	08/10/25	A	U	102.2	57.5	54.6		84.3	1.78	0.25	1.26	0.32
RC05		7.07-7.21	Very weak brown MUDSTONE. Slightly weathered	07/10/25	D	U	99.4	98.5	97.0		97.7	0.52	0.05	1.35	0.07
RC05		8.28-8.33	Weak thinly laminated brown MUDSTONE. Slightly weathered	07/10/25	I	P	76.9	40.9	37.7		60.8	0.77	0.21	1.09	0.23
RC05		8.51-8.60	Extremely weak to very weak thinly laminated brown MUDSTONE. Slightly weathered	08/10/25	D	L	100.6	100.6	98.6		99.6	0.18	0.02	1.36	0.03
			Determination 2	08/10/25	I	P	68.2	52.0	50.5		66.2	0.84	0.19	1.13	0.22
			Determination 3	08/10/25	I	P	74.7	34.6	32.9		55.9	0.19	0.06	1.05	0.06

(*) Sample failed on weakness

Test type and direction: **D** - Diametral **A** - Axial **B** - Block **I** - Irregular lump **P** - Perpendicular to planes of weakness **U** - Random or unknown orientation **L** - Parallel to planes of weakness

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 09/10/2025

Project Number:

GEO / 43308

Project Name:

WYTHENSHAWE

51143/01

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TESTING RESTRICTION

The following tests have been scheduled on the below project. Those listed **CANNOT** be performed for the reason stated. If alternative samples are available for the restricted tests, please supply details.

Sample details					
Borehole Ref.	Sample Ref.	Depth (m)	Description	Tests restricted	Reason for restriction and comments
RC03		6.00-7.50	n/a	UCS	Sample H/D ratio (2:1) is below the minimum required 2.5:1. Do we continue test as nonstandard?
RC02		9.00-10.50	n/a	UCS w/ YM and PR	Sample very fragile and already showing signs of failure before test.
RC06		12.00-13.50	n/a	UCS	Sample H/D ratio (1.7:1) is below the minimum required 2.5:1.
RC05		6.00-7.50	n/a	UCS	Sample H/D ratio (less than 1:1) is below the minimum required 2.5:1.
RC05		7.50-9.00	n/a	UCS w/ YM and PR	Sample H/D ratio (less than 1:1) is below the minimum required 2.5:1.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 07/10/2025

Project Number:

GEO / 43308

Project Name:

WYTHENSHAWE

51143/01

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Analytical Report Number : 25-046531

Project / Site name:	Wythenshawe	**Samples received on:**	11/08/2025
Your job number:	51143	**Samples instructed on/ Analysis started on:**	29/08/2025
Your order number:	PO 0344	**Analysis completed by:**	11/09/2025
Report Issue Number:	1	**Report issued on:**	11/09/2025
Samples Analysed:	23 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.

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

Analytical Report Number: 25-046531
Project / Site name: Wythenshawe
Your Order No: PO 0344

Lab Sample Number				665443	665444	665445	665446	665447
Sample Reference				WS01	WS02A	WS12	WS13	WS17
Sample Number				D2	D2	D1	D1	D2
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.80	1.70	2.00-2.45	1.70	1.80
Date Sampled				05/08/2025	05/08/2025	07/08/2025	07/08/2025	07/08/2025
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	14	12	8.6	12	13
Total mass of sample received	kg	0.1	NONE	1.2	1.2	0.5	0.5	1.2
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	7.4	7.7	7.5	7.1	7
Total Sulphate as SO_4	%	0.005	MCERTS	0.04	0.036	0.024	0.017	0.019
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	37	130	26	39	43
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	18.3	62.6	13	19.4	21.5
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	2.2	1.5	9.3	10	22
Total Sulphur	mg/kg	50	MCERTS	130	110	90	< 50	79
Total Sulphur	%	0.005	MCERTS	0.013	0.011	0.009	< 0.005	0.008
Water Soluble Nitrate (2:1) as NO_3	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as NO_3 (leachate equivalent)	mg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Heavy Metals / Metalloids								
Magnesium (leachate equivalent)	mg/l	2.5	NONE	4.7	9.2	9.4	8.3	9.7
Magnesium (water soluble)	mg/kg	5	NONE	9.4	19	19	17	19

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

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Analytical Report Number: 25-046531
Project / Site name: Wythenshawe
Your Order No: PO 0344

Lab Sample Number				665448	665449	665450	665451	665723
Sample Reference				WS18	WS18	WS19A	WS20	WS05
Sample Number				D1	D2	D2	D2	D1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				2.70	3.00-3.40	1.60	1.80	1.50
Date Sampled				07/08/2025	07/08/2025	06/08/2025	06/08/2025	05/08/2025
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	12	13	9.9	12	20
Total mass of sample received	kg	0.1	NONE	0.5	0.5	1.2	0.5	0.1
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.4	8.3	8.3	7.7	7.2
Total Sulphate as SO_4	%	0.005	MCERTS	0.035	0.027	0.046	0.021	0.085
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	32	20	57	58	530
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	16.1	9.83	28.7	28.8	265
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	3.3	4.5	17	13	28
Total Sulphur	mg/kg	50	MCERTS	110	91	130	67	770
Total Sulphur	%	0.005	MCERTS	0.011	0.009	0.013	0.007	0.077
Water Soluble Nitrate (2:1) as NO_3	mg/kg	2	NONE	17	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as NO_3 (leachate equivalent)	mg/l	5	NONE	8.7	< 5.0	< 5.0	< 5.0	< 5.0
Heavy Metals / Metalloids								
Magnesium (leachate equivalent)	mg/l	2.5	NONE	5	4.8	3.7	7.3	12
Magnesium (water soluble)	mg/kg	5	NONE	10	9.5	7.3	15	25

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Analytical Report Number: 25-046531
Project / Site name: Wythenshawe
Your Order No: PO 0344

Lab Sample Number				665724	665725	665726	665727	665728
Sample Reference				WS05	WS07	WS08	WS08	WS15
Sample Number				D2	D1	D2	D3	D3
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				2.30	1.20	1.90	2.00	2.60
Date Sampled				05/08/2025	05/08/2025	05/08/2025	05/08/2025	05/08/2025
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	50	7.5	17	14	14
Total mass of sample received	kg	0.1	NONE	0.1	0.4	0.4	0.5	0.4
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	6.8	8.2	8.3	8.1	8.1
Total Sulphate as SO_4	%	0.005	MCERTS	0.252	0.014	0.022	0.019	0.045
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	1900	34	66	56	15
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	965	17.1	33.2	28.2	7.72
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	130	1.2	2.1	2.1	1.3
Total Sulphur	mg/kg	50	MCERTS	5300	81	83	89	170
Total Sulphur	%	0.005	MCERTS	0.527	0.008	0.008	0.009	0.017
Water Soluble Nitrate (2:1) as NO_3	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as NO_3 (leachate equivalent)	mg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Heavy Metals / Metalloids								
Magnesium (leachate equivalent)	mg/l	2.5	NONE	66	5.9	9.2	25	5.6
Magnesium (water soluble)	mg/kg	5	NONE	130	12	18	50	11

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Analytical Report Number: 25-046531
Project / Site name: Wythenshawe
Your Order No: PO 0344

Lab Sample Number				665729	665730	665731	665732	665733
Sample Reference				WS21	WS24	WS25	WS26	WS26
Sample Number				D3	D2	D2	D1	D3
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.60	1.80	2.60	1.20	3.00
Date Sampled				05/08/2025	05/08/2025	05/08/2025	05/08/2025	05/08/2025
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	12	18	29	11	7.1
Total mass of sample received	kg	0.1	NONE	0.4	0.5	0.3	0.4	0.4
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.9	8.4	6.6	6.8	8.3
Total Sulphate as SO_4	%	0.005	MCERTS	0.031	0.067	0.12	0.015	0.042
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	46	450	850	38	22
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	23.2	224	427	19.1	11.1
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	49	3.1	32	20	8.7
Total Sulphur	mg/kg	50	MCERTS	130	1100	1600	71	150
Total Sulphur	%	0.005	MCERTS	0.013	0.106	0.16	0.007	0.015
Water Soluble Nitrate (2:1) as NO_3	mg/kg	2	NONE	< 2.0	35	21	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as NO_3 (leachate equivalent)	mg/l	5	NONE	< 5.0	18	11	< 5.0	< 5.0
Heavy Metals / Metalloids								
Magnesium (leachate equivalent)	mg/l	2.5	NONE	18	23	47	12	7.9
Magnesium (water soluble)	mg/kg	5	NONE	36	47	95	25	16

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Analytical Report Number: 25-046531
Project / Site name: Wythenshawe
Your Order No: PO 0344

Lab Sample Number				665734	665735	665736
Sample Reference				WS27	WS28	WS8
Sample Number				D2	D1	D3
Water Matrix				N/A	N/A	N/A
Depth (m)				1.50	0.70	1.40
Date Sampled				05/08/2025	05/08/2025	05/08/2025
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	12	15	17
Total mass of sample received	kg	0.1	NONE	0.6	0.4	0.5
General Inorganics						
pH (L099)	pH Units	N/A	MCERTS	8.3	8.9	8.3
Total Sulphate as SO_4	%	0.005	MCERTS	0.018	0.018	0.021
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	24	30	31
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	11.8	14.8	15.5
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	18	34	54
Total Sulphur	mg/kg	50	MCERTS	81	68	74
Total Sulphur	%	0.005	MCERTS	0.008	0.007	0.007
Water Soluble Nitrate (2:1) as NO_3	mg/kg	2	NONE	< 2.0	6.3	< 2.0
Water Soluble Nitrate (2:1) as NO_3 (leachate equivalent)	mg/l	5	NONE	< 5.0	< 5.0	< 5.0
Heavy Metals / Metalloids						
Magnesium (leachate equivalent)	mg/l	2.5	NONE	5.4	13	12
Magnesium (water soluble)	mg/kg	5	NONE	11	26	25

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Analytical Report Number : 25-046531
Project / Site name: Wythenshawe

* 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 *
665443	WS01	D2	1.8	Brown clay and loam
665444	WS02A	D2	1.7	Brown clay and loam
665445	WS12	D1	2.00-2.45	Brown clay and loam
665446	WS13	D1	1.7	Brown clay and loam with gravel
665447	WS17	D2	1.8	Brown clay and loam with gravel
665448	WS18	D1	2.7	Brown clay and loam
665449	WS18	D2	3.00-3.40	Brown clay and loam
665450	WS19A	D2	1.6	Brown clay and loam
665451	WS20	D2	1.8	Brown clay and loam with gravel
665723	WS05	D1	1.5	Brown loam and clay with gravel and vegetation
665724	WS05	D2	2.3	Brown loam and clay with gravel and vegetation
665725	WS07	D1	1.2	Brown clay and sand with gravel
665726	WS08	D2	1.9	Brown clay and sand
665727	WS08	D3	2	Brown clay and sand
665728	WS15	D3	2.6	Brown clay and sand
665729	WS21	D3	1.6	Brown clay and sand
665730	WS24	D2	1.8	Brown clay and sand with gravel
665731	WS25	D2	2.6	Brown loam and clay with gravel
665732	WS26	D1	1.2	Brown clay and sand with gravel
665733	WS26	D3	3	Brown clay and sand with gravel
665734	WS27	D2	1.5	Brown clay and sand with gravel
665735	WS28	D1	0.7	Brown clay and sand with gravel
665736	WS8	D3	1.4	Brown clay and sand with gravel

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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
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Water Soluble Nitrate (leachate equivalent)	Determination of nitrate by reaction with sodium salicylate and colorimetry	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078-PL	W	NONE
Nitrate, water soluble, in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078-PL	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
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

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

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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Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
WS01	D2	S	665443	c	Chloride, water soluble, in soil	L082B	c
WS01	D2	S	665443	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS01	D2	S	665443	c	Total Sulphur in soil	L038B	c
WS01	D2	S	665443	c	Total sulphate (as SO4 in soil)	L038B	c
WS01	D2	S	665443	c	pH in soil (automated)	L099-PL	c
WS02A	D2	S	665444	c	Chloride, water soluble, in soil	L082B	c
WS02A	D2	S	665444	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS02A	D2	S	665444	c	Total Sulphur in soil	L038B	c
WS02A	D2	S	665444	c	Total sulphate (as SO4 in soil)	L038B	c
WS02A	D2	S	665444	c	pH in soil (automated)	L099-PL	c
WS05	D1	S	665723	c	Chloride, water soluble, in soil	L082B	c
WS05	D1	S	665723	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS05	D1	S	665723	c	Total Sulphur in soil	L038B	c
WS05	D1	S	665723	c	Total sulphate (as SO4 in soil)	L038B	c
WS05	D1	S	665723	c	pH in soil (automated)	L099-PL	c
WS05	D2	S	665724	c	Chloride, water soluble, in soil	L082B	c
WS05	D2	S	665724	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS05	D2	S	665724	c	Total Sulphur in soil	L038B	c
WS05	D2	S	665724	c	Total sulphate (as SO4 in soil)	L038B	c
WS05	D2	S	665724	c	pH in soil (automated)	L099-PL	c
WS07	D1	S	665725	c	Chloride, water soluble, in soil	L082B	c
WS07	D1	S	665725	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS07	D1	S	665725	c	Total Sulphur in soil	L038B	c
WS07	D1	S	665725	c	Total sulphate (as SO4 in soil)	L038B	c
WS07	D1	S	665725	c	pH in soil (automated)	L099-PL	c
WS08	D2	S	665726	c	Chloride, water soluble, in soil	L082B	c
WS08	D2	S	665726	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS08	D2	S	665726	c	Total Sulphur in soil	L038B	c
WS08	D2	S	665726	c	Total sulphate (as SO4 in soil)	L038B	c
WS08	D2	S	665726	c	pH in soil (automated)	L099-PL	c
WS08	D3	S	665727	c	Chloride, water soluble, in soil	L082B	c
WS08	D3	S	665727	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS08	D3	S	665727	c	Total Sulphur in soil	L038B	c
WS08	D3	S	665727	c	Total sulphate (as SO4 in soil)	L038B	c
WS08	D3	S	665727	c	pH in soil (automated)	L099-PL	c
WS12	D1	S	665445	c	Chloride, water soluble, in soil	L082B	c
WS12	D1	S	665445	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS12	D1	S	665445	c	Total Sulphur in soil	L038B	c
WS12	D1	S	665445	c	Total sulphate (as SO4 in soil)	L038B	c
WS12	D1	S	665445	c	pH in soil (automated)	L099-PL	c
WS13	D1	S	665446	c	Chloride, water soluble, in soil	L082B	c
WS13	D1	S	665446	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS13	D1	S	665446	c	Total Sulphur in soil	L038B	c
WS13	D1	S	665446	c	Total sulphate (as SO4 in soil)	L038B	c
WS13	D1	S	665446	c	pH in soil (automated)	L099-PL	c
WS15	D3	S	665728	c	Chloride, water soluble, in soil	L082B	c
WS15	D3	S	665728	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS15	D3	S	665728	c	Total Sulphur in soil	L038B	c
WS15	D3	S	665728	c	Total sulphate (as SO4 in soil)	L038B	c
WS15	D3	S	665728	c	pH in soil (automated)	L099-PL	c
WS17	D2	S	665447	c	Chloride, water soluble, in soil	L082B	c
WS17	D2	S	665447	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS17	D2	S	665447	c	Total Sulphur in soil	L038B	c
WS17	D2	S	665447	c	Total sulphate (as SO4 in soil)	L038B	c
WS17	D2	S	665447	c	pH in soil (automated)	L099-PL	c
WS18	D1	S	665448	c	Chloride, water soluble, in soil	L082B	c

