Title:	Piccadilly Gardens, Manchester – Summary of Preliminary Site Investigation		
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Introduction

Civic Earth have been appointed by Galliford Try on behalf of Manchester City Council (the Client) to undertake a preliminary ground investigation at Piccadilly Gardens (herein referred to as "the site") to obtain geotechnical and geoenvironmental information on the ground and groundwater conditions to support the proposed development of the site. A Phase 1 Desk Study[1] has previously been carried out by Civic Earth which was used to inform the scope of the investigation in consideration of the redevelopment proposals. In addition, soil sampling of topsoil was carried out on 30 April 2026 to gain an early understanding of the potential risks to human health from the topsoil and preliminary waste characterisation.

This report provides a summary of the site's development history and anticipated ground conditions (full details of which are outlined within the Phase 1 Desk Study Report), and summarises the findings of the preliminary investigation which included trial pits excavated by Galliford Try, window sampling, cable percussive boreholes, geotechnical and geo-environmental laboratory testing, infiltration testing and groundwater and ground gas monitoring.

A second phase of investigation is proposed to be carried out to the north of the investigated area, to include additional trial pits to obtain information on the shallow ground conditions, infiltration potential of the underlying soils and obtain further soil samples for geoenvironmental analysis. Once completed, a geotechnical and geoenvironmental interpretative report and a remediation strategy report will be produced.

Proposed Redevelopment

It is understood that the proposal for the development site includes the redevelopment and reconfiguration of Piccadilly Gardens comprising works to the public realm including public open space and use of space for events, together with decommissioning and removal of the existing fountain; creation of play space, lawn area, hard and soft landscaping; lighting; and drainage and other associated infrastructure; and a severable plot for a future ancillary structure with associated interim landscaping. The proposals make provision for a future pavilion structure within the Gardens, which will complement the ongoing investment in and refurbishment of the Piccadilly Gardens landscape. It is understood that the structure does not form part of the current planning application and will be brought forward under a separate full planning application.

The planning application (reference PLA-2026-001348) was approved on 25 September 2026 and the following contaminated land planning conditions have been outlined:

Condition 10

a) Prior to commencement of the development hereby approved, a report (the Preliminary Risk Assessment) to identify and evaluate all potential sources and impacts of any ground contamination, groundwater contamination and/or ground gas relevant to the site shall be submitted to and approved in writing by the Local Planning Authority. The Preliminary Risk Assessment shall conform to the City Council's current guidance document (Planning Guidance in Relation to Ground Contamination).

In the event of the Preliminary Risk Assessment identifying risks which in the written opinion of the Local Planning Authority require further investigation, the development shall not commence until a scheme for the investigation of the site and the identification of remediation measures (the Site Investigation Proposal) has been submitted to and approved in writing by the Local Planning Authority.

The measures for investigating the site identified in the Site Investigation Proposal shall be carried out before development commences and a report prepared outlining what measures, if any, are required to remediate the land (the Site Investigation Report and/or Remediation Strategy) which shall be submitted to and approved in writing by the Local Planning Authority. The development shall then be carried out in accordance with the approved Site Investigation Report and/or Remediation Strategy.

[1] Civic Earth (2026) Piccadilly Gardens Redevelopment. Phase 1 Desk Study. Reference 51334-CIV-XX-XX-R-G-1001. Revision C05. 6 August 2026.

b) Prior to the first use of the development, a Completion/Verification Report shall be submitted to and approved in writing by the Local Planning Authority, to validate that the development conforms with the approved Site Investigation Report and/or Remediation Strategy.

c) In the event of any non-conformity with the approved Site Investigation Report and/or Remediation Strategy, then any further measures that are required to remediate the land shall be carried out. Any required measures/remediation and validation shall continue until conformity has been achieved and agreed in writing by the Local Planning Authority, prior to first use/occupation of the development.

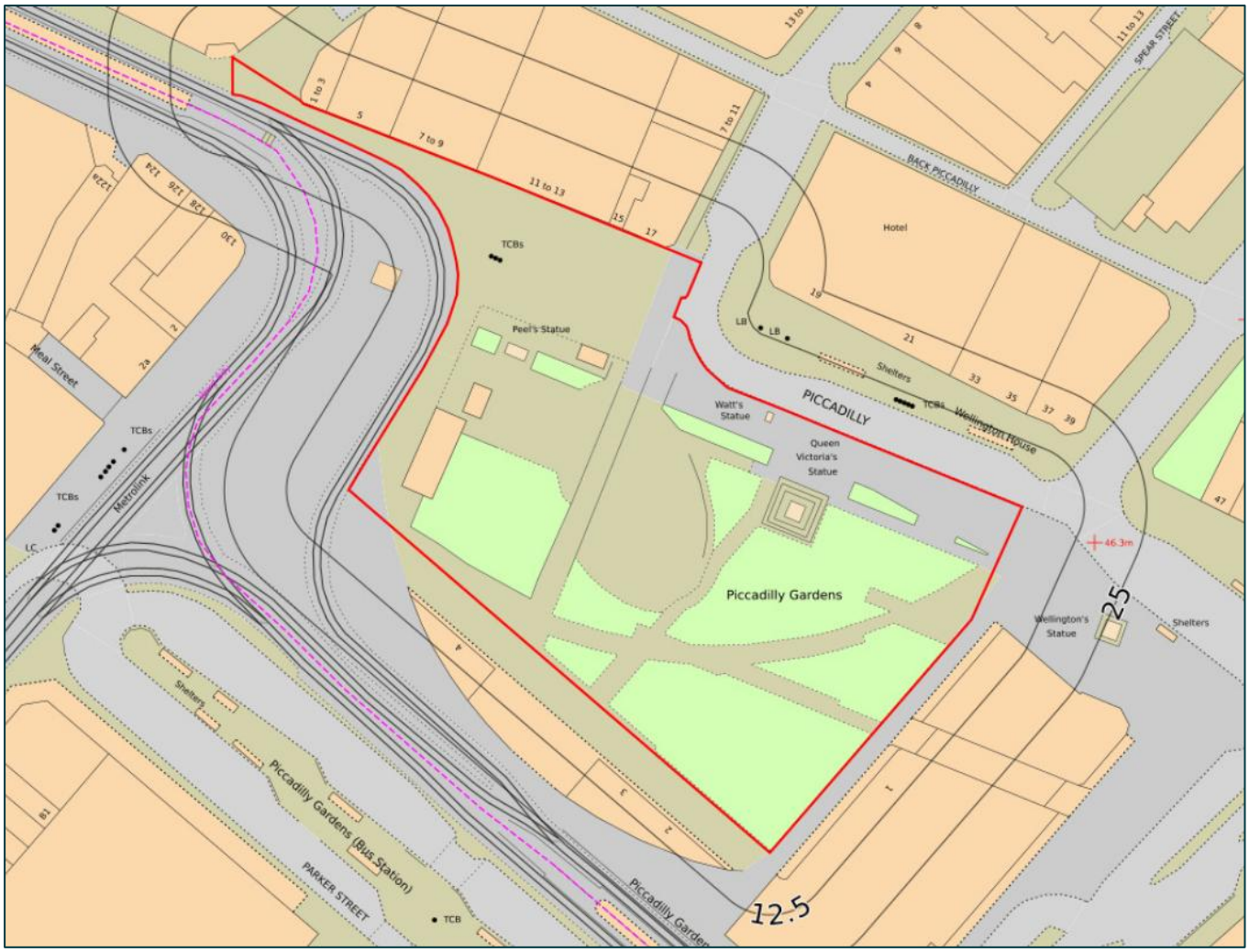
It is recommended that the Phase 1 Desk Study previously produced by Civic Earth is submitted to the Local Authority for review to support the discharge of the first part of Condition 10(a) (the Preliminary Risk Assessment). It is noted that the geotechnical and geoenvironmental interpretative report and a remediation strategy report that will be produced by Civic Earth post-completion of the second phase of investigation will support the discharge of the latter part of Condition 10(a) (the Site Investigation Report and/or Remediation Strategy).

Site Location and Description

The site comprises an area of approximately 0.93ha in size and is located in the City Centre of Manchester. The approximate postcode of the site is M1 1LU and the National Grid Reference for the approximate centre of the site is 384375E, 398275N.

The site forms an irregularly shaped piece of land which currently comprises part of Piccadilly Gardens which includes green space and a fountain. The site is to the south of Piccadilly Street and a permanent food market, to the north of Parker Street and a number of tramlines and to the west of more parkland and a block of commercial units. The site is bounded to the west by more tramlines with commercial units beyond.

Plate 1: OS MasterMap Site Plan (excerpt from Enviro + Geo Insight Report obtained as part of the Civic Earth desk study)



Historical Development

Earliest available mapping from 1794 indicated that the site housed an *Infirmary* and *Asylum*, with *Dilpenfery* [Dispensary], *Baths*, associated gardens and a *Canal* in the north of the site. The northwest of the site included

Levers Row. By 1851, the *Baths* in the west had been extended south beyond the site and Levers Row had been renamed Piccadilly. Subsequent mapping from 1889 to 1893 showed that the *Baths* had been demolished with a *Lodge* indicated, the *Canal* infilled, and the layout of the *Manchester Royal Infirmary* was altered. A *Tramway* was present in the north of the site along Piccadilly. By 1908, a *Fire Engine Station* was present within the northwestern central site area adjacent to the *Lodge*. By 1922, the main *Infirmary* buildings had been demolished, with one structure and the *Lodges* remaining south of the site. A *Library* had been constructed in the east of the site. The *Fire Engine Station* was no longer indicated. Mapping coverage from 1915 to 1916 indicated that the *Infirmary* buildings were demolished between 1908 and 1915.

Piccadilly Gardens, indicated to be at a sunken level, are indicated in the south of the site in mapping from 1931 to 1933. Anecdotal information indicates that this represented a former basement from the demolished *Infirmary*. Mapping from 1938 shows that the *Library* and remaining *Infirmary* structures had been demolished, and the *Tramway* was no longer indicated. No significant changes were noted on the mapping between 1938 and 1954. Mapping from 1954 to 1955 indicated that the *Tramway* was present on this map edition, with a reduced number of tracks. By 1965 mapping no longer indicated the *Tramway.* A *Fountain* had been added to *Piccadilly Gardens* in mapping from 1960 to 1970 and an *Electricity Substation* was indicated in the east of the site in mapping from 1985 to 1990.

By 1992, the *Tramways* had been reinstated along Mosley Street immediately adjacent to the western site boundary. Aerial imagery dated 2000 indicated that no significant changes occurred on site between 1992 and 2000. By 2003, the soft landscaping had undergone redevelopment, with the sunken garden infilled and at the same level as the surrounding areas, the fountain relocated and the extent of the gardens extended north. No significant changes were noted between 2003 and 2025.

Off- site within 250m, there has been a rich history of commercial and industrial land uses, including cotton works, coal wharf, the wider Manchester Royal Infirmary, silk mill and dye house, wire mill, candle wick factory, timber yard, sawmill, iron works, steel works, smithy, fire brick and tile wharf, warehouses and associated chimneys.

Anticipated Geology

With reference to the British Geological Survey (BGS) website[2], BGS Sheet 85[3], BGS Sheet SJ 89 NW[4], and the Groundsure Enviro + Geo Insight report included within the Phase 1 Desk Study, the site is underlain by superficial deposits comprising Glacial Till (diamicton), underlain by the bedrock of the Chester Formation (gravelly sandstone). There are 2 records of bedrock faults which pass within 500m of the site boundary; a northwest to southeast orientated fault c.135m northeast of the site boundary, and a parallel fault orientated northwest to southeast c.360m to the southwest. There is also a record of a buried superficial deposit filled channel or valley c.405m west of the site.

Hydrology and Hydrogeology

The nearest surface water body to the site is the inland Rochdale Canal which is located c.260m southeast of the site. The site is located within the WFD catchment area for the Irwell / Manchester Ship Canal which is located c.595m to the northwest of the site. Groundwater flow is anticipated to flow towards the southwest towards the River Medlock. There are no surface water abstractions recorded within 1km of the site.

The superficial Glacial Till is designated as a Secondary Undifferentiated aquifer. The underlying Chester Formation is designated as a Principal aquifer. The site is not located within a groundwater Source Protection Zone (SPZ). There are 26 records relating to groundwater abstraction records reported within 1km of the site, all of which are historical.

Preliminary Topsoil Sampling

A total of 3 soil samples from the topsoil were obtained during the site walkover survey on 30 April 2026 to gain an early indication of the potential for reuse of the material by assessing the potential risks to human health from the topsoil and preliminary waste characterisation. The soil sampling locations are illustrated in Plate 2 and the chemical laboratory testing results and preliminary waste characterisation HazWasteOnline™ report are included in Appendix A.

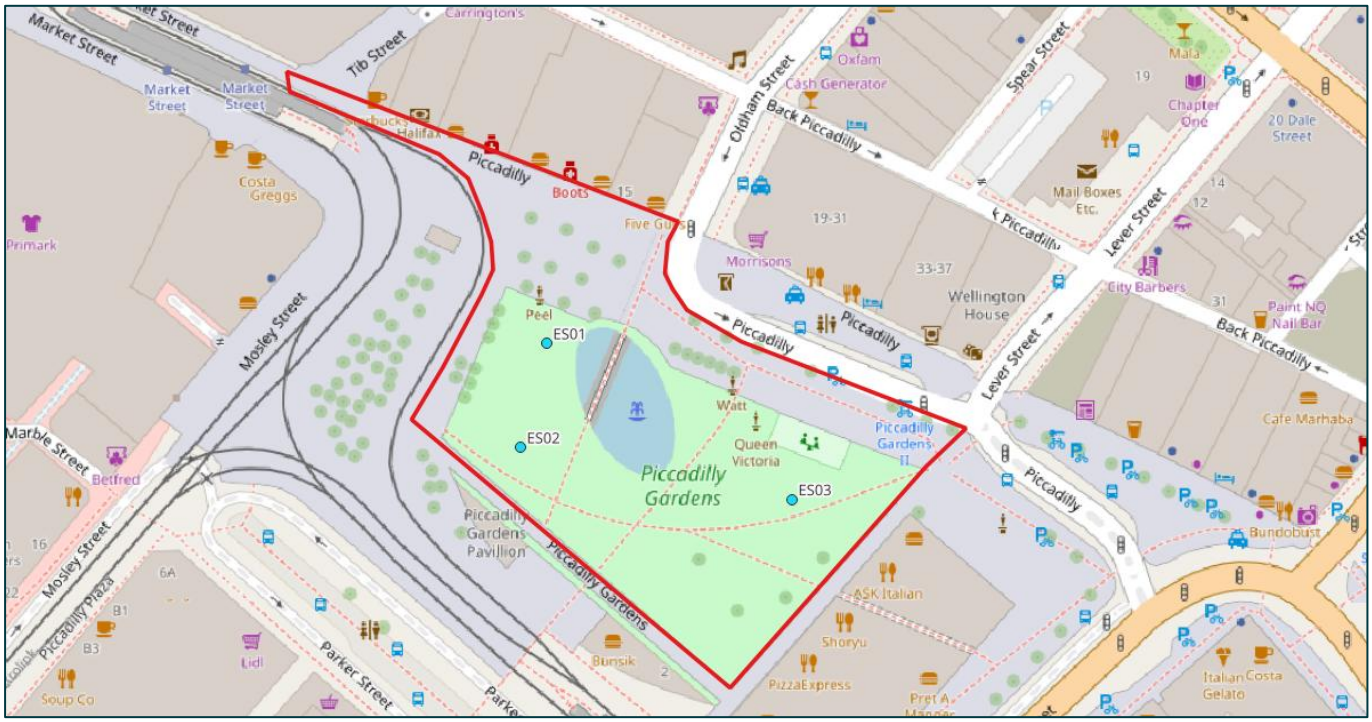
The chemical results of the topsoil analysis have been compared against the generic assessment criteria (GAC) for Public Open Space (park) and did not recorded exceedances against the assessment criteria. The summary assessment table is also in Appendix A. The samples were also characterised as non-hazardous i.e. would likely be suitable for disposal at an inert waste facility subject to WAC testing or to a non-hazardous waste facility, or potentially suitable for re-use.

[2] British Geological Survey (BGS), www.bgs.ac.uk (Accessed April 2026)

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

[4] BGS (2004) Manchester and Salford, Sheet SJ 89 NW. 1:10,000.

Plate 2: Preliminary Topsoil Sampling Locations



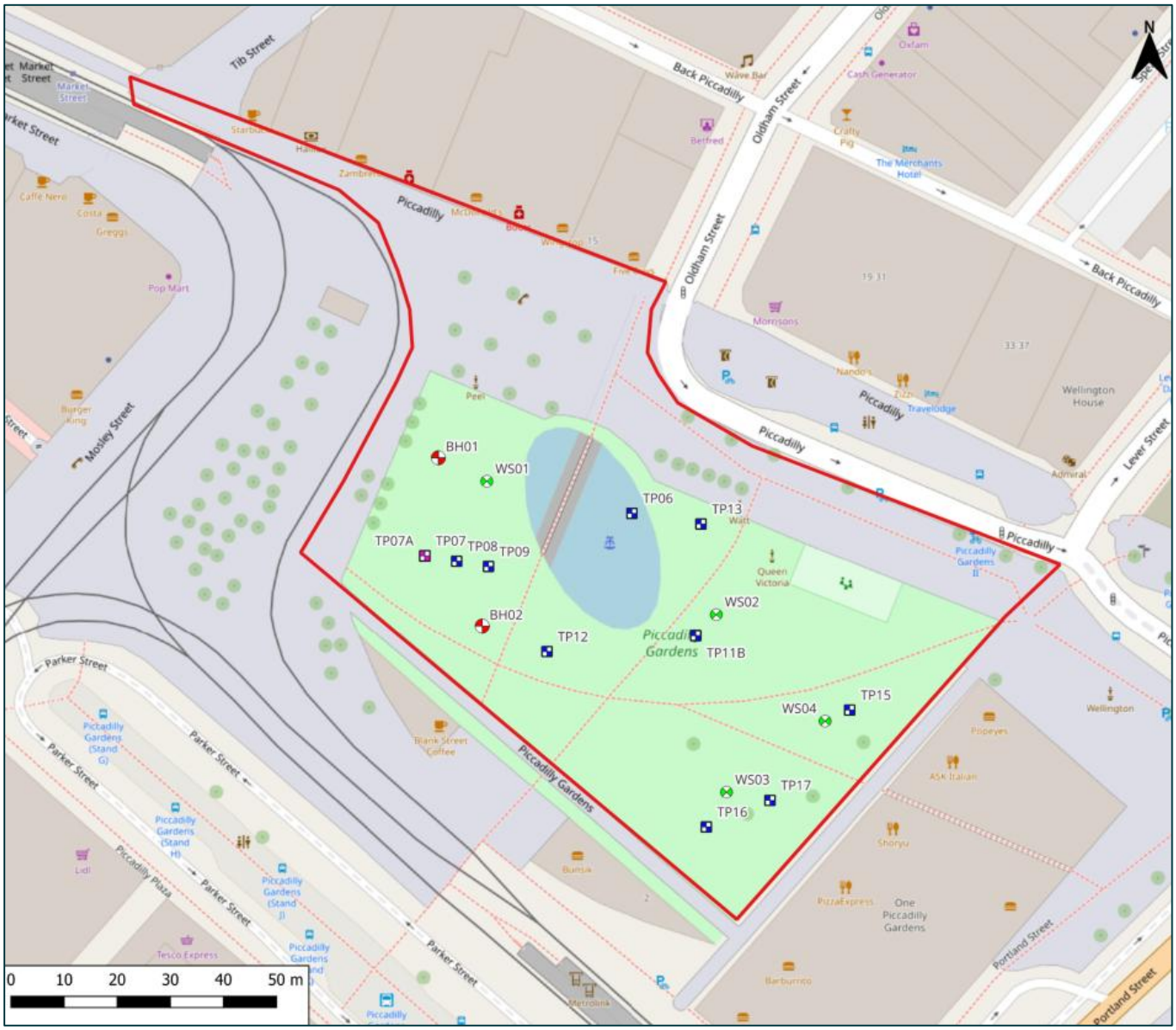
Site Investigation Scope of Works

The site investigation was undertaken between 20 June and 27 July 2026, and the works comprised the following:

- 12 Nr trial pits (TP06, TP07, TP07A, TP08, TP09, TP11A, TP11B, TP12, TP13, TP15, TP16 and TP17) to a maximum depth of 1.40m below ground level (mbgl).
- 4 Nr window sample boreholes (WS01, WS02, WS03 and WS04) to a maximum depth of 0.60mbgl, each refusing on concrete.
- 2 Nr cable percussion boreholes (BH01 and BH02) up to a maximum depth of 15.45mbgl to inform foundation design, including the installation of a dual ground gas and groundwater monitoring well in each borehole, targeting both the Made Ground and the Glacial Till.
- Falling head tests carried out in the deeper wells, installed in the Glacial Till, in order to investigate soil infiltration rates.

The exploratory hole location plan is included in Appendix B, and an extract of the exploratory hole location plan is provided in Plate 3. The exploratory hole records are included in Appendix C.

Plate 3: Exploratory Hole Location Plan



Ground Conditions

A summary of the ground conditions encountered during the site investigation is outlined in Table 1 and a summary of the groundwater conditions recorded during the subsequent 4 monitoring rounds are outlined in Table 5. A summary of the ground gas monitoring results is outlined in Table 6. The monitoring results can be found in Appendix D.

Ground gas monitoring was carried out between 5 August and 23 September 2026 on 4 occasions and are summarised in Table 6. The worst-case ground conditions were recorded in BH01(S) on 19 August during low and falling atmospheric pressures, with steady flow rate of 8.3l/hr, carbon dioxide concentrations up to 17.8% and methane below the limits of detection. The readings taken on 15 September recorded 0.0% carbon dioxide in both boreholes whilst oxygen fell to 13.6%, which is not considered credible; the gas monitor was subsequently found to be faulty, and these readings are not considered representative. Given the variable and elevated results, further monitoring is recommended for any proposed enclosed structure.

Table 1: Ground Model Summary

Stratum	Top of Stratum (mbgl) [mOD]	Thickness (m)
Dark brown to black silty or clayey sand locally clay, with frequent rootlets becoming greyish brown sand and gravel of mixed lithology. Frequent plastic fragments associated with turf and plastic grass. *Encountered at ground level in each of the exploratory holes, BH01, BH02, TP06, TP07, TP08, TP09, TP11A, TP11B, TP12, TP13, TP15, TP16, TP17, WS01, WS02, WS03 and WS04.* **[TOPSOIL/MADE GROUND]**	0.00 [+46.35 to +45.40]	0.3 to 1.0
Granular Made Ground typically comprises cream to greyish brown to orangish brown slightly clayey sandy gravel / slightly gravelly silty clayey sand with high cobble content. Sand is fine to coarse. Gravel is subangular to rounded fine to coarse of dolomite, dolerite, chalk, flint, chert and sandstone. Frequent plastic fibres, rootlets and wood fragments were noted. Cobbles are angular to subangular of concrete, brick and paving slab. *Encountered in each of the exploratory holes, BH01, BH02, TP06, TP07, TP07A, TP08, TP09, TP11A, TP11B, TP12, TP13, TP15, TP16, TP17, WS01, WS02, WS03 and WS04.* Cohesive Made Ground typically comprises soft greyish to dark brown to brown mottled black slightly silty ashy sandy slightly gravelly to very gravelly clay / sandy silt. Gravel is angular to rounded fine to coarse of brick and coal. Sand is fine to coarse. Ash is fine to coarse. Gravel is angular to subrounded fine to coarse of brick, concrete, sandstone, coal, chert and mudstone. Rare angular cobbles of concrete and anthropogenic wood noted. *Encountered in exploratory holes BH01, BH02 and WS04.* Concrete. *Encountered in exploratory holes BH01 and BH02, WS01 to WS04 and TP11B, TP12, and TP15.* **[MADE GROUND]**	0.3 to 1.0 [+45.33 to +44.56]	>0.40 to 5.00
Stiff to very stiff with depth, greyish to dark brown gravelly CLAY. Gravel is fine to medium subrounded to rounded coal, mudstone and chert. *Encountered in exploratory hole BH01 and BH02. Deepest in BH01, towards the historical Canal.* **[GLACIAL TILL]**	3.00 to 5.00 [+42.64 to +40.68]	9.90 to 12.00
Extremely weak red SANDSTONE. *Encountered in exploratory hole BH01 and BH02.* **[CHESTER FORMATION]**	14.90 to 15.00 [+30.78 to +30.64]	>0.45 to >0.55

Geotechnical In-situ and Laboratory Results

Selected soil samples were submitted to Geolabs Limited (a UKAS accredited laboratory) for geotechnical testing in general accordance with BS 1377[5] as part of the preliminary site investigation, and the results are included in Appendix E. A summary of the laboratory testing undertaken on selected samples from the Made Ground is provided in Table 2, with the results from the Glacial Till provided in Table 3 and Table 4.

Made Ground

SPT N_{60} values were recorded in the Made Ground between 5 and 17, with no pattern with depth. Given the nature of the Made Ground being highly variable, no reliance should be given to the test results, and all Made Ground should be assumed to be very soft/loose.

Table 2. Summary of Atterberg Testing - Made Ground

Number of Tests	Moisture Content (%)	Liquid Limit (%)*	Plastic Limit (%)**	% Passing (>450µm)	Modified Plasticity Index (%)***
2	10.6 to 27.8	48.0	NP to 21.0	34.0 to 100.0	27.0

*Samples considered non-plastic (NP) attributed 0% liquid limit. **NP = Non-plastic. ***Modified Plasticity Index excludes non-plastic results.

Glacial Till

SPT N_{60} values were recorded in the Glacial Till between 18 and 38, typically increasing with depth, reducing at 13.50mbgl in BH01. The equivalent undrained shear strength is approximately 80kPa to 170kPa (adopting an f_1 of 4.5, based on a plasticity index of 30), which is consistent with the range of the triaxial results.

The results of the triaxial testing undertaken on 6 samples of the Glacial Till returned undrained shear strengths of between 86kPa and 176kPa, correlating to clay of high to very high strength. The triaxial strengths and moisture contents reduce with depth in both boreholes, contrary to the SPT results, which typically increase with depth. This is considered likely to reflect sample disturbance in the more gravelly clay at depth.

Table 3. Summary of Triaxial Testing - Glacial Till

Number of Tests	Moisture Content (%)	Bulk Density (Mg/m^3)	Shear Strength (kPa)
6	14.3 to 19.9	2.10 to 2.20	86 to 176

Table 4. Summary of Atterberg Testing - Glacial Till

Number of Tests	Moisture Content (%)	Liquid Limit (%)*	Plastic Limit (%)**	% Passing (>450µm)	Modified Plasticity Index (%)***
4	12.9 to 19.5	28.0 to 46.0	12.0 to 16.0	98.0 to 100.0	16.0 to 29.4

*Samples considered non-plastic (NP) attributed 0% liquid limit. **NP = Non-plastic. ***Modified Plasticity Index excludes non-plastic results.

Visual and Olfactory Contamination

Evidence of potential hydrocarbon contamination comprising a faint hydrocarbon sheen and odour, was encountered during the exploratory works at trial pit TP13 at a depth of 0.70mbgl to 0.75mbgl. Made Ground deposits were observed to contain anthropogenic materials, including brick, concrete, metal, paving slab, plastic, slag and wood fragments.

Groundwater

Groundwater strikes were not encountered during the site investigation. Groundwater was recorded within one of the boreholes (BH02) installed within the Glacial Till in the subsequent monitoring rounds between 5 August and 23 September 2026, with a recorded water level of between 12.68mbgl and 12.90mbgl (+32.96mOD and +32.74mOD). The groundwater monitoring did not identify a laterally continuous groundwater body within the Glacial Till and it is considered likely that the groundwater recorded within the Glacial Till is discontinuous and perched in the slightly more granular horizons within the stratum. The results are provided in Appendix D.

Table 5. Summary of Groundwater Monitoring

Location	Stratum	Screened Depth (mbgl)	Groundwater Records							
			05/08/26		19/08/26		15/09/26		23/09/26	
			mbgl	mOD	mbgl	mOD	mbgl	mOD	mbgl	mOD
BH01 (S)	Made Ground	1.0 to 4.0	Dry	Dry	Dry	Dry	Damp	Damp	Dry	Dry
BH01 (D)	Glacial Till	6.0 to 14.5	Dry	Dry	Damp	Damp	Dry	Dry	Damp	Damp
BH02 (S)	Made Ground	1.0 to 3.0	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
BH02 (D)	Glacial Till	5.0 to 14.5	12.90	+32.74	12.84	+32.80	12.84	+32.80	12.68	+32.96

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

Ground Gas

Ground gas monitoring was carried out between 5 August and 23 September 2026 on 4 occasions and are summarised in Table 6. The worst-case ground conditions were recorded in BH01(S) on 19 August during low and falling atmospheric pressures, with steady flow rate of 8.3l/hr, carbon dioxide concentrations up to 17.8% and methane below the limits of detection. The readings taken on 15 September recorded 0.0% carbon dioxide in both boreholes whilst oxygen fell to 13.6%, which is not considered credible; the gas monitor was subsequently found to be faulty, and these readings are not considered representative. Given the variable and elevated results, further monitoring is recommended for any proposed enclosed structure.

Table 6. Ground Gas Conditions

Location	Stratum	Date	Atmospheric Conditions	Steady Flow Rate (l/hr)	Maximum Steady CO_2 (% vol. in air)	Maximum CH_4 (% vol. in air)	Comments
BH01 (S)	Made Ground	5 August	High and rising atmospheric pressure	-3.7	2.5	0.0	Negative flow – air drawn into well
BH02 (S)	Made Ground	5 August	High and rising atmospheric pressure	0.0	0.7	0.0	
BH01 (S)	Made Ground	19 August	Low and falling atmospheric pressure	8.3	17.8	0.0	Worst-case conditions and results
BH02 (S)	Made Ground	19 August	Low and falling atmospheric pressure	0.0	1.2	0.0	Worst-case conditions and results
BH01 (S)	Made Ground	15 September	High and falling atmospheric pressure	0.7	0.0	0.0	Suspected equipment error
BH02 (S)	Made Ground	15 September	High and falling atmospheric pressure	0.0	0.0	0.0	Suspected equipment error
BH01 (S)	Made Ground	23 September	High and rising atmospheric pressure	2.4	4.9	0.0	
BH02 (S)	Made Ground	23 September	High and rising atmospheric pressure	0.0	0.4	0.0	

Infiltration Testing

Falling head tests were undertaken on 2, 15 and 16 September 2026 in boreholes BH01 and BH02 with response zones within the Glacial Till. Infiltration testing was undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012). A summary of each test and derived permeability values is provided in Table 7 below, and the infiltration testing results are included in Appendix F.