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Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
WS18	D1	S	665448	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS18	D1	S	665448	c	Total Sulphur in soil	L038B	c
WS18	D1	S	665448	c	Total sulphate (as SO4 in soil)	L038B	c
WS18	D1	S	665448	c	pH in soil (automated)	L099-PL	c
WS18	D2	S	665449	c	Chloride, water soluble, in soil	L082B	c
WS18	D2	S	665449	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS18	D2	S	665449	c	Total Sulphur in soil	L038B	c
WS18	D2	S	665449	c	Total sulphate (as SO4 in soil)	L038B	c
WS18	D2	S	665449	c	pH in soil (automated)	L099-PL	c
WS19A	D2	S	665450	c	Chloride, water soluble, in soil	L082B	c
WS19A	D2	S	665450	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS19A	D2	S	665450	c	Total Sulphur in soil	L038B	c
WS19A	D2	S	665450	c	Total sulphate (as SO4 in soil)	L038B	c
WS19A	D2	S	665450	c	pH in soil (automated)	L099-PL	c
WS20	D2	S	665451	c	Chloride, water soluble, in soil	L082B	c
WS20	D2	S	665451	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS20	D2	S	665451	c	Total Sulphur in soil	L038B	c
WS20	D2	S	665451	c	Total sulphate (as SO4 in soil)	L038B	c
WS20	D2	S	665451	c	pH in soil (automated)	L099-PL	c
WS21	D3	S	665729	c	Chloride, water soluble, in soil	L082B	c
WS21	D3	S	665729	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS21	D3	S	665729	c	Total Sulphur in soil	L038B	c
WS21	D3	S	665729	c	Total sulphate (as SO4 in soil)	L038B	c
WS21	D3	S	665729	c	pH in soil (automated)	L099-PL	c
WS24	D2	S	665730	c	Chloride, water soluble, in soil	L082B	c
WS24	D2	S	665730	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS24	D2	S	665730	c	Total Sulphur in soil	L038B	c
WS24	D2	S	665730	c	Total sulphate (as SO4 in soil)	L038B	c
WS24	D2	S	665730	c	pH in soil (automated)	L099-PL	c
WS25	D2	S	665731	c	Chloride, water soluble, in soil	L082B	c
WS25	D2	S	665731	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS25	D2	S	665731	c	Total Sulphur in soil	L038B	c
WS25	D2	S	665731	c	Total sulphate (as SO4 in soil)	L038B	c
WS25	D2	S	665731	c	pH in soil (automated)	L099-PL	c
WS26	D1	S	665732	c	Chloride, water soluble, in soil	L082B	c
WS26	D1	S	665732	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS26	D1	S	665732	c	Total Sulphur in soil	L038B	c
WS26	D1	S	665732	c	Total sulphate (as SO4 in soil)	L038B	c
WS26	D1	S	665732	c	pH in soil (automated)	L099-PL	c
WS26	D3	S	665733	c	Chloride, water soluble, in soil	L082B	c
WS26	D3	S	665733	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS26	D3	S	665733	c	Total Sulphur in soil	L038B	c
WS26	D3	S	665733	c	Total sulphate (as SO4 in soil)	L038B	c
WS26	D3	S	665733	c	pH in soil (automated)	L099-PL	c
WS27	D2	S	665734	c	Chloride, water soluble, in soil	L082B	c
WS27	D2	S	665734	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS27	D2	S	665734	c	Total Sulphur in soil	L038B	c
WS27	D2	S	665734	c	Total sulphate (as SO4 in soil)	L038B	c
WS27	D2	S	665734	c	pH in soil (automated)	L099-PL	c
WS28	D1	S	665735	c	Chloride, water soluble, in soil	L082B	c
WS28	D1	S	665735	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c
WS28	D1	S	665735	c	Total Sulphur in soil	L038B	c
WS28	D1	S	665735	c	Total sulphate (as SO4 in soil)	L038B	c
WS28	D1	S	665735	c	pH in soil (automated)	L099-PL	c
WS8	D3	S	665736	c	Chloride, water soluble, in soil	L082B	c
WS8	D3	S	665736	c	Sulphate, water soluble, in soil (16hr extraction)	L038B	c

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Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
WS8	D3	S	665736	c	Total Sulphur in soil	L038B	c
WS8	D3	S	665736	c	Total sulphate (as SO4 in soil)	L038B	c
WS8	D3	S	665736	c	pH in soil (automated)	L099-PL	c

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Appendix K – 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 guidance[1]. 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 type[2] 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 DEFRA[3] 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 US_{95} 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 US_{95} 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 (GACgwvap) 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 C665[4]. Potential risks associated with ground gases are evaluated in accordance with CIRIA C665, BS 8485[5] and NHBC[6].

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 3882[7].

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.

CIVIC EARTH

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

Land Use Category:		Residential with Home Grown Produce						SOM:	1.0%
Stratum:		Made Ground						No. Samples	18
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	37	-	<1	11	-	-	-	-	-
Beryllium	1.7	-	<0.06	1.5	-	-	-	-	-
Boron	290	-	0.2	1	-	-	-	-	-
Cadmium	11	-	<0.2	1.3	-	-	-	-	-
Chromium (III)	910	-	3.2	37	-	-	-	-	-
Chromium (VI)	6	-	<1.8	<1.8	-	-	-	-	-
Copper	2400	-	5.1	64	-	-	-	-	-
Lead	200	-	3.6	61	-	-	-	-	-
Mercury	40	-	<0.3	<0.3	-	-	-	-	-
Nickel	180	-	3	32	-	-	-	-	-
Selenium	250	-	<1	<1	-	-	-	-	-
Vanadium	410	-	3.7	39	-	-	-	-	-
Zinc	3700	-	16	66	-	-	-	-	-
Benzene	0.087	-	<0.01	<0.01	-	-	-	-	-
Toluene	130	-	<0.01	<0.01	-	-	-	-	-
Ethyl benzene	47	-	<0.01	0.01	-	-	-	-	-
o-Xylene	60	-	<0.01	0.02	-	-	-	-	-
m- & p-Xylene	56	-	<0.01	0.03	-	-	-	-	-
Total Phenols	280	-	<1	<1	-	-	-	-	-
Total Cyanide	34	-	<1	<1	-	-	-	-	-
Aliphatic EC5-6	42	-	<0.01	<0.01	-	-	-	-	-
Aliphatic EC >6-8	100	-	<0.01	<0.01	-	-	-	-	-
Aliphatic EC >8-10	27	-	<0.01	0.08	-	-	-	-	-
Aliphatic EC >10-12	130	[48]	<1	1.7	-	-	-	-	-
Aliphatic EC >12-16	1,100	24	<2	46	-	-	-	-	-
Aliphatic EC >16-35	65,000	8.48	<16	1030	-	-	-	-	-
Aromatic EC5-7	70	-	<0.01	<0.01	-	-	-	-	-
Aromatic EC >7-8	130	-	<0.01	<0.01	-	-	-	-	-
Aromatic EC >8-10	34	-	<0.02	0.07	-	-	-	-	-
Aromatic EC >10-12	74	-	<1	1.1	-	-	-	-	-
Aromatic EC >12-16	140	-	<2	23	-	-	-	-	-
Aromatic EC >16-21	260	-	<10	110	-	-	-	-	-
Aromatic EC >21-35	1,100	-	<10	1000	-	-	-	-	-
Acenaphthene	210	-	<0.05	0.49	-	-	-	-	-
Acenaphthylene	170	-	<0.05	<0.05	-	-	-	-	-
Anthracene	2400	-	<0.05	0.68	-	-	-	-	-
Benzo(a)anthracene	7.2	-	<0.05	1.2	-	-	-	-	-
Benzo(a)pyrene	2.2	-	<0.05	1.1	-	-	-	-	-
Benzo(b)fluoranthene	2.6	-	<0.05	1.4	-	-	-	-	-
Benzo(g,h,i)perylene	320	-	<0.05	0.63	-	-	-	-	-
Benzo(k)fluoranthene	77	-	<0.05	0.55	-	-	-	-	-
Chrysene	15	-	<0.05	1.3	-	-	-	-	-
Dibenzo(a,h)anthracene	0.24	-	<0.05	0.09	-	-	-	-	-
Fluoranthene	280	-	<0.05	2.9	-	-	-	-	-
Fluorene	170	-	<0.05	0.3	-	-	-	-	-
Indeno(1,2,3,cd)pyrene	27	-	<0.05	0.56	-	-	-	-	-
Naphthalene	2.3	-	<0.05	0.49	-	-	-	-	-
Phenanthrene	95	-	<0.05	2.7	-	-	-	-	-
Pyrene	620	-	<0.05	2.6	-	-	-	-	-
Asbestos in Soils	Number of Samples with Positive Asbestos ID				0				

Notes:

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

C. C4SL stated for lead.

D. S4UL for phenol relates to C_6H_5OH.

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

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

CIVIC EARTH

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

Land Use Category:		Residential with Home Grown Produce						SOM:	1.0%
Stratum:		Natural						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	37	-	1.5	4	-	-	-	-	-
Beryllium	1.7	-	0.18	0.99	-	-	-	-	-
Boron	290	-	0.2	0.4	-	-	-	-	-
Cadmium	11	-	<0.2	0.7	-	-	-	-	-
Chromium (III)	910	-	5.3	31	-	-	-	-	-
Chromium (VI)	6	-	<1.8	<1.8	-	-	-	-	-
Copper	2400	-	7.9	19	-	-	-	-	-
Lead	200	-	3.2	15	-	-	-	-	-
Mercury	40	-	<0.3	<0.3	-	-	-	-	-
Nickel	180	-	5.6	27	-	-	-	-	-
Selenium	250	-	<1	<1	-	-	-	-	-
Vanadium	410	-	5.1	30	-	-	-	-	-
Zinc	3700	-	39	48	-	-	-	-	-
Benzene	0.087	-	<0.01	<0.01	-	-	-	-	-
Toluene	130	-	<0.01	<0.01	-	-	-	-	-
Ethyl benzene	47	-	<0.01	<0.01	-	-	-	-	-
o-Xylene	60	-	<0.01	<0.01	-	-	-	-	-
m- & p-Xylene	56	-	<0.01	<0.01	-	-	-	-	-
Total Phenols	280	-	<1	<1	-	-	-	-	-
Total Cyanide	34	-	<1	<1	-	-	-	-	-
Aliphatic EC5-6	42	-	<0.01	<0.01	-	-	-	-	-
Aliphatic EC >6-8	100	-	<0.01	<0.01	-	-	-	-	-
Aliphatic EC >8-10	27	-	<0.01	<0.01	-	-	-	-	-
Aliphatic EC >10-12	130	[48]	<1	<1	-	-	-	-	-
Aliphatic EC >12-16	1,100	24	<2	<2	-	-	-	-	-
Aliphatic EC >16-35	65,000	8.48	<16	25	-	-	-	-	-
Aromatic EC5-7	70	-	<0.01	<0.01	-	-	-	-	-
Aromatic EC >7-8	130	-	<0.01	<0.01	-	-	-	-	-
Aromatic EC >8-10	34	-	<0.02	<0.02	-	-	-	-	-
Aromatic EC >10-12	74	-	<1	<1	-	-	-	-	-
Aromatic EC >12-16	140	-	<2	<2	-	-	-	-	-
Aromatic EC >16-21	260	-	<10	<10	-	-	-	-	-
Aromatic EC >21-35	1,100	-	<10	31	-	-	-	-	-
Acenaphthene	210	-	<0.05	<0.05	-	-	-	-	-
Acenaphthylene	170	-	<0.05	<0.05	-	-	-	-	-
Anthracene	2400	-	<0.05	<0.05	-	-	-	-	-
Benzo(a)anthracene	7.2	-	<0.05	<0.05	-	-	-	-	-
Benzo(a)pyrene	2.2	-	<0.05	<0.05	-	-	-	-	-
Benzo(b)fluoranthene	2.6	-	<0.05	<0.05	-	-	-	-	-
Benzo(g,h,i)perylene	320	-	<0.05	<0.05	-	-	-	-	-
Benzo(k)fluoranthene	77	-	<0.05	<0.05	-	-	-	-	-
Chrysene	15	-	<0.05	<0.05	-	-	-	-	-
Dibenzo(a,h)anthracene	0.24	-	<0.05	<0.05	-	-	-	-	-
Fluoranthene	280	-	<0.05	<0.05	-	-	-	-	-
Fluorene	170	-	<0.05	<0.05	-	-	-	-	-
Indeno(1,2,3,cd)pyrene	27	-	<0.05	<0.05	-	-	-	-	-
Naphthalene	2.3	-	<0.05	<0.05	-	-	-	-	-
Phenanthrene	95	-	<0.05	<0.05	-	-	-	-	-
Pyrene	620	-	<0.05	<0.05	-	-	-	-	-
Asbestos in Soils	Number of Samples with Positive Asbestos ID				0				

Notes:

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

C. C4SL stated for lead.

D. S4UL for phenol relates to C_6H_5OH.

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

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

Table C: 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 - Made Ground**			
Determinand	**GAC_{gwvap} (µg/l)**	**Recorded Concentration (µg/l)**	**No. Samples exceeding GAC_{gwvap}**	**Outliers Identified?**
Benzene	210	<1.0	-	-
Toluene	230,000	<1.0	-	-
Ethylbenzene	10,000	<1.0	-	-
Total xylene	9,500	<1.0	-	-
Methyl tertiary butyl ether (MTBE)	83,000	<3.0	-	-
TPH aromatic EC5 to EC7	210,000	<1.0	-	-
TPH aromatic >EC7 to EC8	220,000	<1.0	-	-
TPH aromatic >EC8 to EC10	1,900	<1.0	-	-
TPH aromatic >EC10 to EC12	6,800	<10	-	-
TPH aromatic >EC12 to EC16	39,000	<10	-	-
TPH aliphatic EC5 to EC6	1,900	<1.0	-	-
TPH aliphatic >EC6 to EC8	1,500	<1.0	-	-
TPH aliphatic >EC8 to EC10	57	<1.0	-	-
TPH aliphatic >EC10 to EC12	37	<10	-	-
Acenaphthene	170,000	<0.1	-	-
Acenaphthylene	220,000	<0.1	-	-
Fluorene	210,000	<0.1	-	-
Naphthalene	220	<0.1	-	-

Notes:
A. Criteria sourced from SoBRA (2017) *Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater.*
B. GAC for acenaphthene, acenaphythylene and fluorene exceed aqueous solubility. An assessment should be made for the potential presence of free product.
C. GAC for TPH aromatic EC5 to EC7 should be compared to the GAC for benzene to assess for potential genotoxic mutagenic effects.

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

Notes:
A. Criteria sourced from SoBRA (2017) *Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater.*
B. GAC for acenaphthene, acenaphythylene and fluorene exceed aqueous solubility. An assessment should be made for the potential presence of free product.
C. GAC for TPH aromatic EC5 to EC7 should be compared to the GAC for benzene to assess for potential genotoxic mutagenic effects.

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

Notes:
A. Criteria sourced from SoBRA (2017) *Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater.*
B. GAC for acenaphthene, acenaphythylene and fluorene exceed aqueous solubility. An assessment should be made for the potential presence of free product.
C. GAC for TPH aromatic EC5 to EC7 should be compared to the GAC for benzene to assess for potential genotoxic mutagenic effects.

Table F: Controlled Waters Data Assessment - Potential Risks to Groundwater (Freshwater) from Dissolved Phase Contaminants						
Water Body			**Perched Water**		**No. Samples**	1
Determinand	**EQS (µg/l) [Annual Average]**	**EQS (µg/l) [Max. Allowable]**	**Concentration recorded (µg/l)**	**Bioavailable Concentration (µg/l)**	**No. Samples exceeding EQS**	**Notes**
Arsenic	50	*	0.72	-	0	A
Beryllium	*	15	<0.1	-	0	J
Boron	2,000	*	15	-	0	H
Cadmium	0.25	1.5	0.04	-	0	A
Chromium (III)	4.7	32	<5	-	0	A
Chromium (VI)	3.4	*	<5	-	0	A
Copper	1.0	*	12	0.23	0	A
Lead	1.2	14	0.7	0.06	0	A, B
Mercury	*	0.07	<0.05	-	0	A
Nickel	4	34	1.8	0.4	0	A, B
Zinc	12.1	*	6.3	1.47	0	A, E
Total Phenols	7.7	46	<1.0	-	0	A
Total Cyanide	1	5	25	-	1	F
Free Cyanide	1	5	<1	-	0	A
Total TPH	*	10	<10	-	0	K
Anthracene	0.1	0.1	<0.1	-	0	A
Benzo(a)pyrene	0.00017	0.27	<0.01	-	0	A
Benzo(b)fluoranthene	*	0.017	<0.01	-	0	A, G
Benzo(k)fluoranthene	*	0.017	<0.01	-	0	A, G
Benzo(ghi)perylene	*	0.0082	<0.01	-	0	A, G
Fluoranthene	0.0063	0.12	<0.01	-	0	A
Naphthalene	2	130	<0.01	-	0	A
Benzene	10	50	<1	-	0	A
Toluene	74	380	<1	-	0	A
Ammoniacal Nitrogen as N	*	750	30	-	0	I
pH	*	6.0 to 9.0	7.5	-	0	H
Hardness (mg $CaCo_3$/l)	*	*	213	-	-	

Notes:

* No assessment criteria defined.

A. EQS outlined within Water Framework Directive 2015

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

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

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

E. Zinc EQS based on 10.9 µg/l plus ambient background concentration for 'other freshwaters' catchments not specified in the list

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

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

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

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

J. Dutch Indication Level of Serious Contamination

Table G: Controlled Waters Data Assessment - Potential Risks to Groundwater (Freshwater) from Dissolved Phase Contaminants							
Water Body		**Secondary Undifferentiated Aquifer - Glacial Till**				**No. Samples**	2
Determinand	**EQS (µg/l) [Annual Average]**	**EQS (µg/l) [Max. Allowable]**	**Min recorded (µg/l)**	**Max recorded (µg/l)**	**Bioavailable Concentration (µg/l)**	**No. Samples exceeding EQS**	**Notes**
Arsenic	50	*	0.49	2.72	-	0	A
Beryllium	*	15	<0.01	<0.01	-	0	J
Boron	2,000	*	34	40	-	0	H
Cadmium	0.25	1.5	<0.02	0.1	-	0	A
Chromium (III)	4.7	32	<5	<5	-	0	A
Chromium (VI)	3.4	*	<5	<5	-	0	A
Copper	1.0	*	1.2	3	0.06 to 0.09	0	A
Lead	1.2	14	<0.2	<0.2	0.02 to 0.06	0	A, B
Mercury	*	0.07	<0.05	<0.05	-	0	A
Nickel	4	34	2.4	2.5	0.34 to 0.71	0	A, B
Zinc	12.1	*	1.9	2.6	0.51 to 1.24	0	A, E
Total Phenols	7.7	46	<1	<1	-	0	A
Total Cyanide	1	5	<1	<1	-	0	F
Free Cyanide	1	5	-	-	-	-	A
Total TPH	*	10	<10	<10	-	0	K
Anthracene	0.1	0.1	<0.01	<0.01	-	0	A
Benzo(a)pyrene	0.00017	0.27	<0.01	<0.01	-	0	A
Benzo(b)fluoranthene	*	0.017	<0.01	<0.01	-	0	A, G
Benzo(k)fluoranthene	*	0.017	<0.01	<0.01	-	0	A, G
Benzo(ghi)perylene	*	0.0082	<0.01	<0.01	-	0	A, G
Fluoranthene	0.0063	0.12	<0.01	0.06	-	1	A
Naphthalene	2	130	<0.01	<0.01	-	0	A
Benzene	10	50	<1	<1	-	0	A
Toluene	74	380	<1	<1	-	0	A
Ammoniacal Nitrogen as N	*	750	<15	2000	-	1	I
pH	*	6.0 to 9.0	7.2	7.4	-	0	H
Hardness (mg $CaCo_3$/l)	*	*	267	636	-	-	-

Notes:

* No assessment criteria defined.

A. EQS outlined within Water Framework Directive 2015

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

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

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

E. Zinc EQS based on 10.9 µg/l plus ambient background concentration for 'other freshwaters' catchments not specified in the list

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

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

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

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

J. Dutch Indication Level of Serious Contamination

Table H: Controlled Waters Data Assessment - Potential Risks to Groundwater (Freshwater) from Dissolved Phase Contaminants							
Water Body		**Secondary B Aquifer - Bollin Mudstone Member**				**No. Samples**	3
Determinand	**EQS (µg/l) [Annual Average]**	**EQS (µg/l) [Max. Allowable]**	**Min recorded (µg/l)**	**Max recorded (µg/l)**	**Bioavailable Concentration (µg/l)**	**No. Samples exceeding EQS**	**Notes**
Arsenic	50	*	0.4	1.24	-	0	A
Beryllium	*	15	<0.1	<0.1	-	0	J
Boron	2,000	*	25	33	-	0	H
Cadmium	0.25	1.5	0.1	2	-	1	A
Chromium (III)	4.7	32	<5	<5	-	0	A
Chromium (VI)	3.4	*	<5	<5	-	0	A
Copper	1.0	*	1.6	1.9	0.11 to 0.18	0	A
Lead	1.2	14	0.9	2.9	0.35 to 0.99	0	A, B
Mercury	*	0.07	<0.05	<0.05	-	0	A
Nickel	4	34	1.3	3	0.44 to 0.82	0	A, B
Zinc	12.1	*	4.6	150	2.47 to 72.71	1	A, E
Total Phenols	7.7	46	<1.0	<1.0	-	0	A
Total Cyanide	1	5	<1	1.4	-	1	F
Free Cyanide	1	5	<1	<1	-	0	A
Total TPH	*	10	<10	<10	-	0	K
Anthracene	0.1	0.1	<0.01	<0.01	-	0	A
Benzo(a)pyrene	0.00017	0.27	<0.01	<0.01	-	0	A
Benzo(b)fluoranthene	*	0.017	<0.01	<0.01	-	0	A, G
Benzo(k)fluoranthene	*	0.017	<0.01	<0.01	-	0	A, G
Benzo(ghi)perylene	*	0.0082	<0.01	<0.01	-	0	A, G
Fluoranthene	0.0063	0.00	<0.01	0.02	-	1	A
Naphthalene	2	130	<0.01	<0.01	-	0	A
Benzene	10	50	<1	<1	-	0	A
Toluene	74	380	<1	<1	-	0	A
Ammoniacal Nitrogen as N	*	750	<15	26	-	0	I
pH	*	6.0 to 9.0	7.2	7.7	-	0	H
Hardness (mg $CaCo_3$/l)	*	*	342	796	-	-	

Notes:

* No assessment criteria defined.

A. EQS outlined within Water Framework Directive 2015

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

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

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

E. Zinc EQS based on 10.9 µg/l plus ambient background concentration for 'other freshwaters' catchments not specified in the list

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

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

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

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

J. Dutch Indication Level of Serious Contamination

Table I: Controlled Waters Data Assessment - Potential Risks to Drinking Water from Dissolved Phase Contaminants					
Water Body		**Perched Water**		**No. Samples**	1
Determinand	**Drinking Water Value (µg/l)**	**Concentration recorded (µg/l)**	**Bioavailable Concentration (µg/l)**	**No. Samples exceeding DWV**	**Notes**
Arsenic	10	0.72	-	0	A
Boron	1,000	15	-	0	A
Cadmium	5	0.04	-	0	A
Chromium	50	2.9	-	0	A
Copper	2,000	12	0.23	0	A, B
Lead	10	0.7	0.06	0	A, B
Mercury	1	<0.05	-	0	A
Nickel	20	1.8	0.29	0	A, B
Selenium	10	1	-	0	A
Zinc	5,000	6.3	1.47	0	A, B
Total Phenols	0.5	<1.0	-	0	D
Total Cyanide	50	25	-	0	A
Total TPH	10	<10	-	0	D
TPH Aliphatic EC5-6	15,000	<1	-	0	G
TPH Aliphatic EC>6-8	15,000	<1	-	0	G
TPH Aliphatic EC>8-10	300	<1	-	0	G
TPH Aliphatic EC>10-12	300	<10	-	0	G
TPH Aliphatic EC>12-16	300	<10	-	0	G
TPH Aromatic EC>5-7	10	<1	-	0	G
TPH Aromatic EC>7-8	700	<1	-	0	G
TPH Aromatic EC>8-10	300	<1	-	0	G
TPH Aromatic EC>10-12	90	<10	-	0	G
TPH Aromatic EC>12-16	90	<10	-	0	G
TPH Aromatic EC>16-21	90	<10	-	0	G
TPH Aromatic EC>21-35	90	<10	-	0	G
PAH	0.1	<0.04	-	0	A, C
Benzo(a)pyrene	0.01	<0.01	-	0	A
Benzene	1	<1	-	0	A
Toluene	700	<1	-	0	E
Ethylbenzene	300	<1	-	0	E
p & m-xylene	500	<1	-	0	E, F
o-xylene	500	<1	-	0	E, F
Ammoniacal Nitrogen as N	500	30	-	0	A
pH	6.5 to 9.5	7.5	-	0	A
Total Sulphate (mg SO_4/l)	250	15	-	0	A
Hardness (mg $CaCo_3$/l)	*	213	-	-	-

Notes:

* No assessment criteria defined.

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

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

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

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

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

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

G. WHO Petroleum Products in Drinking Water, 2008

Table J: Controlled Waters Data Assessment - Potential Risks to Drinking Water from Dissolved Phase Contaminants						
Water Body		**Secondary Undifferentiated Aquifer**			**No. Samples**	2
Determinand	**Drinking Water Value (µg/l)**	**Min recorded (µg/l)**	**Max recorded (µg/l)**	**Bioavailable Concentration (µg/l)**	**No. Samples exceeding DWV**	**Notes**
Arsenic	10	0.49	2.72	-	0	A
Boron	1,000	34	40	-	0	A
Cadmium	5	<0.02	0.1	-	0	A
Chromium	50	0.3	0.4	-	0	A
Copper	2,000	1.2	3	0.06 to 0.09	0	A, B
Lead	10	<0.2	<0.2	0.02 to 0.06	0	A, B
Mercury	1	<0.05	<0.05	-	0	A
Nickel	20	2.4	25	0.34 to 0.71	0	A, B
Selenium	10	1	2.3	-	0	A
Zinc	5,000	1.9	2.6	0.51 to 1.24	0	A, B
Total Phenols	0.5	<1.0	<1.0	-	0	D
Total Cyanide	50	<1	<1	-	0	A
Total TPH	10	<10	<10	-	0	D
TPH Aliphatic EC5-6	15,000	<1	<1	-	0	G
TPH Aliphatic EC>6-8	15,000	<1	<1	-	0	G
TPH Aliphatic EC>8-10	300	<1	<1	-	0	G
TPH Aliphatic EC>10-12	300	<10	<10	-	0	G
TPH Aliphatic EC>12-16	300	<10	<10	-	0	G
TPH Aromatic EC>5-7	10	<1	<1	-	0	G
TPH Aromatic EC>7-8	700	<1	<1	-	0	G
TPH Aromatic EC>8-10	300	<1	<1	-	0	G
TPH Aromatic EC>10-12	90	<10	<10	-	0	G
TPH Aromatic EC>12-16	90	<10	<10	-	0	G
TPH Aromatic EC>16-21	90	<10	<10	-	0	G
TPH Aromatic EC>21-35	90	<10	<10	-	0	G
PAH	0.1	<0.1	<0.04	-	0	A, C
Benzo(a)pyrene	0.01	<0.01	<0.01	-	0	A
Benzene	1	<1	<1	-	0	A
Toluene	700	<1	<1	-	0	E
Ethylbenzene	300	<1	<1	-	0	E
p & m-xylene	500	<1	<1	-	0	E, F
o-xylene	500	<1	<1	-	0	E, F
Ammoniacal Nitrogen as N	500	<15	2000	-	1	A
pH	6.5 to 9.5	7.2	7.4	-	0	A
Total Sulphate (mg SO_4/l)	250	47.7	50.1	-	0	A
Hardness (mg $CaCo_3$/l)	*	267	636	-	-	-

Notes:

* No assessment criteria defined.

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

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

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

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

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

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

G. WHO Petroleum Products in Drinking Water, 2008

Table K: Controlled Waters Data Assessment - Potential Risks to Drinking Water from Dissolved Phase Contaminants						
Water Body		**Secondary B Aquifer**			**No. Samples**	3
Determinand	**Drinking Water Value (µg/l)**	**Min recorded (µg/l)**	**Max recorded (µg/l)**	**Bioavailable Concentration (µg/l)**	**No. Samples exceeding DWV**	**Notes**
Arsenic	10	0.4	1.24	-	0	A
Boron	1,000	25	33	-	0	A
Cadmium	5	0.1	2	-	0	A
Chromium	50	0.3	1	-	0	A
Copper	2,000	1.6	1.9	0.11 to 0.18	0	A, B
Lead	10	0.9	2.9	0.36 to 0.99	0	A, B
Mercury	1	<0.05	<0.05	-	0	A
Nickel	20	1.3	3	0.44 to 0.82	0	A, B
Selenium	10	0.8	3.2	-	0	A
Zinc	5,000	4.6	150	2.47 to 72.71	0	A, B
Total Phenols	0.5	<1.0	<1.0	-	0	D
Total Cyanide	50	<1	1.4	-	0	A
Total TPH	10	<10	<10	-	0	D
TPH Aliphatic EC5-6	15,000	<1	<1	-	0	G
TPH Aliphatic EC>6-8	15,000	<1	<1	-	0	G
TPH Aliphatic EC>8-10	300	<1	<1	-	0	G
TPH Aliphatic EC>10-12	300	<10	<10	-	0	G
TPH Aliphatic EC>12-16	300	<10	<10	-	0	G
TPH Aromatic EC>5-7	10	<1	<1	-	0	G
TPH Aromatic EC>7-8	700	<1	<1	-	0	G
TPH Aromatic EC>8-10	300	<1	<1	-	0	G
TPH Aromatic EC>10-12	90	<10	<10	-	0	G
TPH Aromatic EC>12-16	90	<10	<10	-	0	G
TPH Aromatic EC>16-21	90	<10	<10	-	0	G
TPH Aromatic EC>21-35	90	<10	<10	-	0	G
PAH	0.1	<0.04	<0.04	-	0	A, C
Benzo(a)pyrene	0.01	<0.01	<0.01	-	0	A
Benzene	1	<1	<1	-	0	A
Toluene	700	<1	<1	-	0	E
Ethylbenzene	300	<1	<1	-	0	E
p & m-xylene	500	<1	<1	-	0	E, F
o-xylene	500	<1	<1	-	0	E, F
Ammoniacal Nitrogen as N	500	<15	26	-	0	A
pH	6.5 to 9.5	7.2	7.7	-	0	A
Total Sulphate (mg SO_4/l)	250	34.2	126	-	0	A
Hardness (mg $CaCo_3$/l)	-	342	796	-	-	-

Notes:

* No assessment criteria defined.

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

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

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

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

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

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

G. WHO Petroleum Products in Drinking Water, 2008

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

Stratum:	Made Ground					No. Samples	18
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	0.2	1	0	-	-	-
Copper	135	5.1	64	0	-	-	-
Nickel	75	3	32	0	-	-	-
Zinc	200	16	66	0	-	-	-

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	0.2	0.4	0	-	-	-
Copper	135	7.9	19	0	-	-	-
Nickel	75	5.6	27	0	-	-	-
Zinc	200	39	48	0	-	-	-

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 M: 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**
Total VOCs	Where Preliminary Risk Assessment has identified land potentially affected by contamination	0.5	Pass	-	-	-	-
Total BTEX & MTBE		0.1	Pass	0.01	MCERTS	-	0.03
Total SVOCs (excluding PAHs and those substances marked with *)		2	Pass	_	_	_	_
EC5-EC10 aliphatic and aromatic hydrocarbons		2	Pass	0.01	MCERTS	_	0.08
EC10-EC16 aliphatic and aromatic hydrocarbons		10	Pass	8	MCERTS	_	48
EC16-EC40 aliphatic and aromatic hydrocarbons		500	Pass	10	MCERTS	_	1,000
Phenols* (from SVOC analysis)		2	Pass	1	MCERTS	_	<1.0
Cresols and chlorinated phenols* (from SVOC analysis)		2	Pass	_	_	_	_
Ethers*	Only where identified	0.5	Pass	_	_	_	_
Nitrobenzene*		0.5	Pass	_	_	_	_
Ketones*		0.5	Pass	_	_	_	_
Aldehydes*		0.5	Pass	_	_	_	_
Amines		Fail	Pass	_	_	_	_
Corrosive	Conductivity, Redox & pH	Pass	See Note 1	_	_	7.7 to 11	_

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 L – HazWaste Online Classification Reports

Waste Classification Report

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

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

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

2C8AY-6H7IK-VPYYI

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

Report is invalid if pages are removed.