Table 7: Summary of Infiltration Testing Results

Borehole	Stratum	Response Zone (mbgl) [mOD]	Test Nr	Water Level at Start of Test (mbgl) [mOD]	Water Level at End of Test (mbgl) [mOD]	Permeability, k (m/s) [m/d]
BH01 (D)	Glacial Till	6.00 to 14.50 [+39.68 to +31.18]	1	12.29 [+33.39]	14.26 [+31.42]	$5.09x10^{-8}$ [$4.40x10^{-3}$]
			2	11.78 [+33.90]	14.00 [+31.68]	$4.13x10^{-8}$ [$3.57x10^{-3}$]
BH02 (D)	Glacial Till	5.00 to 14.50 [+40.64 to +31.14]	1	8.20 [+37.44]	12.57 [+33.07]	$5.77x10^{-8}$ [$4.99x10^{-3}$]
			2	4.88 [+40.76]	10.85 [+34.79]	$1.24x10^{-8}$ [$1.07x10^{-3}$]
			3	4.85 [+40.79]	10.89 [+34.75]	$1.01x10^{-8}$ [$8.74 x10^{-4}$]

The derived permeability values ranged from $1.01x10^{-8}$ m/s to $5.77x10^{-8}$ m/s, indicating the Glacial Till is of very low permeability[6]. It is noted that during the infiltration testing, when adding water to the boreholes it was not possible to raise the water level within borehole BH01 above 11.78mbgl as the water was draining faster than the rate at which water was added into the borehole. As such, the tests were started at the point of which this began to occur and therefore the derived permeability values are not considered representative of the entire slotted section and should therefore be interpreted with caution.

Preliminary Contamination Assessments

Risks to Human Health from Soil Contaminants

The preliminary contamination assessment comprises a generic quantitative risk assessment (in accordance with the Environment Agency's Land Contamination Risk Management (LCRM) guidance (see Appendix J). A total of 10 Made Ground soil samples were submitted for chemical analysis as part of the preliminary site investigation undertaken in June and July 2026. The analytical results are included in Appendix G and the results compared against human health GAC for a Public Open Space (parks) end use, given the proposed end use and in line with the current site use. A soil organic matter (SOM) content of 2.5% has been adopted, based on laboratory SOM results of between 0.9% and 4.4% (mean of 2.6%). It is noted that the Solubility Saturation Limit (SSL) and Vapour Saturation Limit (VSL) criteria indicate the theoretical value at which the free phase product is expected to be present. As no free product was observed during the site investigation (only faint hydrocarbon sheen was noted in TP13), the SSL and VSL values have not been considered within the assessment. The results of the assessment are summarised in Table 1 in Appendix H.

Assessment of the results indicate that the contaminant concentrations are generally below their respective assessment thresholds with the exception of the following contaminants:

- Elevated lead concentration of 1,600mg/kg against a GAC of 1,300mg/kg – TP13 at 0.75mbgl;
- Elevated benzo(a)pyrene concentration of 15mg/kg against a GAC of 12 mg/kg – TP11B at 0.80mbgl;
- Elevated benzo(b)fluoranthene concentration of 17mg/kg against a GAC of 15mg/kg – TP11B at 0.80mbgl; and
- Elevated dibenzo(a,h)anthracene concentration of 1.8mg/kg against a GAC of 1.3mg/kg – TP11B at 0.80mbgl.

The statistical assessment indicates that the US_{95} values of these contaminants are below the GAC, with the elevated concentrations identified as outliers, which are therefore considered to represent hotspots.

In addition to the total soils analysis, each of the 10 Made Ground samples were screened for the presence of asbestos. Asbestos containing material (ACM) was detected in 1 of the soil samples:

[6] CIRIA (2016) Groundwater Control: Design and Practice. CIRIA C750.

- BH01 at 0.80mbgl - loose fibres of chrysotile, quantified at <0.001%.

Analysis for PCBs was carried out on 1 sample of Made Ground, which indicated contaminant concentrations below the laboratory limit of detection (LOD).

Based on the exploratory hole records, the upper soils of the site comprise a relatively recent sequence of imported Topsoil/Made Ground, overlying concrete and a lower layer of Made Ground containing slag, coal and ash. The exceedances of lead, PAH and asbestos were recorded between 0.75mbgl to 0.80mbgl, in the lower layer, with no exceedances recorded in the upper Topsoil/Made Ground soils. The 3 topsoil samples obtained in April 2026 also recorded no exceedances of the GAC. However, it is noted that the thickness and continuity of the Topsoil/Made Ground has not been verified, so it cannot currently be relied upon as a clean cover system. Therefore, the risk to future site users and construction workers from the Made Ground is currently considered to be low to moderate, with the identified hotspots at TP13 (lead) and TP11B (PAHs) considered to present a moderate risk.

Where hardstanding and buildings are proposed, the risk via dermal contact and ingestion pathways from the underlying soils will be mitigated as the pathway between source and receptor will be broken. Subject to the findings of the additional investigation, hotspot removal and/or clean cover system will be required in areas of proposed soft landscaping to mitigate the risks to future site users.

It is assumed that the risks to construction workers will be mitigated through the use of appropriate site practices, i.e. appropriate personal protective equipment (PPE), dust suppression during earthworks (which would also mitigate the risks to off-site human health receptors), good handwashing practices before eating, etc. Given the presence of asbestos fibres, works disturbing the Made Groun should be undertaken with accordance with the Control of Asbtestos Regulations 2012 and the CL:AIRE CAR-SOIL guidance.

Risks to Human Health from Dissolved Contaminants

One groundwater sample from BH02, from the Secondary (Undifferentiated) aquifer within the Glacial Till, was scheduled for analysis. The groundwater chemical analysis results have been compared to assessment criteria for a commercial end use, and the results are summarised in Table 2 in Appendix H. The results of the assessment indicate that the contaminants are below their respective thresholds and therefore the risk posed to human health from the dissolved phase contaminants within the groundwater of the Glacial Till is considered to be low.

Risks to Human Health from Ground Gas

Based on the limited test results, the Characteristic Situation (CS) for the site is CS3 where ground gas protection measures would be required for any enclosed spaces. Given that there are no proposed enclosed spaces, the risk to end users of the site is low. There is a risk to construction workers if work within confined spaces is proposed. The risk should be identified and mitigated in the Construction Phase Plan.

The ground gas results are highly variable and therefore further ground gas monitoring is recommended should enclosed spaced be included within the proposed designs.

Risks to Controlled Waters

One groundwater sample from the Secondary (Undifferentiated) aquifer within the Glacial Till was scheduled for groundwater analysis and the results compared against the Environmental Quality Standards for freshwater (to assess potential risk to surface waters). The results of the EQS groundwater assessment are summarised in Table 3 in Appendix H. The following exceedances against the EQS thresholds are noted:

- Elevated total TPH concentration of 39µg/l against an EQS maximum allowable threshold of 10µg/l;
- Elevated benzo(a)pyrene concentration of 0.1µg/l against an EQS annual average threshold of 0.00017µg/l;
- Elevated benzo(b)fluoranthene concentration of 0.11µg/l against an EQS maximum allowable threshold of 0.017 µg/l;
- Elevated benzo(k)fluoranthene concentration of 0.05µg/l against an EQS maximum allowable threshold of 0.017µg/l;
- Elevated benzo(ghi)perylene concentration of 0.07µg/l against an EQS maximum allowable threshold of 0.0082 µg/l; and
- Elevated fluoranthene concentration of 0.2µg/l against an EQS annual average threshold of 0.0063µg/l and maximum allowable threshold of 0.12µg/l.

Review of the Secondary (Undifferentiated) aquifer contaminant concentrations against the UK Drinking Water Values (DWVs) have recorded the following exceedances; however, it is noted that the DWVs are considered to be a conservative assessment criterion, as it is unlikely that the Secondary (Undifferentiated) aquifer will be used as a

future drinking water resource. The results of the DWV groundwater assessments are summarised in Table 4 in Appendix H.

- Elevated total phenols concentration of 2.2µg/l against a DWV of 0.5µg/l;
- Elevated total TPH concentration of 39µg/l against a DWV of 10µg/l;
- Elevated total PAH concentration of 0.28µg/l against a DWV of 0.1µg/l; and
- Elevated benzo(a)pyrene of 0.1µg/l against a DWV of 0.01µg/l.

The results of the Secondary (Undifferentiated) aquifer groundwater analysis indicate elevated concentrations of total TPH, total phenols and PAH (benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene and fluoranthene). Notwithstanding, the risk to controlled waters from the site is currently considered to be low to moderate on the basis that:

- a continuous water body within the Made Ground has not been recorded and as such, mobilisation and migration of contaminants from the on-site Made Ground soils is unlikely;
- the nearest surface water body is a canal located approximately 260m southeast of the site;
- the cohesive Glacial Till, proven to be 9.90m to 12.00m thick will limit downward migration of contaminants to the underlying Principal aquifer; and
- the Secondary (undifferentiated) aquifer is unlikely to be used as a drinking water resource.

It is noted that elevated concentration of lead and PAHs were recorded in the Made Ground at TP13 at 0.75mbgl and TP11B at 0.8mbgl. Given the conceptual model of the site, the potential risk from these identified hotspots to the underlying Principal aquifer is anticipated to be low. However, it is recommended that further delineation and testing of these materials is undertaken to confirm the potential risks to controlled waters. Furthermore, it is recommended that a further round of groundwater sampling is undertaken to investigate whether the elevated TPH, phenol and PAH concentrations recorded in borehole BH02 are persistent at this location.

Risks to Plants and Vegetation

The risk to vegetation and plants from phytotoxic contaminants is summarised in Table 5 in Appendix H. The results indicate that the concentrations of phytotoxic contaminants within the Made Ground do not pose a risk to proposed plants and vegetation.

Risks to Buried Water Supply Pipes

New water supply pipes are not anticipated. An assessment of the risks to buried water supply pipes is summarised in Table 6 in Appendix H 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 6, the initial total soils analysis results indicate 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 any new buried water supply pipes. A United Utilities Risk Assessment will be required once the requirement for water supply pipes is confirmed and the route and depth of the water supply pipes are finalised.

Summary of Preliminary Waste Characterisation

The preliminary waste assessment has been carried out using the HazWasteOnline™ Toolkit and the waste classification reports are included in Appendix I. The results of the assessment indicate that the material tested would be characterised as non-hazardous material and therefore considered to be acceptable to an inert waste facility (subject to WAC testing unless material is uncontaminated natural soils) or a non-hazardous waste facility. It is noted that the elevated lead at TP13 at 0.75mbgl has been assessed as lead compounds as there is no history of lead smelting and insufficient chromium (VI) to form lead chromate, and the sample is classified as non-hazardous.

In addition, asbestos was detected at non-hazardous levels (<0.001% by weight, below the 0.1% hazardous waste threshold) in the Made Ground sampled from borehole BH01 at 0.80mbgl, and this material would not be acceptable for disposal at an inert waste facility; disposal to a non-hazardous waste facility that is permitted to accept ACM would be required.

Preliminary Geoenvironmental Recommendations

Preliminary geoenvironmental recommendations for the proposed redevelopment of the site are outlined in the following sections based on the information obtained during the preliminary site investigation. Further site investigation will be required to be undertaken to provide further information to inform the assessment of risks to human health, controlled waters and ground gas regime. It is noted that the below recommendations should be reviewed following completion for the additional site investigations, and updated where necessary.

- Further delineation and testing of the elevated lead and PAH concentrations recorded in the Made Ground at TP13 and TP11B is recommended to confirm the potential risks to human health and controlled waters.
- It is recommended that a further round of groundwater sampling is undertaken to investigate whether the elevated TPH, phenol and PAH concentrations recorded in borehole BH02 are persistent at this location.
- A remediation strategy should be prepared and agreed with the Local Planning Authority to support the discharge of Condition 10(a). On completion a verification report will be required to demonstrate that the remedial measures have been implemented (Condition 10(b)).
- It is recommended that a watching brief is carried out by the Contractor during the enabling works, earthworks and construction works.
- Hot spot removal and/or a clean cover system will be required in areas of soft landscaping. The thickness should be agreed with Manchester City Council; 600mm is commonly adopted. Targeted sampling of the upper Made Ground could be undertaken to establish whether it can form part of the cover and reduce the imported thickness.
- Construction workers should be protected through appropriate PPE, dust suppression and welfare facilities and works disturbing the Made Ground should be undertaken in accordance with the Control of Asbestos Regulations 2012.
- Barrier pipe is anticipated for any new water supply pipes. If new water supply pipes are proposed, a United Utilities Risk Assessment will be required once their route and depth if confirmed.
- No enclosed spaces are proposed, however, preliminary results suggest ground gas protection measures may be required. Ground gas conditions are Characteristic Situation 3, where any enclosed structure will require gas protection measures in accordance with BS 8485, and confined spaces such as service chambers or basements should be ventilated. Further monitoring is recommended if a pavilion is proposed.
- The risk to controlled water from the site is currently considered low to moderate and therefore further testing and assessment is considered to be required. If piled foundations are adopted, a piling risk assessment will be required, given the Principal aquifer beneath the site.
- Surplus soils should be reused on site where suitable, under the CL:AIRE Definition of Waste: Code of Practice. Material sent for disposal is likely to be classified as non-hazardous waste. Further WAC testing will be required for material to be disposed to an inert facility.

Preliminary Geotechnical Recommendations

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

- The Made Ground is variable, was proven to depths of 3.0m and 5.0m thick (deepest in borehole BH01 towards the former canal), and includes soft compressible cohesive material with low SPT values. The Made Ground is not considered a suitable founding stratum for settlement sensitive structures such as a pavilion.
- Buried concrete was encountered at depths of between 0.40m and 1.00mbgl across much of the site. Allowance should be made for breaking out of obstructions and for further buried foundations or basement walls.
- Light structures such as play equipment may be founded in the soft/loose Made Ground subject to design by specialists. Ground improvement may be required.
- If a pavilion were to be constructed, piled foundations within the stiff Glacial Till are likely to be required or ground improvement and raft could be considered. Undrained shear strengths of between 80kPa and 175kPa were derived for the Glacial Till for preliminary pile design purposes.
- Due to the presence of Made Ground across the site, a design CBR of <2.5% should be assumed where ground improvement is recommended.
- Excavations within the Made Ground have the potential to be unstable (noting that trial pit TP07A collapsed during excavation). Support or battering will be required for excavations, and excavations should not be entered without support. Groundwater is not anticipated in shallow excavations, although perched water may be encountered. The design of temporary works and any groundwater control should be carried out by a competent contractor.
- Shallow soakaways are not considered appropriate given the depth of Made Ground and underlying cohesive Glacial Till to depths of approximately 15mbgl. Deep soakaways are also not considered viable, given the ver low permeability of the Glacial Till and the depth to the sandstone.
- Sulphate tests suggest a concrete design class DS-1 AC-1, where no special precautions are considered necessary, based on the BRE testing included in Appendix G.

Appendices

Appendix A: Preliminary Topsoil Sampling Chemical Laboratory Results and HazWasteOnline Classification Report
Appendix B: Exploratory Hole Location Plan
Appendix C: Exploratory Hole Records
Appendix D: Ground Gas and Groundwater Monitoring Records
Appendix E: Geotechnical Laboratory Analysis Results
Appendix F: Infiltration Testing Records
Appendix G: Chemical Laboratory Analysis Results
Appendix H: Contamination Assessment
Appendix I: HazWaste Online Classification Report
Appendix J: Risk Assessment Methodology

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Appendix A – Preliminary Topsoil Sampling Chemical Laboratory Results and HazWasteOnline Classification

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Analytical Report Number : 26-023247

Project / Site name:	Piccadilly Gardens, Manchester	**Samples received on:**	01/05/2026
Your job number:	51334	**Samples instructed on/ Analysis started on:**	01/05/2026
Your order number:	PO-0604	**Analysis completed by:**	13/05/2026
Report Issue Number:	1	**Report issued on:**	13/05/2026
Samples Analysed:	3 soil samples		

Signed:

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

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
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: 26-023247
Project / Site name: Piccadilly Gardens, Manchester
Your Order No: PO-0604

Lab Sample Number				907442	907443	907444
Sample Reference				ES01	ES02	ES03
Sample Number				1	2	3
Water Matrix				N/A	N/A	N/A
Depth (m)				0.07	0.09	0.13
Date Sampled				30/04/2026	30/04/2026	30/04/2026
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			
Mass of stone >10mm	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	15	15	17
Total mass of sample received	kg	0.1	NONE	1.1	1.6	1.4
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	DSA	DSA	DSA
Analysis completed	N/A	N/A	N/A	13/05/2026	13/05/2026	13/05/2026
General Inorganics						
pH (L099)	pH Units	N/A	MCERTS	7.3	6.8	6.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	560	260	430
Organic Matter (automated)	%	0.1	MCERTS	5.6	3.6	3.5
Total Phenols						
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Speciated PAHs						
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.06	0.09	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.15	0.16	0.08
Pyrene	mg/kg	0.05	MCERTS	0.12	0.16	0.06
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.09	0.09	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.1	0.11	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.1	0.1	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.09	0.09	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.06	< 0.05	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05
Total PAH						
Total WAC-17 PAHs	mg/kg	0.85	NONE	0.87	0.85	< 0.85

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Analytical Report Number: 26-023247
Project / Site name: Piccadilly Gardens, Manchester
Your Order No: PO-0604

Lab Sample Number				907442	907443	907444
Sample Reference				ES01	ES02	ES03
Sample Number				1	2	3
Water Matrix				N/A	N/A	N/A
Depth (m)				0.07	0.09	0.13
Date Sampled				30/04/2026	30/04/2026	30/04/2026
Time Taken				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	1.1	< 1.0	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4.5	2.8	4.2
Barium (aqua regia extractable)	mg/kg	1	MCERTS	26	23	48
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.26	0.23	0.26
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.4	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S *U/S g	U/S *U/S g	U/S *U/S g
Chromium (III)	mg/kg	1	NONE	U/S *U/S g	U/S *U/S g	U/S *U/S g
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	< 1.80
Chromium (III) by IC	mg/kg	1	NONE	7	5.6	8.6
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	7	5.6	8.6
Copper (aqua regia extractable)	mg/kg	1	MCERTS	25	18	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	26	17	20
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.6	5.4	7.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	12	7.9	14
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	51	34	46
Petroleum Hydrocarbons						
TPHCWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	< 10	< 10	< 10
VOCs						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
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

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

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Analytical Report Number : 26-023247
Project / Site name: Piccadilly Gardens, Manchester

* 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 *
907442	ES01	1	0.07	Brown loam and sand with vegetation
907443	ES02	2	0.09	Brown loam and sand with vegetation
907444	ES03	3	0.13	Brown loam and sand with vegetation

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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
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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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
Hexavalent chromium in soil 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
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

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Project / Site name: Piccadilly Gardens, Manchester

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total petroleum hydrocarbons with carbon banding 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

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.

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

Land Use Category:		Public Open Space (Park)						SOM:	1.0%
Stratum:		Made Ground						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	170	-	2.80	4.50	0	-	-	-	-
Beryllium	63	-	0.23	0.26	0	-	-	-	-
Boron	46,000	-	0.40	0.60	0	-	-	-	-
Cadmium	532	-	<0.20	<0.20	0	-	-	-	-
Chromium (III)	33,000	-	5.60	8.60	0	-	-	-	-
Chromium (VI)	220	-	<1.80	<1.80	0	-	-	-	-
Copper	44,000	-	14.00	25.00	0	-	-	-	-
Lead	1,300	-	17.00	26.00	0	-	-	-	-
Mercury	240	-	<0.30	<0.30	0	-	-	-	-
Nickel	3,400	-	5.40	7.80	0	-	-	-	-
Selenium	1,800	-	<1.00	<1.00	0	-	-	-	-
Vanadium	5,000	-	7.90	14.00	0	-	-	-	-
Zinc	170,000	-	34.00	51.00	0	-	-	-	-
Benzene	90	-	<0.01	<0.01	0	-	-	-	-
Toluene	87,000	[869]	<0.01	<0.01	0	0	-	-	-
Ethyl benzene	17,000	518	<0.01	<0.01	0	0	-	-	-
o-Xylene	17,000	478	<0.01	<0.01	0	0	-	-	-
m- & p-Xylene	17,000	576	<0.01	<0.01	0	0	-	-	-
Total Phenols	760	-	<1.00	<1.00	0	-	-	-	-
Total Cyanide	34	-	<1.00	<1.00	0	-	-	-	-
Aliphatic EC5-6	95,000	304	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >6-8	150,000	144	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >8-10	14,000	78	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >10-12	21,000	48	<1.00	<1.00	0	0	-	-	-
Aliphatic EC >12-16	25,000	24	<2.00	<2.00	0	0	-	-	-
Aliphatic EC >16-35	450,000	-	<16.00	<16.00	0	-	-	-	-
Aromatic EC5-7	76,000	1,220	<0.01	<0.01	0	0	-	-	-
Aromatic EC >7-8	87,000	[869]	<0.01	<0.01	0	0	-	-	-
Aromatic EC >8-10	7,200	[613]	-0.02	-0.02	0	0	-	-	-
Aromatic EC >10-12	9,200	364	<1.00	<1.00	0	0	-	-	-
Aromatic EC >12-16	10,000	-	<2.00	<2.00	0	-	-	-	-
Aromatic EC >16-21	7,600	-	<10.00	<10.00	0	-	-	-	-
Aromatic EC >21-35	7,800	-	<10.00	<10.00	0	-	-	-	-
Acenaphthene	29,000	-	<0.05	<0.05	0	-	-	-	-
Acenaphthylene	29,000	-	<0.05	<0.05	0	-	-	-	-
Anthracene	150,000	-	<0.05	<0.05	0	-	-	-	-
Benzo(a)anthracene	49	-	<0.05	0.09	0	-	-	-	-
Benzo(a)pyrene	11	-	<0.05	0.09	0	-	-	-	-
Benzo(b)fluoranthene	13	-	<0.05	0.10	0	-	-	-	-
Benzo(g,h,i)perylene	1,400	-	<0.05	0.06	0	-	-	-	-
Benzo(k)fluoranthene	370	-	<0.05	0.06	0	-	-	-	-
Chrysene	93	-	<0.05	0.11	0	-	-	-	-
Dibenzo(a,h)anthracene	1.1	-	<0.05	<0.05	0	-	-	-	-
Fluoranthene	6,300	-	0.08	0.16	0	-	-	-	-
Fluorene	20,000	-	<0.05	<0.05	0	-	-	-	-
Indeno(1,2,3,cd)pyrene	150	-	<0.05	0.05	0	-	-	-	-
Naphthalene	1,200	76.4	<0.05	<0.05	0	0	-	-	-
Phenanthrene	6,200	-	<0.05	0.09	0	-	-	-	-
Pyrene	15,000	-	0.06	0.16	0	-	-	-	-
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.

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.

JPT6O-WZEU7-LALZU

Report is invalid if pages are removed.

Job name

Piccadilly Gardens, Manchester

Description/Comments

i2 Analytical Report 26-023247

Project

51334

Site

Piccadilly Gardens, Manchester

Classified by

Name:
Bethany Douglas
Date:
15 May 2026 08:22 GMT
Telephone:
07415795967

Company:
Civic Earth Limited
35 Virginia Street
Glasgow
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	09 Apr 2026

Next 3 year Refresher due by Apr 2029

Purpose of classification

2 - Material Characterisation

Address of the waste

Piccadilly Gardens, Manchester **Post Code** M1 1RG

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 existing civic square and transport interchange including demolition of the fountain, removal of existing street furniture, landscaping works and a new children's play area.

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

Waste created during the excavation of soils during site investigation.

Description of the waste

Shallow Made Ground soils from landscaped existing civic square comprising brown organic rich sandy clay.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	ES01-1-30042026-0.07	0.07	Non Hazardous		3
2	ES02-2-30042026-0.09	0.09	Non Hazardous		6
3	ES03-3-30042026-0.13	0.13	Non Hazardous		9

Related documents

#	Name	Description
1	26-023247_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: Bethany Douglas

Created date: 15 May 2026 08:22 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	12
Appendix B: Rationale for selection of metal species	13
Appendix C: Version	14

Classification of sample: ES01-1-30042026-0.07

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

Sample details

Sample name:
ES01-1-30042026-0.07
Sample Depth:
0.07 m
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		7.3 pH		7.3 pH	7.3 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		1.1 mg/kg	1.197	1.119 mg/kg	0.000112 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.5 mg/kg	1.534	5.867 mg/kg	0.000587 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		26 mg/kg	1.623	35.879 mg/kg	0.00359 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.26 mg/kg	2.775	0.613 mg/kg	0.0000613 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.642 mg/kg	0.000164 %	✓	
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 mg/kg	1.462	8.696 mg/kg	0.00087 %	✓	

#		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 }				25	mg/kg	1.126	23.925	mg/kg	0.00239 %	✓	
		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	26	mg/kg		22.1	mg/kg	0.00221 %	✓	
		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 }				6.6	mg/kg	2.637	14.792	mg/kg	0.00148 %	✓	
		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 }				12	mg/kg	1.785	18.209	mg/kg	0.00182 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate }				51	mg/kg	2.469	107.044	mg/kg	0.0107 %	✓	
		030-006-00-9	231-793-3	7733-02-0									
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				0.06	mg/kg		0.051	mg/kg	0.0000051 %	✓	
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				0.15	mg/kg		0.128	mg/kg	0.0000128 %	✓	
			205-912-4	206-44-0									
32		pyrene				0.12	mg/kg		0.102	mg/kg	0.0000102 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				0.1	mg/kg		0.085	mg/kg	0.0000085 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				0.1	mg/kg		0.085	mg/kg	0.0000085 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.06	mg/kg		0.051	mg/kg	0.0000051 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				0.05	mg/kg		0.0425	mg/kg	0.00000425 %	✓	
			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				0.06	mg/kg		0.051	mg/kg	0.0000051 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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:	0.0241 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: ES02-2-30042026-0.09

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

Sample details

Sample name:
ES02-2-30042026-0.09
Sample Depth:
0.09 m
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		pH			PH		6.8 pH		6.8 pH	6.8 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		2.8 mg/kg	1.534	3.651 mg/kg	0.000365 %	✓	
7		barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		23 mg/kg	1.623	31.739 mg/kg	0.00317 %	✓	
8		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.23 mg/kg	2.775	0.543 mg/kg	0.0000543 %	✓	
9		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.095 mg/kg	0.000109 %	✓	
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		5.6 mg/kg	1.462	6.957 mg/kg	0.000696 %	✓	

#		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 }				18	mg/kg	1.126	17.226	mg/kg	0.00172 %	✓	
		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		14.45	mg/kg	0.00145 %	✓	
		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 }				5.4	mg/kg	2.637	12.102	mg/kg	0.00121 %	✓	
		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 }				7.9	mg/kg	1.785	11.988	mg/kg	0.0012 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate }				34	mg/kg	2.469	71.363	mg/kg	0.00714 %	✓	
		030-006-00-9	231-793-3	7733-02-0									
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				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
			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				0.16	mg/kg		0.136	mg/kg	0.0000136 %	✓	
			205-912-4	206-44-0									
32		pyrene				0.16	mg/kg		0.136	mg/kg	0.0000136 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				0.11	mg/kg		0.0935	mg/kg	0.00000935 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				0.1	mg/kg		0.085	mg/kg	0.0000085 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.05	mg/kg		0.0425	mg/kg	0.00000425 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1							
42		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:	0.0172 %		

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: ES03-3-30042026-0.13

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

Sample details

Sample name:
ES03-3-30042026-0.13
Sample Depth:
0.13 m
Moisture content:
17%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		6.4 pH		6.4 pH	6.4 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		4.2 mg/kg	1.534	5.347 mg/kg	0.000535 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		48 mg/kg	1.623	64.679 mg/kg	0.00647 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.26 mg/kg	2.775	0.599 mg/kg	0.0000599 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.069 mg/kg	0.000107 %	✓	
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		8.6 mg/kg	1.462	10.433 mg/kg	0.00104 %	✓	

#		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 }				14	mg/kg	1.126	13.083	mg/kg	0.00131 %	✓	
		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	20	mg/kg		16.6	mg/kg	0.00166 %	✓	
		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 }				7.8	mg/kg	2.637	17.07	mg/kg	0.00171 %	✓	
		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 }				14	mg/kg	1.785	20.744	mg/kg	0.00207 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate }				46	mg/kg	2.469	94.278	mg/kg	0.00943 %	✓	
		030-006-00-9	231-793-3	7733-02-0									
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				0.08	mg/kg		0.0664	mg/kg	0.00000664 %	✓	
			205-912-4	206-44-0									
32		pyrene				0.06	mg/kg		0.0498	mg/kg	0.00000498 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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:	0.0244 %		

Key

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

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

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

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

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

monohydric phenols (CAS Number: P1186)

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

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

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

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

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from:: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

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

Description/Comments: 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

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 barium and Cr(VI) present to make the worst case CLP (barium chromate) and it is 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 lead and Cr(VI) present to make the worst case CLP (lead chromate) and it is not at hazardous levels in any case.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight.

nickel {nickel sulfate}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: copper refining, electroplating and rechargeable batteries. Worst case compounds in CLP not expected as either very soluble and/or compounds industrial useage not related to site history.

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight.