Job name

25-043851_HWOL

Description/Comments

i2 Analytical Report 25-043851

Project

51143/01

Site

Wythenshawe

Classified by

Name:
Lindsay Reid
Date:
30 Oct 2025 16:24 GMT
Telephone:
0141 370 1829

Company:
Civic Earth Limited
35 Virginia Street
Glasgow
G1 1TN

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

HazWasteOnline™ Certification: CERTIFIED

Course	Date
Hazardous Waste Classification	05 Jun 2025

Next 3 year Refresher due by Jun 2028

Purpose of classification

2 - Material Characterisation

Address of the waste

Lloyds, Cornfield Drive, Wythenshawe, Manchester, Greater Manchester **Post Code** M22 9QX

SIC for the process giving rise to the waste

42990 Construction of other civil engineering projects n.e.c.

Description of industry/producer giving rise to the waste

Redevelopment of the site with multi-storey residential properties with some areas of public open space.

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

Waste created during the excavation of soils during the site investigation works.

Description of the waste

Made Ground comprised of dark grey to black granular and cohesive fill with brick, tile and demolition waste and subbase on limestone cobbles, underlain by natural soils which are a mixture of glacial till and weathered Bolin Mudstone Member (Mercia Mudstone Group).

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS25-1-11082025	0.20	Hazardous	HP 7, HP 11	3
2	WS25-2-11082025	0.60	Non Hazardous		6
3	WS25-3-11082025	1.10	Non Hazardous		12
4	WS26-1-11082025	0.30	Non Hazardous		15
5	WS26-2-11082025	0.50	Non Hazardous		18
6	WS22-1-11082025	0.50	Non Hazardous		21
7	WS24-1-11082025	0.40	Non Hazardous		24
8	WS24-2-11082025	0.60	Non Hazardous		27
9	WS21-1-12082025	0.25	Non Hazardous		30
10	WS28-2-12082025	0.30	Non Hazardous		33
11	WS27-2-12082025	0.40	Non Hazardous		36
12	WS23-1-12082025	0.20	Non Hazardous		39
13	WS23-2-12082025	0.60	Non Hazardous		42
14	FIP03-3-13082025	0.70	Non Hazardous		45
15	TP02-1-14082025	0.20	Non Hazardous		48
16	TP02-2-14082025	0.40	Non Hazardous		51
17	TP04-3-14082025	0.40	Non Hazardous		54

Related documents

#	Name	Description
1	25-043851_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	Civic Earth Waste Stream	waste stream template used to create this Job

Report

Created by: Lindsay Reid

Created date: 30 Oct 2025 16:24 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	57
Appendix B: Rationale for selection of metal species	61
Appendix C: Version	62

Classification of sample: WS25-1-11082025

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

Sample details

Sample name:
WS25-1-11082025
Sample Depth:
0.20 m
Moisture content:
1.5%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.203%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.203%)

Determinands

Moisture content: 1.5% 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				8.9	pH		8.9	pH	8.9 pH		
				PH									
2		asbestos				<	%		<	%	<		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
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	mg/kg	1.197	<1.197	mg/kg	<0.00012 %		<**LOD**
		051-005-00-X	215-175-0	1309-64-4									

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
6		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		1.3	mg/kg	1.534	1.964	mg/kg	0.000196 %	✓	
7		barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		33	mg/kg	1.623	52.771	mg/kg	0.00528 %	✓	
8		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.06	mg/kg	2.775	<0.167	mg/kg	<0.0000167 %		<LOD
9		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4	mg/kg	3.22	1.269	mg/kg	0.000127 %	✓	
10		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.4	mg/kg	1.142	0.45	mg/kg	0.000045 %	✓	
11		chromium in Cr(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
12		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4.6	mg/kg	1.462	6.622	mg/kg	0.000662 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5.1	mg/kg	1.126	5.656	mg/kg	0.000566 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	3.6	mg/kg		3.546	mg/kg	0.000355 %	✓	
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		6.2	mg/kg	2.637	16.102	mg/kg	0.00161 %	✓	
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		6.1	mg/kg	1.785	10.726	mg/kg	0.00107 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		16	mg/kg	4.398	69.311	mg/kg	0.00693 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		2060	mg/kg		2029.1	mg/kg	0.203 %	✓	
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		0.06	mg/kg		0.0591	mg/kg	0.00000591 %	✓	
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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									
32		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.22 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 2200 mg/kg (0.22%) because: No liquid phase hydrocarbons were identified during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.203%)

Classification of sample: WS25-2-11082025

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

Sample details

Sample name:
WS25-2-11082025
Sample Depth:
0.60 m
Moisture content:
2.6%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 2.6% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		10 pH		10 pH	10pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		1.9 mg/kg	1.534	2.839 mg/kg	0.000284 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		240 mg/kg	1.623	379.503 mg/kg	0.038 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.17 mg/kg	2.775	0.46 mg/kg	0.000046 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.941 mg/kg	0.0000941 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1 mg/kg	1.142	1.113 mg/kg	0.000111 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		3.9 mg/kg	1.462	5.552 mg/kg	0.000555 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6.6	mg/kg	1.126	7.238	mg/kg	0.000724 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	18	mg/kg		17.532	mg/kg	0.00175 %	✓	
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		4.4	mg/kg	2.637	11.3	mg/kg	0.00113 %	✓	
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		3.7	mg/kg	1.785	6.433	mg/kg	0.000643 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		20	mg/kg	4.398	85.672	mg/kg	0.00857 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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									
40	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
41	●	coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-881-7	191-07-1									
42		chloromethane; methyl chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-001-00-7	200-817-4	74-87-3									
43		chloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-009-00-0	200-830-5	75-00-3									
44		bromomethane; methylbromide				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-002-00-2	200-813-2	74-83-9									
45		vinyl chloride; chloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
46	●	trichlorofluoromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-892-3	75-69-4									
47		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]									
48		1,1-dichloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-011-00-1	200-863-5	75-34-3									
49	●	2,2-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			209-832-0	594-20-7									
50		chloroform; trichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
51		1,1,1-trichloroethane; methyl chloroform				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
52		1,2-dichloroethane; ethylene dichloride				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		602-012-00-7	203-458-1	107-06-2									
53		1,1-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
54		1,2-dichloropropane; propylene dichloride				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
55		trichloroethylene; trichloroethene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
56		dibromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
57	●	bromodichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			200-856-7	75-27-4									
58		1,1,2-trichloroethane				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
59	●	1,3-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-531-3	142-28-9									
60	●	dibromochloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			204-704-0	124-48-1									
61		1,2-dibromoethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
62		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
63	●	1,1,1,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			211-135-1	630-20-6									
64		styrene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
65		bromoform; tribromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
66		1,1,2,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-015-00-3	201-197-8	79-34-5									
67		bromobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-060-00-9	203-623-8	108-86-1									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
68		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]									
69		mesitylene; 1,3,5-trimethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-025-00-5	203-604-4	108-67-8									
70		tert-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			202-632-4	98-06-6									
71		1,2,4-trimethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
72		sec-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			205-227-0	135-98-8									
73		1,4-dichlorobenzene; p-dichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
74		1,2-dichlorobenzene; o-dichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
75		n-butylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			203-209-7	104-51-8									
76		1,2-dibromo-3-chloropropane				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
77		1,2,4-trichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
78		1,2,3-trichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
			201-757-1	87-61-6									
79		aniline				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-008-00-7	200-539-3	62-53-3									
80		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
81		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]									
82		hexachloroethane				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			200-666-4	67-72-1									
83		nitrobenzene				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		609-003-00-7	202-716-0	98-95-3									
84		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]									
85		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.5	mg/kg		<0.5	mg/kg	<0.00005 %		<LOD
		604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]									
86		3,5,5-trimethylcyclohex-2-enone; isophorone				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		606-012-00-8	201-126-0	78-59-1									
87		2-nitrophenol				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			201-857-5	88-75-5									
88		bis(2-chloroethoxy)methane				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
			203-920-2	111-91-1									
89		2,4-dichlorophenol				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		604-011-00-7	204-429-6	120-83-2									

#		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							
90		4-chloroaniline				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		612-137-00-9	203-401-0	106-47-8							
91		hexachlorobutadiene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
			201-765-5	87-68-3							
92		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-014-00-3	200-431-6	59-50-7							
93		2,4,6-trichlorophenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-018-00-5	201-795-9	88-06-2							
94		2,4,5-trichlorophenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
		604-017-00-X	202-467-8	95-95-4							
95		2-methyl naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			202-078-3	91-57-6							
96		2-chloronaphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			202-079-9	91-58-7							
97		dimethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-011-6	131-11-3							
98		2,6-dinitrotoluene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2							
99		2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
		609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]							
100		dibenzofuran				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
			205-071-3	132-64-9							
101		4-chlorophenylphenylether				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
			230-281-7	7005-72-3							
102		diethyl phthalate				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
			201-550-6	84-66-2							
103		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
		612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]							
104		azobenzene				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
		611-001-00-6	203-102-5	103-33-3							
105		4-bromophenylphenylether				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
			202-952-4	101-55-3							
106		hexachlorobenzene				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
		602-065-00-6	204-273-9	118-74-1							
107		carbazole				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
			201-696-0	86-74-8							
108		dibutyl phthalate; DBP				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
		607-318-00-4	201-557-4	84-74-2							
109		anthraquinone				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
		606-151-00-4	201-549-0	84-65-1							
110		BBP; benzyl butyl phthalate				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
		607-430-00-3	201-622-7	85-68-7							
111		2,2'-oxybis[2-chloropropane]				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			254-554-5	39638-32-9							
112		1,3-dichlorbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-067-00-7	208-792-1	541-73-1							
113		bis(2-chloroethyl) ether				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
		603-029-00-2	203-870-1	111-44-4							
114		1-isopropyl-4-methylbenzene; p-cymene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-094-00-1	202-796-7	99-87-6							
115		propylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-097-00-8	203-132-9	103-65-1							
116		cumene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-024-00-X	202-704-5	98-82-8							
117		tetrachloroethylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
118		trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			431-460-4	10061-02-6									
119		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
120		carbon tetrachloride; tetrachloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-008-00-5	200-262-8	56-23-5									
121		1,1,2-trichlorotrifluoroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			200-936-1	76-13-1									
122		1,1-dichloroethylene; vinylidene chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-025-00-8	200-864-0	75-35-4									
123		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0519 %		

Key

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

Classification of sample: WS25-3-11082025

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

Sample details

Sample name:
WS25-3-11082025
Sample Depth:
1.10 m
Moisture content:
7.8%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 7.8% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		11 pH		11 pH	11pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3.7 mg/kg	1.534	5.233 mg/kg	0.000523 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		180 mg/kg	1.623	269.431 mg/kg	0.0269 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.38 mg/kg	2.775	0.972 mg/kg	0.0000972 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1 mg/kg	3.22	2.969 mg/kg	0.000297 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.843 mg/kg	0.0000843 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	14.823 mg/kg	0.00148 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12	mg/kg	1.126	12.457	mg/kg	0.00125 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	22	mg/kg		20.284	mg/kg	0.00203 %	✓	
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		11	mg/kg	2.637	26.741	mg/kg	0.00267 %	✓	
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		13	mg/kg	1.785	21.397	mg/kg	0.00214 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		57	mg/kg	4.398	231.129	mg/kg	0.0231 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		550	mg/kg		507.1	mg/kg	0.0507 %	✓	
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		0.014	mg/kg		0.0129	mg/kg	0.00000129 %	✓	
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		0.09	mg/kg		0.083	mg/kg	0.0000083 %	✓	
29		phenanthrene		201-581-5	85-01-8		0.53	mg/kg		0.489	mg/kg	0.0000489 %	✓	
30		anthracene		204-371-1	120-12-7		0.11	mg/kg		0.101	mg/kg	0.0000101 %	✓	
31		fluoranthene		205-912-4	206-44-0		0.28	mg/kg		0.258	mg/kg	0.0000258 %	✓	
32		pyrene		204-927-3	129-00-0		0.62	mg/kg		0.572	mg/kg	0.0000572 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.32	mg/kg		0.295	mg/kg	0.0000295 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.59	mg/kg		0.544	mg/kg	0.0000544 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.18	mg/kg		0.166	mg/kg	0.0000166 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.19	mg/kg		0.175	mg/kg	0.0000175 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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									
40		benzo[ghi]perylene				0.06	mg/kg		0.0553	mg/kg	0.00000553 %	✓	
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				0.05	mg/kg		0.0461	mg/kg	0.00000461 %	✓	
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.112 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 2200 mg/kg (0.22%) because: No liquid phase hydrocarbons were identified during the site investigation works.

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

ethylbenzene (conc.: 1.29e-06%)

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

Because of determinands:

TPH (C6 to C40) petroleum group (conc.: 0.0507%)
o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4] (conc.: 4.61e-06%)

Classification of sample: WS26-1-11082025

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

Sample details

Sample name:
WS26-1-11082025
Sample Depth:
0.30 m
Moisture content:
1%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 1% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.6 pH		8.6 pH	8.6 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		<1 mg/kg	1.534	<1.534 mg/kg	<0.000153 %		<**LOD**
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		76 mg/kg	1.623	122.15 mg/kg	0.0122 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.07 mg/kg	2.775	0.192 mg/kg	0.0000192 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.2 mg/kg	3.22	0.638 mg/kg	0.0000638 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.3 mg/kg	1.142	1.47 mg/kg	0.000147 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		3.2 mg/kg	1.462	4.63 mg/kg	0.000463 %	✓	

#		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 }				7.8	mg/kg	1.126	8.694	mg/kg	0.000869 %	✓	
		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	15	mg/kg		14.85	mg/kg	0.00149 %	✓	
		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 }				3	mg/kg	2.637	7.831	mg/kg	0.000783 %	✓	
		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 }				3.7	mg/kg	1.785	6.539	mg/kg	0.000654 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				17	mg/kg	4.398	74.017	mg/kg	0.0074 %	✓	
		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				148	mg/kg		146.52	mg/kg	0.0147 %	✓	
				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				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
32		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0388 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 2200 mg/kg (0.22%) because: No liquid phase hydrocarbons were identified during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0147%)

Classification of sample: WS26-2-11082025

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

Sample details

Sample name:
WS26-2-11082025
Sample Depth:
0.50 m
Moisture content:
9.5%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 9.5% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.2 pH		8.2 pH	8.2 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		1.4 mg/kg	1.197	1.517 mg/kg	0.000152 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.5 mg/kg	1.534	6.247 mg/kg	0.000625 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		59 mg/kg	1.623	86.685 mg/kg	0.00867 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.45 mg/kg	2.775	1.13 mg/kg	0.000113 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.166 mg/kg	0.000117 %	✓	
10	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**
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	18.518 mg/kg	0.00185 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14	mg/kg	1.126	14.265	mg/kg	0.00143 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	13	mg/kg		11.765	mg/kg	0.00118 %	✓	
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		11	mg/kg	2.637	26.248	mg/kg	0.00262 %	✓	
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		18	mg/kg	1.785	29.081	mg/kg	0.00291 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		31	mg/kg	4.398	123.384	mg/kg	0.0123 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.032 %		

Key

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

Classification of sample: WS22-1-11082025

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

Sample details

Sample name:
WS22-1-11082025
Sample Depth:
0.50 m
Moisture content:
6.7%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 6.7% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		7.7 pH		7.7 pH	7.7 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		2.1 mg/kg	1.197	2.345 mg/kg	0.000235 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		11 mg/kg	1.534	15.742 mg/kg	0.00157 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		87 mg/kg	1.623	131.779 mg/kg	0.0132 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.57 mg/kg	2.775	1.476 mg/kg	0.000148 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.901 mg/kg	0.0000901 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.4 mg/kg	1.142	0.426 mg/kg	0.0000426 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	20.454 mg/kg	0.00205 %	✓	

#		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 }				28	mg/kg	1.126	29.413	mg/kg	0.00294 %	✓	
		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	61	mg/kg		56.913	mg/kg	0.00569 %	✓	
		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 }				14	mg/kg	2.637	34.44	mg/kg	0.00344 %	✓	
		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 }				20	mg/kg	1.785	33.312	mg/kg	0.00333 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				64	mg/kg	4.398	262.609	mg/kg	0.0263 %	✓	
		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				26	mg/kg		24.258	mg/kg	0.00243 %	✓	
				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				0.49	mg/kg		0.457	mg/kg	0.0000457 %	✓	
		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				0.49	mg/kg		0.457	mg/kg	0.0000457 %	✓	
			201-469-6	83-32-9									
28		fluorene				0.3	mg/kg		0.28	mg/kg	0.000028 %	✓	
			201-695-5	86-73-7									
29		phenanthrene				2.7	mg/kg		2.519	mg/kg	0.000252 %	✓	
			201-581-5	85-01-8									
30		anthracene				0.68	mg/kg		0.634	mg/kg	0.0000634 %	✓	
			204-371-1	120-12-7									
31		fluoranthene				2.9	mg/kg		2.706	mg/kg	0.000271 %	✓	
			205-912-4	206-44-0									
32		pyrene				2.6	mg/kg		2.426	mg/kg	0.000243 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				1.2	mg/kg		1.12	mg/kg	0.000112 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				1.3	mg/kg		1.213	mg/kg	0.000121 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				1.4	mg/kg		1.306	mg/kg	0.000131 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.55	mg/kg		0.513	mg/kg	0.0000513 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				1.1	mg/kg		1.026	mg/kg	0.000103 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				0.56	mg/kg		0.522	mg/kg	0.0000522 %	✓	
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				0.09	mg/kg		0.084	mg/kg	0.0000084 %	✓	
		601-041-00-2	200-181-8	53-70-3									

#		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									
40		benzo[ghi]perylene				0.63	mg/kg		0.588	mg/kg	0.0000588 %	✓	
			205-883-8	191-24-2									
41		coronene				0.3	mg/kg		0.28	mg/kg	0.000028 %	✓	
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.063 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 2200 mg/kg (0.22%) because: No liquid phase hydrocarbons were identified during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00243%)

Classification of sample: WS24-1-11082025

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

Sample details

Sample name:
WS24-1-11082025
Sample Depth:
0.40 m
Moisture content:
3.1%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 3.1% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.1 pH		8.1 pH	8.1 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.2 mg/kg	1.534	6.243 mg/kg	0.000624 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		87 mg/kg	1.623	136.864 mg/kg	0.0137 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.25 mg/kg	2.775	0.672 mg/kg	0.0000672 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.936 mg/kg	0.0000936 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.4 mg/kg	1.142	0.443 mg/kg	0.0000443 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6.5 mg/kg	1.462	9.206 mg/kg	0.000921 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13	mg/kg	1.126	14.183	mg/kg	0.00142 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	26	mg/kg		25.194	mg/kg	0.00252 %	✓	
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		6	mg/kg	2.637	15.33	mg/kg	0.00153 %	✓	
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		7.9	mg/kg	1.785	13.666	mg/kg	0.00137 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		42	mg/kg	4.398	178.987	mg/kg	0.0179 %	✓	
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		0.06	mg/kg		0.0581	mg/kg	0.00000581 %	✓	
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		0.44	mg/kg		0.426	mg/kg	0.0000426 %	✓	
30		anthracene		204-371-1	120-12-7		0.09	mg/kg		0.0872	mg/kg	0.00000872 %	✓	
31		fluoranthene		205-912-4	206-44-0		0.68	mg/kg		0.659	mg/kg	0.0000659 %	✓	
32		pyrene		204-927-3	129-00-0		0.66	mg/kg		0.64	mg/kg	0.000064 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.28	mg/kg		0.271	mg/kg	0.0000271 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.33	mg/kg		0.32	mg/kg	0.000032 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.34	mg/kg		0.329	mg/kg	0.0000329 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.17	mg/kg		0.165	mg/kg	0.0000165 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.3	mg/kg		0.291	mg/kg	0.0000291 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.14	mg/kg		0.136	mg/kg	0.0000136 %	✓	
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

#		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									
40		benzo[ghi]perylene				0.18	mg/kg		0.174	mg/kg	0.0000174 %	✓	
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0405 %		

Key

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

Classification of sample: WS24-2-11082025

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

Sample details

Sample name:
WS24-2-11082025
Sample Depth:
0.60 m
Moisture content:
4.4%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 4.4% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.4 pH		8.4 pH	8.4 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		2.7 mg/kg	1.534	3.959 mg/kg	0.000396 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		51 mg/kg	1.623	79.154 mg/kg	0.00792 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.19 mg/kg	2.775	0.504 mg/kg	0.0000504 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.2 mg/kg	3.22	0.616 mg/kg	0.0000616 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.546 mg/kg	0.0000546 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5.9 mg/kg	1.462	8.244 mg/kg	0.000824 %	✓	

#		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 }				13	mg/kg	1.126	13.993	mg/kg	0.0014 %	✓	
		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	17	mg/kg		16.252	mg/kg	0.00163 %	✓	
		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 }				5.5	mg/kg	2.637	13.864	mg/kg	0.00139 %	✓	
		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 }				6.1	mg/kg	1.785	10.41	mg/kg	0.00104 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				36	mg/kg	4.398	151.359	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				35	mg/kg		33.46	mg/kg	0.00335 %	✓	
				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				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				0.05	mg/kg		0.0478	mg/kg	0.00000478 %	✓	
			205-912-4	206-44-0									
32		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0332 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 2200 mg/kg (0.22%) because: No liquid phase hydrocarbons were identified during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00335%)

Classification of sample: WS21-1-12082025

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

Sample details

Sample name:
WS21-1-12082025
Sample Depth:
0.25 m
Moisture content:
4.6%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 4.6% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.7 pH		8.7 pH	8.7 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		2.7 mg/kg	1.534	3.951 mg/kg	0.000395 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		97 mg/kg	1.623	150.233 mg/kg	0.015 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.35 mg/kg	2.775	0.927 mg/kg	0.0000927 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.922 mg/kg	0.0000922 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.763 mg/kg	0.0000763 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	15.338 mg/kg	0.00153 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8.3	mg/kg	1.126	8.915	mg/kg	0.000892 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	9.7	mg/kg		9.254	mg/kg	0.000925 %	✓	
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		12	mg/kg	2.637	30.185	mg/kg	0.00302 %	✓	
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		14	mg/kg	1.785	23.843	mg/kg	0.00238 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		31	mg/kg	4.398	130.064	mg/kg	0.013 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		990	mg/kg		944.46	mg/kg	0.0944 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.132 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 2200 mg/kg (0.22%) because: No liquid phase hydrocarbons were identified during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0944%)

Classification of sample: WS28-2-12082025

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

Sample details

Sample name:
WS28-2-12082025
Sample Depth:
0.30 m
Moisture content:
1.9%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 1.9% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.4 pH		8.4 pH	8.4 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		1.1 mg/kg	1.534	1.655 mg/kg	0.000166 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		14 mg/kg	1.623	22.297 mg/kg	0.00223 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.08 mg/kg	2.775	0.218 mg/kg	0.0000218 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.2 mg/kg	3.22	0.632 mg/kg	0.0000632 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.1 mg/kg	1.142	1.233 mg/kg	0.000123 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6.1 mg/kg	1.462	8.746 mg/kg	0.000875 %	✓	

#		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 }				9.3	mg/kg	1.126	10.272	mg/kg	0.00103 %	✓	
		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	25	mg/kg		24.525	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 }				7.6	mg/kg	2.637	19.658	mg/kg	0.00197 %	✓	
		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 }				6.2	mg/kg	1.785	10.858	mg/kg	0.00109 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				23	mg/kg	4.398	99.23	mg/kg	0.00992 %	✓	
		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				370	mg/kg		362.97	mg/kg	0.0363 %	✓	
				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				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
32		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				0.05	mg/kg		0.0491	mg/kg	0.00000491 %	✓	
		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									

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0562 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 2200 mg/kg (0.22%) because: No liquid phase hydrocarbons were identified during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0363%)

Classification of sample: WS27-2-12082025

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

Sample details

Sample name:
WS27-2-12082025
Sample Depth:
0.40 m
Moisture content:
14%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.3 pH		8.3 pH	8.3 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		2.2 mg/kg	1.197	2.265 mg/kg	0.000226 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		8 mg/kg	1.534	10.553 mg/kg	0.00106 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		81 mg/kg	1.623	113.091 mg/kg	0.0113 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.43 mg/kg	2.775	1.026 mg/kg	0.000103 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.108 mg/kg	0.000111 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3 mg/kg	1.142	0.295 mg/kg	0.0000295 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	25.139 mg/kg	0.00251 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8.7	mg/kg	1.126	8.424	mg/kg	0.000842 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	16	mg/kg		13.76	mg/kg	0.00138 %	✓	
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		12	mg/kg	2.637	27.211	mg/kg	0.00272 %	✓	
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		25	mg/kg	1.785	38.381	mg/kg	0.00384 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		42	mg/kg	4.398	158.853	mg/kg	0.0159 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.04 %		

Key

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

Classification of sample: WS23-1-12082025

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

Sample details

Sample name:
WS23-1-12082025
Sample Depth:
0.20 m
Moisture content:
2.8%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 2.8% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.2 pH		9.2 pH	9.2 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		1.5 mg/kg	1.534	2.236 mg/kg	0.000224 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		100 mg/kg	1.623	157.802 mg/kg	0.0158 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.19 mg/kg	2.775	0.513 mg/kg	0.0000513 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.2 mg/kg	3.22	0.626 mg/kg	0.0000626 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.777 mg/kg	0.0000777 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5.3 mg/kg	1.462	7.529 mg/kg	0.000753 %	✓	

#		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 }				7.9	mg/kg	1.126	8.645	mg/kg	0.000865 %	✓	
		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	15	mg/kg		14.58	mg/kg	0.00146 %	✓	
		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 }				5.8	mg/kg	2.637	14.865	mg/kg	0.00149 %	✓	
		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 }				5.4	mg/kg	1.785	9.37	mg/kg	0.000937 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				46	mg/kg	4.398	196.64	mg/kg	0.0197 %	✓	
		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				48	mg/kg		46.656	mg/kg	0.00467 %	✓	
				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				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
32		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.046 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 2200 mg/kg (0.22%) because: No liquid phase hydrocarbons were identified during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00467%)

Classification of sample: WS23-2-12082025

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

Sample details

Sample name:
WS23-2-12082025
Sample Depth:
0.60 m
Moisture content:
2.8%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 2.8% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.1 pH		9.1 pH	9.1 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		1.7 mg/kg	1.534	2.535 mg/kg	0.000253 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		89 mg/kg	1.623	140.443 mg/kg	0.014 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.18 mg/kg	2.775	0.486 mg/kg	0.0000486 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.939 mg/kg	0.0000939 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.666 mg/kg	0.0000666 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6 mg/kg	1.462	8.524 mg/kg	0.000852 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9.4	mg/kg	1.126	10.287	mg/kg	0.00103 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	12	mg/kg		11.664	mg/kg	0.00117 %	✓	
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		5.6	mg/kg	2.637	14.352	mg/kg	0.00144 %	✓	
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		5.1	mg/kg	1.785	8.85	mg/kg	0.000885 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		39	mg/kg	4.398	166.717	mg/kg	0.0167 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0365 %		

Key

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

Classification of sample: FIP03-3-13082025

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

Sample details

Sample name:
FIP03-3-13082025
Sample Depth:
0.70 m
Moisture content:
13%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 13% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.1 pH		9.1 pH	9.1 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		1.7 mg/kg	1.197	1.771 mg/kg	0.000177 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		5.2 mg/kg	1.534	6.939 mg/kg	0.000694 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		85 mg/kg	1.623	120.056 mg/kg	0.012 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.94 mg/kg	2.775	2.27 mg/kg	0.000227 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.84 mg/kg	0.000084 %	✓	
10	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**
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		30 mg/kg	1.462	38.147 mg/kg	0.00381 %	✓	

#		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 }				30	mg/kg	1.126	29.386	mg/kg	0.00294 %	✓	
		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	4.8	mg/kg		4.176	mg/kg	0.000418 %	✓	
		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 }				28	mg/kg	2.637	64.23	mg/kg	0.00642 %	✓	
		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	49.7	mg/kg	0.00497 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				46	mg/kg	4.398	176.005	mg/kg	0.0176 %	✓	
		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				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
32		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0494 %		

Key

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

Classification of sample: TP02-1-14082025

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

Sample details

Sample name:
TP02-1-14082025
Sample Depth:
0.20 m
Moisture content:
5.8%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 5.8% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.2 pH		9.2 pH	9.2 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3.9 mg/kg	1.534	5.635 mg/kg	0.000564 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		150 mg/kg	1.623	229.397 mg/kg	0.0229 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.28 mg/kg	2.775	0.732 mg/kg	0.0000732 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.91 mg/kg	0.000091 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3 mg/kg	1.142	0.323 mg/kg	0.0000323 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	13.768 mg/kg	0.00138 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12	mg/kg	1.126	12.727	mg/kg	0.00127 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	9.3	mg/kg		8.761	mg/kg	0.000876 %	✓	
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		8.5	mg/kg	2.637	21.112	mg/kg	0.00211 %	✓	
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		11	mg/kg	1.785	18.498	mg/kg	0.00185 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		45	mg/kg	4.398	186.428	mg/kg	0.0186 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0498 %		

Key

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

Classification of sample: TP02-2-14082025

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

Sample details

Sample name:
TP02-2-14082025
Sample Depth:
0.40 m
Moisture content:
6.8%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 6.8% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.7 pH		8.7 pH	8.7 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		2.9 mg/kg	1.534	4.146 mg/kg	0.000415 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		63 mg/kg	1.623	95.324 mg/kg	0.00953 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.27 mg/kg	2.775	0.698 mg/kg	0.0000698 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.9 mg/kg	0.00009 %	✓	
10	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**
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7.4 mg/kg	1.462	10.08 mg/kg	0.00101 %	✓	

#		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 }				9.8	mg/kg	1.126	10.283	mg/kg	0.00103 %	✓	
		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	6.6	mg/kg		6.151	mg/kg	0.000615 %	✓	
		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 }				7.4	mg/kg	2.637	18.185	mg/kg	0.00182 %	✓	
		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 }				10	mg/kg	1.785	16.638	mg/kg	0.00166 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				29	mg/kg	4.398	118.867	mg/kg	0.0119 %	✓	
		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				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
32		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0281 %		

Key

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

Classification of sample: TP04-3-14082025

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

Sample details

Sample name:
TP04-3-14082025
Sample Depth:
0.40 m
Moisture content:
7.9%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 7.9% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9 pH		9 pH	9pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		1 mg/kg	1.197	1.103 mg/kg	0.00011 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.7 mg/kg	1.534	6.64 mg/kg	0.000664 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		120 mg/kg	1.623	179.426 mg/kg	0.0179 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.31 mg/kg	2.775	0.792 mg/kg	0.0000792 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.89 mg/kg	0.000089 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3 mg/kg	1.142	0.316 mg/kg	0.0000316 %	✓	
11	chromium in Cr(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**
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	14.807 mg/kg	0.00148 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9.9	mg/kg	1.126	10.266	mg/kg	0.00103 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	14	mg/kg		12.894	mg/kg	0.00129 %	✓	
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		8.3	mg/kg	2.637	20.156	mg/kg	0.00202 %	✓	
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		13	mg/kg	1.785	21.374	mg/kg	0.00214 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		66	mg/kg	4.398	267.332	mg/kg	0.0267 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		15	mg/kg		13.815	mg/kg	0.00138 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		fluoranthene		205-912-4	206-44-0		0.15	mg/kg		0.138	mg/kg	0.0000138 %	✓	
32		pyrene		204-927-3	129-00-0		0.13	mg/kg		0.12	mg/kg	0.000012 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.08	mg/kg		0.0737	mg/kg	0.00000737 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.09	mg/kg		0.0829	mg/kg	0.00000829 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.09	mg/kg		0.0829	mg/kg	0.00000829 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.06	mg/kg		0.0553	mg/kg	0.00000553 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.055 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 2200 mg/kg (0.22%) because: No liquid phase hydrocarbons were identified during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00138%)

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: Unknown Oil

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

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

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

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

- **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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1,1,2-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

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

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

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

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

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) / 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 (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2]}

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: 2025.301.6836.12374 (28 Oct 2025)
HazWasteOnline Database: 2025.301.6836.12374 (28 Oct 2025)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021
GB MCL List v2.0 - version 2.0 of 20th October 2023
GB MCL List v3.0 - version 3.0 of 11th January 2024
GB MCL List v4.0 - version 4.0 of 2nd March 2024
GB MCL List v5.0 - version 5.0 of 26th June 2024
GB MCL List v6.0 - version 6.0 of 15th February 2025

Waste Classification Report

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

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

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

JW46S-3AQRX-3U75Z

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

Report is invalid if pages are removed.