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species.

zinc {zinc sulphate}

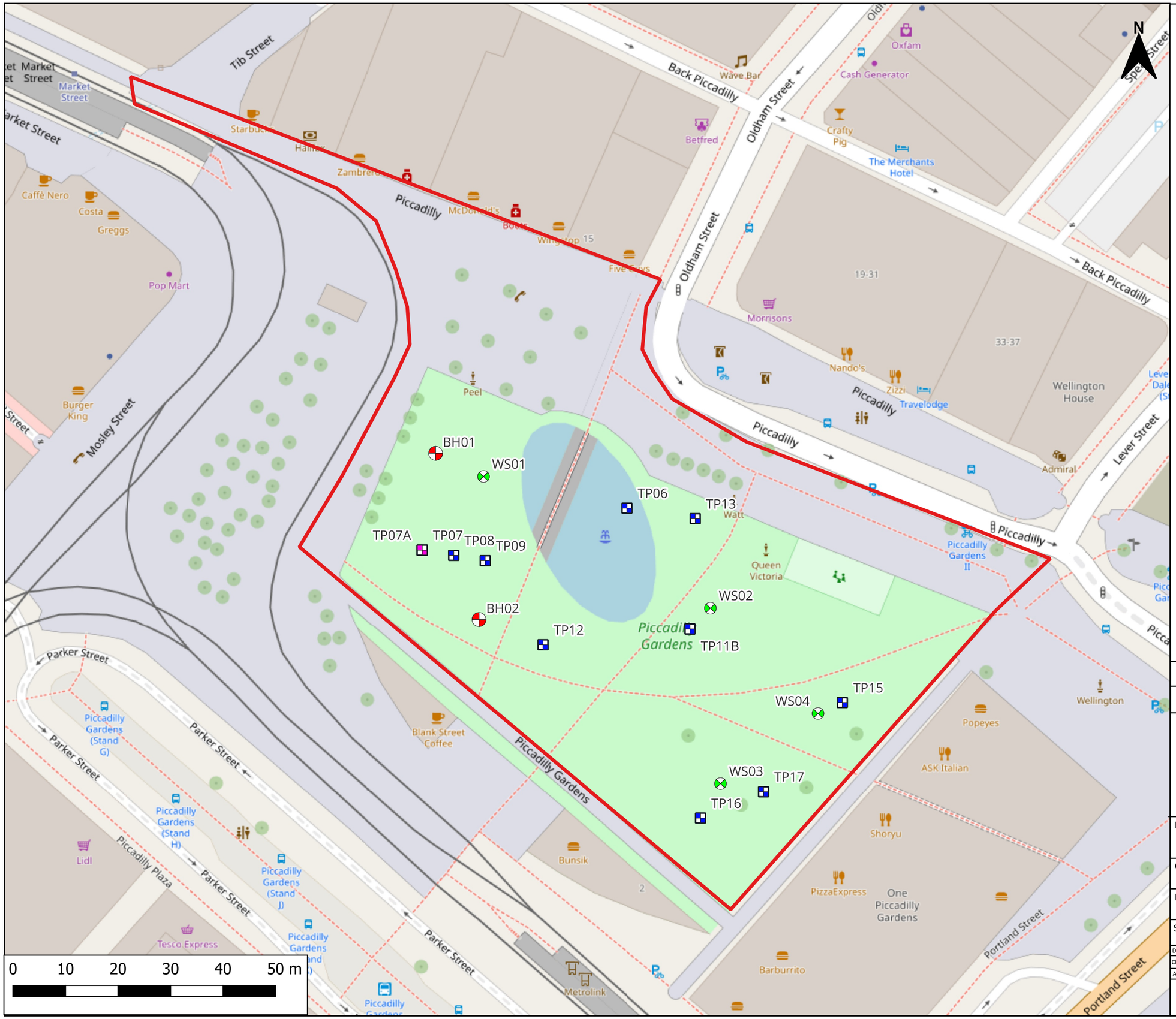
Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough zinc and Cr(VI) present to make the worst case CLP (zinc chromate) and it is not at hazardous levels in any case.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2025.322.300.300 (13 May 2026)
HazWasteOnline Database: 2026.83.7020.12656 (25 Mar 2026)

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
GB MCL List v7.0 - version 7.0 of 23rd September 2025

Appendix B – Exploratory Hole Location Plan



KEY

- Site Boundary

Borehole Locations

- Cable Percussion Boreholes
- Hand Pits
- Machine Excavated Trial Pits
- Window Sample Boreholes

Rev	Date	Comments

CIVIC

Civic Earth
77 Dale Street
Manchester
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T: 01612286757

Project: Piccadillly Gardens, Manchester

Client: Muse and Manchester City Council

Drawing title: Borehole Location Plan

Scale(s): 1:700

Job no.: 51334/01

Drawn	KIA	29/06/2026
Checked		
Approved		

Dwg No.: 51334-CIV-01-XX-D-G-0002

Rev.: C01

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Appendix C – Exploratory Hole Records

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	
Location ID: **BH01**	Location Type: Cable percussion (shell and auger)		
	Coords: 384330.56E/398309.45N	Level: 45.68mOD	
Status: FINAL	Scale: 1:30	Final Depth: 15.45 m	
Sheet 1 of 3	Date Start: 22/07/2026	Date End: 23/07/2026	

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	15.45	CP	Dando 2000			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		0.10 - 0.20	B 1			45.67	0.01		Dark brown to black clayey sand. Sand is fine to medium. Frequent rootlets. [TOPSOIL/MADE GROUND]
		0.20	ES 1						
		0.30 - 0.40	B 2			45.38	0.30		Greyish brown slightly gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of chalk, chert, sandstone and dolomite. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
						45.08	0.60		Greyish brown sandy gravel. Gravel is subangular to rounded fine to medium of dolomite, chert and sandstone. Frequent plastic fibres and wood fragments. [TOPSOIL/MADE GROUND]
						44.98	0.70		Concrete. [MADE GROUND]
		0.80	ES 2						
		0.80 - 0.90	B 3						
		0.80 - 0.90	B B3						Soft dark brown to black slightly silty sandy very gravelly clay. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of brick and concrete. Rare angular cobbles of concrete and wood. [MADE GROUND]
	1.0								
		1.20 - 1.65	B 4	SPT(S) 1.20m N=6 (1,1/2,2,1,1)					
		1.20 - 1.65	D 1						
	2.0	2.00 - 2.45	B 5	SPT(S) 2.00m N=10 (1,2/2,2,3,3)					
		2.00 - 2.45	D 2			43.18	2.50		
									Soft greyish brown gravelly clay. Gravel is angular to subrounded fine to coarse of brick. [MADE GROUND]
	3.0	3.00 - 3.45	B 6	SPT(S) 3.00m N=7 (1,2/1,2,2,2)					
		3.00 - 3.45	D 3			41.88	3.80		
									Soft greyish brown mottled black slightly gravelly clay. Gravel is angular to rounded fine to coarse of coal and brick. [MADE GROUND]
	4.0	4.00 - 4.45	B 7	SPT(S) 4.00m N=4 (1,0/1,1,1,1)					
		4.00 - 4.45	B B7						
		4.00 - 4.45	D 4						
		4.70	D 5			40.68	5.00		
	5.0	5.00 - 5.45	U 1						Firm greyish orangish brown mottled black CLAY. [GLACIAL TILL]
		5.45 - 5.50	B 8						
	6.0	6.00 - 6.45	B 9	SPT(S) 6.00m N=18 (2,3/3,4,5,6)		39.68	6.00		
		6.00 - 6.45	D 6						

Stratum continues onto next page

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Dual install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 4.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-6.00m plain 50mm pipe with bentonite seal; 6.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
15.45	150	15.00	150

Hammer Information	
Energy Ratio	Serial No.
71%	BBLSPT3

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	1.00	4.00
Pipe2	6.00	14.50

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	
Location ID: **BH01**	Location Type: Cable percussion (shell and auger)		
	Coords: 384330.56E/398309.45N	Level: 45.68mOD	
Status: FINAL	Scale: 1:30	Final Depth: 15.45 m	
Sheet 2 of 3	Date Start: 22/07/2026	Date End: 23/07/2026	

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	15.45	CP	Dando 2000			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		6.00 - 6.45	D D6						Firm brown slightly gravelly CLAY. Gravel is subrounded to rounded fine to medium of chert. [GLACIAL TILL]
	7.0	7.50 - 7.95	U 2						
		7.95 - 8.00	B 10						
	8.0					37.18	8.50		
									Stiff grey gravelly CLAY. Gravel is subrounded to rounded fine to medium of chert. [GLACIAL TILL]
	9.0			SPT(S) 9.00m N=24 (2,4/5,5,6,8)					
	10.0	10.50 - 10.95	U 3						
		10.95 - 11.00	B 11						
	11.0								
	12.0	12.00 - 12.45	B 12	SPT(S) 12.00m N=23 (3,4/4,6,6,7)					
		12.00 - 12.45	D 7						

Stratum continues onto next page

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Dual install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 4.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-6.00m plain 50mm pipe with bentonite seal; 6.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
15.45	150	15.00	150	71%	BBLSPT3

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

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**								
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater				
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To		
Location ID: **BH01**	Location Type: Cable percussion (shell and auger)			0.00 1.20	1.20 15.45	IP CP	Hand Dug Dando 2000					
Status: FINAL	Coords: 384330.56E/398309.45N	Level: 45.68mOD										
	Scale: 1:30	Final Depth: 15.45 m										
Sheet 3 of 3	Date Start: 22/07/2026	Date End: 23/07/2026										

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		12.00 - 12.45	D 8						Stiff grey gravelly CLAY. Gravel is subrounded to rounded fine to medium of chert. [GLACIAL TILL]
	13.0								
		13.50 - 13.95	B 13	SPT(S) 13.50m N=19 (7,10/5,5,4,5)		32.18	13.50		
		13.50 - 13.95	D 9						Very stiff grey CLAY. [GLACIAL TILL]
	14.0								
						30.78	14.90		
	15.0	15.00 - 15.45	D 10	SPT(S) 15.00m 50 (25 for 50mm/50 for 60mm)					Extremely weak red SANDSTONE. [CHESTER FORMATION]
						30.23	15.45		EOH at 15.45m - Achieved target depth
	16.0								
	17.0								
	18.0								

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Dual install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 4.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-6.00m plain 50mm pipe with bentonite seal; 6.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
15.45	150	15.00	150	71%	BBLSPT3

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

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**									
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater					
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To			
Location ID: **BH02**	Location Type: Cable percussion (shell and auger)			0.00 1.20	1.20 15.45	IP CP	Hand Dug Dando 2000						
Status: FINAL	Coords: 384338.82E/398277.79N	Level: 45.64mOD											
	Scale: 1:30	Final Depth: 15.45 m											
Sheet 1 of 3	Date Start: 23/07/2026	Date End: 24/07/2026											

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
						45.62	0.02		Dark brown to black clayey sand with frequent rootlets.
		0.10 - 0.20	B 1			45.58	0.06		[TOPSOIL/MADE GROUND]
		0.30 - 0.40	B 2			45.34	0.30		Orangish brown sand. Sand is fine to medium.
						45.24	0.40		[TOPSOIL/MADE GROUND]
						45.21	0.43		Greyish brown slightly gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of dolomite, chert, chalk and sandstone. Frequent plastic fibres.
									[TOPSOIL/MADE GROUND]
									Greyish brown sandy gravel. Gravel is subangular to rounded fine to medium of dolomite, chert and sandstone. Sand is fine to medium.
									[TPOSOIL/MADE GROUND]
									Concrete.
									[MADE GROUND]
	1.0	1.00	ES 1						
		1.00 - 1.10	B 3						Soft dark brown ashy gravelly clay. Ash is fine to coarse. Gravel is angular to subrounded fine to coarse of brick, concrete, sandstone, coal, chert and mudstone.
		1.20 - 1.65	B 4	SPT() 1.20m N=9 (1,2/2,2,2,3)					[MADE GROUND]
		1.20 - 1.65	D 1						
	2.0	2.00 - 2.45	B 5	SPT() 2.00m N=14 (1,2/3,3,4,4)					
		2.00 - 2.45	D 2						
	3.0	3.00 - 3.45	B 6	SPT() 3.00m N=15 (2,2/3,3,4,5)		42.64	3.00		
		3.00 - 3.45	B B6						Firm dark brown gravelly CLAY. Gravel is subrounded fine of coal and mudstone.
		3.00 - 3.45	D 3						[GLACIAL TILL]
	4.0	4.00 - 4.45	U 1			41.64	4.00		
		4.45 - 4.50	B 7						Stiff dark brown gravelly CLAY. Gravel is subrounded fine of coal and mudstone.
									[GLACIAL TILL]
	5.0	5.00 - 5.45	B 8	SPT() 5.00m N=16 (2,2/3,3,4,6)					
		5.00 - 5.45	D 4						
	6.0	6.00 - 6.45	U 2						

Stratum continues onto next page

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Duel install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 3.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-5.00m plain 50mm pipe with bentonite seal; 5.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
15.45	150	15.00	150

Hammer Information	
Energy Ratio	Serial No.
71%	BBLSPT3

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	1.00	3.00
Pipe2	5.00	14.50

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

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	15.45	CP	Dando 2000			

Location ID: **BH02**	Location Type: Cable percussion (shell and auger)		
	Coords: 384338.82E/398277.79N	Level: 45.64mOD	
Status: FINAL	Scale: 1:30	Final Depth: 15.45 m	
Sheet 2 of 3	Date Start: 23/07/2026	Date End: 24/07/2026	

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
		6.45 - 6.50	B 9						Stiff dark brown gravelly CLAY. Gravel is subrounded fine of coal and mudstone. [GLACIAL TILL]
	7.0	7.50 - 7.95 7.50 - 7.95	B 10 D 5	SPT() 7.50m N=21 (3,3/4,4,6,7)					
						37.64	8.00		
	8.0								Stiff dark brown gravelly CLAY. Gravel is subrounded to rounded fine of chert and mudstone. [GLACIAL TILL]
	9.0	9.00 - 9.45 9.00 - 9.45	B 11 D 6	SPT() 9.00m N=25 (2,4/4,6,7,8)					
	10.0	10.50 - 10.95	U 3						
	11.0	10.95 - 11.00	B 12						
	12.0	12.00 - 12.45 12.00 - 12.45	B 13 D 7	SPT() 12.00m N=24 (2,4/5,5,6,8)					

Stratum continues onto next page

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Duel install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 3.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-5.00m plain 50mm pipe with bentonite seal; 5.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
15.45	150	15.00	150	71%	BBLSPT3

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

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**								
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater				
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To		
Location ID: **BH02**	Location Type: Cable percussion (shell and auger)			0.00 1.20	1.20 15.45	IP CP	Hand Dug Dando 2000					
Status: FINAL	Coords: 384338.82E/398277.79N	Level: 45.64mOD										
	Scale: 1:30	Final Depth: 15.45 m										
Sheet 3 of 3	Date Start: 23/07/2026	Date End: 24/07/2026										

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
									Stiff dark brown gravelly CLAY. Gravel is subrounded to rounded fine of chert and mudstone. [GLACIAL TILL]
	13.0								
		13.50 - 13.95 13.50 - 13.95	B 14 D 8	SPT() 13.50m N=32 (3,5/7,8,8,9)					
		13.90	EW 1						
	14.0								
	15.0	15.00 - 15.45	D 9	SPT() 15.00m 50 (25 for 105mm/50 for 95mm)		30.64	15.00		Extremely weak red SANDSTONE. [CHESTER FORMATION]
						30.19	15.45		EOH at 15.45m - Achieved target depth
	16.0								
	17.0								
	18.0								

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Duel install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 3.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-5.00m plain 50mm pipe with bentonite seal; 5.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
15.45	150	15.00	150	71%	BBLSPT3

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

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP06**	Location Type: Trial pit/trench			0.00	1.40	TP	Tracked Excavator				
Status: FINAL	Coords: 384367.00E/398299.00N	Level: 45.42mOD									
	Scale: 1:25	Final Depth: 1.40									
Sheet 1 of 1	Date Start: 01/07/2026	Date End: 02/07/2026									

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
		0.20	ES 1			45.01	0.41		Brown slightly gravelly silty sand with frequent rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to coarse of sandstone and chert. [TOPSOIL/MADE GROUND]
						44.92	0.50		Cream slightly clayey gravel. Gravel is subrounded fine to medium of dolerite. [MADE GROUND]
		0.60	ES 2						Brown to grey slightly clayey sandy gravel. Gravel is rounded to subrounded fine to coarse of multiple lithologies. Sand is fine to coarse. Frequent angular to subangular cobbles of concrete and paving slab. [MADE GROUND]
	1.0					44.02	1.40		EOH at 1.40m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 1.40mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Trial pit backfilled with arisings.
5. Coordinates and levels are approximate.
6. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None		0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP07**	Location Type: Trial pit/trench			0.00	0.95	TP	Tracked Excavator				
Status: FINAL	Coords: 384328.00E/398291.00N	Level: 45.56mOD									
	Scale: 1:25	Final Depth: 0.95									
Sheet 1 of 1	Date Start: 01/07/2026	Date End: 02/07/2026									

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
						45.52	0.04		Black sandy silt. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.49	0.07		Orangish brown sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
									Greyish brown gravelly sand. Sand is fine to coarse. Gravel is angular to rounded fine to coarse of dolerite, sandstone, chert and flint. Rare subangular cobbles of brick and frequent plastic fibres. [TOPSOIL/MADE GROUND]
						45.01	0.55		Cream slightly clayey gravel. Gravel is angular to subangular fine to coarse of dolerite. [MADE GROUND]
	1.0					44.61	0.95		EOH at 0.95m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.95mbgl.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.10	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	
Location ID: **TP07A**	Location Type: Inspection pit		
	Coords: 384328.00E/398291.00N	Level: 45.56mOD	
Status: FINAL	Scale: 1:10	Final Depth: 1.00	
Sheet 1 of 1	Date Start: 23/07/2026	Date End: 23/07/2026	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.00	IP	Hand Tools			

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
									Greyish brown slightly clayey gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of chalk, chert, sandstone and mudstone. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
	1.0	1.00	ES 1			44.56	1.00		EOH at 1.00m - Terminated due to sides undermining
	2.0								

Notes:

1. Hand pit terminated at 1.00mbgl due to sides of hand pit undermining from 0.60mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Backfilled with arisings.
5. Coordinates and levels are approximate.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Unstable			

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP08**	Location Type: Trial pit/trench			0.00	0.96	TP	Tracked Excavator				
Status: FINAL	Coords: 384334.00E/398290.00N	Level: 45.60mOD									
Sheet 1 of 1	Scale: 1:25	Final Depth: 0.96									
	Date Start: 01/07/2026	Date End: 02/07/2026									

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
						45.54	0.06		Dark brown to black clayey sand with frequent rootlets. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.53	0.07		Orangish brown sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
									Greyish brown slightly silty gravelly sand. Sand is fine. Gravel is angular to rounded fine to coarse of dolerite, brick, sandstone, chert and flint. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
						45.04	0.56		Brown clayey gravel. Gravel is angular to subangular fine to coarse of dolerite and sandstone. [MADE GROUND]
	1.0					44.64	0.96		EOH at 0.96m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.96mbgl.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.60	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP09**	Location Type: Trial pit/trench			0.00	0.90	TP	Tracked Excavator				
Status: FINAL	Coords: 384340.00E/398289.00N	Level: 45.63mOD									
Sheet 1 of 1	Scale: 1:25	Final Depth: 0.90									
	Date Start: 01/07/2026	Date End: 02/07/2026									

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
						45.58	0.05		Dark brown to black clayey sand with frequent rootlets. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.55	0.08		Orangish brown sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.33	0.30		Greyish brown slightly silty gravelly sand. Sand is fine to coarse. Gravel is subrounded fine to coarse of dolerite. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
									Dark grey sandy gravel. Gravel is subangular to subrounded fine to coarse of dolerite, brick, sandstone and mudstone. Sand is fine to coarse. Occasional subangular cobbles of brick and rare metal. [MADE GROUND]
						44.73	0.90		EOH at 0.90m - Achieved target depth
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.90mbgl.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.30	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP11A**	Location Type: Trial pit/trench			0.00	0.50	TP	Tracked Excavator				
Status: FINAL	Coords: 384379.00E/398276.00N	Level: 45.76mOD									
	Scale: 1:25	Final Depth: 0.50									
Sheet 1 of 1	Date Start: 02/07/2026	Date End: 02/07/2026									

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
						45.68	0.08		Dark brown silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.62	0.14		Layer of plastic green grass. [MADE GROUND]
						45.51	0.25		Cream to pale brown sand. Sand is fine to medium. [MADE GROUND]
						45.26	0.50		Greyish brown sandy gravel/gravelly sand. Sand is fine to coarse. Gravel is fine to medium subrounded to rounded of chert and sandstone. Frequent plastic fibres and rare metal. [MADE GROUND]
									EOH at 0.50m - Terminated due to services
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 0.50mbgl due to a water pipe.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	1.50	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.95	TP	Tracked Excavator			

Location ID: **TP11B**	Location Type: Trial pit/trench	
Status: FINAL	Coords: 384379.00E/398276.00N	Level: 45.76mOD
Sheet 1 of 1	Scale: 1:25	Final Depth: 0.95
	Date Start: 02/07/2026	Date End: 02/07/2026

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
						45.68	0.08		Dark brown silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.62	0.14		Layer of plastic green grass. [MADE GROUND]
						45.51	0.25		Cream to pale brown sand. Sand is fine to medium. [MADE GROUND]
						45.26	0.50		Greyish brown sand and gravel. Sand is fine to coarse. Gravel is fine to medium subrounded to rounded of chert. Frequent plastic fibres and rare metal. [MADE GROUND]
		0.65	ES 1			45.11	0.65		Gravel of concrete. [MADE GROUND]
		0.80	ES 1			44.81	0.95		Dark brown slightly clayey sandy gravel. Gravel is subangular to subrounded fine to medium of brick. Sand is fine to coarse. Frequent tile fragments and angular to subangular cobbles of brick. [MADE GROUND]
	1.0								EOH at 0.95m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.95mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Trial pit backfilled with arisings.
5. Coordinates and levels are approximate.
6. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.60	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP12**	Location Type: Trial pit/trench			0.00	0.90	TP	Tracked Excavator				
Status: FINAL	Coords: 384351.00E/398273.00N	Level: 45.52mOD									
	Scale: 1:25	Final Depth: 0.55									
Sheet 1 of 1	Date Start: 02/07/2026	Date End: 02/07/2026									

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
						45.47	0.05		Dark brown to black silty sand. Sand is fine to medium.
						45.45	0.07		[TPOSOIL/MADE GROUND]
									Layer of plastic green grass.
									[MADE GROUND]
						45.12	0.40		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of sandstone, chert and flint. Frequent plastic fibres.
									[MADE GROUND]
						44.99	0.53		Grey gravel. Gravel is subrounded to rounded fine to medium of sandstone, chert and flint.
						44.97	0.55		[MADE GROUND]
									Cement.
									[MADE GROUND]
									EOH at 0.55m - Terminated due to obstruction
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 0.50mbgl due to concrete obstruction.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.45	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.55	TP	Tracked Excavator			

Location ID: **TP13**	Location Type: Trial pit/trench	
Status: FINAL	Coords: 384380.00E/398297.00N	Level: 45.62mOD
Sheet 1 of 1	Scale: 1:25	Final Depth: 0.90
	Date Start: 02/07/2026	Date End: 02/07/2026

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
						45.57	0.05		Dark brown to black silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.42	0.20		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of sandstone, chert and flint. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
						45.27	0.35		Grey gravel. Gravel is subrounded to rounded fine to medium of sandstone, chert and flint. [MADE GROUND]
		0.75	ES 1						Dark brown to black clayey gravel. Gravel is angular to subrounded fine to coarse of brick, sandstone, slag, coal, slate and chalk. [MADE GROUND] *from 0.70 to 0.75mbgl - Faint hydrocarbon odour and sheen noted.*
						44.72	0.90		EOH at 0.90m - Achieved target depth
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.90mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Trial pit backfilled with arisings.
5. Coordinates and levels are approximate.
6. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.80	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**								
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater				
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To		
Location ID: **TP15**	Location Type: Trial pit/trench			0.00	0.80	TP	Tracked Excavator					
Status: FINAL	Coords: 384408.00E/398262.00N	Level: 46.10mOD										
	Scale: 1:25	Final Depth: 0.80										
Sheet 1 of 1	Date Start: 02/07/2026	Date End: 02/07/2026										

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
						46.05	0.05		Dark brown to black silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
									Dark brown slightly clayey sand. Sand is fine to medium. Frequent plastic fibres. [MADE GROUND]
						45.45	0.65		Grey gravel. Gravel is subrounded to rounded fine to medium of sandstone, chert and flint. Frequent plastic fibres. [MADE GROUND]
						45.30	0.80		EOH at 0.80m - Terminated due to obstruction
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 0.80mbgl due to concrete obstruction.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.15	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: Galliford Try Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP16**	Location Type: Trial pit/trench			0.00	1.00	TP	Tracked Excavator				
Status: FINAL	Coords: 384381.00E/398240.00N	Level: 45.40mOD									
	Scale: 1:25	Final Depth: 1.00									
Sheet 1 of 1	Date Start: 03/07/2026	Date End: 03/07/2026									

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
						45.05	0.35		Dark brown to black silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						44.90	0.50		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is fine to medium subangular to subrounded of sandstone, chert and flint. Frequent plastic fibres. [MADE GROUND]
						44.65	0.75		Cream slightly clayey gravel. Gravel is fine to medium of dolerite. [MADE GROUND]
						44.40	1.00		Dark brown to black clayey gravel. Gravel is fine to coarse angular to subrounded of brick, sandstone, slag, coal, slate and chalk. [MADE GROUND]
	1.0								EOH at 1.00m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 1.00mbgl.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.00	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: Galliford Try Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP17**	Location Type: Trial pit/trench			0.00	1.00	TP	Tracked Excavator				
Status: FINAL	Coords: 384393.00E/398245.00N	Level: 45.62mOD									
	Scale: 1:25	Final Depth: 1.00									
Sheet 1 of 1	Date Start: 03/07/2026	Date End: 03/07/2026									

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
						45.57	0.05		Black sandy silt. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.32	0.30		Dark brown silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.22	0.40		Cream slightly clayey gravel. Gravel is fine to medium of dolerite. [MADE GROUND]
		0.75	ES 1						Dark brown to black clayey gravel. Gravel is fine to coarse angular to subrounded of brick, sandstone, slag, coal, slate and chalk. [MADE GROUND]
	1.0					44.62	1.00		EOH at 1.00m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 1.00mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Trial pit backfilled with arisings.
5. Coordinates and levels are approximate.
6. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.00	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.40	IP	Hand Tools			

Location ID: **WS01**	Location Type: Window Sampler		
Status: FINAL	Coords: 384339.68E/398305.04N	Level: 45.70mOD	
Sheet 1 of 1	Scale: 1:30	Final Depth: 0.40 m	
	Date Start: 23/07/2026	Date End: 23/07/2026	

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 (%)
						45.68	0.02		Dark brown to black silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]			
						45.30	0.40		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of sandstone, flint and chert. Frequent plastic fibres. [TOPSOIL/MADE GROUND]			
									EOH at 0.40m - Terminated due to obstruction			

1.0
2.0
3.0
4.0
5.0
6.0

Notes:

1. Borehole terminated at 0.40mbgl due to concrete obstruction.
2. No groundwater encountered.
3. Borehole backfilled with arisings.

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	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	
Location ID: **WS02**	Location Type: Window Sampler		
	Coords: 384382.88E/398279.95N	Level: 45.87mOD	
Status: FINAL	Scale: 1:30	Final Depth: 0.40 m	
Sheet 1 of 1	Date Start: 23/07/2026	Date End: 23/07/2026	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.40	IP	Hand Tools			

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	Window Sampling: WS Run	Window Sampling: Dia (mm)	Window Sampling: Recovery (%)
						45.85	0.02		Dark brown to black clayey sand with frequent rootlets. [TOPSOIL/MADE GROUND]			
						45.82	0.05		Orangish brown sand. [TOPSOIL/MADE GROUND]			
						45.47	0.40		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of sandstone, flint and chert. Frequent plastic fibres. [TOPSOIL/MADE GROUND]			
									EOH at 0.40m - Terminated due to obstruction			
	1.0											
	2.0											
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated at 0.40mbgl due to concrete obstruction.
2. No groundwater encountered.
3. Installation Details: 0.00m to 0.20m plain 50mm diameter pipe with bentonite; 0.20m to 0.40m slotted 50mm 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.

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	0.20	0.40

CIVIC

Project Title:	**Piccadilly Gardens, Manchester**	Client:	**Manchester City Council**
Project Number:	**51334-01**	Logged By: KIA / Checked By: GO	
Location ID:	**WS03**	Location Type: Window Sampler	
Coords: 384384.81E/398246.55N	Level: 45.67mOD		
Status:	FINAL	Scale: 1:30	Final Depth: 0.40 m
Sheet 1 of 1		Date Start: 23/07/2026	Date End: 23/07/2026

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.40	IP	Hand Tools			

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 (%)
						45.65	0.02		Dark brown to black clayey sand with frequent rootlets. [TOPSOIL/MADE GROUND]			
						45.62	0.05		Orangish brown sand. [TOPSOIL/MADE GROUND]			
		0.30	ES 1			45.37	0.30		Greyish brown slightly gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of chalk, chert, sandstone and dolomite. Frequent plastic fibres. [TOPSOIL/MADE GROUND]			
						45.27	0.40		Greyish brown sandy gravel. Gravel is subangular to rounded fine to medium of dolomite, chert and sandstone. Frequent plastic fibres and wood sticks. [TOPSOIL/MADE GROUND]			
	1.0								EOH at 0.40m - Terminated due to obstruction			
	2.0											
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated at 0.40mbgl due to concrete obstruction.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Borehole backfilled with arisings.

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	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.60	IP	Hand Tools			

Location ID: **WS04**	Location Type: Window Sampler	
Status: FINAL	Coords: 384403.37E/398259.91N	Level: 46.35mOD
Sheet 1 of 1	Scale: 1:30	Final Depth: 0.60 m
	Date Start: 23/07/2026	Date End: 23/07/2026

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	Window Sampling: WS Run	Window Sampling: Dia (mm)	Window Sampling: Recovery (%)
						46.30	0.05		Soft dark brown to black clay. Frequent rootlets. [TOPSOIL/MADE GROUND]			
		0.50	ES 1			45.75	0.60		Dark brown slightly clayey gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of chalk, chert, sandstone and mudstone. Frequent plastic fibres. [TOPSOIL/MADE GROUND]			
									EOH at 0.60m - Terminated due to obstruction			
	1.0											
	2.0											
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated at 0.40mbgl due to concrete obstruction.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Borehole backfilled with arisings.

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)

Appendix D – Ground Gas and Groundwater Monitoring Records

CIVIC

Ground Gas Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**KIA**
Date of Visit:	**05 August 2026**	**Time of Visit:**	**09:00 to 12:00**

Atm. Pressure:	**1010 to 1012mbar**	**Local Pressure System*:**	**Rising**
Air Temperature:	**17°C to 18°C**	**Gas Monitor Model:**	**GFM436 and MiniRAE Lite+**

State of Ground:	**Dry**	**X**	**Damp**		**Wet**		**Saturated**	
Wind Strength:	**Calm**		**Light**		**Moderate**	**X**	**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**	**X**	**Overcast**	
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)
BH01 (S) [10:08]	1004	0	-3.7	-24.0	20.7	0.0	0.0	0.0	Dry	4.16
		15	-3.8	-25.0	20.6	0.8	0.0	0.0		
		30	-3.8	-25.0	20.5	0.8	0.0	0.0		
		45	-3.9	-26.0	20.5	0.9	0.0	0.0		
		60	-3.8	-27.0	20.2	1.5	0.0	0.0		
		90	-3.9	-26.0	19.3	2.3	0.0	0.0		
		120	-4.0	-27.0	19.6	2.4	0.0	0.0		
		150	-3.6	-26.0	19.5	2.5	0.0	0.0		
		180	-3.3	-25.0	19.5	2.4	0.0	0.0		
		240	-4.1	-28.0	19.7	2.3	0.0	0.0		
		300	-3.7	-25.0	19.7	2.2	0.0	0.0		
		360	-	-	19.9	2.1	0.0	-		
		420			19.9	2.0	0.0			
		480			20.0	1.9	0.0			
		540			20.0	1.9	0.0			
		600			20.0	1.8	0.0			
BH02 (S) [11:30]	1003	0	0.0	0.0	20.6	0.0	0.0	0.0	Dry	2.70
		15	0.0	0.0	20.3	0.4	0.0	0.5		
		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	20.3	0.4	0.0	0.0		
		120	0.0	0.0	20.3	0.4	0.0	0.0		
		150	0.0	0.0	20.3	0.4	0.0	0.0		
		180	0.0	0.0	20.3	0.4	0.0	0.0		
		240	0.0	0.0	20.0	0.5	0.0	0.0		
		300	0.0	0.0	19.7	0.7	0.0	0.0		
		360	-	-	19.6	0.7	0.0	-		
		420			19.6	0.8	0.0			
		480			19.7	0.7	0.0			
		540			19.8	0.7	0.0			
		600			19.8	0.7	0.0			
WS02 [11:50]	1003	0	0.0	0.0	20.9	0.0	0.0	0.0	Dry	0.40
		15	0.0	0.0	21.2	0.1	0.0	0.0		
		30	0.0	0.0	21.1	0.1	0.0	0.0		
		45	0.0	0.0	21.1	0.0	0.0	0.0		
		60	0.0	0.0	21.1	0.0	0.0	0.0		
		90	0.0	0.0	21.2	0.0	0.0	0.0		
		120	0.0	0.0	21.1	0.0	0.0	0.0		
		150	0.0	0.0	21.1	0.0	0.0	0.0		
		180	0.0	0.0	21.1	0.0	0.0	0.0		
		240	0.0	0.0	21.1	0.0	0.0	0.0		
		300	0.0	0.0	21.1	0.0	0.0	0.0		

Notes:

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

Ground Gas Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**GD**
Date of Visit:	**19 August 2026**	**Time of Visit:**	**09:30 to 12:00**

Atm. Pressure:	**996 to 997**	**Local Pressure System*:**	**Falling**
Air Temperature:	**16°C to 17°C**	**Gas Monitor Model:**	**GFM436 and MiniRAE Lite+**

State of Ground:	**Dry**		**Damp**	**X**	**Wet**		**Saturated**	
Wind Strength:	**Calm**		**Light**	**X**	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	**X**	**Cloudy**		**Overcast**	
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)
BH01 (S) [10:33]	996	0	7.0	63.0	20.5	0.0	0.0	0.0	Dry	4.15
		15	8.4	79.0	13.0	6.7	0.0	0.0		
		30	8.3	79.0	11.1	17.2	0.0	0.0		
		45	8.2	78.0	10.9	17.7	0.0	0.0		
		60	8.3	79.0	10.8	17.8	0.0	0.0		
		90	8.3	79.0	10.8	17.8	0.0	0.1		
		120	8.3	79.0	10.8	17.8	0.0	0.1		
		150	8.3	79.0	10.8	17.8	0.0	0.1		
		180	8.3	79.0	10.8	17.8	0.0	0.1		
		240	8.3	79.0	10.8	17.8	0.0	0.1		
		300	8.3	79.0	10.8	17.8	0.0	0.1		
BH02 (S) [10:10]	997	0	0.0	0.0	20.1	0.0	0.0	0.3	Dry	2.66
		15	0.0	0.0	17.4	1.1	0.0	0.8		
		30	0.0	0.0	16.9	1.2	0.0	0.8		
		45	0.0	0.0	16.8	1.2	0.0	0.8		
		60	0.0	0.0	16.8	1.2	0.0	0.8		
		90	0.0	0.0	16.8	1.2	0.0	0.8		
		120	0.0	0.0	16.9	1.1	0.0	0.7		
		150	0.0	0.0	17.1	1.1	0.0	0.7		
		180	0.0	0.0	17.3	1.0	0.0	0.7		
		240	0.0	0.0	17.8	0.9	0.0	0.7		
		300	0.0	0.0	18.2	0.9	0.0	0.7		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
**WS02 not monitored due to damaged headworks.

Ground Gas Monitoring Record

Project Name:	Piccadilly Gardens	**Client:**	Manchester City Council
Project Reference:	51334/01	**Engineer:**	GD
Date of Visit:	15 September 2026	**Time of Visit:**	09:00 to 16:30

Atm. Pressure:	1006	**Local Pressure System*:**	Falling
Air Temperature:	16°C to 17°C	**Gas Monitor Model:**	GFM436 and MiniRAE Lite+

State of Ground:	**Dry**		**Damp**		**Wet**	X	**Saturated**	
Wind Strength:	**Calm**		**Light**	X	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	X	**Cloudy**		**Overcast**	
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)
BH01 (S) [09:15]	1006	0	0.2	1.0	20.8	0.0	0.0	0.4	Damp at base	4.18
		15	0.6	1.0	17.0	0.0	0.0	0.4		
		30	0.4	1.0	15.4	0.0	0.0	0.3		
		45	0.4	1.0	15.0	0.0	0.0	0.3		
		60	0.7	3.0	15.0	0.0	0.0	0.2		
		90	0.7	3.0	14.9	0.0	0.0	0.1		
		120	0.6	1.0	14.8	0.0	0.0	0.1		
		150	0.7	3.0	14.6	0.0	0.0	0.1		
		180	0.7	2.0	14.5	0.0	0.0	0.1		
		240	0.7	1.0	14.1	0.0	0.0	0.1		
		300	0.7	3.0	13.6	0.0	0.0	0.1		
BH02 (S) [10:28]	1006	0	-3.0	-5.0	20.6	0.0	0.0	0.3	Dry	2.58
		15	0.0	0.0	20.8	0.0	0.0	0.6		
		30	0.0	0.0	20.7	0.0	0.0	0.7		
		45	0.0	0.0	20.6	0.0	0.0	0.7		
		60	0.0	0.0	20.6	0.0	0.0	0.7		
		90	0.0	0.0	20.6	0.0	0.0	0.6		
		120	0.0	0.0	20.6	0.0	0.0	0.6		
		150	0.0	0.0	20.6	0.0	0.0	0.6		
		180	0.0	0.0	20.6	0.0	0.0	0.6		
		240	0.0	0.0	20.6	0.0	0.0	0.6		
		300	0.0	0.0	20.6	0.0	0.0	0.6		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
**WS02 not monitored due to damaged headworks. It is also noted that the GFM436 gas monitor was faulty during the last monitoring visit and has likely produced incorrect concentrations of CH4 (%v/v) and CO2 (%v/v). Further monitoring rounds are recommended to determine the gas concentrations.

Ground Gas Monitoring Record

Project Name:	Piccadilly Gardens	**Client:**	Manchester City Council
Project Reference:	51334/01	**Engineer:**	JF
Date of Visit:	23 September 2026	**Time of Visit:**	08:50 to 10:40

Atm. Pressure:	1016	**Local Pressure System*:**	Rising
Air Temperature:	16°C to 17°C	**Gas Monitor Model:**	GFM436 and MiniRAE Lite+

State of Ground:	**Dry**		**Damp**	X	**Wet**		**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)
BH01 (S) [09:46]	1015	0	1.9	10.0	20.7	0.9	0.0	0.0	Dry	4.10
		15	2.2	10.0	17.2	4.3	0.0	0.0		
		30	2.4	11.0	16.9	4.8	0.0	0.0		
		45	2.2	10.0	16.8	4.8	0.0	0.0		
		60	2.4	11.0	16.8	4.8	0.0	0.0		
		90	2.2	10.0	16.8	4.9	0.0	0.0		
		120	2.4	11.0	16.8	4.9	0.0	0.0		
		150	2.1	10.0	16.8	4.9	0.0	0.0		
		180	2.4	11.0	16.8	4.9	0.0	0.0		
		240	2.2	10.0	16.8	4.9	0.0	0.0		
		300	2.2	10.0	16.8	4.9	0.0	0.0		
		360	2.2	10.0	16.8	4.9	0.0	0.0		
BH02 (S) [09:05]	1016	0	0.0	0.0	20.9	0.1	0.0	0.0	Dry	2.52
		15	0.0	0.0	20.6	0.4	0.0	0.1		
		30	0.0	0.0	20.6	0.4	0.0	0.1		
		45	0.0	0.0	20.6	0.4	0.0	0.2		
		60	0.0	0.0	20.6	0.4	0.0	0.2		
		90	0.0	0.0	20.5	0.4	0.0	0.2		
		120	0.0	0.0	20.5	0.4	0.0	0.2		
		150	0.0	0.0	20.5	0.4	0.0	0.2		
		180	0.0	0.0	20.5	0.4	0.0	0.2		
		240	0.0	0.0	20.5	0.4	0.0	0.1		
		300	0.0	0.0	20.5	0.4	0.0	0.1		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
**WS02 not monitored due to damaged headworks.

Groundwater Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**KIA**
Date of Visit:	**05 August 2026**	**Time of Visit:**	**09:00 to 12:00**

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

Borehole Reference	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**	**WS02**			
Target Stratum	Made Ground	Glacial Till	Made Ground	Glacial Till	Made Ground			
Ground Level (mOD)	45.68	45.68	45.64	45.64	45.87			
Groundwater Depth (mbgl)	Dry	Dry	Dry	12.90	Dry			
Groundwater Level (mOD)	Dry	Dry	Dry	32.74	Dry			
Base of Well (mbgl)	4.16	14.68	2.70	14.45	0.40			
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05			
Condition of Well	Good	Good	Good	Good	Good			
Top of Response Zone (mbgl)	1.00	6.00	1.00	5.00	0.20			
Base of Response Zone (mbgl)	4.00	14.50	3.00	14.50	0.20			
Top of Response Zone (mOD)	44.68	39.68	44.64	40.64	45.67			
Base of Response Zone (mOD)	41.68	31.18	42.64	31.14	0.40			
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:

Groundwater Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**GD**
Date of Visit:	**19 August 2026**	**Time of Visit:**	**09:30 to 12:00**

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

Borehole Reference	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**				
Target Stratum	Made Ground	Glacial Till	Made Ground	Glacial Till				
Ground Level (mOD)	45.68	45.68	45.64	45.64				
Groundwater Depth (mbgl)	Dry	Damp at base	Dry	12.84				
Groundwater Level (mOD)	Dry	Damp at base	Dry	32.80				
Base of Well (mbgl)	4.15	14.68	2.66	14.55				
Diameter of Well (m)	0.05	0.05	0.05	0.05				
Condition of Well	Good	Good	Good	Good				
Top of Response Zone (mbgl)	1.00	6.00	1.00	5.00				
Base of Response Zone (mbgl)	4.00	14.50	3.00	14.50				
Top of Response Zone (mOD)	44.68	39.68	44.64	40.64				
Base of Response Zone (mOD)	41.68	31.18	42.64	31.14				
Hydrocarbon Sheen Observed?	N/A	N/A	N/A	No				
Thickness of Free Product (m)	N/A	N/A	N/A	0.00				

Groundwater Sampling Details	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**				
Purge Method	-	Not enough to sample	-	Bailing				
Purged Volume (litres)	-		-	10.0				
Recharge (Good / Poor)	-		-	Good				
Sampling Method	-		-	Bailing				
Volume of Water Sampled (ltrs)	-		-	0.68				
Volume of Free Product Sampled (ltrs)	-		-	N/A				
Colour / Odours Noted	-		-	Brown very silty water / No odour				
In-situ pH	-		-	6.52				
In-situ Temperature (°C)	-		-	16.5				
In-situ Dissolved Oxygen (%)	-		-	2.6				
In-situ Electrical Conductivity (mS/cm)	-		-	1.91				
In-situ Total Dissolved Solids (ppt)	-		-	0.96				

Notes:

WS02 not monitored due to damaged headworks of the well.

Groundwater Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**GD**
Date of Visit:	**15 September 2026**	**Time of Visit:**	**09:00 to 16:30**

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

Borehole Reference	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**				
Target Stratum	Made Ground	Glacial Till	Made Ground	Glacial Till				
Ground Level (mOD)	45.68	45.68	45.64	45.64				
Groundwater Depth (mbgl)	Damp at base	Dry	Dry	12.84				
Groundwater Level (mOD)	Damp at base	Dry	Dry	32.80				
Base of Well (mbgl)	4.18	14.70	2.58	14.50				
Diameter of Well (m)	0.05	0.05	0.05	0.05				
Condition of Well	Good	Good	Good	Good				
Top of Response Zone (mbgl)	1.00	6.00	1.00	5.00				
Base of Response Zone (mbgl)	4.00	14.50	3.00	14.50				
Top of Response Zone (mOD)	44.68	39.68	44.64	40.64				
Base of Response Zone (mOD)	41.68	31.18	42.64	31.14				
Hydrocarbon Sheen Observed?	N/A	N/A	N/A	No				
Thickness of Free Product (m)	N/A	N/A	N/A	0.00				

Groundwater Sampling Details								
Purge Method								
Purged Volume (litres)								
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 (mS/cm)								
In-situ Total Dissolved Solids (ppt)								

Notes:

WS02 not monitored due to damaged headworks of the well.

Groundwater Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**JF**
Date of Visit:	**23 September 2026**	**Time of Visit:**	**08:50 to 10:40**

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

Borehole Reference	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**				
Target Stratum	Made Ground	Glacial Till	Made Ground	Glacial Till				
Ground Level (mOD)	45.68	45.68	45.64	45.64				
Groundwater Depth (mbgl)	Dry	Damp at base	Dry	12.68				
Groundwater Level (mOD)	Dry	Damp at base	Dry	32.96				
Base of Well (mbgl)	4.10	14.64	2.52	14.42				
Diameter of Well (m)	0.05	0.05	0.05	0.05				
Condition of Well	Good	Good	Good	Good				
Top of Response Zone (mbgl)	1.00	6.00	1.00	5.00				
Base of Response Zone (mbgl)	4.00	14.50	3.00	14.50				
Top of Response Zone (mOD)	44.68	39.68	44.64	40.64				
Base of Response Zone (mOD)	41.68	31.18	42.64	31.14				
Hydrocarbon Sheen Observed?	N/A	N/A	N/A	No				
Thickness of Free Product (m)	N/A	N/A	N/A	0.00				

Groundwater Sampling Details								
Purge Method								
Purged Volume (litres)								
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 (mS/cm)								
In-situ Total Dissolved Solids (ppt)								

Notes:

WS02 not monitored due to damaged headworks of the well.

Appendix E – Geotechnical Laboratory Analysis Results

GEOLABS Limited
Albany House
Station Road
Coleshill
North Warwickshire
B46 1HT
Tel: +44(0) 121 296 4600

email: admin@geolabs.co.uk
web: www.geolabs.co.uk

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

08 September 2026
Report No : GEO/45859/01

For the attention of Ms K I'Anson / Ms K Poore

		Date samples received	28/07/2026
Our ref	**GEO / 45859**	Date written instructions received	06/08/2026
Your ref	**51334/01**	Date testing commenced	07/08/2026
Order ref	**PO-0694**	**Date of sample disposal**	**06/10/2026**

Project **PICCADILLY GARDENS, MANCHESTER**

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
~	6	Water Content
2	6	Liquid & Plastic Limits
3	6	Unconsolidated Undrained Triaxial Compression

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

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

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

Yours faithfully
on behalf of **GEOLABS Limited**

J A Reynolds
Director

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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
BH1	0.80-0.90		B	Black clayey SAND with abundant fine to coarse gravel.	10.6	~	NP		34	~	3	3
BH1	4.00-4.45		B	Black mottled dark grey CLAY.	27.8	48	21	27	100	CIM	2	1
BH1	6.00-6.45		D	Dark brown CLAY with rare medium gravel.	19.5	46	16	30	98	CIM	1	1
BH1	12.00-12.45		D	Dark brown sandy CLAY with rare fine to medium gravel.	12.9	32	12	20	98	CIL	1	1
BH2	3.00-3.45		B	Dark brown CLAY with rare fine to coarse gravel.	19.3	43	14	29	98	CIM	2	1
BH2	7.50-7.95		B	Dark brown CLAY.	15.5	28	12	16	100	CIL	2	1

Test Type:
1 - 1 point 80g / 30° fall cone method.
2 - 4 point 80g / 30° fall cone method.
3 - Non plastic determination.

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

Checked and Approved by:

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

Location	BH1
Depth (m)	0.80
Sample Type	B

Description:

Black clayey SAND with abundant fine to coarse gravel.

Preparation : Particles >425µm removed by wet sieving and air drying.

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	10.6 %
Measured percentage passing 425µm sieve :	34 %
Liquid Limit - Fall Cone Method (cone angle 30°) :	Not Determined
Plastic Limit :	Non-Plastic

Equivalent Water Content of material passing 425µm sieve : 31 %

Sample was determined to be Non-Plastic after preparation

Tested by JT
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

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LIQUID AND PLASTIC LIMITS

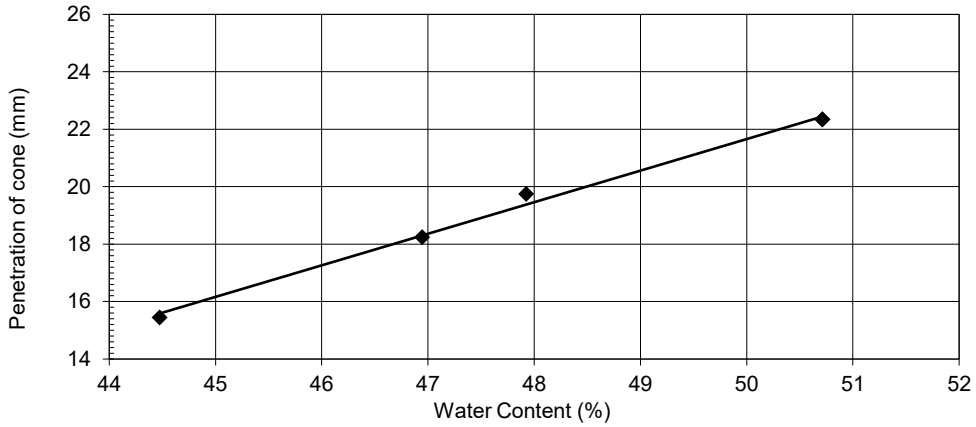
Location	BH1
Depth (m)	4.00
Sample Type	B

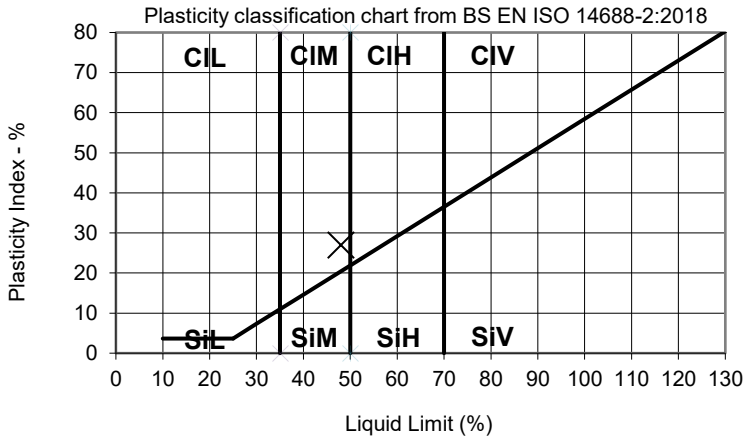
Description:

Black mottled dark grey CLAY.

Preparation : Sample as received.

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	27.8	%
Estimated percentage passing 425µm sieve :	100	%
Liquid Limit - Fall Cone 4 point Method (cone angle 30°) with increasing water content :	48	%
Plastic Limit :	21	%
Plasticity Index :	27	%
Equivalent Water Content of material passing 425µm sieve :	27.8	%
Liquidity Index :	0.25	





Tested by JB
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

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BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

Location	BH1
Depth (m)	6.00
Sample Type	D

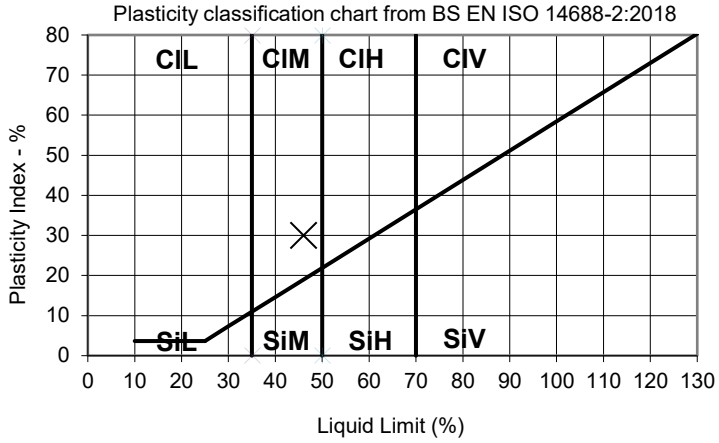
Description:

Dark brown CLAY with rare medium gravel.

Insufficient sample for 4 point test ,

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

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	19.5	%
Estimated percentage passing 425µm sieve :	98	%
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) :	46	%
Plastic Limit :	16	%
Plasticity Index :	30	%
Equivalent Water Content of material passing 425µm sieve :	20.0	%
Liquidity Index :	0.13	



Insufficient sample for 4 point test

***One point liquid limit test readings**

Cone penetration	20.6	mm
Water content	46.2	%
One point method correlation factor : *BS 1377-2 : 2022 : 5.3.2*	0.990	

Tested by JT
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

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BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

Location	BH1
Depth (m)	12.00
Sample Type	D

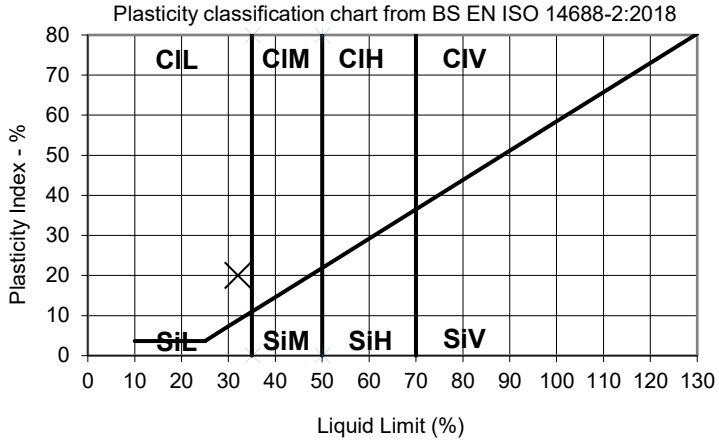
Description:

Dark brown sandy CLAY with rare fine to medium gravel.

Insufficient sample for 4 point test ,

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

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	12.9	%
Estimated percentage passing 425µm sieve :	98	%
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) :	32	%
Plastic Limit :	12	%
Plasticity Index :	20	%
Equivalent Water Content of material passing 425µm sieve :	13.2	%
Liquidity Index :	0.06	



Insufficient sample for 4 point test

***One point liquid limit test readings**

Cone penetration	19.8	mm
Water content	32.0	%
One point method correlation factor : *BS 1377-2 : 2022 : 5.3.2*	1.002	

Tested by JT
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

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PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

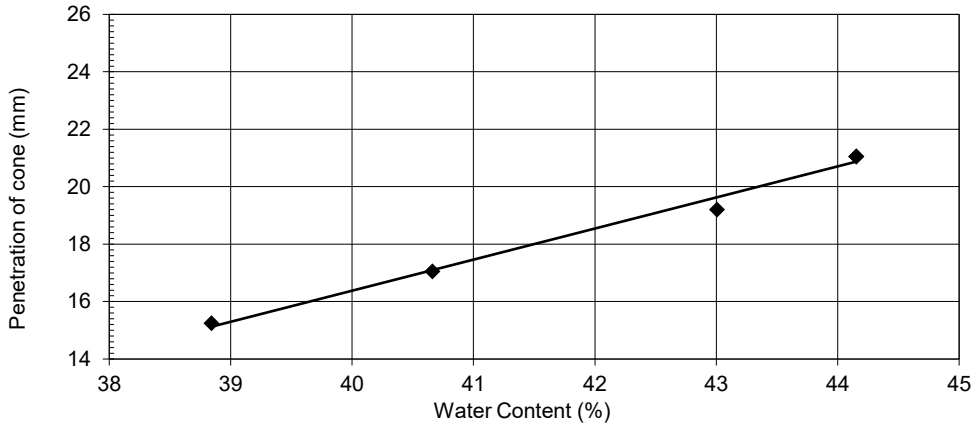
Location	BH2
Depth (m)	3.00
Sample Type	B

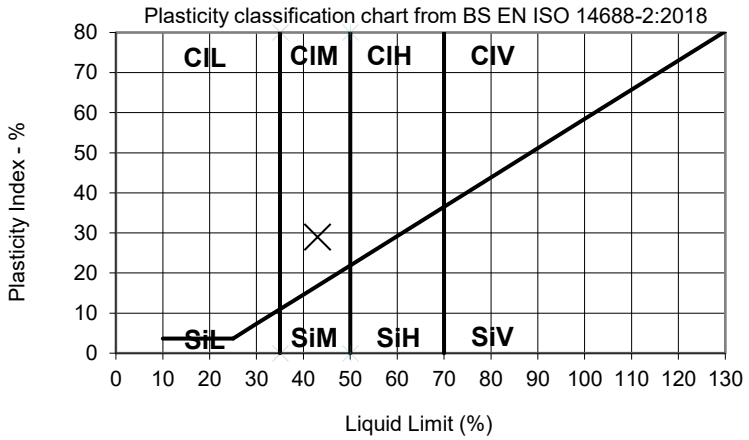
Description:

Dark brown CLAY with rare fine to coarse gravel.

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

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	19.3	%
Estimated percentage passing 425µm sieve :	98	%
Liquid Limit - Fall Cone 4 point Method (cone angle 30°) with increasing water content :	43	%
Plastic Limit :	14	%
Plasticity Index :	29	%
Equivalent Water Content of material passing 425µm sieve :	19.8	%
Liquidity Index :	0.20	





Tested by JT
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

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LIQUID AND PLASTIC LIMITS

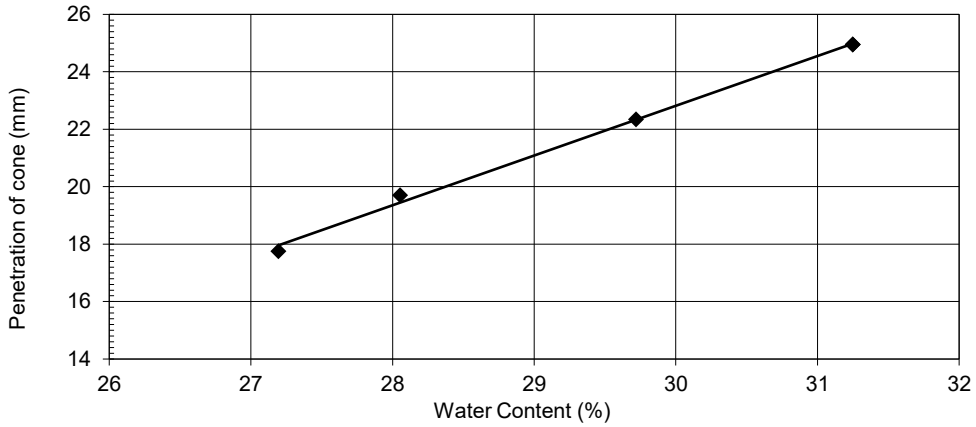
Location	BH2
Depth (m)	7.50
Sample Type	B

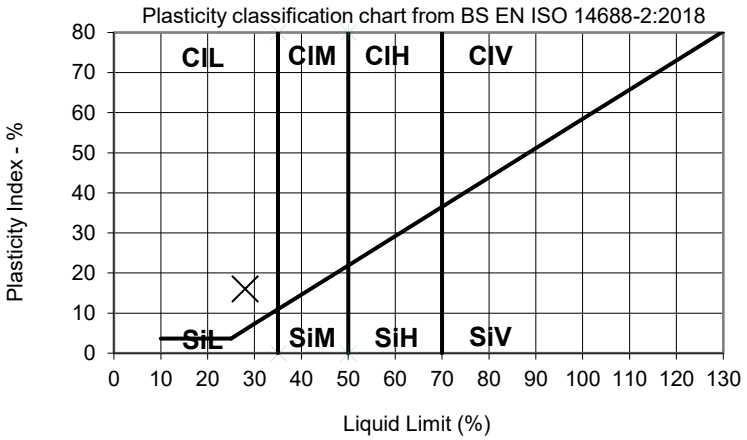
Description:

Dark brown CLAY.

Preparation : Sample as received.