Job name

25-045129_HWOL

Description/Comments

i2 Analytical Report 25-045129

Project

51143/01

Site

Wythenshawe

Classified by

Name:
Lindsay Reid
Date:
24 Oct 2025 11:34 GMT
Telephone:
0141 370 1829

Company:
Civic Earth Limited
35 Virginia Street
Glasgow
G1 1TN

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

HazWasteOnline™ Certification: CERTIFIED

Course	Date
Hazardous Waste Classification	05 Jun 2025

Next 3 year Refresher due by Jun 2028

Purpose of classification

2 - Material Characterisation

Address of the waste

Lloyds, Cornfield Drive, Wythenshawe, Manchester, Greater Manchester **Post Code** M22 9QX

SIC for the process giving rise to the waste

42990 Construction of other civil engineering projects n.e.c.

Description of industry/producer giving rise to the waste

Redevelopment of the site with multi-storey residential properties with some areas of public open space.

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

Waste created during the excavation of soils during site investigation works.

Description of the waste

Made Ground comprised of dark grey to black granular and cohesive fill with brick, tile and demolition waste and subbase on limestone cobbles, underlain by natural soils which are a mixture of glacial till and weathered Bolin Mudstone Member (Mercia Mudstone Group).

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS15-ES1-18082025	0.60	Non Hazardous		3
2	WS08-ES1-18082025	0.20	Hazardous	HP 3(i), HP 7, HP 11	6
3	RC02-ES1-19082025	0.30	Non Hazardous		9
4	WS05-ES2-19082025	0.40	Non Hazardous		12
5	WS05-ES3-19082025	0.70	Non Hazardous		18
6	TP09-ES1-19082025	0.60	Non Hazardous		24
7	TP09-ES2-19082025	1.00	Non Hazardous		27
8	RC01-ES1-22082025	0.40	Non Hazardous		30
9	RC01-ES2-22082025	1.60	Non Hazardous		33
10	RC03-ES1-18082025	0.50	Non Hazardous		36
11	WS07-ES2-18082025	0.60	Non Hazardous		39

Related documents

#	Name	Description
1	25-045129_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	Civic Earth Waste Stream	waste stream template used to create this Job

Report

Created by: Lindsay Reid

Created date: 24 Oct 2025 11:34 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	42
Appendix B: Rationale for selection of metal species	46
Appendix C: Version	47

Classification of sample: WS15-ES1-18082025

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

Sample details

Sample name:
WS15-ES1-18082025
Sample Depth:
0.60 m
Moisture content:
11%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		7.8 pH		7.8 pH	7.8 pH		
2	asbestos	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		0.001 %		0.0008 %	0.00089 %	✓	
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		6.1 mg/kg	1.197	6.499 mg/kg	0.00065 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		22 mg/kg	1.534	30.033 mg/kg	0.003 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		510 mg/kg	1.623	736.894 mg/kg	0.0737 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.4 mg/kg	2.775	3.458 mg/kg	0.000346 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.5 mg/kg	3.22	1.433 mg/kg	0.000143 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.508 mg/kg	0.0000508 %	✓	
11	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				83 mg/kg	2.27	167.685 mg/kg	0.0168 %	✓	
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		83 mg/kg	1.462	107.965 mg/kg	0.0108 %	✓	

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
13	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		88 mg/kg	1.126	88.18 mg/kg	0.00882 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	170 mg/kg		151.3 mg/kg	0.0151 %	✓	
15	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.5 mg/kg	1.353	0.602 mg/kg	0.0000602 %	✓	
16	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		38 mg/kg	2.637	89.173 mg/kg	0.00892 %	✓	
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		36 mg/kg	1.785	57.197 mg/kg	0.00572 %	✓	
19	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		190 mg/kg	4.398	743.689 mg/kg	0.0744 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		232 mg/kg		206.48 mg/kg	0.0206 %	✓	
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		0.27 mg/kg		0.24 mg/kg	0.000024 %	✓	
26	acenaphthylene		205-917-1	208-96-8		0.2 mg/kg		0.178 mg/kg	0.0000178 %	✓	
27	acenaphthene		201-469-6	83-32-9		0.18 mg/kg		0.16 mg/kg	0.000016 %	✓	
28	fluorene		201-695-5	86-73-7		0.21 mg/kg		0.187 mg/kg	0.0000187 %	✓	
29	phenanthrene		201-581-5	85-01-8		2.3 mg/kg		2.047 mg/kg	0.000205 %	✓	
30	anthracene		204-371-1	120-12-7		0.72 mg/kg		0.641 mg/kg	0.0000641 %	✓	
31	fluoranthene		205-912-4	206-44-0		5 mg/kg		4.45 mg/kg	0.000445 %	✓	
32	pyrene		204-927-3	129-00-0		4.8 mg/kg		4.272 mg/kg	0.000427 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		2.6 mg/kg		2.314 mg/kg	0.000231 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		2.5 mg/kg		2.225 mg/kg	0.000223 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		2.9 mg/kg		2.581 mg/kg	0.000258 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.2 mg/kg		1.068 mg/kg	0.000107 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		2.5 mg/kg		2.225 mg/kg	0.000223 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		1.5 mg/kg		1.335 mg/kg	0.000133 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.39 mg/kg		0.347 mg/kg	0.0000347 %	✓	

#		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									
40		benzo[ghi]perylene				1.9	mg/kg		1.691	mg/kg	0.000169 %	✓	
			205-883-8	191-24-2									
41		coronene				0.56	mg/kg		0.498	mg/kg	0.0000498 %	✓	
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.243 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 1000 mg/kg (0.1%) because: Hydrocarbons are typically not flammable at concentrations of <1,000 mg/kg and no liquid phase was recorded during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0206%)

Classification of sample: WS08-ES1-18082025

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

Sample details

Sample name:
WS08-ES1-18082025
Sample Depth:
0.20 m
Moisture content:
4.8%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 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"

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.122%)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.122%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.122%)

Determinands

Moisture content: 4.8% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1		pH				7.8 pH		7.8 pH	7.8 pH		
				PH							
2		asbestos				< %		< %	<		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1	mg/kg	1.197	<1.197	mg/kg	<0.00012 %		<LOD
6		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3.8	mg/kg	1.534	5.549	mg/kg	0.000555 %	✓	
7		barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		48	mg/kg	1.623	74.186	mg/kg	0.00742 %	✓	
8		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.29	mg/kg	2.775	0.766	mg/kg	0.0000766 %	✓	
9		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.5	mg/kg	3.22	1.533	mg/kg	0.000153 %	✓	
10		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3	mg/kg	1.142	0.326	mg/kg	0.0000326 %	✓	
11		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				10	mg/kg	2.27	21.61	mg/kg	0.00216 %	✓	
12		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10	mg/kg	1.462	13.914	mg/kg	0.00139 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11	mg/kg	1.126	11.79	mg/kg	0.00118 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	16	mg/kg		15.232	mg/kg	0.00152 %	✓	
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		9.4	mg/kg	2.637	23.595	mg/kg	0.00236 %	✓	
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		11	mg/kg	1.785	18.694	mg/kg	0.00187 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		35	mg/kg	4.398	146.539	mg/kg	0.0147 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		1280	mg/kg		1218.56	mg/kg	0.122 %	✓	
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		0.23	mg/kg		0.219	mg/kg	0.0000219 %	✓	
26		acenaphthylene		205-917-1	208-96-8		0.63	mg/kg		0.6	mg/kg	0.00006 %	✓	
27		acenaphthene		201-469-6	83-32-9		3.5	mg/kg		3.332	mg/kg	0.000333 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
28		fluorene		201-695-5	86-73-7		2.1	mg/kg		1.999	mg/kg	0.0002 %	✓	
29		phenanthrene		201-581-5	85-01-8		20	mg/kg		19.04	mg/kg	0.0019 %	✓	
30		anthracene		204-371-1	120-12-7		9.4	mg/kg		8.949	mg/kg	0.000895 %	✓	
31		fluoranthene		205-912-4	206-44-0		84	mg/kg		79.968	mg/kg	0.008 %	✓	
32		pyrene		204-927-3	129-00-0		72	mg/kg		68.544	mg/kg	0.00685 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		34	mg/kg		32.368	mg/kg	0.00324 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		31	mg/kg		29.512	mg/kg	0.00295 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		35	mg/kg		33.32	mg/kg	0.00333 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		18	mg/kg		17.136	mg/kg	0.00171 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		33	mg/kg		31.416	mg/kg	0.00314 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		16	mg/kg		15.232	mg/kg	0.00152 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		3.9	mg/kg		3.713	mg/kg	0.000371 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		17	mg/kg		16.184	mg/kg	0.00162 %	✓	
41		coronene		205-881-7	191-07-1		5.9	mg/kg		5.617	mg/kg	0.000562 %	✓	
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:	0.192 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 1000 mg/kg (0.1%) because: Hydrocarbons are typically not flammable at concentrations of <1,000 mg/kg and no liquid phase was recorded during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.122%)

Classification of sample: RC02-ES1-19082025

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

Sample details

Sample name:
RC02-ES1-19082025
Sample Depth:
0.30 m
Moisture content:
1.7%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 1.7% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.1 pH		9.1 pH	9.1 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		1.4 mg/kg	1.534	2.111 mg/kg	0.000211 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		25 mg/kg	1.623	39.897 mg/kg	0.00399 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.13 mg/kg	2.775	0.355 mg/kg	0.0000355 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.2 mg/kg	3.22	0.633 mg/kg	0.0000633 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.2 mg/kg	1.142	1.347 mg/kg	0.000135 %	✓	
11	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				5.6 mg/kg	2.27	12.496 mg/kg	0.00125 %	✓	
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5.6 mg/kg	1.462	8.046 mg/kg	0.000805 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8.8	mg/kg	1.126	9.739	mg/kg	0.000974 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	43	mg/kg		42.269	mg/kg	0.00423 %	✓	
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		5.3	mg/kg	2.637	13.737	mg/kg	0.00137 %	✓	
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		4.6	mg/kg	1.785	8.072	mg/kg	0.000807 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		29	mg/kg	4.398	125.372	mg/kg	0.0125 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		91	mg/kg		89.453	mg/kg	0.00895 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0354 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 1000 mg/kg (0.1%) because: Hydrocarbons are typically not flammable at concentrations of <1,000 mg/kg and no liquid phase was recorded during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00895%)

Classification of sample: WS05-ES2-19082025

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

Sample details

Sample name:
WS05-ES2-19082025
Sample Depth:
0.40 m
Moisture content:
1.8%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 1.8% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.6 pH		8.6 pH	8.6 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3.3 mg/kg	1.534	4.971 mg/kg	0.000497 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		97 mg/kg	1.623	154.642 mg/kg	0.0155 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.21 mg/kg	2.775	0.572 mg/kg	0.0000572 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.949 mg/kg	0.0000949 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.4 mg/kg	1.142	0.449 mg/kg	0.0000449 %	✓	
11	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				14 mg/kg	2.27	31.208 mg/kg	0.00312 %	✓	
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.093 mg/kg	0.00201 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		22	mg/kg	1.126	24.324	mg/kg	0.00243 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	25	mg/kg		24.55	mg/kg	0.00246 %	✓	
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		41	mg/kg	2.637	106.158	mg/kg	0.0106 %	✓	
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		16	mg/kg	1.785	28.049	mg/kg	0.0028 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		45	mg/kg	4.398	194.344	mg/kg	0.0194 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		74	mg/kg		72.668	mg/kg	0.00727 %	✓	
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		0.14	mg/kg		0.137	mg/kg	0.0000137 %	✓	
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		0.11	mg/kg		0.108	mg/kg	0.0000108 %	✓	
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		0.15	mg/kg		0.147	mg/kg	0.0000147 %	✓	
32		pyrene		204-927-3	129-00-0		0.17	mg/kg		0.167	mg/kg	0.0000167 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.07	mg/kg		0.0687	mg/kg	0.00000687 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.11	mg/kg		0.108	mg/kg	0.0000108 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.11	mg/kg		0.108	mg/kg	0.0000108 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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							
40		benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2							
41		coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-881-7	191-07-1							
42		chloromethane; methyl chloride				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-001-00-7	200-817-4	74-87-3							
43		chloroethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-009-00-0	200-830-5	75-00-3							
44		bromomethane; methylbromide				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-002-00-2	200-813-2	74-83-9							
45		vinyl chloride; chloroethylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-023-00-7	200-831-0	75-01-4							
46		trichlorofluoromethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
			200-892-3	75-69-4							
47		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]							
48		1,1-dichloroethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-011-00-1	200-863-5	75-34-3							
49		2,2-dichloropropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
			209-832-0	594-20-7							
50		chloroform; trichloromethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-006-00-4	200-663-8	67-66-3							
51		1,1,1-trichloroethane; methyl chloroform				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-013-00-2	200-756-3	71-55-6							
52		1,2-dichloroethane; ethylene dichloride				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		602-012-00-7	203-458-1	107-06-2							
53		1,1-dichloropropene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-031-00-0	209-253-3	563-58-6							
54		1,2-dichloropropane; propylene dichloride				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
		602-020-00-0	201-152-2	78-87-5							
55		trichloroethylene; trichloroethene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6							
56		dibromomethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-003-00-8	200-824-2	74-95-3							
57		bromodichloromethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
			200-856-7	75-27-4							
58		1,1,2-trichloroethane				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
		602-014-00-8	201-166-9	79-00-5							
59		1,3-dichloropropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
			205-531-3	142-28-9							
60		dibromochloromethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
			204-704-0	124-48-1							
61		1,2-dibromoethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-010-00-6	203-444-5	106-93-4							
62		chlorobenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7							
63		1,1,1,2-tetrachloroethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
			211-135-1	630-20-6							
64		styrene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-026-00-0	202-851-5	100-42-5							
65		bromoform; tribromomethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-007-00-X	200-854-6	75-25-2							
66		1,1,2,2-tetrachloroethane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-015-00-3	201-197-8	79-34-5							
67		bromobenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-060-00-9	203-623-8	108-86-1							

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
68		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]	602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
69		mesitylene; 1,3,5-trimethylbenzene	601-025-00-5	203-604-4	108-67-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
70		tert-butylbenzene		202-632-4	98-06-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
71		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**
72		sec-butylbenzene		205-227-0	135-98-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
73		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**
74		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**
75		n-butylbenzene		203-209-7	104-51-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
76		1,2-dibromo-3-chloropropane	602-021-00-6	202-479-3	96-12-8		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<**LOD**
77		1,2,4-trichlorobenzene	602-087-00-6	204-428-0	120-82-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
78		1,2,3-trichlorobenzene		201-757-1	87-61-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
79		aniline	612-008-00-7	200-539-3	62-53-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
80		phenol	604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**LOD**
81		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]	604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
82		hexachloroethane		200-666-4	67-72-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
83		nitrobenzene	609-003-00-7	202-716-0	98-95-3		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
84		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]	604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
85		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]	604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]		<0.5 mg/kg		<0.5 mg/kg	<0.00005 %		<**LOD**
86		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**
87		2-nitrophenol		201-857-5	88-75-5		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
88		bis(2-chloroethoxy)methane		203-920-2	111-91-1		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
89		2,4-dichlorophenol	604-011-00-7	204-429-6	120-83-2		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
90		4-chloroaniline	612-137-00-9	203-401-0	106-47-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
91		hexachlorobutadiene		201-765-5	87-68-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
92		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**
93		2,4,6-trichlorophenol	604-018-00-5	201-795-9	88-06-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
94		2,4,5-trichlorophenol	604-017-00-X	202-467-8	95-95-4		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
95		2-methyl naphthalene		202-078-3	91-57-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
96		2-chloronaphthalene		202-079-9	91-58-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
97		dimethyl phthalate		205-011-6	131-11-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
98		2,6-dinitrotoluene	609-049-00-8	210-106-0	606-20-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
99		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**
100		dibenzofuran		205-071-3	132-64-9		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
101		4-chlorophenylphenylether		230-281-7	7005-72-3		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
102		diethyl phthalate		201-550-6	84-66-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
103		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]	612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
104		azobenzene	611-001-00-6	203-102-5	103-33-3		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
105		4-bromophenylphenylether		202-952-4	101-55-3		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
106		hexachlorobenzene	602-065-00-6	204-273-9	118-74-1		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
107		carbazole		201-696-0	86-74-8		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
108		dibutyl phthalate; DBP	607-318-00-4	201-557-4	84-74-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
109		anthraquinone	606-151-00-4	201-549-0	84-65-1		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
110		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**
111		2,2'-oxybis[2-chloropropane]		254-554-5	39638-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
112		1,3-dichlorbenzene	602-067-00-7	208-792-1	541-73-1		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
113		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**
114		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**
115		propylbenzene	601-097-00-8	203-132-9	103-65-1		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
116		cumene	601-024-00-X	202-704-5	98-82-8		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
117		tetrachloroethylene	602-028-00-4	204-825-9	127-18-4		<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									
118		trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			431-460-4	10061-02-6									
119		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
120		carbon tetrachloride; tetrachloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-008-00-5	200-262-8	56-23-5									
121		1,1,2-trichlorotrifluoroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			200-936-1	76-13-1									
122		1,1-dichloroethylene; vinylidene chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-025-00-8	200-864-0	75-35-4									
123		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0664 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 1000 mg/kg (0.1%) because: Hydrocarbons are typically not flammable at concentrations of <1,000 mg/kg and no liquid phase was recorded during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00727%)

Classification of sample: WS05-ES3-19082025

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

Sample details

Sample name:
WS05-ES3-19082025
Sample Depth:
0.70 m
Moisture content:
14%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		7.7 pH		7.7 pH	7.7 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		3.8 mg/kg	1.197	3.912 mg/kg	0.000391 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		14 mg/kg	1.534	18.468 mg/kg	0.00185 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		170 mg/kg	1.623	237.352 mg/kg	0.0237 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		3.9 mg/kg	2.775	9.309 mg/kg	0.000931 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.108 mg/kg	0.000111 %	✓	
10	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**
11	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				20 mg/kg	2.27	39.044 mg/kg	0.0039 %	✓	
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	25.139 mg/kg	0.00251 %	✓	

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		83	mg/kg	1.126	80.366	mg/kg	0.00804 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	57	mg/kg		49.02	mg/kg	0.0049 %	✓	
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		48	mg/kg	2.637	108.842	mg/kg	0.0109 %	✓	
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		52	mg/kg	1.785	79.833	mg/kg	0.00798 %	✓	
19	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		56	mg/kg	4.398	211.804	mg/kg	0.0212 %	✓	
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		0.59	mg/kg		0.507	mg/kg	0.0000507 %	✓	
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		0.15	mg/kg		0.129	mg/kg	0.0000129 %	✓	
28	fluorene		201-695-5	86-73-7		0.12	mg/kg		0.103	mg/kg	0.0000103 %	✓	
29	phenanthrene		201-581-5	85-01-8		0.37	mg/kg		0.318	mg/kg	0.0000318 %	✓	
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		0.43	mg/kg		0.37	mg/kg	0.000037 %	✓	
32	pyrene		204-927-3	129-00-0		0.44	mg/kg		0.378	mg/kg	0.0000378 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.29	mg/kg		0.249	mg/kg	0.0000249 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.36	mg/kg		0.31	mg/kg	0.000031 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.41	mg/kg		0.353	mg/kg	0.0000353 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.15	mg/kg		0.129	mg/kg	0.0000129 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.3	mg/kg		0.258	mg/kg	0.0000258 %	✓	
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

#		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									
40		benzo[ghi]perylene				0.19	mg/kg		0.163	mg/kg	0.0000163 %	✓	
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		chloromethane; methyl chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-001-00-7	200-817-4	74-87-3									
43		chloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-009-00-0	200-830-5	75-00-3									
44		bromomethane; methylbromide				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-002-00-2	200-813-2	74-83-9									
45		vinyl chloride; chloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-023-00-7	200-831-0	75-01-4									
46		trichlorofluoromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			200-892-3	75-69-4									
47		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]									
48		1,1-dichloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-011-00-1	200-863-5	75-34-3									
49		2,2-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			209-832-0	594-20-7									
50		chloroform; trichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-006-00-4	200-663-8	67-66-3									
51		1,1,1-trichloroethane; methyl chloroform				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-013-00-2	200-756-3	71-55-6									
52		1,2-dichloroethane; ethylene dichloride				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<**LOD**
		602-012-00-7	203-458-1	107-06-2									
53		1,1-dichloropropene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-031-00-0	209-253-3	563-58-6									
54		1,2-dichloropropane; propylene dichloride				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<**LOD**
		602-020-00-0	201-152-2	78-87-5									
55		trichloroethylene; trichloroethene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-027-00-9	201-167-4	79-01-6									
56		dibromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-003-00-8	200-824-2	74-95-3									
57		bromodichloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			200-856-7	75-27-4									
58		1,1,2-trichloroethane				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<**LOD**
		602-014-00-8	201-166-9	79-00-5									
59		1,3-dichloropropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			205-531-3	142-28-9									
60		dibromochloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			204-704-0	124-48-1									
61		1,2-dibromoethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-010-00-6	203-444-5	106-93-4									
62		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-033-00-1	203-628-5	108-90-7									
63		1,1,1,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			211-135-1	630-20-6									
64		styrene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-026-00-0	202-851-5	100-42-5									
65		bromoform; tribromomethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-007-00-X	200-854-6	75-25-2									
66		1,1,2,2-tetrachloroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-015-00-3	201-197-8	79-34-5									
67		bromobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-060-00-9	203-623-8	108-86-1									

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
68		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]	602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
69		mesitylene; 1,3,5-trimethylbenzene	601-025-00-5	203-604-4	108-67-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
70	●	tert-butylbenzene		202-632-4	98-06-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
71		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**
72	●	sec-butylbenzene		205-227-0	135-98-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
73		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**
74		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**
75	●	n-butylbenzene		203-209-7	104-51-8		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
76		1,2-dibromo-3-chloropropane	602-021-00-6	202-479-3	96-12-8		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<**LOD**
77		1,2,4-trichlorobenzene	602-087-00-6	204-428-0	120-82-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
78	●	1,2,3-trichlorobenzene		201-757-1	87-61-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
79		aniline	612-008-00-7	200-539-3	62-53-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
80		phenol	604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**LOD**
81		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]	604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
82	●	hexachloroethane		200-666-4	67-72-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
83		nitrobenzene	609-003-00-7	202-716-0	98-95-3		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
84		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]	604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
85		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]	604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]		<0.5 mg/kg		<0.5 mg/kg	<0.00005 %		<**LOD**
86		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**
87	●	2-nitrophenol		201-857-5	88-75-5		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
88	●	bis(2-chloroethoxy)methane		203-920-2	111-91-1		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
89		2,4-dichlorophenol	604-011-00-7	204-429-6	120-83-2		<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
90		4-chloroaniline	612-137-00-9	203-401-0	106-47-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
91		hexachlorobutadiene		201-765-5	87-68-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
92		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
93		2,4,6-trichlorophenol	604-018-00-5	201-795-9	88-06-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
94		2,4,5-trichlorophenol	604-017-00-X	202-467-8	95-95-4		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
95		2-methyl naphthalene		202-078-3	91-57-6		0.2	mg/kg		0.172	mg/kg	0.0000172 %	✓	
96		2-chloronaphthalene		202-079-9	91-58-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
97		dimethyl phthalate		205-011-6	131-11-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
98		2,6-dinitrotoluene	609-049-00-8	210-106-0	606-20-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
99		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
100		dibenzofuran		205-071-3	132-64-9		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
101		4-chlorophenylphenylether		230-281-7	7005-72-3		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
102		diethyl phthalate		201-550-6	84-66-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
103		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]	612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
104		azobenzene	611-001-00-6	203-102-5	103-33-3		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
105		4-bromophenylphenylether		202-952-4	101-55-3		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
106		hexachlorobenzene	602-065-00-6	204-273-9	118-74-1		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
107		carbazole		201-696-0	86-74-8		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
108		dibutyl phthalate; DBP	607-318-00-4	201-557-4	84-74-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
109		anthraquinone	606-151-00-4	201-549-0	84-65-1		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
110		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
111		2,2'-oxybis[2-chloropropane]		254-554-5	39638-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
112		1,3-dichlorbenzene	602-067-00-7	208-792-1	541-73-1		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
113		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
114		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
115		propylbenzene	601-097-00-8	203-132-9	103-65-1		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
116		cumene	601-024-00-X	202-704-5	98-82-8		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
117		tetrachloroethylene	602-028-00-4	204-825-9	127-18-4		<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									
118		trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			431-460-4	10061-02-6									
119		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
120		carbon tetrachloride; tetrachloromethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-008-00-5	200-262-8	56-23-5									
121		1,1,2-trichlorotrifluoroethane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
			200-936-1	76-13-1									
122		1,1-dichloroethylene; vinylidene chloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		602-025-00-8	200-864-0	75-35-4									
123		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0868 %		

Key

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

Classification of sample: TP09-ES1-19082025

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

Sample details

Sample name:
TP09-ES1-19082025
Sample Depth:
0.60 m
Moisture content:
3.8%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 3.8% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.8 pH		9.8 pH	9.8 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		1.7 mg/kg	1.534	2.509 mg/kg	0.000251 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		840 mg/kg	1.623	1311.896 mg/kg	0.131 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.2 mg/kg	2.775	0.534 mg/kg	0.0000534 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.7 mg/kg	3.22	2.168 mg/kg	0.000217 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.8 mg/kg	1.142	1.978 mg/kg	0.000198 %	✓	
11	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				5.2 mg/kg	2.27	11.355 mg/kg	0.00114 %	✓	
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5.2 mg/kg	1.462	7.311 mg/kg	0.000731 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23	mg/kg	1.126	24.911	mg/kg	0.00249 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	44	mg/kg		42.328	mg/kg	0.00423 %	✓	
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		8.6	mg/kg	2.637	21.814	mg/kg	0.00218 %	✓	
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		6.1	mg/kg	1.785	10.476	mg/kg	0.00105 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		53	mg/kg	4.398	224.233	mg/kg	0.0224 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.166 %		

Key

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

Classification of sample: TP09-ES2-19082025

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

Sample details

Sample name:
TP09-ES2-19082025
Sample Depth:
1.00 m
Moisture content:
11%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	pH			PH		6.6	pH		6.6	pH	6.6 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		2.3	mg/kg	1.197	2.45	mg/kg	0.000245 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		7.2	mg/kg	1.534	9.829	mg/kg	0.000983 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		110	mg/kg	1.623	158.938	mg/kg	0.0159 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.5	mg/kg	2.775	3.705	mg/kg	0.000371 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.5	mg/kg	3.22	1.433	mg/kg	0.000143 %	✓	
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 Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				31	mg/kg	2.27	62.629	mg/kg	0.00626 %	✓	
11	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		31	mg/kg	1.462	40.324	mg/kg	0.00403 %	✓	
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		21	mg/kg	1.126	21.043	mg/kg	0.0021 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	8.3	mg/kg		7.387	mg/kg	0.000739 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		28	mg/kg	2.637	65.706	mg/kg	0.00657 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		29	mg/kg	1.785	46.076	mg/kg	0.00461 %	✓	
18		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		45	mg/kg	4.398	176.137	mg/kg	0.0176 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		13	mg/kg		11.57	mg/kg	0.00116 %	✓	
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		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
24		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
25		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
29		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		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
39		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		coronene		205-881-7	191-07-1		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		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:	0.0607 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 1000 mg/kg (0.1%) because: Hydrocarbons are typically not flammable at concentrations of <1,000 mg/kg and no liquid phase was recorded during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00116%)

Classification of sample: RC01-ES1-22082025

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

Sample details

Sample name:
RC01-ES1-22082025
Sample Depth:
0.40 m
Moisture content:
14%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		7.7 pH		7.7 pH	7.7 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		2.1 mg/kg	1.197	2.162 mg/kg	0.000216 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		8.5 mg/kg	1.534	11.213 mg/kg	0.00112 %	✓	
7	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 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.5 mg/kg	2.775	3.58 mg/kg	0.000358 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1 mg/kg	3.22	2.769 mg/kg	0.000277 %	✓	
10	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**
11	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				37 mg/kg	2.27	72.231 mg/kg	0.00722 %	✓	
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		37 mg/kg	1.462	46.507 mg/kg	0.00465 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		64	mg/kg	1.126	61.969	mg/kg	0.0062 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	13	mg/kg		11.18	mg/kg	0.00112 %	✓	
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		32	mg/kg	2.637	72.562	mg/kg	0.00726 %	✓	
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		39	mg/kg	1.785	59.875	mg/kg	0.00599 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		50	mg/kg	4.398	189.111	mg/kg	0.0189 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		91	mg/kg		78.26	mg/kg	0.00783 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
32		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**

#		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							
40		benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2							
41		coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1							
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
								Total:	0.0821 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 1000 mg/kg (0.1%) because: Hydrocarbons are typically not flammable at concentrations of <1,000 mg/kg and no liquid phase was recorded during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00783%)

Classification of sample: RC01-ES2-22082025

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

Sample details

Sample name:
RC01-ES2-22082025
Sample Depth:
1.60 m
Moisture content:
16%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.1	pH		8.1	pH	8.1 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
3	monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
4	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		1.7	mg/kg	1.197	1.709	mg/kg	0.000171 %	✓	
5	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4	mg/kg	1.534	5.154	mg/kg	0.000515 %	✓	
6	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		76	mg/kg	1.623	103.642	mg/kg	0.0104 %	✓	
7	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.99	mg/kg	2.775	2.308	mg/kg	0.000231 %	✓	
8	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4	mg/kg	3.22	1.082	mg/kg	0.000108 %	✓	
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 Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				31	mg/kg	2.27	59.111	mg/kg	0.00591 %	✓	
11	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		31	mg/kg	1.462	38.059	mg/kg	0.00381 %	✓	
12	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		19	mg/kg	1.126	17.969	mg/kg	0.0018 %	✓	
13	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	3.2	mg/kg		2.688	mg/kg	0.000269 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
15		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		27	mg/kg	2.637	59.8	mg/kg	0.00598 %	✓	
16		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
17		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		30	mg/kg	1.785	44.987	mg/kg	0.0045 %	✓	
18		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		48	mg/kg	4.398	177.324	mg/kg	0.0177 %	✓	
19		TPH (C6 to C40) petroleum group			TPH		<20	mg/kg		<20	mg/kg	<0.002 %		<LOD
20		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23		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
24		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
25		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
29		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		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
39		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		coronene		205-881-7	191-07-1		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		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:	0.0514 %		

Key

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

Classification of sample: RC03-ES1-18082025

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

Sample details

Sample name:
RC03-ES1-18082025
Sample Depth:
0.50 m
Moisture content:
3.8%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 3.8% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.3 pH		8.3 pH	8.3 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %		<**LOD**
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3 mg/kg	1.534	4.427 mg/kg	0.000443 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		400 mg/kg	1.623	624.712 mg/kg	0.0625 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.27 mg/kg	2.775	0.721 mg/kg	0.0000721 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.3 mg/kg	3.22	0.929 mg/kg	0.0000929 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	0.989 mg/kg	0.0000989 %	✓	
11	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				11 mg/kg	2.27	24.021 mg/kg	0.0024 %	✓	
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	15.466 mg/kg	0.00155 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13	mg/kg	1.126	14.08	mg/kg	0.00141 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	34	mg/kg		32.708	mg/kg	0.00327 %	✓	
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		12	mg/kg	2.637	30.438	mg/kg	0.00304 %	✓	
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		13	mg/kg	1.785	22.326	mg/kg	0.00223 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		38	mg/kg	4.398	160.771	mg/kg	0.0161 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		710	mg/kg		683.02	mg/kg	0.0683 %	✓	
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		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		fluoranthene		205-912-4	206-44-0		0.06	mg/kg		0.0577	mg/kg	0.00000577 %	✓	
32		pyrene		204-927-3	129-00-0		0.07	mg/kg		0.0673	mg/kg	0.00000673 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD