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	15.5	%
Estimated percentage passing 425µm sieve :	100	%
Liquid Limit - Fall Cone 4 point Method (cone angle 30°) with increasing water content :	28	%
Plastic Limit :	12	%
Plasticity Index :	16	%
Equivalent Water Content of material passing 425µm sieve :	15.5	%
Liquidity Index :	0.22	





Tested by JB
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

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UKAS TESTING 1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH1
Sample Depth	5.00-5.45 m
Sample Type	U

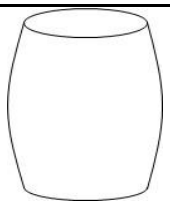
Description:

Firm brown CLAY.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.1
Diameter	(mm)	102.6
Water content	(%)	19.9
Bulk density	(Mg/m³)	2.10
Dry density	(Mg/m³)	1.75
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	202.1
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	95
Strain at failure	(%)	14.8
Maximum deviator stress	(kPa)	352
Shear Stress Cu	(kPa)	176

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	53

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH1
Sample Depth	7.50-7.95 m
Sample Type	U

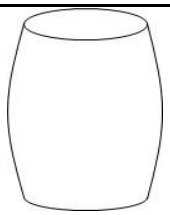
Description:

Firm brown CLAY with rare fine to coarse gravel.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.1
Diameter	(mm)	102.6
Water content	(%)	15.0
Bulk density	(Mg/m³)	2.20
Dry density	(Mg/m³)	1.91
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	202.1
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	145
Strain at failure	(%)	14.8
Maximum deviator stress	(kPa)	288
Shear Stress Cu	(kPa)	144

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	38

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

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BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH1
Sample Depth	10.50-10.95 m
Sample Type	U

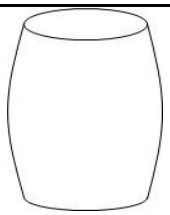
Description:

Firm brown CLAY with frequent fine to medium gravel.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.1
Diameter	(mm)	101.6
Water content	(%)	14.3
Bulk density	(Mg/m³)	2.20
Dry density	(Mg/m³)	1.92
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	202.1
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	200
Strain at failure	(%)	14.8
Maximum deviator stress	(kPa)	254
Shear Stress Cu	(kPa)	127

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	82

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

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BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH2
Sample Depth	4.00-4.45 m
Sample Type	U

Description:

Firm brown CLAY.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	201.7
Diameter	(mm)	100.8
Water content	(%)	19.8
Bulk density	(Mg/m³)	2.11
Dry density	(Mg/m³)	1.76
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	201.7
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	75
Strain at failure	(%)	14.9
Maximum deviator stress	(kPa)	334
Shear Stress Cu	(kPa)	167

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	33

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH2
Sample Depth	6.00-6.45 m
Sample Type	U

Description:

Firm brown CLAY.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	201.7
Diameter	(mm)	102.5
Water content	(%)	13.8
Bulk density	(Mg/m³)	2.18
Dry density	(Mg/m³)	1.92
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	201.6
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	115
Strain at failure	(%)	14.9
Maximum deviator stress	(kPa)	203
Shear Stress Cu	(kPa)	101

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	35

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH2
Sample Depth	10.50-10.95 m
Sample Type	U

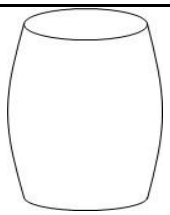
Description:

Firm brown CLAY with rare fine to medium gravel.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.2
Diameter	(mm)	103.2
Water content	(%)	15.3
Bulk density	(Mg/m³)	2.19
Dry density	(Mg/m³)	1.90
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	202.1
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	200
Strain at failure	(%)	14.8
Maximum deviator stress	(kPa)	172
Shear Stress Cu	(kPa)	86

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	37

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

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Appendix F – Infiltration Testing Results

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	15/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH01(D)	**Test No.**	1

Monitoring Details	
Groundwater Depth	14.70 mbgl
Base of Well	14.70 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	2.41 m
L/D Ratio	48.2
Test Located in Saturated Zone	No

Calculation

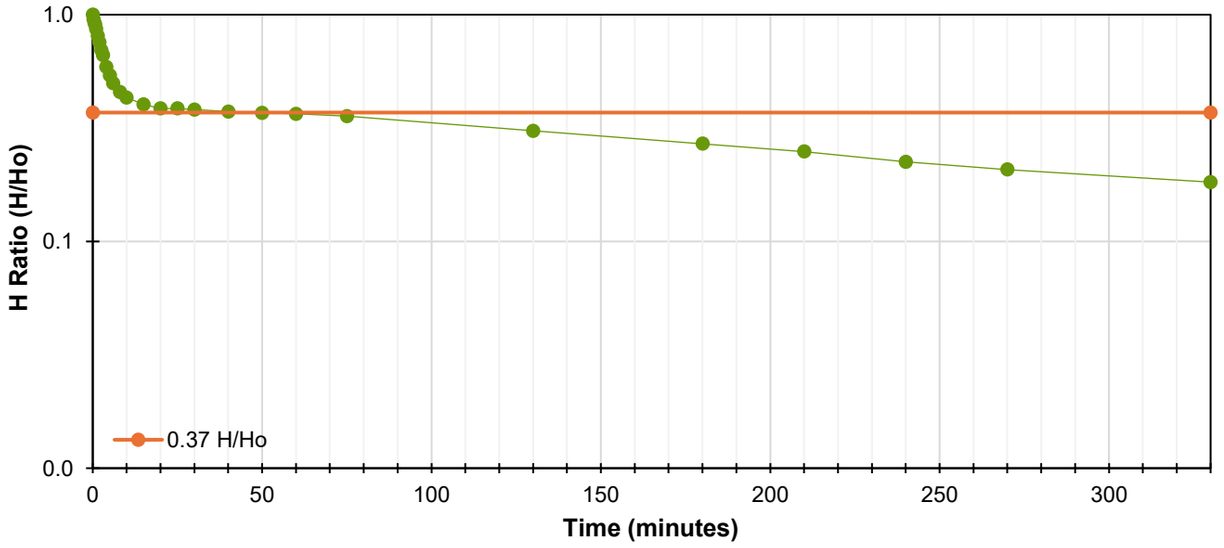
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	3.3145
H_1 = Variable Head (H) measured at t_1 (m)	2.41
H_2 = Variable Head (H) measured at t_2 (m)	0.44
t_1 = Time at H_1 (minutes)	0.0
t_2 = Time at H_2 (minutes)	330.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	40.0

Permeability (k)	**5.09E-08**	m/s
	4.40E-03	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	12.29	2.41	1.000
0.3	15	12.40	2.30	0.954
0.5	30	12.48	2.22	0.921
0.8	45	12.52	2.18	0.905
1.0	60	12.62	2.08	0.863
1.5	90	12.76	1.94	0.805
2.0	120	12.88	1.82	0.755
2.5	150	13.02	1.68	0.697
3.0	180	13.10	1.60	0.664
4.0	240	13.28	1.42	0.589
5.0	300	13.40	1.30	0.539
6.0	360	13.50	1.20	0.498
8.0	480	13.60	1.10	0.456
10.0	600	13.66	1.04	0.432
15.0	900	13.73	0.97	0.402
20.0	1200	13.77	0.93	0.386
25.0	1500	13.77	0.93	0.386
30.0	1800	13.78	0.92	0.382
40.0	2400	13.80	0.90	0.373
50.0	3000	13.81	0.89	0.369
60.0	3600	13.82	0.88	0.365
75.0	4500	13.84	0.86	0.357
130.0	7800	13.96	0.74	0.307
180.0	10800	14.05	0.65	0.270
210.0	12600	14.10	0.60	0.249
240.0	14400	14.16	0.54	0.224
270.0	16200	14.20	0.50	0.207
330.0	19800	14.26	0.44	0.183



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	16/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH01(D)	**Test No.**	2

Monitoring Details	
Groundwater Depth	14.63 mbgl
Base of Well	14.63 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	2.85 m
L/D Ratio	57.0
Test Located in Saturated Zone	No

Calculation

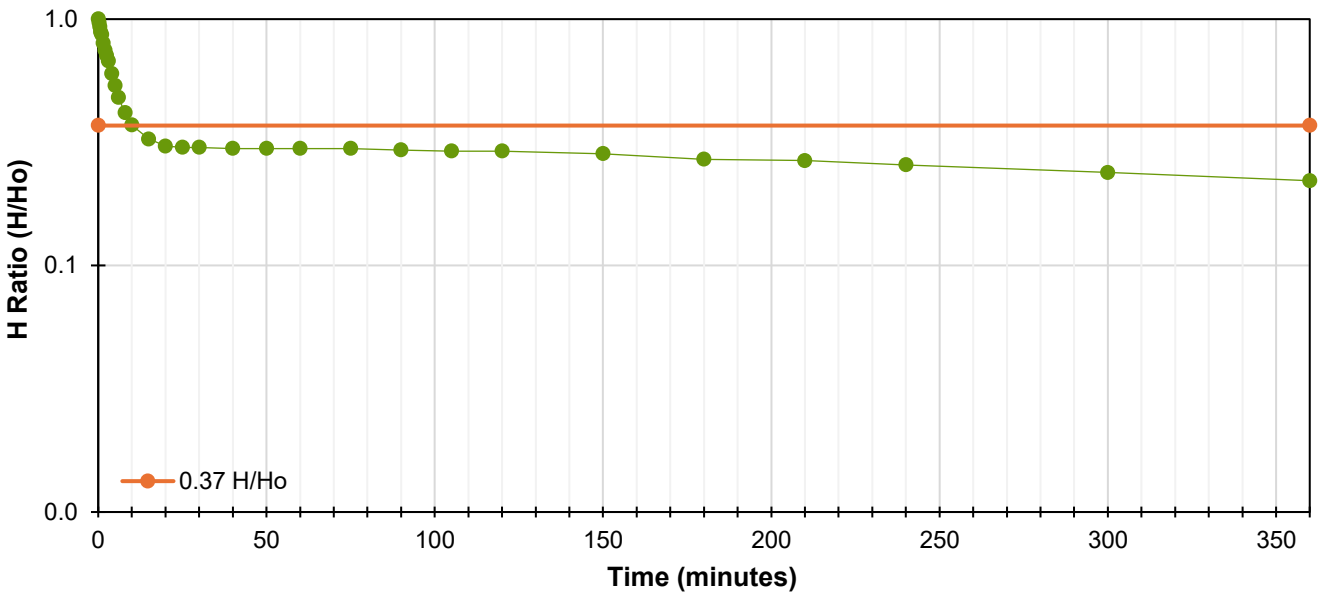
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	3.7809
H_1 = Variable Head (H) measured at t_1 (m)	2.85
H_2 = Variable Head (H) measured at t_2 (m)	0.68
t_1 = Time at H_1 (minutes)	0.0
t_2 = Time at H_2 (minutes)	300.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	10.0

Permeability (k)	**4.13E-08**	m/s
	3.57E-03	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	11.78	2.85	1.000
0.3	15	11.87	2.76	0.968
0.5	30	11.98	2.65	0.930
0.8	45	12.10	2.53	0.888
1.0	60	12.16	2.47	0.867
1.5	90	12.35	2.28	0.800
2.0	120	12.50	2.13	0.747
2.5	150	12.60	2.03	0.712
3.0	180	12.70	1.93	0.677
4.0	240	12.92	1.71	0.600
5.0	300	13.10	1.53	0.537
6.0	360	13.26	1.37	0.481
8.0	480	13.44	1.19	0.418
10.0	600	13.57	1.06	0.372
15.0	900	13.70	0.93	0.326
20.0	1200	13.76	0.87	0.305
25.0	1500	13.77	0.86	0.302
30.0	1800	13.77	0.86	0.302
40.0	2400	13.78	0.85	0.298
50.0	3000	13.78	0.85	0.298
60.0	3600	13.78	0.85	0.298
75.0	4500	13.78	0.85	0.298
90.0	5400	13.79	0.84	0.295
105.0	6300	13.80	0.83	0.291
120.0	7200	13.80	0.83	0.291
150.0	9000	13.82	0.81	0.284
180.0	10800	13.86	0.77	0.270
210.0	12600	13.87	0.76	0.267
240.0	14400	13.90	0.73	0.256
300.0	18000	13.95	0.68	0.239
360.0	21600	14.00	0.63	0.221



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	02/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH02(D)	**Test No.**	1

Monitoring Details	
Groundwater Depth	12.87 mbgl
Base of Well	14.50 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	6.30 m
L/D Ratio	126.0
Test Located in Saturated Zone	No

Calculation

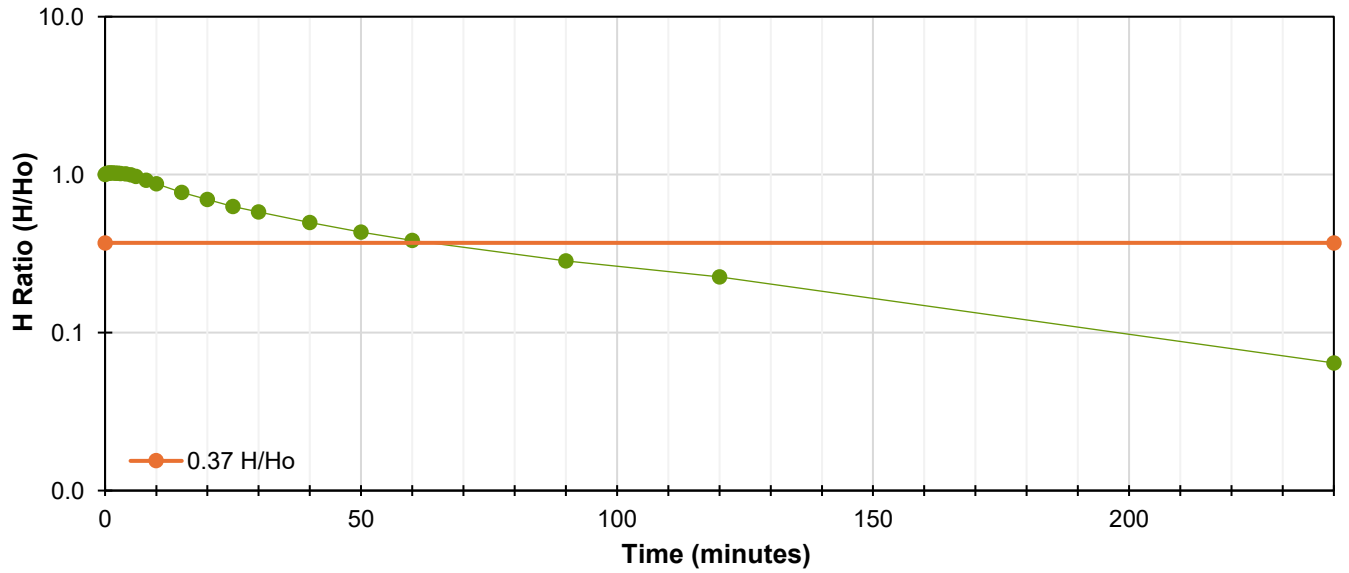
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	7.1588
H_1 = Variable Head (H) measured at t_1 (m)	4.78
H_2 = Variable Head (H) measured at t_2 (m)	1.05
t_1 = Time at H_1 (minutes)	0.0
t_2 = Time at H_2 (minutes)	120.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	

Permeability (k)	**5.77E-08**	m/s
	4.99E-03	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	8.20	4.67	1.000
0.3	15	8.12	4.75	1.017
0.5	30	8.10	4.77	1.021
0.8	45	8.10	4.77	1.021
1.0	60	8.09	4.78	1.024
1.5	90	8.09	4.78	1.024
2.0	120	8.10	4.77	1.021
2.5	150	8.11	4.76	1.019
3.0	180	8.12	4.75	1.017
4.0	240	8.15	4.72	1.011
5.0	300	8.21	4.66	0.998
6.0	360	8.32	4.55	0.974
8.0	480	8.56	4.31	0.923
10.0	600	8.78	4.09	0.876
15.0	900	9.27	3.60	0.771
20.0	1200	9.62	3.25	0.696
25.0	1500	9.93	2.94	0.630
30.0	1800	10.16	2.71	0.580
40.0	2400	10.55	2.32	0.497
50.0	3000	10.85	2.02	0.433
60.0	3600	11.08	1.79	0.383
90.0	5400	11.54	1.33	0.285
120.0	7200	11.82	1.05	0.225
240.0	14400	12.57	0.30	0.064



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	15/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH02(D)	**Test No.**	2

Monitoring Details	
Groundwater Depth	12.84 mbgl
Base of Well	14.50 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	9.62 m
L/D Ratio	192.4
Test Located in Saturated Zone	No

Calculation

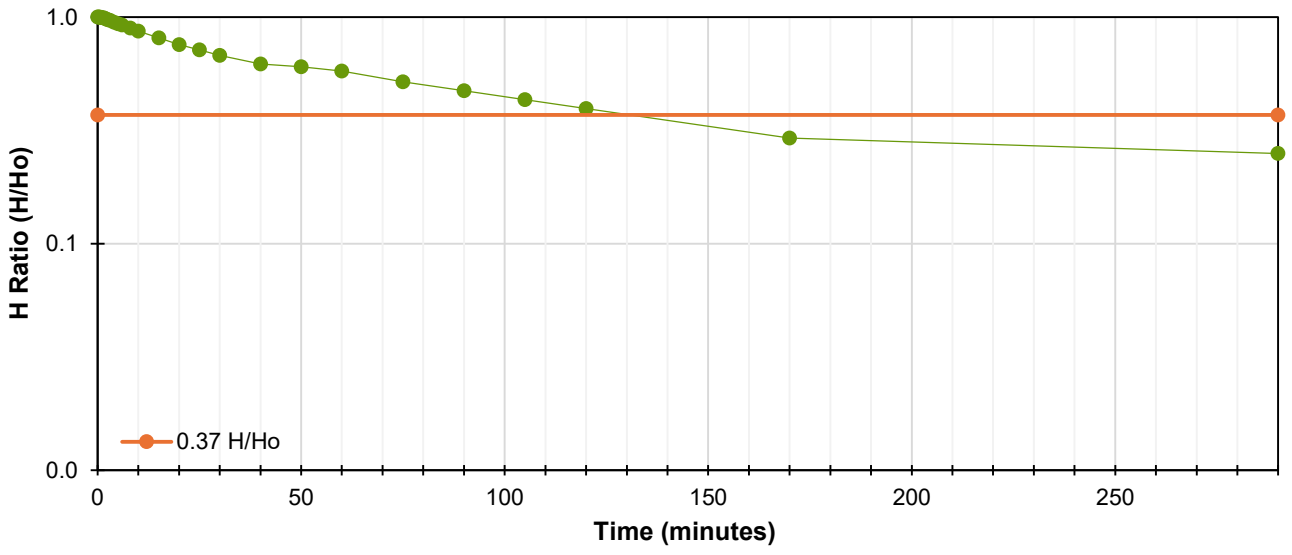
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	10.1540
H_1 = Variable Head (H) measured at t_1 (m)	5.39
H_2 = Variable Head (H) measured at t_2 (m)	1.99
t_1 = Time at H_1 (minutes)	30.0
t_2 = Time at H_2 (minutes)	290.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	130.0

Permeability (k)	**1.24E-08**	m/s
	1.07E-03	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	4.88	7.96	1.000
0.3	15	4.88	7.96	1.000
0.5	30	4.89	7.95	0.999
0.8	45	4.89	7.95	0.999
1.0	60	4.91	7.93	0.996
1.5	90	4.94	7.90	0.992
2.0	120	5.02	7.82	0.982
2.5	150	5.08	7.76	0.975
3.0	180	5.15	7.69	0.966
4.0	240	5.28	7.56	0.950
5.0	300	5.39	7.45	0.936
6.0	360	5.50	7.34	0.922
8.0	480	5.72	7.12	0.894
10.0	600	5.94	6.90	0.867
15.0	900	6.40	6.44	0.809
20.0	1200	6.82	6.02	0.756
25.0	1500	7.14	5.70	0.716
30.0	1800	7.45	5.39	0.677
40.0	2400	7.89	4.95	0.622
50.0	3000	8.04	4.80	0.603
60.0	3600	8.24	4.60	0.578
75.0	4500	8.72	4.12	0.518
90.0	5400	9.07	3.77	0.474
105.0	6300	9.40	3.44	0.432
120.0	7200	9.70	3.14	0.394
170.0	10200	10.51	2.33	0.293
290.0	17400	10.85	1.99	0.250



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	16/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH02(D)	**Test No.**	3

Monitoring Details	
Groundwater Depth	12.84 mbgl
Base of Well	14.45 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	9.60 m
L/D Ratio	192.0
Test Located in Saturated Zone	No

Calculation

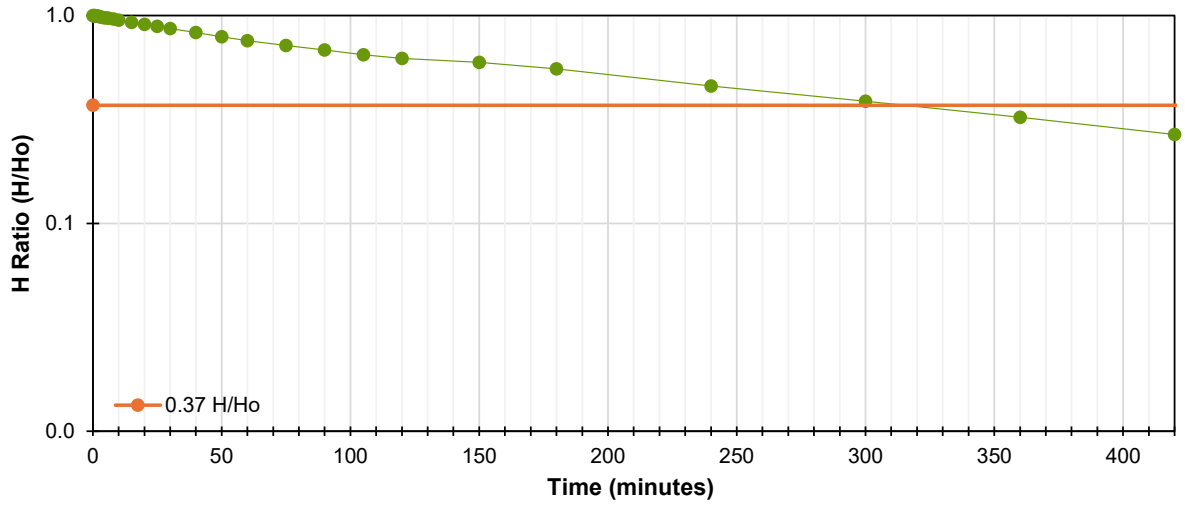
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	10.1365
H_1 = Variable Head (H) measured at t_1 (m)	7.99
H_2 = Variable Head (H) measured at t_2 (m)	1.95
t_1 = Time at H_1 (minutes)	0.0
t_2 = Time at H_2 (minutes)	450.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	

Permeability (k)	**1.01E-08**	m/s
	8.74E-04	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	4.85	7.99	1.000
0.3	15	4.85	7.99	1.000
0.5	30	4.86	7.98	0.999
0.8	45	4.87	7.97	0.997
1.0	60	4.88	7.96	0.996
1.5	90	4.90	7.94	0.994
2.0	120	4.92	7.92	0.991
2.5	150	4.94	7.90	0.989
3.0	180	4.97	7.87	0.985
4.0	240	5.02	7.82	0.979
5.0	300	5.06	7.78	0.974
6.0	360	5.08	7.76	0.971
8.0	480	5.15	7.69	0.962
10.0	600	5.25	7.59	0.950
15.0	900	5.44	7.40	0.926
20.0	1200	5.60	7.24	0.906
25.0	1500	5.75	7.09	0.887
30.0	1800	5.93	6.91	0.865
40.0	2400	6.22	6.62	0.829
50.0	3000	6.52	6.32	0.791
60.0	3600	6.80	6.04	0.756
75.0	4500	7.10	5.74	0.718
90.0	5400	7.39	5.45	0.682
105.0	6300	7.67	5.17	0.647
120.0	7200	7.88	4.96	0.621
150.0	9000	8.09	4.75	0.594
180.0	10800	8.41	4.43	0.554
240.0	14400	9.18	3.66	0.458
300.0	18000	9.75	3.09	0.387
360.0	21600	10.25	2.59	0.324
420.0	25200	10.70	2.14	0.268
450.0	27000	10.89	1.95	0.244



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

Appendix G – Chemical Laboratory Analysis Results

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77 Dale Street
Manchester
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i2 Analytical Ltd.
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Business Park,
Watford,
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t: 01923 225404
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Analytical Report Number : 26-036395

Replaces Analytical Report Number: 26-036395, issue no. 1
Additional analysis undertaken.
Asbestos i/d added to all samples as per client's request

Project / Site name:	Piccadilly Gardens	**Samples received on:**	07/07/2026
Your job number:	51334/02	**Samples instructed on/ Analysis started on:**	07/07/2026
Your order number:		**Analysis completed by:**	05/08/2026
Report Issue Number:	2	**Report issued on:**	06/08/2026
Samples Analysed:	4 soil samples		

Signed:

Trevor Hill
Customer Service
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: 26-036395
Project / Site name: Piccadilly Gardens

Lab Sample Number				974330	974331	974332	974333
Sample Reference				TP17	TP11	TP13	TP06
Sample Number				1	1	1	1
Water Matrix				N/A	N/A	N/A	N/A
Depth (m)				0.75	0.80	0.75	0.60
Date Sampled				03/07/2026	02/07/2026	02/07/2026	01/07/2026
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status				
Mass of stone >10mm	%	0.1	NONE	< 0.1	24.1	52.3	16.9
Moisture Content	%	0.01	NONE	15	10	11	6.2
Total mass of sample received	kg	0.1	NONE	1.5	1.5	1.1	1.2
Whole Sample Crushed	N/A	N/A	NONE	-	-	Crushed	-
Asbestos							
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	CZJ	CZJ	CZJ	CZJ
Analysis completed	N/A	N/A	N/A	05/08/2026	05/08/2026	05/08/2026	05/08/2026
General Inorganics							
pH (L099)	pH Units	N/A	MCERTS	8.5	9.3	7.7	7.8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	1500	3300	950	270
Organic Matter (automated)	%	0.1	MCERTS	3	3.4	3.6	3.3
Total Phenols							
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	0.83	2.1	0.44	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.17	0.25	0.07	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	1	5.5	0.22	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.89	3.7	0.2	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	6.4	38	2.1	0.1
Anthracene	mg/kg	0.05	MCERTS	1.6	8.6	0.47	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	9.4	40	2.9	0.23
Pyrene	mg/kg	0.05	MCERTS	8.8	35	2.9	0.24
Benzo(a)anthracene	mg/kg	0.05	MCERTS	4.2	16	1.4	0.14
Chrysene	mg/kg	0.05	MCERTS	3.8	16	1.4	0.13
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	4.6	17	1.5	0.18
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.8	6.7	0.64	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	4	15	1.4	0.14
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	2	7.2	0.67	0.09
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.42	1.8	0.19	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	2.1	8.1	0.77	0.1
Coronene	mg/kg	0.05	NONE	0.61	2.5	0.22	< 0.05
Total PAH							
Total WAC-17 PAHs	mg/kg	0.85	NONE	52.6	221	17.5	1.35

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

Analytical Report Number: 26-036395
Project / Site name: Piccadilly Gardens

Lab Sample Number				974330	974331	974332	974333
Sample Reference				TP17	TP11	TP13	TP06
Sample Number				1	1	1	1
Water Matrix				N/A	N/A	N/A	N/A
Depth (m)				0.75	0.80	0.75	0.60
Date Sampled				03/07/2026	02/07/2026	02/07/2026	01/07/2026
Time Taken				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	3.8	3.6	4.9	1
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	19	14	2.4
Barium (aqua regia extractable)	mg/kg	1	MCERTS	170	270	130	31
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.1	0.95	1.1	0.27
Boron (water soluble)	mg/kg	0.2	MCERTS	2.3	1.8	0.8	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.7	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	U/S *U/S g
Chromium (III)	mg/kg	1	NONE	23	18	22	U/S *U/S g
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	-	-	-	< 1.80
Chromium (III) by IC	mg/kg	1	NONE	-	-	-	6.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	18	22	6.8
Copper (aqua regia extractable)	mg/kg	1	MCERTS	53	61	93	22
Lead (aqua regia extractable)	mg/kg	1	MCERTS	200	790	1600	21
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	2	3	4.4	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	24	18	25	5.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.1	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	31	27	29	7.1
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	90	160	75	67
Petroleum Hydrocarbons							
TPHCWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 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
TPHCWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 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
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	5.1	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	8.5	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	11	35	13	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	11	48	13	< 10
TPHCWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 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
TPHCWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	1	2.2	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	6.4	23	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	28	120	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	52	190	10	27
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	87	330	10	27
VOCs							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
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

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

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

Analytical Report Number : 26-036395
Project / Site name: Piccadilly Gardens

* 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 *
974330	TP17	1	0.75	Brown clay and sand with gravel
974331	TP11	1	0.8	Brown loam and sand with gravel and stones
974332	TP13	1	0.75	Brown sand with stones
974333	TP06	1	0.6	Brown loam and sand with vegetation and stones

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Analytical Report Number : 26-036395
Project / Site name: Piccadilly Gardens

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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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

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Analytical Report Number : 26-036395
Project / Site name: Piccadilly Gardens

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
Whole Sample Crushed	Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis	In house method, applicable to dry samples only	L019B	D	NONE
Hexavalent chromium in soil 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

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.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

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.

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Analytical Report Number : 26-041235

Project / Site name:	Piccadilly Gardens	**Samples received on:**	29/07/2026
Your job number:	51334/01	**Samples instructed on/ Analysis started on:**	29/07/2026
Your order number:	PO-0700	**Analysis completed by:**	10/08/2026
Report Issue Number:	1	**Report issued on:**	10/08/2026
Samples Analysed:	6 soil samples		

Signed:

Rachel Chappell
Key Account Manager
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: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Mass of stone >10mm	%	0.1	NONE	68.6	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	3.7	4.7	10	6.9	4
Total mass of sample received	kg	0.1	NONE	2	2	2	1.9	2
Whole Sample Crushed	N/A	N/A	NONE	Crushed	-	-	-	-
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	OGR	OGR	CAD	OGR	OGR
Analysis completed	N/A	N/A	N/A	04/08/2026	04/08/2026	04/08/2026	04/08/2026	04/08/2026
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 Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	Loose Fibres	-	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	7.6	7.7	8.9	9.2	8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	200	310	1300	560	170
Organic Matter (automated)	%	0.1	MCERTS	1.5	2.2	4.4	1.5	0.9
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	0.21	1.1	0.23	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.17	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.07	1.2	0.22	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1	0.16	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.12	0.21	6.8	1.5	0.09
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	2.1	0.42	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.19	0.23	9.4	2.4	0.11
Pyrene	mg/kg	0.05	MCERTS	0.19	0.22	8.8	2.4	0.11
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.12	0.1	4.1	1.2	0.06
Chrysene	mg/kg	0.05	MCERTS	0.1	0.14	4	1.1	0.07
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.13	0.14	4.2	1.3	0.09
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.07	1.7	0.58	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.12	0.12	3.8	1.2	0.06
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.06	0.06	1.9	0.6	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.43	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.08	0.08	2.1	0.71	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	0.17	< 0.05
Total PAH								
Total WAC-17 PAHs	mg/kg	0.85	NONE	1.19	1.66	52.7	14.3	< 0.85

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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	2.8	< 1.0	1.3
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.7	2.6	7.1	3.3	3
Barium (aqua regia extractable)	mg/kg	1	MCERTS	60	25	83	58	26
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.4	0.33	0.49	0.41	0.45
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.6	1.2	0.9	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.2	< 0.2	0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	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	19	11	12
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	-	-	-
Chromium (III) by IC	mg/kg	1	NONE	13	9	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	9	19	11	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	33	110	18	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	18	12	59	20	8.7
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	10	8.2	18	11	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.1	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	16	9.8	25	15	13
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	41	43	65	54	41
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	2	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	21	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	35	8.1	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	72	52	210	79	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	72	52	270	87	< 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	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	19	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	63	11	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	81	310	97	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	< 10	81	400	110	< 10
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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								
PCB Congener 077	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 081	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 105	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 114	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 118	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 126	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 156	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 157	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 167	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 169	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 189	mg/kg	0.001	NONE	-	< 0.001	-	-	-
Total PCBs	mg/kg	0.012	NONE	-	< 0.012	-	-	-

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

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
Mass of stone >10mm	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	4.9
Total mass of sample received	kg	0.1	NONE	2
Whole Sample Crushed	N/A	N/A	NONE	-
Asbestos				
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	OGR
Analysis completed	N/A	N/A	N/A	04/08/2026
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 Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-
General Inorganics				
pH (L099)	pH Units	N/A	MCERTS	7.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	200
Organic Matter (automated)	%	0.1	MCERTS	2.1
Total Phenols				
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
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	0.09
Pyrene	mg/kg	0.05	MCERTS	0.09
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.06
Chrysene	mg/kg	0.05	MCERTS	0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.08
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.06
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

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

Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
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	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.9
Barium (aqua regia extractable)	mg/kg	1	MCERTS	26
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.32
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S *U/S g
Chromium (III)	mg/kg	1	NONE	U/S *U/S g
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80
Chromium (III) by IC	mg/kg	1	NONE	8.3
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	8.3
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15
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	7.5
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	9.7
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	37
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

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
PCBs				
PCB Congener 077	mg/kg	0.001	NONE	-
PCB Congener 081	mg/kg	0.001	NONE	-
PCB Congener 105	mg/kg	0.001	NONE	-
PCB Congener 114	mg/kg	0.001	NONE	-
PCB Congener 118	mg/kg	0.001	NONE	-
PCB Congener 123	mg/kg	0.001	NONE	-
PCB Congener 126	mg/kg	0.001	NONE	-
PCB Congener 156	mg/kg	0.001	NONE	-
PCB Congener 157	mg/kg	0.001	NONE	-
PCB Congener 167	mg/kg	0.001	NONE	-
PCB Congener 169	mg/kg	0.001	NONE	-
PCB Congener 189	mg/kg	0.001	NONE	-
Total PCBs	mg/kg	0.012	NONE	-

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

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Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

* 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 *
999464	TP07A	1	1	Brown loam and sand with vegetation and stones
999465	BH01	1	0.2	Brown loam and sand with gravel and vegetation
999466	BH01	2	0.8	Brown loam and clay with gravel and vegetation
999467	BH02	1	1	Brown sand with gravel
999468	WS03	1	0.3	Brown gravelly sand
999469	WS04	1	0.5	Brown sand with gravel and vegetation

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Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

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
Whole Sample Crushed	Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis	In house method, applicable to dry samples only	L019B	D	NONE
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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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
Hexavalent chromium in soil 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

Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

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
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
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
PCBs WHO 12 in soil	Determination of PCBs (WHO-12 Congeners) by GC-MS	In-house method based on USEPA 8082	L027B	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.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

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.