#		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									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.161 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
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: 1000 mg/kg (0.1%) because: Hydrocarbons are typically not flammable at concentrations of <1,000 mg/kg and no liquid phase was recorded during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0683%)

Classification of sample: WS07-ES2-18082025

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

Sample details

Sample name:
WS07-ES2-18082025
Sample Depth:
0.60 m
Moisture content:
14%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		7.5 pH		7.5 pH	7.5 pH		
2	asbestos	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		< %		< %	<		<**LOD**
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 }	006-007-00-5				<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 }	051-005-00-X	215-175-0	1309-64-4		3 mg/kg	1.197	3.089 mg/kg	0.000309 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		13 mg/kg	1.534	17.149 mg/kg	0.00171 %	✓	
7	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 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.88 mg/kg	2.775	2.1 mg/kg	0.00021 %	✓	
9	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 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.2 mg/kg	1.142	0.196 mg/kg	0.0000196 %	✓	
11	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				41 mg/kg	2.27	80.04 mg/kg	0.008 %	✓	
12	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		41 mg/kg	1.462	51.534 mg/kg	0.00515 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		33	mg/kg	1.126	31.953	mg/kg	0.0032 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	96	mg/kg		82.56	mg/kg	0.00826 %	✓	
15		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.4	mg/kg	1.353	0.466	mg/kg	0.0000466 %	✓	
16		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		19	mg/kg	2.637	43.083	mg/kg	0.00431 %	✓	
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		26	mg/kg	1.785	39.917	mg/kg	0.00399 %	✓	
19		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		91	mg/kg	4.398	344.182	mg/kg	0.0344 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		51	mg/kg		43.86	mg/kg	0.00439 %	✓	
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		0.07	mg/kg		0.0602	mg/kg	0.00000602 %	✓	
26		acenaphthylene		205-917-1	208-96-8		0.06	mg/kg		0.0516	mg/kg	0.00000516 %	✓	
27		acenaphthene		201-469-6	83-32-9		0.11	mg/kg		0.0946	mg/kg	0.00000946 %	✓	
28		fluorene		201-695-5	86-73-7		0.07	mg/kg		0.0602	mg/kg	0.00000602 %	✓	
29		phenanthrene		201-581-5	85-01-8		0.85	mg/kg		0.731	mg/kg	0.0000731 %	✓	
30		anthracene		204-371-1	120-12-7		0.27	mg/kg		0.232	mg/kg	0.0000232 %	✓	
31		fluoranthene		205-912-4	206-44-0		2.4	mg/kg		2.064	mg/kg	0.000206 %	✓	
32		pyrene		204-927-3	129-00-0		2.3	mg/kg		1.978	mg/kg	0.000198 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.2	mg/kg		1.032	mg/kg	0.000103 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		1.2	mg/kg		1.032	mg/kg	0.000103 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.6	mg/kg		1.376	mg/kg	0.000138 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.61	mg/kg		0.525	mg/kg	0.0000525 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.3	mg/kg		1.118	mg/kg	0.000112 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.72	mg/kg		0.619	mg/kg	0.0000619 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.13	mg/kg		0.112	mg/kg	0.0000112 %	✓	

#		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									
40		benzo[ghi]perylene				0.89	mg/kg		0.765	mg/kg	0.0000765 %	✓	
			205-883-8	191-24-2									
41		coronene				0.57	mg/kg		0.49	mg/kg	0.000049 %	✓	
			205-881-7	191-07-1									
42		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] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0965 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 1000 mg/kg (0.1%) because: Hydrocarbons are typically not flammable at concentrations of <1,000 mg/kg and no liquid phase was recorded during the site investigation works.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00439%)

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: Unknown Oil

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

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

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

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

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

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

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

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

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

- **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

- **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

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

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

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

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

- **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

- **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

- **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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1,1,2-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

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

Assumed Total Chromium (III) as Chromium VI, given that Chromium VI could not be obtained in a number of samples due to 'unsuitable for analysis due to a high colour density'.

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

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

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

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

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough metal and Cr(VI) present to make the worst case CLP (metal chromate) / 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 (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2]}

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: 2025.296.6831.12364 (23 Oct 2025)
HazWasteOnline Database: 2025.296.6831.12364 (23 Oct 2025)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021
GB MCL List v2.0 - version 2.0 of 20th October 2023
GB MCL List v3.0 - version 3.0 of 11th January 2024
GB MCL List v4.0 - version 4.0 of 2nd March 2024
GB MCL List v5.0 - version 5.0 of 26th June 2024
GB MCL List v6.0 - version 6.0 of 15th February 2025

Appendix M – Import Specification for Growth Medium

CIVIC EARTH

Table 1: Maximum Permissible Concentrations for Capping Layer Soils (6% SOM)

Determinand		Maximum Permissible Concentration[1] (mg/kg)[2]	Rationale
Arsenic		37	S4UL[3]
Beryllium		1.7	S4UL[3]
Boron (water soluble)		5	Lower limit for potential phytotoxic effect[4]
Cadmium		11	S4UL[3]
Chromium (III)		910	S4UL[3]
Chromium (VI)		6	S4UL[3]
Lead		200	C4UL[5]
Mercury		40	S4UL[3]
Selenium		250	S4UL[3]
Copper		135	BS 3882:2015 Specification for Topsoil[6]
Nickel		75	BS 3882:2015 Specification for Topsoil[6]
Zinc		200	BS 3882:2015 Specification for Topsoil[6]
Vanadium		410	S4UL[3]
Benzo(a)pyrene		3.0	S4UL[3]
Benzo(a)anthracene		13	S4UL[3]
Benzo(b)fluoranthene		3.7	S4UL[3]
Benzo(k)fluoranthene		100	S4UL[3]
Chrysene		27	S4UL[3]
Dibenzo(a,h)anthracene		0.3	S4UL[3]
Indeno(1,2,3-cd)pyrene		41	S4UL[3]
Naphthalene		13	S4UL[3]
Total PAH		100	Based on Total PAH threshold for inert WAC
TPH aliphatic	EC5-6	160	S4UL[3]
	EC>6-8	530	S4UL[3]
	EC>8-10	150	S4UL[3]
	EC>10-12	760	S4UL[3]
	EC>12-16	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
	EC>16-35	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
TPH aromatic	EC5-7	300	S4UL[3]
	EC>7-8	660	S4UL[3]
	EC>8-10	190	S4UL[3]
	EC>10-12	380	S4UL[3]
	EC>12-16	660	S4UL[3]
	EC>16-21	930	S4UL[3]
	EC>21-35	1,000	Hazardous waste threshold[7] (N/A see sum of TPH below)
Sum of TPH aliphatic and aromatic C5-C10		500	Based on Mineral Oil threshold for Inert WAC
Sum of TPH aliphatic and aromatic C10+		500	Based on Mineral Oil threshold for Inert WAC
TPH		1,000	Hazardous waste threshold
pH		5-10	
Monohydric Phenols		280	S4UL[3]
Free Cyanide		34	SSV[8]
Asbestos		No detectable fibres[9]	
SOM		>6%	If SOM <6% then lower criteria may apply for some determinands

Notes:

1. These maximum permissible concentrations (MPCs) are import criteria only and may not be appropriate for human health risk assessment.
2. In mg/kg dry soil except pH and asbestos.
3. S4UL for residential with plant uptake land use based on 6% SOM. Copyright Land Quality Management Limited, reproduced with permission. Publication Number S4UL3892. All rights reserved.
4. Nable, Banuelos and Paul. (1997). Boron Toxicity. Plant and Soil. Vol 193, pages 181-198.
5. Published C4SL for lead (DEFRA, 2014).
6. British Standard BS3882:2015 Specification for Topsoil and requirements for use. Table 1 based on pH 6-7.
7. MPC for TPH fraction limited to 1,000mg/kg based on hazardous waste threshold.
8. ATRISKsoil Soil Screening Value (SSV) stated for cyanide based on acute exposure to 0-6 year old child.
9. Laboratory screen by microscopy may be required subject to source material.

Appendix N – Verification Plan

Item	Remedial Requirements	Development Phase	Site Attendance by Qualified Geoenvironmental Engineer	Supporting Documentation
General	With reference to the Civic Earth RMS, the site's remediation requirements are as follows: **Enabling Works** • Watching brief and discovery strategy; • Removal of AST • Decommissioning of existing borehole monitoring wells; • Appropriate material management of arisings associated with enabling works for re-use and/or disposal including off-site disposal to appropriately licenced waste facilities; • Mitigation of risks to controlled waters during enabling works including appropriate management of stockpiles, controlling surface water run-off and appropriate discharge / disposal of perched groundwater; and **Construction Phase** • Provision of growth medium in domestic gardens and areas of soft landscaping; • Appropriate material management of arisings associated with construction works (i.e. foundation works) for re-use and/or disposal including off-site disposal to appropriately licenced waste facilities; • Mitigation of risks to controlled waters during construction works including appropriate management of stockpiles, controlling surface water run-off and appropriate discharge / disposal of perched groundwater; and • Selection and installation of appropriate materials for buried water supply pipes. Amendments will be made as appropriate to account for differing ground conditions encountered during the progress of remedial works.	Enabling Phase & Construction Phase	Watching brief to be carried out by Earthworks Contractor Attendance by Geoenvironmental Engineer should unexpected contamination be encountered	• Civic Earth Remediation Method Statement • Remediation Contractor Remediation Implementation Plan • Information to be provided during / post enabling phase and construction phase: ○ As detailed in sections below
Watching Brief and Discovery Strategy	A watching brief will be in place during earthworks and construction works by the Contractor. Should areas of unexpected contamination, including free product and asbestos, be encountered or suspected, a qualified geoenvironmental engineer will be informed and the risk associated with the contamination assessed in accordance with the discovery strategy outlined in the Civic Earth RMS.	Enabling Phase & Construction Phase	Attendance by Geoenvironmental Engineer should unexpected contamination be encountered to inspect the potential contamination and take samples for chemical laboratory analysis.	• Records of site visit and photographs. • Chemical test results. • Correspondence with and approval of revised remediation strategy with regulator, if applicable. • Duty of care records for disposal of material.
Removal of AST	It is understood that the AST has historically been decommissioned; however, the infrastructure remains on site. The following will be undertaken to remove the AST from site: • Inspection and confirmation of the extent of infrastructure associated with the former AST will be undertaken and removal works will be carried out	Enabling Phase	Attendance by Geoenvironmental Engineer to inspect the potential contamination and take samples for chemical laboratory analysis.	• Records of site visit and photographs. • Chemical test results. • Duty of care records for disposal of waste materials

Item	Remedial Requirements	Development Phase	Site Attendance by Qualified Geoenvironmental Engineer	Supporting Documentation
	under a watching brief. Any residual free product / liquid fuel product will be collected and disposed of from site following appropriate laboratory analysis and waste disposal protocols. • Removal of the AST slab will be carried out under a watching brief and excavation on an initial area of 5m x 5m around the hotspot location followed by visual and laboratory verification testing of the sides and base of the excavation will be carried out to confirm removal of the gross contamination i.e. total TPH concentration of less than 1,000mg/kg (hazardous waste thresholds).			and tank infrastructure.
Borehole Decommissioning	The Civic Earth monitoring wells will be decommissioned in accordance with EA guidance (Good practice for decommissioning redundant boreholes and wells). Decommissioning works will include the removal of headworks and backfill of the monitoring wells from base to top with a low permeability material i.e. bentonite/cement grout. Decommissioning works will be carried out prior to commencement of significant groundworks.	Enabling Phase	Visits may be undertaken if third party supervision is required by the Client.	Records of decommissioning including photographs, specification for backfill material and well records (well condition, depth prior to backfilling, well diameter and volume of backfill used).
Material Management	The Contractor will be responsible for the material management and waste classification. It is considered that the Made Ground material excavated could be re-used on site subject to final finish levels under the CL:AIRE protocol. The CL:AIRE protocol requires a Material Management Plan (MMP) to be produced which details where materials will arise from and how they will be used within the limits of the Code of Practice. The process would require sign off by a Qualified Person in advance of works commencing and a final validation report to be produced. Uncontaminated clean, naturally occurring arisings may be re-used within the site under the CL:AIRE protocol or re-used off-site under direct transfer under the CL:AIRE protocol. Additionally, screening of uncontaminated granular soils may permit the re-use of this material on site or off-site under the WRAP protocol. All material bound for disposal to landfill will require characterisation in accordance with the Hazardous Waste Regulations 2005 and disposal in accordance with the requirements of the Landfill Regulations (2002, as amended) and the Environmental Protection (Duty of Care) Regulations, 1991.	Enabling Phase & Construction Phase	Visits may be required should additional classification of arisings be required prior to disposal. If material imported for use in bulk earthworks that is not Primary Aggregate, sampling and verification testing at a frequency of 1 per 500m^3 will be carried out.	• Duty of care records for disposal of waste, pumped perched water / groundwater and laboratory test results. • Evidence of material management procedures in place including permits, exemptions, MMP, waste haulier permits, waste facility permits. • Imported material for bulk earthworks import specification and site records and laboratory test results for compliance testing.
Mitigation of Risks to Controlled Waters	Appropriate management of stockpiles including stockpiling in designated areas away from drainage channels, segregation of different types of material (e.g. Made Ground and natural soils), and controlling surface water run-off with bunds, liners and coverings. Excavated soils will also be appropriately stored	Enabling Phase & Construction Phase	Visits may be undertaken if third party supervision is required by the Client.	• Contractor documentation of material and groundwater handling, storage and discharge protocols.

Item	Remedial Requirements	Development Phase	Site Attendance by Qualified Geoenvironmental Engineer	Supporting Documentation
	with preventative measures against nuisance odours to protect human health during temporary storage on site. Appropriate management and discharge/ disposal of perched groundwater encountered in excavations and water used during enabling works (e.g. for dust suppression and wheel washing). Temporary drainage systems to be designed and implemented so that they capture waterborne pollution prior to entering any existing drainage systems. Appropriate storage of all hazardous liquids, chemicals and materials where materials are to be stored in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations.			• Photographs of measures put in place
Growth Medium	Based on the findings of the soil contamination assessment, capping layers to mitigate potential risk to human health are not considered to be required. However, importation of a suitable growth medium may be required. The material imported to form the growth medium will be uncontaminated soil from a known and reputable source. The growth medium soils will meet the chemical criteria for human health with respect to a residential (with home grown produce consumption). The chemical specification is set out in Appendix M of the Civic Earth RS. Pre-import chemical compliance testing will be undertaken with a minimum frequency of 3 samples tested per source (and per material type). Verification testing will be via the formation of hand pits to • Obtain soil samples from each material (i.e. topsoil and subsoil) for chemical analysis at a minimum frequency of 1 sample per 250m^3, with a minimum of 3 samples per source will apply (and per material type).	Construction Phase	• Obtain soil samples from each material (i.e. topsoil and subsoil) for chemical analysis at a minimum frequency of 1 sample per 250m^3 with a minimum of 3 samples per source will apply (and per material type).	• Material source certificates and pre-import chemical test data, to be provided by the Contractor. • Site visit records of verification visits including photographs. • Chemical test results. • As-built landscape layout drawings.
Buried Water Supply Pipes	Completion of a United Utilities Risk Assessment including sampling of soils at depth and location of proposed water supply pipes will be required. Completed risk assessment including location plan, soil chemical analysis results and required pipe type will be required for submission to United Utilities for review.	Construction Phase	Visits may be undertaken if third party supervision is required by the Client.	• United Utilities Risk Assessment. • Confirmation of pipework material choice by United Utilities. • Photographs of pipework installation. • Specification of pipework installed.