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Analytical Report Number : 26-041235

Replaces Analytical Report Number: 26-041235, issue no. 1
Additional analysis undertaken.
Asbestos quantification added to sample 999466, WAC testing added to sample 99467 at clients request

Project / Site name:	Piccadilly Gardens	**Samples received on:**	29/07/2026
Your job number:	51334/01	**Samples instructed on/ Analysis started on:**	29/07/2026
Your order number:	PO-0700	**Analysis completed by:**	09/09/2026
Report Issue Number:	2	**Report issued on:**	09/09/2026
Samples Analysed:	6 soil samples - 1 leachate sample		

Signed:

Adam Fenwick
Customer Relationship Manager
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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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Mass of stone >10mm	%	0.1	NONE	68.6	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	3.7	4.7	10	6.9	4
Total mass of sample received	kg	0.1	NONE	2	2	2	1.9	2
Whole Sample Crushed	N/A	N/A	NONE	Crushed	-	-	-	-

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	OGR	OGR	CAD	OGR	OGR
Analysis completed	N/A	N/A	N/A	04/08/2026	04/08/2026	04/08/2026	04/08/2026	04/08/2026
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 (L005B)	pH Units	N/A	MCERTS	-	-	-	9.2	-
pH (L099)	pH Units	N/A	MCERTS	7.6	7.7	8.9	9.2	8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	200	310	1300	560	170
Organic Matter (automated)	%	0.1	MCERTS	1.5	2.2	4.4	1.5	0.9
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-	-	-	0.9	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	-	-	-	1.6	-
Acid Neutralisation Capacity	+/- mmol/kg	-9999	NONE	-	-	-	17	-

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: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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	< 0.05	0.21	1.1	0.23	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.17	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.07	1.2	0.22	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1	0.16	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.12	0.21	6.8	1.5	0.09
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	2.1	0.42	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.19	0.23	9.4	2.4	0.11
Pyrene	mg/kg	0.05	MCERTS	0.19	0.22	8.8	2.4	0.11
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.12	0.1	4.1	1.2	0.06
Chrysene	mg/kg	0.05	MCERTS	0.1	0.14	4	1.1	0.07
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.13	0.14	4.2	1.3	0.09
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.07	1.7	0.58	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.12	0.12	3.8	1.2	0.06
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.06	0.06	1.9	0.6	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.43	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.08	0.08	2.1	0.71	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	0.17	< 0.05
Total PAH								
Total WAC-17 PAHs	mg/kg	0.85	NONE	1.19	1.66	52.7	14.3	< 0.85
Heavy Metals / Metalloids								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	< 1.0	< 1.0	2.8	< 1.0	1.3
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.7	2.6	7.1	3.3	3
Barium (aqua regia extractable)	mg/kg	1	MCERTS	60	25	83	58	26
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.4	0.33	0.49	0.41	0.45
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.6	1.2	0.9	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.2	< 0.2	0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	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	19	11	12
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	-	-	-
Chromium (III) by IC	mg/kg	1	NONE	13	9	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	9	19	11	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	33	110	18	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	18	12	59	20	8.7
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	10	8.2	18	11	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.1	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	16	9.8	25	15	13
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	41	43	65	54	41

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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	2	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	21	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	35	8.1	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	72	52	210	79	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	72	52	270	87	< 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	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	19	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	63	11	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	81	310	97	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	< 10	81	400	110	< 10
Mineral Oil (EC10 - EC40) $_{EH_CU_1D_AL}$	mg/kg	10	NONE	-	-	-	130	-
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total BTEX	µg/kg	10	MCERTS	-	-	-	< 10	-
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	< 0.007	-

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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								
PCB Congener 077	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 081	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 105	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 114	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 118	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 126	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 156	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 157	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 167	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 169	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 189	mg/kg	0.001	NONE	-	< 0.001	-	-	-
Total PCBs	mg/kg	0.012	NONE	-	< 0.012	-	-	-

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

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
Mass of stone >10mm	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	4.9
Total mass of sample received	kg	0.1	NONE	2
Whole Sample Crushed	N/A	N/A	NONE	-

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	OGR
Analysis completed	N/A	N/A	N/A	04/08/2026
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 (L005B)	pH Units	N/A	MCERTS	-
pH (L099)	pH Units	N/A	MCERTS	7.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	200
Organic Matter (automated)	%	0.1	MCERTS	2.1
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	-
Acid Neutralisation Capacity	+/- mmol/kg	-9999	NONE	-

Total Phenols

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

Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
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	0.09
Pyrene	mg/kg	0.05	MCERTS	0.09
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.06
Chrysene	mg/kg	0.05	MCERTS	0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.08
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.06
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	2.9
Barium (aqua regia extractable)	mg/kg	1	MCERTS	26
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.32
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S *U/S g
Chromium (III)	mg/kg	1	NONE	U/S *U/S g
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80
Chromium (III) by IC	mg/kg	1	NONE	8.3
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	8.3
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15
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	7.5
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	9.7
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	37

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
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	< 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
Mineral Oil (EC10 - EC40) $_{EH_CU_1D_AL}$	mg/kg	10	NONE	-
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
Total BTEX	µg/kg	10	MCERTS	-
PCBs by GC-MS				
PCB Congener 28	mg/kg	0.001	MCERTS	-
PCB Congener 52	mg/kg	0.001	MCERTS	-
PCB Congener 101	mg/kg	0.001	MCERTS	-
PCB Congener 118	mg/kg	0.001	MCERTS	-
PCB Congener 138	mg/kg	0.001	MCERTS	-
PCB Congener 153	mg/kg	0.001	MCERTS	-
PCB Congener 180	mg/kg	0.001	MCERTS	-
Total PCBs	mg/kg	0.007	MCERTS	-

Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
PCBs				
PCB Congener 077	mg/kg	0.001	NONE	-
PCB Congener 081	mg/kg	0.001	NONE	-
PCB Congener 105	mg/kg	0.001	NONE	-
PCB Congener 114	mg/kg	0.001	NONE	-
PCB Congener 118	mg/kg	0.001	NONE	-
PCB Congener 123	mg/kg	0.001	NONE	-
PCB Congener 126	mg/kg	0.001	NONE	-
PCB Congener 156	mg/kg	0.001	NONE	-
PCB Congener 157	mg/kg	0.001	NONE	-
PCB Congener 167	mg/kg	0.001	NONE	-
PCB Congener 169	mg/kg	0.001	NONE	-
PCB Congener 189	mg/kg	0.001	NONE	-
Total PCBs	mg/kg	0.012	NONE	-

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

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Analytical Report Number: **26-041235**
Project / Site name: **Piccadilly Gardens**
Your Order No: **PO-0700**

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
999466	BH01	0.8	178	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**	31/08/2026	CAD

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

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens

Your Order No: PO-0700

Lab Sample Number	999467
Sample Reference	BH02
Sample Number	1
Water Matrix	N/A
Depth (m)	1.00
Date Sampled	24/07/2026
Time Taken	None Supplied

Analytical Parameter (Leachate Analysis)	Units	Test Limit of detection	Test Accreditation Status	
10:1 WAC Leachate				
Arsenic	mg/l	0.001	ISO 17025	0.0022
Barium	mg/l	0.00005	ISO 17025	0.0107
Cadmium	mg/l	0.0001	ISO 17025	< 0.000100
Chromium	mg/l	0.0004	ISO 17025	0.00052
Copper	mg/l	0.0007	ISO 17025	0.0043
Mercury	mg/l	0.0005	ISO 17025	< 0.000500
Molybdenum	mg/l	0.0004	ISO 17025	0.00505
Nickel	mg/l	0.0003	ISO 17025	0.00037
Lead	mg/l	0.001	ISO 17025	< 0.0010
Antimony	mg/l	0.0017	ISO 17025	0.0025
Selenium	mg/l	0.004	ISO 17025	< 0.0040
Zinc	mg/l	0.0004	ISO 17025	0.0023
Chloride	mg/l	0.15	ISO 17025	1
Fluoride	mg/l	0.05	ISO 17025	0.22
Sulphate	mg/l	0.045	ISO 17025	26
Total dissolved solids	mg/l	6	ISO 17025	66
Total monohydric phenols	mg/l	0.01	ISO 17025	< 0.010
Dissolved organic carbon	mg/l	0.1	NONE	4.2
10:1 WAC Leachate				
Arsenic	mg/kg	0.01	NONE	0.022
Barium	mg/kg	0.0005	NONE	0.107
Cadmium	mg/kg	0.001	NONE	< 0.00100
Chromium	mg/kg	0.004	NONE	0.0052
Copper	mg/kg	0.007	NONE	0.043
Mercury	mg/kg	0.005	NONE	< 0.00500
Molybdenum	mg/kg	0.004	NONE	0.0505
Nickel	mg/kg	0.003	NONE	0.0037
Lead	mg/kg	0.01	NONE	< 0.010
Antimony	mg/kg	0.017	NONE	0.025
Selenium	mg/kg	0.04	NONE	< 0.040
Zinc	mg/kg	0.004	NONE	0.023
Chloride	mg/kg	1.5	NONE	10
Fluoride	mg/kg	0.5	NONE	2.2
Sulphate	mg/kg	0.45	NONE	260
Total dissolved solids	mg/kg	60	NONE	660
Total monohydric phenols	mg/kg	0.1	NONE	< 0.10
Dissolved organic carbon	mg/kg	1	NONE	41.9

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

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Waste Acceptance Criteria Analytical Results

Report No:	**26-041235**						
					Client:	**Civic Earth Limited**	
Location	**Piccadilly Gardens**						
Lab Reference (Sample Number)	999467				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	24/07/2026				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH02 1						
Depth (m)	1.00						
Solid Waste Analysis							
TOC (%)**	0.9				3%	5%	6%
Loss on Ignition (%) **	1.6				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	130				500	--	--
Total PAH (WAC-17) (mg/kg)	14.3				100	--	--
pH (units)**	9.2				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	17				--	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 *	0.0107			0.107	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.00052			0.0052	0.5	10	70
Copper *	0.0043			0.043	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00505			0.0505	0.5	10	30
Nickel *	0.00037			0.0037	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	0.0025			0.025	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0023			0.023	4	50	200
Chloride *	1			10	800	15000	25000
Fluoride*	0.22			2.2	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	4.2			41.9	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.9						
Dry Matter (%)	93						
Moisture (%)	6.9						

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

*= UKAS accredited (liquid eluate analysis only)

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

** = MCERTS accredited

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

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Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

* 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 *
999464	TP07A	1	1	Brown loam and sand with vegetation and stones
999465	BH01	1	0.2	Brown loam and sand with gravel and vegetation
999466	BH01	2	0.8	Brown loam and clay with gravel and vegetation
999467	BH02	1	1	Brown sand with gravel
999468	WS03	1	0.3	Brown gravelly sand
999469	WS04	1	0.5	Brown sand with gravel and vegetation

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Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

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
Whole Sample Crushed	Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis	In house method, applicable to dry samples only	L019B	D	NONE
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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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
Hexavalent chromium in soil 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 : 26-041235
Project / Site name: Piccadilly Gardens

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
PCBs WHO 12 in soil	Determination of PCBs (WHO-12 Congeners) by GC-MS	In-house method based on USEPA 8082	L027B	D	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
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
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
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

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Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total petroleum hydrocarbons by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID	In-house method	L076B	D	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025

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

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

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.

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Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

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
BH02	1	L	999467	b	One stage WAC 10:1 leachate preparation	L043B	b

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Analytical Report Number : 26-045768

Project / Site name:	Piccadilly Gardens	**Samples received on:**	20/08/2026
Your job number:	51334-01	**Samples instructed on/ Analysis started on:**	20/08/2026
Your order number:	PO-0709	**Analysis completed by:**	27/08/2026
Report Issue Number:	1	**Report issued on:**	27/08/2026
Samples Analysed:	1 water sample		

Signed:

Eric Crociquia
Customer Service
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: 26-045768
Project / Site name: Piccadilly Gardens

Your Order No: PO-0709

Lab Sample Number	1022918
Sample Reference	BH02 (D)
Sample Number	EW1
Water Matrix	Ground water
Depth (m)	13.90
Date Sampled	19/08/2026
Time Taken	None Supplied

Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status	
General Inorganics				
pH (L099)	pH Units	N/A	ISO 17025	7.3
Total Cyanide (Low Level 1 µg/l)	µg/l	1	NONE	< 1.0
Sulphate as SO_4	mg/l	0.045	ISO 17025	190
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	1.74
Hardness - Total	mgCaCO3/l	1	ISO 17025	888
Total Phenols				
Total Phenols (Monohydric) Low Level	µg/l	1	NONE	2.2
Speciated PAHs				
Naphthalene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	0.04
Fluorene	µg/l	0.01	ISO 17025	0.05
Phenanthrene	µg/l	0.01	ISO 17025	0.23
Anthracene	µg/l	0.01	ISO 17025	0.04
Fluoranthene	µg/l	0.01	ISO 17025	0.2
Pyrene	µg/l	0.01	ISO 17025	0.19
Benzo(a)anthracene	µg/l	0.01	ISO 17025	0.11
Chrysene	µg/l	0.01	ISO 17025	0.11
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	0.11
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	0.05
Benzo(a)pyrene	µg/l	0.01	ISO 17025	0.1
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	0.05
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	0.07
Total PAH				
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	1.36
Heavy Metals / Metalloids				
Antimony (dissolved)	µg/l	0.4	ISO 17025	< 0.4
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.49
Barium (dissolved)	µg/l	0.06	ISO 17025	140
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.21
Chromium (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Copper (dissolved)	µg/l	0.5	ISO 17025	1.2
Lead (dissolved)	µg/l	0.2	ISO 17025	0.3
Mercury (dissolved)	µg/l	0.05	NONE	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	6.6
Selenium (dissolved)	µg/l	0.6	ISO 17025	< 0.6
Vanadium (dissolved)	µg/l	0.2	ISO 17025	0.2
Zinc (dissolved)	µg/l	0.5	ISO 17025	9.3

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Analytical Report Number: 26-045768
Project / Site name: Piccadilly Gardens

Your Order No: PO-0709

Lab Sample Number	1022918
Sample Reference	BH02 (D)
Sample Number	EW1
Water Matrix	Ground water
Depth (m)	13.90
Date Sampled	19/08/2026
Time Taken	None Supplied

Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status	
Boron (dissolved)	µg/l	10	ISO 17025	120
Calcium (dissolved)	mg/l	0.012	ISO 17025	140
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0

Petroleum Hydrocarbons

TPH - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC10 - EC12 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10
TPH - Aliphatic >EC12 - EC16 $_{EH_1D_AL_MS}$	µg/l	10	NONE	11
TPH - Aliphatic >EC16 - EC21 $_{EH_1D_AL_MS}$	µg/l	10	NONE	12
TPH - Aliphatic >EC21 - EC35 $_{EH_1D_AL_MS}$	µg/l	10	NONE	16
TPH - Aliphatic >EC5 - EC35 $_{HS+EH_1D_AL_MS}$	µg/l	10	NONE	39

TPH - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC10 - EC12 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10
TPH - Aromatic >EC12 - EC16 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10
TPH - Aromatic >EC16 - EC21 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10
TPH - Aromatic >EC21 - EC35 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10
TPH - Aromatic >EC5 - EC35 $_{HS+EH_1D_AR_MS}$	µg/l	10	NONE	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0
Benzene	µg/l	1	ISO 17025	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0

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

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Normec i2 Analytical

Analytical Report Number : 26-045768
Project / Site name: Piccadilly Gardens

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
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
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.

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Analytical Report Number : 26-045768
Project / Site name: Piccadilly Gardens

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

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.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

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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Analytical Report Number : 26-053196

Project / Site name:	Piccadilly Gardens, Manchester	**Samples received on:**	11/08/2026
Your job number:	GEO 45859	**Samples instructed on/ Analysis started on:**	28/09/2026
Your order number:	GEO 45859	**Analysis completed by:**	06/10/2026
Report Issue Number:	1	**Report issued on:**	06/10/2026
Samples Analysed:	5 soil samples		

Gabriela Slupik

Signed:

Gabriela Slupik
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
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: 26-053196
Project / Site name: Piccadilly Gardens, Manchester
Your Order No: GEO 45859

Lab Sample Number				1062379	1062380	1062381	1062382	1062383
Sample Reference				246738	246749	246782	246765	246776
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Mass of stone >10mm	%	0.1	NONE	11.5	< 0.1	< 0.1	32.6	< 0.1
Moisture Content	%	0.01	NONE	19	10	12	9.4	15
Total mass of sample received	kg	0.1	NONE	0.3	0.3	0.2	0.2	0.2
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8	8.3	8.1	9	8.4
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	460	290	290	520	140
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent	mg/l	1.25	MCERTS	231	145	147	261	70.3
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	11	5	7.5	4	7.5
Nitrate as NO_3 (Water Soluble) (2:1)	mg/kg	0.9	NONE	25	< 0.90	22.3	6.35	< 0.90
Water Soluble Nitrate (2:1) as NO_3 (leachate equivalent)	mg/l	0.9	N/A	12.5	< 0.90	11.1	3.18	< 0.90
Heavy Metals / Metalloids								
Magnesium (leachate equivalent)	mg/l	2.5	NONE	19	44	8.4	5.9	22
Magnesium (water soluble)	mg/kg	5	NONE	37	87	17	12	44

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

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Analytical Report Number : 26-053196
Project / Site name: Piccadilly Gardens, Manchester

* 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 *
1062379	246738	None Supplied	None Supplied	Brown clay and sand with gravel and stones
1062380	246749	None Supplied	None Supplied	Brown clay and sand with gravel
1062381	246782	None Supplied	None Supplied	Brown clay and sand with gravel
1062382	246765	None Supplied	None Supplied	Brown clay and sand with gravel and stones
1062383	246776	None Supplied	None Supplied	Brown clay and sand with gravel

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Analytical Report Number : 26-053196
Project / Site name: Piccadilly Gardens, Manchester

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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES	In-house method based on TRL 447	L038B	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
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
Water Soluble Nitrate (2:1) as NO3 in soil	Determination of nitrate as NO3 in soil by discrete method	In-house method by discrete analyzer based on TON as N, Total Oxidized Nitrogen (Vanadium Chloride reduction), Thermo Fisher Scientific, MANUAL 2015-0	L082B	W	NONE
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.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

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 : 26-053196

Project / Site name: Piccadilly Gardens, Manchester

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
246738	None Supplied	S	1062379	a	Chloride, water soluble, in soil	L082B	a
246738	None Supplied	S	1062379	a	Magnesium, water soluble, in soil	L038B	a
246738	None Supplied	S	1062379	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246738	None Supplied	S	1062379	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246738	None Supplied	S	1062379	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246738	None Supplied	S	1062379	a	pH in soil (automated)	L099-PL	a
246749	None Supplied	S	1062380	a	Chloride, water soluble, in soil	L082B	a
246749	None Supplied	S	1062380	a	Magnesium, water soluble, in soil	L038B	a
246749	None Supplied	S	1062380	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246749	None Supplied	S	1062380	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246749	None Supplied	S	1062380	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246749	None Supplied	S	1062380	a	pH in soil (automated)	L099-PL	a
246765	None Supplied	S	1062382	a	Chloride, water soluble, in soil	L082B	a
246765	None Supplied	S	1062382	a	Magnesium, water soluble, in soil	L038B	a
246765	None Supplied	S	1062382	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246765	None Supplied	S	1062382	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246765	None Supplied	S	1062382	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246765	None Supplied	S	1062382	a	pH in soil (automated)	L099-PL	a
246776	None Supplied	S	1062383	a	Chloride, water soluble, in soil	L082B	a
246776	None Supplied	S	1062383	a	Magnesium, water soluble, in soil	L038B	a
246776	None Supplied	S	1062383	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246776	None Supplied	S	1062383	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246776	None Supplied	S	1062383	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246776	None Supplied	S	1062383	a	pH in soil (automated)	L099-PL	a
246782	None Supplied	S	1062381	a	Chloride, water soluble, in soil	L082B	a
246782	None Supplied	S	1062381	a	Magnesium, water soluble, in soil	L038B	a
246782	None Supplied	S	1062381	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246782	None Supplied	S	1062381	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246782	None Supplied	S	1062381	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246782	None Supplied	S	1062381	a	pH in soil (automated)	L099-PL	a

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Appendix H – Contamination Assessment

Civic Earth Contamination Assessments

(1) Introduction

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, associated DEFRA guidance[1] and the Land Contamination Risk Management Guidance (LCRM)[2].

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.

(2) 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[3] 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[4] 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.

(3) 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

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

[2] Environment Agency (2025) Land Contamination Risk Management (LCRM)

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

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

vapour risk from NAPL. Where there is evidence of mobile or residual NAPL, the vapour risks from NAPL will be considered separately.

(4) 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[5]. Potential risks associated with ground gases are evaluated in accordance with CIRIA C665, BS 8485[6] and NHBC[7].

(5) 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.

(6) 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[8].

(7) 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.

[5] CIRIA (2007) Assessing risks posed by hazardous ground gases to buildings. C665.

[6] 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.

[7] NHBC (2023) Hazardous ground gas – an essential guide for housebuilders. NF94.

[8] British Standard Institution (2015) Specification for Topsoil. BS 3882.

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Table 1: Human Health Data Assessment - Potential Risks to Human Health from Soils

Land Use Category:		Public Open Space (Park)						SOM:	2.5%
Stratum:		Made Ground						No. Samples	10
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	170	-	2.4	19	0	-	-	-	-
Beryllium	63	-	0.27	1.1	0	-	-	-	-
Boron	46,000	-	0.6	2.3	0	-	-	-	-
Cadmium	532	-	<0.2	0.7	0	-	-	-	-
Chromium (III)	33,000	-	11	23	0	-	-	-	-
Chromium (VI)	220	-	<1.8	<1.8	0	-	-	-	-
Copper	44,000	-	14	110	0	-	-	-	-
Lead	1,300	-	8.7	1,600	1	-	TP13	1235.50	554
Mercury	240	-	<0.3	4.4	0	-	-	-	-
Nickel	3,400	-	5.7	25	0	-	-	-	-
Selenium	1,800	-	<1.0	1.1	0	-	-	-	-
Vanadium	5,000	-	7.1	31	0	-	-	-	-
Zinc	170,000	-	37	160	0	-	-	-	-
Benzene	100	-	<0.005	<0.005	0	-	-	-	-
Toluene	95,000	[1920]	<0.005	<0.005	0	0	-	-	-
Ethyl benzene	22,000	[1220]	<0.005	<0.005	0	0	-	-	-
o-Xylene	24,000	1120	<0.005	<0.005	0	0	-	-	-
m- & p-Xylene	23,000	1350	<0.008	<0.008	0	0	-	-	-
Total Phenols	760	-	<1.0	<1.0	0	-	-	-	-
Total Cyanide	34	-	<1.0	<1.0	0	-	-	-	-
Aliphatic EC5-6	130,000	558	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >6-8	220,000	322	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >8-10	18,000	[190]	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >10-12	23,000	[118]	<1.0	2	0	0	-	-	-
Aliphatic EC >12-16	25,000	59	<2.0	21	0	0	-	-	-
Aliphatic EC >16-35	480,000	-	<16.00	245	0	-	-	-	-
Aromatic EC5-7	84,000	2,260	<0.01	<0.01	0	0	-	-	-
Aromatic EC >7-8	95,000	1,920	<0.01	<0.01	0	0	-	-	-
Aromatic EC >8-10	8,500	[1500]	<0.02	<0.02	0	0	-	-	-
Aromatic EC >10-12	9,700	899	<1.0	2.2	0	0	-	-	-
Aromatic EC >12-16	10,000	-	<2.0	23	0	-	-	-	-
Aromatic EC >16-21	7,700	-	<10	120	0	-	-	-	-
Aromatic EC >21-35	7,800	-	<10	310	0	-	-	-	-
Acenaphthene	30,000	-	<0.05	5.5	0	-	-	-	-
Acenaphthylene	30,000	-	<0.05	0.25	0	-	-	-	-
Anthracene	150,000	-	<0.05	8.6	0	-	-	-	-
Benzo(a)anthracene	56	-	0.06	16	0	-	-	-	-
Benzo(a)pyrene	12	-	0.06	15	1	-	TP11B	10.05	3.92
Benzo(b)fluoranthene	15	-	0.08	17	1	-	TP11B	11.42	4.44
Benzo(g,h,i)perylene	1,500	-	<0.05	8.1	0	-	-	-	-
Benzo(k)fluoranthene	410	-	<0.05	6.7	0	-	-	-	-
Chrysene	110	-	0.05	16	0	-	-	-	-
Dibenzo(a,h)anthracene	1.3	-	<0.05	1.8	1	-	TP11B	1.18	0.43
Fluoranthene	6,300	-	0.09	40	0	-	-	-	-
Fluorene	20,000	-	<0.05	3.7	0	-	-	-	-
Indeno(1,2,3,cd)pyrene	170	-	<0.05	7.2	0	-	-	-	-
Naphthalene	1,900	183.0	<0.05	2.1	0	0	-	-	-
Phenanthrene	6,200	-	0.05	38	0	-	-	-	-
Pyrene	15,000	-	0.09	35	0	-	-	-	-
Asbestos in Soils	Number of Samples with Positive Asbestos ID				1	BH01			

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 2: Human Health Data Assessment - Potential Groundwater Vapour Risk to Human Health from Groundwater					
Land Use Category:	**Commercial**			**No. Samples**	1
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	20,000	< 1.0	< 1.0	0	-
Toluene	21,000,000	< 1.0	< 1.0	0	-
Ethylbenzene	960,000	< 1.0	< 1.0	0	-
Total xylene	940,000	< 1.0	< 1.0	0	-
Methyl tertiary butyl ether (MTBE)	7,800,000	< 3.0	< 3.0	0	-
TPH aromatic EC5 to EC7	20,000,000	< 1.0	< 1.0	0	-
TPH aromatic >EC7 to EC8	21,000,000	< 1.0	< 1.0	0	-
TPH aromatic >EC8 to EC10	190,000	< 1.0	< 1.0	0	-
TPH aromatic >EC10 to EC12	660,000	< 10	< 10	0	-
TPH aromatic >EC12 to EC16	3,700,000	< 10	< 10	0	-
TPH aliphatic EC5 to EC6	190,000	< 1.0	< 1.0	0	-
TPH aliphatic >EC6 to EC8	150,000	< 1.0	< 1.0	0	-
TPH aliphatic >EC8 to EC10	5,700	< 1.0	< 1.0	0	-
TPH aliphatic >EC10 to EC12	3,600	< 10	< 10	0	-
Acenaphthene	15,000,000	0.04	0.04	0	-
Acenaphthylene	20,000,000	< 0.01	< 0.01	0	-
Fluorene	18,000,000	0.05	0.05	0	-
Naphthalene	23,000	< 0.01	< 0.01	0	-

Notes:
A. Criteria sourced from SoBRA (2017) *Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater.*
B. GAC for acenaphthene, acenaphythylene, fluorene, napthalene, speciated TPHs and toluene 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.

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Table 3: Controlled Waters Data Assessment - Potential Risks to Groundwater (Freshwater) from Dissolved Phase Contaminants							
Water Body		**Secondary Undifferentiated aquifer (Glacial Till)**				**No. Samples**	1
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	0.49	-	-	A
Beryllium	*	15	< 0.1	< 0.1	-	-	J
Boron	2,000	*	120	120	-	-	H
Cadmium	0.25	1.5	0.21	0.21	-	-	A
Chromium (III)	4.7	32	< 5	< 5	-	-	A
Chromium (VI)	3.4	*	< 5	< 5	-	-	A
Copper	1.0	*	1.2	1.2	0.17	-	A
Lead	1.2	14	0.3	0.3	0.17	-	A, B
Mercury	*	0.07	< 0.05	< 0.05	-	-	A
Nickel	4	34	6.6	6.6	2.02	-	A, B
Zinc	12.3	*	9.3	9.3	5.08	-	A, E
Total Phenols	7.7	46	2.2	2.2	-	-	A
Total Cyanide	1	5	< 1	< 1	-	-	F
Total TPH	*	10	39	39	-	**1**	K
Anthracene	0.1	0.1	0.04	0.04	-	-	A
Benzo(a)pyrene	0.00017	0.27	0.1	0.1	-	**1**	A
Benzo(b)fluoranthene	*	0.017	0.11	0.11	-	**1**	A, G
Benzo(k)fluoranthene	*	0.017	0.05	0.05	-	**1**	A, G
Benzo(ghi)perylene	*	0.0082	0.07	0.07	-	**1**	A, G
Fluoranthene	0.0063	0.12	0.2	0.2	-	**1**	A
Naphthalene	2	130	< 0.01	< 0.01	-	-	A
Benzene	10	50	< 1	< 1	-	-	A
Toluene	74	380	< 1	< 1	-	-	A
pH	*	6.0 to 9.0	7.3	7.3	-	-	H
Hardness (mg $CaCo_3$/l)	*	*	888	888	-	-	-

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 Irwell catchment

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 4: Controlled Waters Data Assessment - Potential Risks to Drinking Water from Dissolved Phase Contaminants						
Water Body	**Secondary Undifferentiated aquifer (Glacial Till)**				**No. Samples**	1
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	0.49	-	-	A
Boron	1,000	120	120	-	-	A
Cadmium	5	0.21	0.21	-	-	A
Chromium	50	< 0.2	< 0.2	-	-	A
Copper	2,000	1.2	1.2	0.17	-	A, B
Lead	10	0.3	0.3	0.17	-	A, B
Mercury	1	< 0.05	< 0.05	-	-	A
Nickel	20	6.6	6.6	2.02	-	A, B
Selenium	10	< 0.6	< 0.6	-	-	A
Zinc	5,000	9.3	9.3	5.08	-	A, B
Total Phenols	0.5	2.2	2.2	-	**1**	D
Total Cyanide	50	< 1	< 1	-	-	A
Total TPH	10	39	39	-	**1**	D
TPH Aliphatic EC5-6	15,000	< 1	< 1	-	-	G
TPH Aliphatic EC>6-8	15,000	< 1	< 1	-	-	G
TPH Aliphatic EC>8-10	300	< 1	< 1	-	-	G
TPH Aliphatic EC>10-12	300	< 10	< 10	-	-	G
TPH Aliphatic EC>12-16	300	11	11	-	-	G
TPH Aromatic EC>5-7	10	< 1	< 1	-	-	G
TPH Aromatic EC>7-8	700	< 1	< 1	-	-	G
TPH Aromatic EC>8-10	300	< 1	< 1	-	-	G
TPH Aromatic EC>10-12	90	< 10	< 10	-	-	G
TPH Aromatic EC>12-16	90	< 10	< 10	-	-	G
TPH Aromatic EC>16-21	90	< 10	< 10	-	-	G
TPH Aromatic EC>21-35	90	< 10	< 10	-	-	G
PAH	0.1	0.28	0.28	-	**1**	A, C
Benzo(a)pyrene	0.01	0.1	0.1	-	**1**	A
Benzene	1	< 1	< 1	-	-	A
Toluene	700	< 1	< 1	-	-	E
Ethylbenzene	300	< 1	< 1	-	-	E
p & m-xylene	500	< 1	< 1	-	-	E, F
o-xylene	500	< 1	< 1	-	-	E, F
pH	6.5 to 9.5	7.3	7.3	-	-	A
Total Sulphate (mg SO_4/l)	250	190	190	-	-	A
Hardness (mg $CaCo_3$/l)	-	888	888	-	-	-

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)

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 5: Soil Data Assessment - Potential Risks to Plants and Vegetation

Stratum:	Made Ground (Exisiting ground materials)					No. Samples	10
Determinand	**Assessment Threshold (mg/kg)**	**Min recorded (mg/kg)**	**Max recorded (mg/kg)**	**No. Samples exceeding GAC**	**Outliers Identified?**	**US_{95} incl. Outliers (mg/kg)**	**US_{95} excl. Outliers (mg/kg)**
Boron (water soluble)	5	0.6	2.3	0	-	-	-
Copper	135	135	14	0	-	-	-
Nickel	75	5.7	25	0	-	-	-
Zinc	200	37	160	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.

CIVIC

Table 6: Soil Data Assessment - Potential Risks to Buried Water Supply Pipes

Materials Tested:	Existing ground materials (Made Ground)							
Test Group	**Testing Required**	**PE Threshold**	**Metal Pipes / Barrier Pipes**	**Laboratory Limit of Detection**	**Testing UKAS Accredited**	**Max. Concentration at Proposed Pipe Depth**	**Maximum Site Concentration**	**Locations and Depths of Exceedances**
Total VOCs	Where Preliminary Risk Assessment has identified land potentially affected by contamination	0.5	Pass	-	-	-	-	-
Total BTEX & MTBE		0.1	Pass	5 to 8	MCERTS	< 5.0 to < 8.0	< 5.0 to < 8.0	-
Total SVOCs (excluding PAHs and those substances marked with *)		2	Pass	-	-	-	-	-
EC5-EC10 aliphatic and aromatic hydrocarbons		2	Pass	< 0.01 to < 0.02	MCERTS	< 0.01 to < 0.02	< 0.01 to < 0.02	-
EC10-EC16 aliphatic and aromatic hydrocarbons		10	FAIL	1 to 2	MCERTS	< 2.0 to 43	< 2.0 to 43	BH01 at 0.80mbgl
EC16-EC35 aliphatic and aromatic hydrocarbons		500	FAIL	8 to 10	MCERTS	23 to 618	23 to 618	BH01 at 0.80mbgl
Phenols* (from SVOC analysis)		2	Pass	-	-	-	-	-
Cresols and chlorinated phenols* (from SVOC analysis)		2	Pass	-	-	-	-	-
Ethers*	Only where identified	0.5	Pass	-	-	-	-	-
Nitrobenzene*		0.5	Pass	-	-	-	-	-
Ketones*		0.5	Pass	-	-	-	-	-
Aldehydes*		0.5	Pass	-	-	-	-	-
Amines		Fail	Pass	-	-	-	-	-
Corrosive	Conductivity, Redox & pH	Pass	See Note 1	N/A	MCERTS	7.6 to 9.3	7.4 to 9.3	-

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 I – HazWaste Online Classification Reports Appendix I – 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.

0369A-S7BMT-W7I5D

Report is invalid if pages are removed.

Job name

Piccadilly Gardens, Manchester

Description/Comments

i2 Analytical Report 26-036395

Project

51334/01

Site

Piccadilly Gardens, Manchester

Classified by

Name:
Kirsty Poore
Date:
30 Sep 2026 10:55 GMT
Telephone:
07983 740199

Company:
Civic Earth Limited
77 Dale Street
Manchester
M12HG

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

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	05 Oct 2023
Most recent 3 year Refresher	04 Aug 2026

Next 3 year Refresher due by Aug 2029

Purpose of classification

2 - Material Characterisation

Address of the waste

Piccadilly Gardens, Manchester **Post Code** M1 1RG

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 and reconfiguration of Piccadilly Gardens comprising works to the public realm including public open space and use of space for events, together with decommissioning and removal of the existing fountain; creation of play space, lawn area, hard and soft landscaping; lighting; and drainage and other associated infrastructure; and a severable plot for a future ancillary structure with associated interim landscaping.

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

Waste created during the excavation of soils during site investigation.

Description of the waste

Made Ground - a mixture of granular and cohesive soils with chalk, common plastic fragments, brick, rare wood, concrete, coal, flint, dolomite, sandstone, mudstone.
Underlying natural soils comprise Glacial Till above extremely weak red sandstone (Chester Formation).

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP17-1-03072026-0.75	0.75	Non Hazardous		3
2	TP11-1-02072026-0.80	0.80	Non Hazardous		6
3	TP13-1-02072026-0.75	0.75	Non Hazardous		9
4	TP06-1-01072026-0.60	0.60	Non Hazardous		12
5	TP07A-1-23072026-1.00	1.00	Non Hazardous		15
6	BH01-1-23072026-0.20	0.20	Non Hazardous		18
7	BH01-2-24072026-0.80	0.80	Non Hazardous		21
8	BH02-1-24072026-1.00	1.00	Non Hazardous		24
9	WS03-1-23072026-0.30	0.30	Non Hazardous		27
10	WS04-1-23072026-0.50	0.50	Non Hazardous		30

Related documents

#	Name	Description
1	26-036395_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	26-041235_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
3	Civic Earth Waste Stream	waste stream template used to create this Job

Report

Created by: Kirsty Poore

Created date: 30 Sep 2026 10:55 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	33
Appendix B: Rationale for selection of metal species	35
Appendix C: Version	36

Classification of sample: TP17-1-03072026-0.75

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

Sample details

Sample name:
TP17-1-03072026-0.75
Sample Depth:
0.75 m
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.5 pH		8.5 pH	8.5 pH		
2	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	3.867 mg/kg	0.000387 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		13 mg/kg	1.534	16.949 mg/kg	0.00169 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		170 mg/kg	1.623	234.592 mg/kg	0.0235 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.1 mg/kg	2.775	2.595 mg/kg	0.000259 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		2.3 mg/kg	3.22	6.295 mg/kg	0.000629 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.4 mg/kg	1.142	0.388 mg/kg	0.0000388 %	✓	
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		23 mg/kg	1.462	28.573 mg/kg	0.00286 %	✓	

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
13	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		53 mg/kg	1.126	50.721 mg/kg	0.00507 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	200 mg/kg		170 mg/kg	0.017 %	✓	
15	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		2 mg/kg	1.353	2.301 mg/kg	0.00023 %	✓	
16	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		24 mg/kg	2.637	53.788 mg/kg	0.00538 %	✓	
17	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.1 mg/kg	2.554	2.388 mg/kg	0.000239 %	✓	
18	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		31 mg/kg	1.785	47.04 mg/kg	0.0047 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		90 mg/kg	2.469	188.901 mg/kg	0.0189 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		98 mg/kg		83.3 mg/kg	0.00833 %	✓	
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		0.83 mg/kg		0.706 mg/kg	0.0000706 %	✓	
26	acenaphthylene		205-917-1	208-96-8		0.17 mg/kg		0.145 mg/kg	0.0000145 %	✓	
27	acenaphthene		201-469-6	83-32-9		1 mg/kg		0.85 mg/kg	0.000085 %	✓	
28	fluorene		201-695-5	86-73-7		0.89 mg/kg		0.757 mg/kg	0.0000757 %	✓	
29	phenanthrene		201-581-5	85-01-8		6.4 mg/kg		5.44 mg/kg	0.000544 %	✓	
30	anthracene		204-371-1	120-12-7		1.6 mg/kg		1.36 mg/kg	0.000136 %	✓	
31	fluoranthene		205-912-4	206-44-0		9.4 mg/kg		7.99 mg/kg	0.000799 %	✓	
32	pyrene		204-927-3	129-00-0		8.8 mg/kg		7.48 mg/kg	0.000748 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		4.2 mg/kg		3.57 mg/kg	0.000357 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		3.8 mg/kg		3.23 mg/kg	0.000323 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		4.6 mg/kg		3.91 mg/kg	0.000391 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.8 mg/kg		1.53 mg/kg	0.000153 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		4 mg/kg		3.4 mg/kg	0.00034 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		2 mg/kg		1.7 mg/kg	0.00017 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.42 mg/kg		0.357 mg/kg	0.0000357 %	✓	
40	benzo[ghi]perylene		205-883-8	191-24-2		2.1 mg/kg		1.785 mg/kg	0.000179 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.61	mg/kg		0.519	mg/kg	0.0000519 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		**<LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0936 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00833%)

Classification of sample: TP11-1-02072026-0.80

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

Sample details

Sample name:
TP11-1-02072026-0.80
Sample Depth:
0.80 m
Moisture content:
10%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		pH			PH		9.3	pH		9.3	pH	9.3 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		3.6	mg/kg	1.197	3.879	mg/kg	0.000388 %	✓	
6		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		19	mg/kg	1.534	26.229	mg/kg	0.00262 %	✓	
7		barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		270	mg/kg	1.623	394.504	mg/kg	0.0395 %	✓	
8		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.95	mg/kg	2.775	2.373	mg/kg	0.000237 %	✓	
9		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1.8	mg/kg	3.22	5.216	mg/kg	0.000522 %	✓	
10		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7	mg/kg	1.142	0.72	mg/kg	0.000072 %	✓	
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		18	mg/kg	1.462	23.677	mg/kg	0.00237 %	✓	

#		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		61	mg/kg	1.126	61.811	mg/kg	0.00618 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	790	mg/kg		711	mg/kg	0.0711 %	✓	
15		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		3	mg/kg	1.353	3.654	mg/kg	0.000365 %	✓	
16		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		18	mg/kg	2.637	42.714	mg/kg	0.00427 %	✓	
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		27	mg/kg	1.785	43.38	mg/kg	0.00434 %	✓	
19		zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		160	mg/kg	2.469	355.579	mg/kg	0.0356 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		378	mg/kg		340.2	mg/kg	0.034 %	✓	
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		2.1	mg/kg		1.89	mg/kg	0.000189 %	✓	
26		acenaphthylene		205-917-1	208-96-8		0.25	mg/kg		0.225	mg/kg	0.0000225 %	✓	
27		acenaphthene		201-469-6	83-32-9		5.5	mg/kg		4.95	mg/kg	0.000495 %	✓	
28		fluorene		201-695-5	86-73-7		3.7	mg/kg		3.33	mg/kg	0.000333 %	✓	
29		phenanthrene		201-581-5	85-01-8		38	mg/kg		34.2	mg/kg	0.00342 %	✓	
30		anthracene		204-371-1	120-12-7		8.6	mg/kg		7.74	mg/kg	0.000774 %	✓	
31		fluoranthene		205-912-4	206-44-0		40	mg/kg		36	mg/kg	0.0036 %	✓	
32		pyrene		204-927-3	129-00-0		35	mg/kg		31.5	mg/kg	0.00315 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		16	mg/kg		14.4	mg/kg	0.00144 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		16	mg/kg		14.4	mg/kg	0.00144 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		17	mg/kg		15.3	mg/kg	0.00153 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		6.7	mg/kg		6.03	mg/kg	0.000603 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		15	mg/kg		13.5	mg/kg	0.00135 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		7.2	mg/kg		6.48	mg/kg	0.000648 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.8	mg/kg		1.62	mg/kg	0.000162 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		8.1	mg/kg		7.29	mg/kg	0.000729 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				2.5	mg/kg		2.25	mg/kg	0.000225 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.222 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.034%)

Classification of sample: TP13-1-02072026-0.75

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

Sample details

Sample name:
TP13-1-02072026-0.75
Sample Depth:
0.75 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		7.7 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		4.9 mg/kg	1.197	5.221 mg/kg	0.000522 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		14 mg/kg	1.534	19.112 mg/kg	0.00191 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		130 mg/kg	1.623	187.836 mg/kg	0.0188 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.1 mg/kg	2.775	2.717 mg/kg	0.000272 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.8 mg/kg	3.22	2.293 mg/kg	0.000229 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3 mg/kg	1.142	0.305 mg/kg	0.0000305 %	✓	
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		22 mg/kg	1.462	28.617 mg/kg	0.00286 %	✓	

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
13	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		93 mg/kg	1.126	93.19 mg/kg	0.00932 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	1600 mg/kg		1424 mg/kg	0.142 %	✓	
15	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		4.4 mg/kg	1.353	5.3 mg/kg	0.00053 %	✓	
16	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		25 mg/kg	2.637	58.666 mg/kg	0.00587 %	✓	
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		29 mg/kg	1.785	46.076 mg/kg	0.00461 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		75 mg/kg	2.469	164.826 mg/kg	0.0165 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		23 mg/kg		20.47 mg/kg	0.00205 %	✓	
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		0.44 mg/kg		0.392 mg/kg	0.0000392 %	✓	
26	acenaphthylene		205-917-1	208-96-8		0.07 mg/kg		0.0623 mg/kg	0.00000623 %	✓	
27	acenaphthene		201-469-6	83-32-9		0.22 mg/kg		0.196 mg/kg	0.0000196 %	✓	
28	fluorene		201-695-5	86-73-7		0.2 mg/kg		0.178 mg/kg	0.0000178 %	✓	
29	phenanthrene		201-581-5	85-01-8		2.1 mg/kg		1.869 mg/kg	0.000187 %	✓	
30	anthracene		204-371-1	120-12-7		0.47 mg/kg		0.418 mg/kg	0.0000418 %	✓	
31	fluoranthene		205-912-4	206-44-0		2.9 mg/kg		2.581 mg/kg	0.000258 %	✓	
32	pyrene		204-927-3	129-00-0		2.9 mg/kg		2.581 mg/kg	0.000258 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.4 mg/kg		1.246 mg/kg	0.000125 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		1.4 mg/kg		1.246 mg/kg	0.000125 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.5 mg/kg		1.335 mg/kg	0.000133 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.64 mg/kg		0.57 mg/kg	0.000057 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.4 mg/kg		1.246 mg/kg	0.000125 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		0.67 mg/kg		0.596 mg/kg	0.0000596 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.19 mg/kg		0.169 mg/kg	0.0000169 %	✓	
40	benzo[ghi]perylene		205-883-8	191-24-2		0.77 mg/kg		0.685 mg/kg	0.0000685 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.22	mg/kg		0.196	mg/kg	0.0000196 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.207 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00205%)

Classification of sample: TP06-1-01072026-0.60

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

Sample details

Sample name:
TP06-1-01072026-0.60
Sample Depth:
0.60 m
Moisture content:
6.2%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 6.2% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		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		< %		< %	<		<**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	1.123 mg/kg	0.000112 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		2.4 mg/kg	1.534	3.453 mg/kg	0.000345 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		31 mg/kg	1.623	47.207 mg/kg	0.00472 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.27 mg/kg	2.775	0.703 mg/kg	0.0000703 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.812 mg/kg	0.000181 %	✓	
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		6.8 mg/kg	1.462	9.322 mg/kg	0.000932 %	✓	

#		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	23.234	mg/kg	0.00232 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21	mg/kg		19.698	mg/kg	0.00197 %	✓	
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		5.7	mg/kg	2.637	14.097	mg/kg	0.00141 %	✓	
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		7.1	mg/kg	1.785	11.889	mg/kg	0.00119 %	✓	
19		zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		67	mg/kg	2.469	155.185	mg/kg	0.0155 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		27	mg/kg		25.326	mg/kg	0.00253 %	✓	
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		0.1	mg/kg		0.0938	mg/kg	0.00000938 %	✓	
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		0.23	mg/kg		0.216	mg/kg	0.0000216 %	✓	
32		pyrene		204-927-3	129-00-0		0.24	mg/kg		0.225	mg/kg	0.0000225 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.14	mg/kg		0.131	mg/kg	0.0000131 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.13	mg/kg		0.122	mg/kg	0.0000122 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.18	mg/kg		0.169	mg/kg	0.0000169 %	✓	
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		0.14	mg/kg		0.131	mg/kg	0.0000131 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.09	mg/kg		0.0844	mg/kg	0.00000844 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		0.1	mg/kg		0.0938	mg/kg	0.00000938 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0314 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00253%)

Classification of sample: TP07A-1-23072026-1.00

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

Sample details

Sample name:
TP07A-1-23072026-1.00
Sample Depth:
1.00 m
Moisture content:
3.7%
(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: 3.7% 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		7.6 pH		7.6 pH	7.6 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		2.7 mg/kg	1.534	3.988 mg/kg	0.000399 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		60 mg/kg	1.623	93.804 mg/kg	0.00938 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.4 mg/kg	2.775	1.069 mg/kg	0.000107 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.7 mg/kg	3.22	2.171 mg/kg	0.000217 %	✓	
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		13 mg/kg	1.462	18.297 mg/kg	0.00183 %	✓	

#	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		19 mg/kg	1.126	20.6 mg/kg	0.00206 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		17.334 mg/kg	0.00173 %	✓	
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		10 mg/kg	2.637	25.391 mg/kg	0.00254 %	✓	
17	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.1 mg/kg	2.554	2.705 mg/kg	0.000271 %	✓	
18	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		16 mg/kg	1.785	27.506 mg/kg	0.00275 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		41 mg/kg	2.469	97.495 mg/kg	0.00975 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		72 mg/kg		69.336 mg/kg	0.00693 %	✓	
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		0.12 mg/kg		0.116 mg/kg	0.0000116 %	✓	
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		0.19 mg/kg		0.183 mg/kg	0.0000183 %	✓	
32	pyrene		204-927-3	129-00-0		0.19 mg/kg		0.183 mg/kg	0.0000183 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.12 mg/kg		0.116 mg/kg	0.0000116 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.1 mg/kg		0.0963 mg/kg	0.00000963 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.13 mg/kg		0.125 mg/kg	0.0000125 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.06 mg/kg		0.0578 mg/kg	0.00000578 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.12 mg/kg		0.116 mg/kg	0.0000116 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		0.06 mg/kg		0.0578 mg/kg	0.00000578 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
40	benzo[ghi]perylene		205-883-8	191-24-2		0.08 mg/kg		0.077 mg/kg	0.0000077 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0381 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00693%)

Classification of sample: BH01-1-23072026-0.20

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

Sample details

Sample name:
BH01-1-23072026-0.20
Sample Depth:
0.20 m
Moisture content:
4.7%
(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: 4.7% 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		<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		2.6 mg/kg	1.534	3.801 mg/kg	0.00038 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		25 mg/kg	1.623	38.679 mg/kg	0.00387 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.33 mg/kg	2.775	0.873 mg/kg	0.0000873 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.841 mg/kg	0.000184 %	✓	
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		9 mg/kg	1.462	12.536 mg/kg	0.00125 %	✓	

#	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	35.408	mg/kg	0.00354 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12	mg/kg		11.436	mg/kg	0.00114 %	✓	
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		8.2	mg/kg	2.637	20.605	mg/kg	0.00206 %	✓	
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		9.8	mg/kg	1.785	16.673	mg/kg	0.00167 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		43	mg/kg	2.469	101.189	mg/kg	0.0101 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		133	mg/kg		126.749	mg/kg	0.0127 %	✓	
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		0.21	mg/kg		0.2	mg/kg	0.00002 %	✓	
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		0.07	mg/kg		0.0667	mg/kg	0.00000667 %	✓	
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		0.21	mg/kg		0.2	mg/kg	0.00002 %	✓	
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		0.23	mg/kg		0.219	mg/kg	0.0000219 %	✓	
32	pyrene		204-927-3	129-00-0		0.22	mg/kg		0.21	mg/kg	0.000021 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.1	mg/kg		0.0953	mg/kg	0.00000953 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.14	mg/kg		0.133	mg/kg	0.0000133 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.14	mg/kg		0.133	mg/kg	0.0000133 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.07	mg/kg		0.0667	mg/kg	0.00000667 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.12	mg/kg		0.114	mg/kg	0.0000114 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		0.06	mg/kg		0.0572	mg/kg	0.00000572 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
40	benzo[ghi]perylene		205-883-8	191-24-2		0.08	mg/kg		0.0762	mg/kg	0.00000762 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		polychlorobiphenyls; PCB				<0.012	mg/kg		<0.012	mg/kg	<0.0000012 %		<**LOD**
		602-039-00-4	215-648-1	1336-36-3									
43		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0371 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0127%)

Classification of sample: BH01-2-24072026-0.80

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

Sample details

Sample name:
BH01-2-24072026-0.80
Sample Depth:
0.80 m
Moisture content:
10%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.9 pH		8.9 pH	8.9 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 %		<0.001 %	<0.001 %		<**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		2.8 mg/kg	1.197	3.017 mg/kg	0.000302 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		7.1 mg/kg	1.534	9.801 mg/kg	0.00098 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		83 mg/kg	1.623	121.273 mg/kg	0.0121 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.49 mg/kg	2.775	1.224 mg/kg	0.000122 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1.2 mg/kg	3.22	3.477 mg/kg	0.000348 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.2 mg/kg	1.142	0.206 mg/kg	0.0000206 %	✓	
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		19 mg/kg	1.462	24.993 mg/kg	0.0025 %	✓	

#	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		110 mg/kg	1.126	111.463 mg/kg	0.0111 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	59 mg/kg		53.1 mg/kg	0.00531 %	✓	
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		18 mg/kg	2.637	42.714 mg/kg	0.00427 %	✓	
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	40.167 mg/kg	0.00402 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		65 mg/kg	2.469	144.454 mg/kg	0.0144 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		670 mg/kg		603 mg/kg	0.0603 %	✓	
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		1.1 mg/kg		0.99 mg/kg	0.000099 %	✓	
26	acenaphthylene		205-917-1	208-96-8		0.17 mg/kg		0.153 mg/kg	0.0000153 %	✓	
27	acenaphthene		201-469-6	83-32-9		1.2 mg/kg		1.08 mg/kg	0.000108 %	✓	
28	fluorene		201-695-5	86-73-7		1 mg/kg		0.9 mg/kg	0.00009 %	✓	
29	phenanthrene		201-581-5	85-01-8		6.8 mg/kg		6.12 mg/kg	0.000612 %	✓	
30	anthracene		204-371-1	120-12-7		2.1 mg/kg		1.89 mg/kg	0.000189 %	✓	
31	fluoranthene		205-912-4	206-44-0		9.4 mg/kg		8.46 mg/kg	0.000846 %	✓	
32	pyrene		204-927-3	129-00-0		8.8 mg/kg		7.92 mg/kg	0.000792 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		4.1 mg/kg		3.69 mg/kg	0.000369 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		4 mg/kg		3.6 mg/kg	0.00036 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		4.2 mg/kg		3.78 mg/kg	0.000378 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.7 mg/kg		1.53 mg/kg	0.000153 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		3.8 mg/kg		3.42 mg/kg	0.000342 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		1.9 mg/kg		1.71 mg/kg	0.000171 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.43 mg/kg		0.387 mg/kg	0.0000387 %	✓	
40	benzo[ghi]perylene		205-883-8	191-24-2		2.1 mg/kg		1.89 mg/kg	0.000189 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.121 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0603%)

Classification of sample: BH02-1-24072026-1.00

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

Sample details

Sample name:
BH02-1-24072026-1.00
Sample Depth:
1.00 m
Moisture content:
6.9%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 6.9% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.2 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		3.3 mg/kg	1.534	4.713 mg/kg	0.000471 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		58 mg/kg	1.623	87.664 mg/kg	0.00877 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.41 mg/kg	2.775	1.059 mg/kg	0.000106 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.9 mg/kg	3.22	2.698 mg/kg	0.00027 %	✓	
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		11 mg/kg	1.462	14.968 mg/kg	0.0015 %	✓	

#		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		18	mg/kg	1.126	18.868	mg/kg	0.00189 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20	mg/kg		18.62	mg/kg	0.00186 %	✓	
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	27.002	mg/kg	0.0027 %	✓	
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		15	mg/kg	1.785	24.93	mg/kg	0.00249 %	✓	
19		zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		54	mg/kg	2.469	124.141	mg/kg	0.0124 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		197	mg/kg		183.407	mg/kg	0.0183 %	✓	
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		0.214	mg/kg	0.0000214 %	✓	
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		0.22	mg/kg		0.205	mg/kg	0.0000205 %	✓	
28		fluorene		201-695-5	86-73-7		0.16	mg/kg		0.149	mg/kg	0.0000149 %	✓	
29		phenanthrene		201-581-5	85-01-8		1.5	mg/kg		1.396	mg/kg	0.00014 %	✓	
30		anthracene		204-371-1	120-12-7		0.42	mg/kg		0.391	mg/kg	0.0000391 %	✓	
31		fluoranthene		205-912-4	206-44-0		2.4	mg/kg		2.234	mg/kg	0.000223 %	✓	
32		pyrene		204-927-3	129-00-0		2.4	mg/kg		2.234	mg/kg	0.000223 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.2	mg/kg		1.117	mg/kg	0.000112 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		1.1	mg/kg		1.024	mg/kg	0.000102 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.3	mg/kg		1.21	mg/kg	0.000121 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.58	mg/kg		0.54	mg/kg	0.000054 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.2	mg/kg		1.117	mg/kg	0.000112 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.6	mg/kg		0.559	mg/kg	0.0000559 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		0.71	mg/kg		0.661	mg/kg	0.0000661 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.17	mg/kg		0.158	mg/kg	0.0000158 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0521 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0183%)

Classification of sample: WS03-1-23072026-0.30

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

Sample details

Sample name:
WS03-1-23072026-0.30
Sample Depth:
0.30 m
Moisture content:
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% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8 pH		8 pH	8pH		
2	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		1.3 mg/kg	1.197	1.494 mg/kg	0.000149 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3 mg/kg	1.534	4.418 mg/kg	0.000442 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		26 mg/kg	1.623	40.522 mg/kg	0.00405 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.45 mg/kg	2.775	1.199 mg/kg	0.00012 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.855 mg/kg	0.000185 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.2 mg/kg	1.142	0.219 mg/kg	0.0000219 %	✓	
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		12 mg/kg	1.462	16.837 mg/kg	0.00168 %	✓	

#	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	15.132 mg/kg	0.00151 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8.7 mg/kg		8.352 mg/kg	0.000835 %	✓	
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		13 mg/kg	2.637	32.906 mg/kg	0.00329 %	✓	
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	22.279 mg/kg	0.00223 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		41 mg/kg	2.469	97.192 mg/kg	0.00972 %	✓	
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		0.09 mg/kg		0.0864 mg/kg	0.00000864 %	✓	
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		0.11 mg/kg		0.106 mg/kg	0.0000106 %	✓	
32	pyrene		204-927-3	129-00-0		0.11 mg/kg		0.106 mg/kg	0.0000106 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.06 mg/kg		0.0576 mg/kg	0.00000576 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.07 mg/kg		0.0672 mg/kg	0.00000672 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.09 mg/kg		0.0864 mg/kg	0.00000864 %	✓	
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		0.0576 mg/kg	0.00000576 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
40	benzo[ghi]perylene		205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0243 %		

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: WS04-1-23072026-0.50

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

Sample details

Sample name:
WS04-1-23072026-0.50
Sample Depth:
0.50 m
Moisture content:
4.9%
(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: 4.9% 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		7.4 pH		7.4 pH	7.4 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		2.9 mg/kg	1.534	4.23 mg/kg	0.000423 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		26 mg/kg	1.623	40.142 mg/kg	0.00401 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.32 mg/kg	2.775	0.845 mg/kg	0.0000845 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.837 mg/kg	0.000184 %	✓	
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		8.3 mg/kg	1.462	11.536 mg/kg	0.00115 %	✓	

#		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		15	mg/kg	1.126	16.061	mg/kg	0.00161 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12	mg/kg		11.412	mg/kg	0.00114 %	✓	
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		7.5	mg/kg	2.637	18.806	mg/kg	0.00188 %	✓	
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		9.7	mg/kg	1.785	16.468	mg/kg	0.00165 %	✓	
19		zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		37	mg/kg	2.469	86.887	mg/kg	0.00869 %	✓	
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		0.0476	mg/kg	0.00000476 %	✓	
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		0.09	mg/kg		0.0856	mg/kg	0.00000856 %	✓	
32		pyrene		204-927-3	129-00-0		0.09	mg/kg		0.0856	mg/kg	0.00000856 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.06	mg/kg		0.0571	mg/kg	0.00000571 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.05	mg/kg		0.0476	mg/kg	0.00000476 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.08	mg/kg		0.0761	mg/kg	0.00000761 %	✓	
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		0.0571	mg/kg	0.00000571 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		0.05	mg/kg		0.0476	mg/kg	0.00000476 %	✓	

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1							
42		xylene				<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7							
								Total:	0.0209 %		

Key

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

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 version 1.1.NI and 1.2.GB 2021
Data source date: 30 Jan 2021
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.
Monohydric Phenol refers to a group of phenolic compounds that include phenol, the three methylphenol isomers (cresols) and the six di methylphenol isomers.
(CLP Index: 604-001-00-2, 604-004-00-9, 604-006-00-X)
Data source: Group Entry combining three CLP entries
Data source date: 18 May 2026
Hazard Statements: Acute Tox. 3; H301 , Acute Tox. 3; H311 , Acute Tox. 3; H331 , Skin Corr. 1B; H314 , Muta. 2; H341 , STOT RE 2; H373 , Aquatic Chronic 2; H411

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

Description/Comments: Data from ECHACHEM; notifications <1% & outliers (H360, H413) ignored
Data source: https://chem.echa.europa.eu/100.013.783/overview
Data source date: 16 Mar 2026
Hazard Statements: Acute Tox. 4; H302 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Resp. Sens. 1; H334

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

GB MCL index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from:: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

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

Description/Comments: Unknown Oil
Hazard statements taken from WM3 version 1.1.NI and 1.2.GB 2021
Data source: WM3 version 1.1.NI and 1.2.GB 2021
Data source date: 30 Jan 2021
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: IARC considers ethylbenzene Group 2B; Possibly carcinogenic to humans;
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
03 Jun 2026 - 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 ECHACHEM; CLP submissions;
SDS Sigma Aldrich v6.7 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.005.380/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/416703
Data source date: 02 Mar 2026
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H310 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 1; H330 , STOT SE 3; H335

acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from ECHACHEM; CLP submissions;
SDS Sigma Aldrich v6.8 dated 12/12/2025
Data source: https://chem.echa.europa.eu/100.001.336/industry/113817?searchText=83-32-9
https://www.sigmaaldrich.com/GB/en/sds/aldrich/215376
Data source date: 02 Mar 2026
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from ECHACHEM; CLP submissions;
SDS Sigma Aldrich v6.6 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.001.541/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/128333
Data source date: 02 Mar 2026
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 ECHACHEM; CLP submissions;
SDS Sigma Aldrich v7.2 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.001.437/overview
https://www.sigmaaldrich.com/GB/en/sds/supelco/48569
Data source date: 02 Mar 2026
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , EUH441

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

Description/Comments: Data from ECHACHEM; CLP submissions
SDS Sigma Aldrich v9.3 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.003.974/overview
https://www.sigmaaldrich.com/GB/en/sds/supelco/48567
Data source date: 03 Mar 2026
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , PBT; EUH440

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

Description/Comments: Data from ECHACHEM; CLP submissions
SDS Sigma Aldrich v7.2 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.005.376/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/f807
Data source date: 03 Mar 2026
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , PBT; EUH440 , EUH441

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

Description/Comments: Data from ECHACHEM; CLP submissions
SDS Sigma Aldrich v7.2 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.004.481/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/185515
Data source date: 03 Mar 2026
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , PBT; EUH440 , EUH441

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

Description/Comments: Data from ECHACHEM database; CLP submissions
SDS Sigma Aldrich v6.8 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.005.359/overview
https://www.sigmaaldrich.com/GB/en/sds/supelco/48499
Data source date: 03 Mar 2026
Hazard Statements: Carc. 2; H351 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from ECHACHEM; CLP submissions; Sigma Aldrich SDS v7.1 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.005.350/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/b9009
Data source date: 18 May 2026
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , vPvB; EUH441 , PBT; EUH440

coronene (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from ECHACHEM; CLP submissions;
Sigma Aldrich SDS v6.4 dated 23/12/2025
Data source: https://chem.echa.europa.eu/100.005.348/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/c84801
Data source date: 03 Mar 2026
Hazard Statements: STOT SE 2; H371

polychlorobiphenyls; PCB (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
03 Jun 2026 - Carc. 1A; H350 hazard statement sourced from:: IARC Group 1 (23, Sup 7, 100C) 2012

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 barium and Cr(VI) present to make the worst case CLP (barium chromate) and it is 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}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that there is not Cr(VI) present to make hazardous levels of the worst case CLP (lead chromate) in any case.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight.

nickel {nickel sulfate}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: copper refining, electroplating and rechargeable batteries. Worst case compounds in CLP not expected as either very soluble and/or compounds industrial useage not related to site history.

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight.

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species.

zinc {zinc sulphate}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough zinc and Cr(VI) present to make the worst case CLP (zinc chromate) and it is 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: 2026.272.7387.64714f5 (29 Sep 2026)
HazWasteOnline Database: 2026.272.7387.64714f5 (29 Sep 2026)

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
GB MCL List v7.0 - version 7.0 of 23rd September 2025

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 A – Preliminary Topsoil Sampling Chemical Laboratory Results and HazWasteOnline Classification

Appendix B – Exploratory Hole Location Plan

Appendix C – Exploratory Hole Records

Appendix D – Ground Gas and Groundwater Monitoring Records

Appendix E – Geotechnical Laboratory Analysis Results

Appendix F – Infiltration Testing Results

Appendix G – Chemical Laboratory Analysis Results

Appendix H – Contamination Assessment

Appendix I – HazWaste Online Classification Reports Appendix I – HazWaste Online Classification Reports

Appendix J – Risk Assessment Methodology

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Analytical Report Number : 26-023247

Project / Site name:	Piccadilly Gardens, Manchester	**Samples received on:**	01/05/2026
Your job number:	51334	**Samples instructed on/ Analysis started on:**	01/05/2026
Your order number:	PO-0604	**Analysis completed by:**	13/05/2026
Report Issue Number:	1	**Report issued on:**	13/05/2026
Samples Analysed:	3 soil samples		

Signed:

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

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
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: 26-023247
Project / Site name: Piccadilly Gardens, Manchester
Your Order No: PO-0604

Lab Sample Number				907442	907443	907444
Sample Reference				ES01	ES02	ES03
Sample Number				1	2	3
Water Matrix				N/A	N/A	N/A
Depth (m)				0.07	0.09	0.13
Date Sampled				30/04/2026	30/04/2026	30/04/2026
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			
Mass of stone >10mm	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	15	15	17
Total mass of sample received	kg	0.1	NONE	1.1	1.6	1.4
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	DSA	DSA	DSA
Analysis completed	N/A	N/A	N/A	13/05/2026	13/05/2026	13/05/2026
General Inorganics						
pH (L099)	pH Units	N/A	MCERTS	7.3	6.8	6.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	560	260	430
Organic Matter (automated)	%	0.1	MCERTS	5.6	3.6	3.5
Total Phenols						
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Speciated PAHs						
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.06	0.09	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.15	0.16	0.08
Pyrene	mg/kg	0.05	MCERTS	0.12	0.16	0.06
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.09	0.09	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.1	0.11	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.1	0.1	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.09	0.09	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.06	< 0.05	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05
Total PAH						
Total WAC-17 PAHs	mg/kg	0.85	NONE	0.87	0.85	< 0.85

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Analytical Report Number: 26-023247
Project / Site name: Piccadilly Gardens, Manchester
Your Order No: PO-0604

Lab Sample Number				907442	907443	907444
Sample Reference				ES01	ES02	ES03
Sample Number				1	2	3
Water Matrix				N/A	N/A	N/A
Depth (m)				0.07	0.09	0.13
Date Sampled				30/04/2026	30/04/2026	30/04/2026
Time Taken				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	1.1	< 1.0	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4.5	2.8	4.2
Barium (aqua regia extractable)	mg/kg	1	MCERTS	26	23	48
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.26	0.23	0.26
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.4	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S *U/S g	U/S *U/S g	U/S *U/S g
Chromium (III)	mg/kg	1	NONE	U/S *U/S g	U/S *U/S g	U/S *U/S g
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	< 1.80
Chromium (III) by IC	mg/kg	1	NONE	7	5.6	8.6
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	7	5.6	8.6
Copper (aqua regia extractable)	mg/kg	1	MCERTS	25	18	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	26	17	20
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.6	5.4	7.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	12	7.9	14
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	51	34	46
Petroleum Hydrocarbons						
TPHCWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	< 10	< 10	< 10
VOCs						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
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

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

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Analytical Report Number : 26-023247
Project / Site name: Piccadilly Gardens, Manchester

* 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 *
907442	ES01	1	0.07	Brown loam and sand with vegetation
907443	ES02	2	0.09	Brown loam and sand with vegetation
907444	ES03	3	0.13	Brown loam and sand with vegetation

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Analytical Report Number : 26-023247
Project / Site name: Piccadilly Gardens, Manchester

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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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
Hexavalent chromium in soil 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
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

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Analytical Report Number : 26-023247
Project / Site name: Piccadilly Gardens, Manchester

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total petroleum hydrocarbons with carbon banding 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

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.

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CIVIC

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

Land Use Category:		Public Open Space (Park)						SOM:	1.0%
Stratum:		Made Ground						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	170	-	2.80	4.50	0	-	-	-	-
Beryllium	63	-	0.23	0.26	0	-	-	-	-
Boron	46,000	-	0.40	0.60	0	-	-	-	-
Cadmium	532	-	<0.20	<0.20	0	-	-	-	-
Chromium (III)	33,000	-	5.60	8.60	0	-	-	-	-
Chromium (VI)	220	-	<1.80	<1.80	0	-	-	-	-
Copper	44,000	-	14.00	25.00	0	-	-	-	-
Lead	1,300	-	17.00	26.00	0	-	-	-	-
Mercury	240	-	<0.30	<0.30	0	-	-	-	-
Nickel	3,400	-	5.40	7.80	0	-	-	-	-
Selenium	1,800	-	<1.00	<1.00	0	-	-	-	-
Vanadium	5,000	-	7.90	14.00	0	-	-	-	-
Zinc	170,000	-	34.00	51.00	0	-	-	-	-
Benzene	90	-	<0.01	<0.01	0	-	-	-	-
Toluene	87,000	[869]	<0.01	<0.01	0	0	-	-	-
Ethyl benzene	17,000	518	<0.01	<0.01	0	0	-	-	-
o-Xylene	17,000	478	<0.01	<0.01	0	0	-	-	-
m- & p-Xylene	17,000	576	<0.01	<0.01	0	0	-	-	-
Total Phenols	760	-	<1.00	<1.00	0	-	-	-	-
Total Cyanide	34	-	<1.00	<1.00	0	-	-	-	-
Aliphatic EC5-6	95,000	304	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >6-8	150,000	144	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >8-10	14,000	78	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >10-12	21,000	48	<1.00	<1.00	0	0	-	-	-
Aliphatic EC >12-16	25,000	24	<2.00	<2.00	0	0	-	-	-
Aliphatic EC >16-35	450,000	-	<16.00	<16.00	0	-	-	-	-
Aromatic EC5-7	76,000	1,220	<0.01	<0.01	0	0	-	-	-
Aromatic EC >7-8	87,000	[869]	<0.01	<0.01	0	0	-	-	-
Aromatic EC >8-10	7,200	[613]	-0.02	-0.02	0	0	-	-	-
Aromatic EC >10-12	9,200	364	<1.00	<1.00	0	0	-	-	-
Aromatic EC >12-16	10,000	-	<2.00	<2.00	0	-	-	-	-
Aromatic EC >16-21	7,600	-	<10.00	<10.00	0	-	-	-	-
Aromatic EC >21-35	7,800	-	<10.00	<10.00	0	-	-	-	-
Acenaphthene	29,000	-	<0.05	<0.05	0	-	-	-	-
Acenaphthylene	29,000	-	<0.05	<0.05	0	-	-	-	-
Anthracene	150,000	-	<0.05	<0.05	0	-	-	-	-
Benzo(a)anthracene	49	-	<0.05	0.09	0	-	-	-	-
Benzo(a)pyrene	11	-	<0.05	0.09	0	-	-	-	-
Benzo(b)fluoranthene	13	-	<0.05	0.10	0	-	-	-	-
Benzo(g,h,i)perylene	1,400	-	<0.05	0.06	0	-	-	-	-
Benzo(k)fluoranthene	370	-	<0.05	0.06	0	-	-	-	-
Chrysene	93	-	<0.05	0.11	0	-	-	-	-
Dibenzo(a,h)anthracene	1.1	-	<0.05	<0.05	0	-	-	-	-
Fluoranthene	6,300	-	0.08	0.16	0	-	-	-	-
Fluorene	20,000	-	<0.05	<0.05	0	-	-	-	-
Indeno(1,2,3,cd)pyrene	150	-	<0.05	0.05	0	-	-	-	-
Naphthalene	1,200	76.4	<0.05	<0.05	0	0	-	-	-
Phenanthrene	6,200	-	<0.05	0.09	0	-	-	-	-
Pyrene	15,000	-	0.06	0.16	0	-	-	-	-
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.

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.

JPT6O-WZEU7-LALZU

Report is invalid if pages are removed.

Job name

Piccadilly Gardens, Manchester

Description/Comments

i2 Analytical Report 26-023247

Project

51334

Site

Piccadilly Gardens, Manchester

Classified by

Name:
Bethany Douglas
Date:
15 May 2026 08:22 GMT
Telephone:
07415795967

Company:
Civic Earth Limited
35 Virginia Street
Glasgow
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	09 Apr 2026

Next 3 year Refresher due by Apr 2029

Purpose of classification

2 - Material Characterisation

Address of the waste

Piccadilly Gardens, Manchester **Post Code** M1 1RG

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 existing civic square and transport interchange including demolition of the fountain, removal of existing street furniture, landscaping works and a new children's play area.

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

Waste created during the excavation of soils during site investigation.

Description of the waste

Shallow Made Ground soils from landscaped existing civic square comprising brown organic rich sandy clay.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	ES01-1-30042026-0.07	0.07	Non Hazardous		3
2	ES02-2-30042026-0.09	0.09	Non Hazardous		6
3	ES03-3-30042026-0.13	0.13	Non Hazardous		9

Related documents

#	Name	Description
1	26-023247_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: Bethany Douglas

Created date: 15 May 2026 08:22 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	12
Appendix B: Rationale for selection of metal species	13
Appendix C: Version	14

Classification of sample: ES01-1-30042026-0.07

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

Sample details

Sample name:
ES01-1-30042026-0.07
Sample Depth:
0.07 m
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		7.3 pH		7.3 pH	7.3 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		1.1 mg/kg	1.197	1.119 mg/kg	0.000112 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.5 mg/kg	1.534	5.867 mg/kg	0.000587 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		26 mg/kg	1.623	35.879 mg/kg	0.00359 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.26 mg/kg	2.775	0.613 mg/kg	0.0000613 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.642 mg/kg	0.000164 %	✓	
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 mg/kg	1.462	8.696 mg/kg	0.00087 %	✓	

#		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 }				25	mg/kg	1.126	23.925	mg/kg	0.00239 %	✓	
		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	26	mg/kg		22.1	mg/kg	0.00221 %	✓	
		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 }				6.6	mg/kg	2.637	14.792	mg/kg	0.00148 %	✓	
		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 }				12	mg/kg	1.785	18.209	mg/kg	0.00182 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate }				51	mg/kg	2.469	107.044	mg/kg	0.0107 %	✓	
		030-006-00-9	231-793-3	7733-02-0									
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				0.06	mg/kg		0.051	mg/kg	0.0000051 %	✓	
			201-581-5	85-01-8									
30		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
31		fluoranthene				0.15	mg/kg		0.128	mg/kg	0.0000128 %	✓	
			205-912-4	206-44-0									
32		pyrene				0.12	mg/kg		0.102	mg/kg	0.0000102 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				0.1	mg/kg		0.085	mg/kg	0.0000085 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				0.1	mg/kg		0.085	mg/kg	0.0000085 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.06	mg/kg		0.051	mg/kg	0.0000051 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				0.05	mg/kg		0.0425	mg/kg	0.00000425 %	✓	
			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				0.06	mg/kg		0.051	mg/kg	0.0000051 %	✓	
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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:	0.0241 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: ES02-2-30042026-0.09

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

Sample details

Sample name:
ES02-2-30042026-0.09
Sample Depth:
0.09 m
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		pH			PH		6.8 pH		6.8 pH	6.8 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		2.8 mg/kg	1.534	3.651 mg/kg	0.000365 %	✓	
7		barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		23 mg/kg	1.623	31.739 mg/kg	0.00317 %	✓	
8		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.23 mg/kg	2.775	0.543 mg/kg	0.0000543 %	✓	
9		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.095 mg/kg	0.000109 %	✓	
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		5.6 mg/kg	1.462	6.957 mg/kg	0.000696 %	✓	

#		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 }				18	mg/kg	1.126	17.226	mg/kg	0.00172 %	✓	
		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		14.45	mg/kg	0.00145 %	✓	
		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 }				5.4	mg/kg	2.637	12.102	mg/kg	0.00121 %	✓	
		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 }				7.9	mg/kg	1.785	11.988	mg/kg	0.0012 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate }				34	mg/kg	2.469	71.363	mg/kg	0.00714 %	✓	
		030-006-00-9	231-793-3	7733-02-0									
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				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
			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				0.16	mg/kg		0.136	mg/kg	0.0000136 %	✓	
			205-912-4	206-44-0									
32		pyrene				0.16	mg/kg		0.136	mg/kg	0.0000136 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				0.11	mg/kg		0.0935	mg/kg	0.00000935 %	✓	
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				0.1	mg/kg		0.085	mg/kg	0.0000085 %	✓	
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				0.05	mg/kg		0.0425	mg/kg	0.00000425 %	✓	
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				0.09	mg/kg		0.0765	mg/kg	0.00000765 %	✓	
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1							
42		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:	0.0172 %		

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: ES03-3-30042026-0.13

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

Sample details

Sample name:
ES03-3-30042026-0.13
Sample Depth:
0.13 m
Moisture content:
17%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		6.4 pH		6.4 pH	6.4 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		4.2 mg/kg	1.534	5.347 mg/kg	0.000535 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		48 mg/kg	1.623	64.679 mg/kg	0.00647 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.26 mg/kg	2.775	0.599 mg/kg	0.0000599 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.4 mg/kg	3.22	1.069 mg/kg	0.000107 %	✓	
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		8.6 mg/kg	1.462	10.433 mg/kg	0.00104 %	✓	

#		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 }				14	mg/kg	1.126	13.083	mg/kg	0.00131 %	✓	
		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	20	mg/kg		16.6	mg/kg	0.00166 %	✓	
		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 }				7.8	mg/kg	2.637	17.07	mg/kg	0.00171 %	✓	
		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 }				14	mg/kg	1.785	20.744	mg/kg	0.00207 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
19		zinc { zinc sulphate }				46	mg/kg	2.469	94.278	mg/kg	0.00943 %	✓	
		030-006-00-9	231-793-3	7733-02-0									
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				0.08	mg/kg		0.0664	mg/kg	0.00000664 %	✓	
			205-912-4	206-44-0									
32		pyrene				0.06	mg/kg		0.0498	mg/kg	0.00000498 %	✓	
			204-927-3	129-00-0									
33		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
34		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
35		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
36		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
37		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
38		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
39		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
40		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		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:	0.0244 %		

Key

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

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

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

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

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

monohydric phenols (CAS Number: P1186)

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

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

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

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

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from:: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

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

Description/Comments: 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

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 barium and Cr(VI) present to make the worst case CLP (barium chromate) and it is 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 lead and Cr(VI) present to make the worst case CLP (lead chromate) and it is not at hazardous levels in any case.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight.

nickel {nickel sulfate}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: copper refining, electroplating and rechargeable batteries. Worst case compounds in CLP not expected as either very soluble and/or compounds industrial useage not related to site history.

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight.

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species.

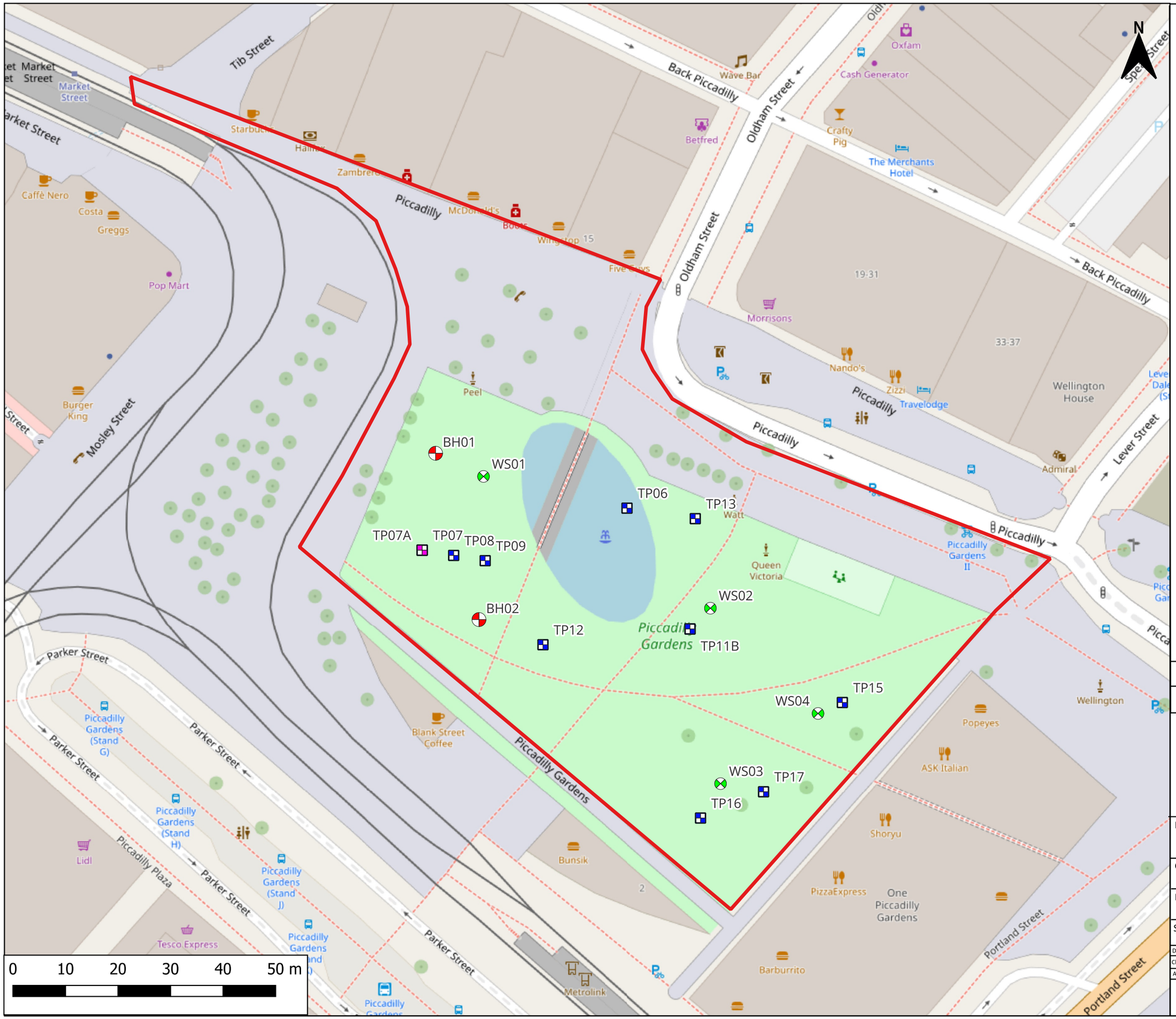
zinc {zinc sulphate}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough zinc and Cr(VI) present to make the worst case CLP (zinc chromate) and it is 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: 2025.322.300.300 (13 May 2026)
HazWasteOnline Database: 2026.83.7020.12656 (25 Mar 2026)

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
GB MCL List v7.0 - version 7.0 of 23rd September 2025



KEY

- Site Boundary

Borehole Locations

- Cable Percussion Boreholes
- Hand Pits
- Machine Excavated Trial Pits
- Window Sample Boreholes

Rev	Date	Comments

CIVIC

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

Project: Piccadillly Gardens, Manchester

Client: Muse and Manchester City Council

Drawing title: Borehole Location Plan

Scale(s): 1:700

Job no.: 51334/01

Drawn	KIA	29/06/2026
Checked		
Approved		

Dwg No.: 51334-CIV-01-XX-D-G-0002

Rev.: C01

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CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	
Location ID: **BH01**	Location Type: Cable percussion (shell and auger)		
	Coords: 384330.56E/398309.45N	Level: 45.68mOD	
Status: FINAL	Scale: 1:30	Final Depth: 15.45 m	
Sheet 1 of 3	Date Start: 22/07/2026	Date End: 23/07/2026	

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	15.45	CP	Dando 2000			

Inst/ Backfill	Depth (m)	Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		0.10 - 0.20	B 1			45.67	0.01		Dark brown to black clayey sand. Sand is fine to medium. Frequent rootlets. [TOPSOIL/MADE GROUND]
		0.20	ES 1						
		0.30 - 0.40	B 2			45.38	0.30		Greyish brown slightly gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of chalk, chert, sandstone and dolomite. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
						45.08	0.60		Greyish brown sandy gravel. Gravel is subangular to rounded fine to medium of dolomite, chert and sandstone. Frequent plastic fibres and wood fragments. [TOPSOIL/MADE GROUND]
						44.98	0.70		Concrete. [MADE GROUND]
		0.80	ES 2						
		0.80 - 0.90	B 3						
		0.80 - 0.90	B B3						Soft dark brown to black slightly silty sandy very gravelly clay. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of brick and concrete. Rare angular cobbles of concrete and wood. [MADE GROUND]
	1.0								
		1.20 - 1.65	B 4	SPT(S) 1.20m N=6 (1,1/2,2,1,1)					
		1.20 - 1.65	D 1						
	2.0	2.00 - 2.45	B 5	SPT(S) 2.00m N=10 (1,2/2,2,3,3)					
		2.00 - 2.45	D 2			43.18	2.50		
									Soft greyish brown gravelly clay. Gravel is angular to subrounded fine to coarse of brick. [MADE GROUND]
	3.0	3.00 - 3.45	B 6	SPT(S) 3.00m N=7 (1,2/1,2,2,2)					
		3.00 - 3.45	D 3			41.88	3.80		
									Soft greyish brown mottled black slightly gravelly clay. Gravel is angular to rounded fine to coarse of coal and brick. [MADE GROUND]
	4.0	4.00 - 4.45	B 7	SPT(S) 4.00m N=4 (1,0/1,1,1,1)					
		4.00 - 4.45	B B7						
		4.00 - 4.45	D 4						
		4.70	D 5			40.68	5.00		
	5.0	5.00 - 5.45	U 1						Firm greyish orangish brown mottled black CLAY. [GLACIAL TILL]
		5.45 - 5.50	B 8						
	6.0	6.00 - 6.45	B 9	SPT(S) 6.00m N=18 (2,3/3,4,5,6)		39.68	6.00		
		6.00 - 6.45	D 6						

Stratum continues onto next page

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Dual install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 4.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-6.00m plain 50mm pipe with bentonite seal; 6.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
15.45	150	15.00	150

Hammer Information	
Energy Ratio	Serial No.
71%	BBLSPT3

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	1.00	4.00
Pipe2	6.00	14.50

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	
Location ID: **BH01**	Location Type: Cable percussion (shell and auger)		
	Coords: 384330.56E/398309.45N	Level: 45.68mOD	
Status: FINAL	Scale: 1:30	Final Depth: 15.45 m	
Sheet 2 of 3	Date Start: 22/07/2026	Date End: 23/07/2026	

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	15.45	CP	Dando 2000			

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		6.00 - 6.45	D D6						Firm brown slightly gravelly CLAY. Gravel is subrounded to rounded fine to medium of chert. [GLACIAL TILL]
	7.0	7.50 - 7.95	U 2						
		7.95 - 8.00	B 10						
	8.0					37.18	8.50		
									Stiff grey gravelly CLAY. Gravel is subrounded to rounded fine to medium of chert. [GLACIAL TILL]
	9.0			SPT(S) 9.00m N=24 (2,4/5,5,6,8)					
	10.0	10.50 - 10.95	U 3						
		10.95 - 11.00	B 11						
	11.0								
	12.0	12.00 - 12.45	B 12	SPT(S) 12.00m N=23 (3,4/4,6,6,7)					
		12.00 - 12.45	D 7						

Stratum continues onto next page

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Dual install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 4.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-6.00m plain 50mm pipe with bentonite seal; 6.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
15.45	150	15.00	150	71%	BBLSPT3

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

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**								
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater				
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To		
Location ID: **BH01**	Location Type: Cable percussion (shell and auger)			0.00 1.20	1.20 15.45	IP CP	Hand Dug Dando 2000					
Status: FINAL	Coords: 384330.56E/398309.45N	Level: 45.68mOD										
	Scale: 1:30	Final Depth: 15.45 m										
Sheet 3 of 3	Date Start: 22/07/2026	Date End: 23/07/2026										

Inst/ Backfill	Depth (m)	Samples & Tests: Sample Depth (m)	Type/Ref	Tests/Results	Water Level (m)	Level (mOD)	Strata Depth (m)	Legend / Cover	Strata Description
		12.00 - 12.45	D 8						Stiff grey gravelly CLAY. Gravel is subrounded to rounded fine to medium of chert. [GLACIAL TILL]
	13.0								
		13.50 - 13.95	B 13	SPT(S) 13.50m N=19 (7,10/5,5,4,5)		32.18	13.50		
		13.50 - 13.95	D 9						Very stiff grey CLAY. [GLACIAL TILL]
	14.0								
						30.78	14.90		
	15.0	15.00 - 15.45	D 10	SPT(S) 15.00m 50 (25 for 50mm/50 for 60mm)					Extremely weak red SANDSTONE. [CHESTER FORMATION]
						30.23	15.45		EOH at 15.45m - Achieved target depth
	16.0								
	17.0								
	18.0								

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Dual install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 4.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-6.00m plain 50mm pipe with bentonite seal; 6.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
15.45	150	15.00	150	71%	BBLSPT3

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

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**									
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater					
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To			
Location ID: **BH02**	Location Type: Cable percussion (shell and auger)			0.00 1.20	1.20 15.45	IP CP	Hand Dug Dando 2000						
Status: FINAL	Coords: 384338.82E/398277.79N	Level: 45.64mOD											
	Scale: 1:30	Final Depth: 15.45 m											
Sheet 1 of 3	Date Start: 23/07/2026	Date End: 24/07/2026											

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
						45.62	0.02		Dark brown to black clayey sand with frequent rootlets.
		0.10 - 0.20	B 1			45.58	0.06		[TOPSOIL/MADE GROUND]
		0.30 - 0.40	B 2			45.34	0.30		Orangish brown sand. Sand is fine to medium.
						45.24	0.40		[TOPSOIL/MADE GROUND]
						45.21	0.43		Greyish brown slightly gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of dolomite, chert, chalk and sandstone. Frequent plastic fibres.
									[TOPSOIL/MADE GROUND]
									Greyish brown sandy gravel. Gravel is subangular to rounded fine to medium of dolomite, chert and sandstone. Sand is fine to medium.
									[TPOSOIL/MADE GROUND]
									Concrete.
									[MADE GROUND]
	1.0	1.00	ES 1						
		1.00 - 1.10	B 3						Soft dark brown ashy gravelly clay. Ash is fine to coarse. Gravel is angular to subrounded fine to coarse of brick, concrete, sandstone, coal, chert and mudstone.
		1.20 - 1.65	B 4	SPT() 1.20m N=9 (1,2/2,2,2,3)					[MADE GROUND]
		1.20 - 1.65	D 1						
	2.0	2.00 - 2.45	B 5	SPT() 2.00m N=14 (1,2/3,3,4,4)					
		2.00 - 2.45	D 2						
	3.0	3.00 - 3.45	B 6	SPT() 3.00m N=15 (2,2/3,3,4,5)		42.64	3.00		
		3.00 - 3.45	B B6						Firm dark brown gravelly CLAY. Gravel is subrounded fine of coal and mudstone.
		3.00 - 3.45	D 3						[GLACIAL TILL]
	4.0	4.00 - 4.45	U 1			41.64	4.00		
		4.45 - 4.50	B 7						Stiff dark brown gravelly CLAY. Gravel is subrounded fine of coal and mudstone.
									[GLACIAL TILL]
	5.0	5.00 - 5.45	B 8	SPT() 5.00m N=16 (2,2/3,3,4,6)					
		5.00 - 5.45	D 4						
	6.0	6.00 - 6.45	U 2						

Stratum continues onto next page

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Duel install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 3.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-5.00m plain 50mm pipe with bentonite seal; 5.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
15.45	150	15.00	150

Hammer Information	
Energy Ratio	Serial No.
71%	BBLSPT3

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	1.00	3.00
Pipe2	5.00	14.50

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

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	15.45	CP	Dando 2000			

Location ID: **BH02**	Location Type: Cable percussion (shell and auger)		
	Coords: 384338.82E/398277.79N	Level: 45.64mOD	
Status: FINAL	Scale: 1:30	Final Depth: 15.45 m	
Sheet 2 of 3	Date Start: 23/07/2026	Date End: 24/07/2026	

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
		6.45 - 6.50	B 9						Stiff dark brown gravelly CLAY. Gravel is subrounded fine of coal and mudstone. [GLACIAL TILL]
	7.0	7.50 - 7.95 7.50 - 7.95	B 10 D 5	SPT() 7.50m N=21 (3,3/4,4,6,7)					
						37.64	8.00		
	8.0								Stiff dark brown gravelly CLAY. Gravel is subrounded to rounded fine of chert and mudstone. [GLACIAL TILL]
	9.0	9.00 - 9.45 9.00 - 9.45	B 11 D 6	SPT() 9.00m N=25 (2,4/4,6,7,8)					
	10.0	10.50 - 10.95	U 3						
	11.0	10.95 - 11.00	B 12						
	12.0	12.00 - 12.45 12.00 - 12.45	B 13 D 7	SPT() 12.00m N=24 (2,4/5,5,6,8)					

Stratum continues onto next page

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Duel install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 3.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-5.00m plain 50mm pipe with bentonite seal; 5.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
15.45	150	15.00	150	71%	BBLSPT3

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

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**								
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater				
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To		
Location ID: **BH02**	Location Type: Cable percussion (shell and auger)			0.00 1.20	1.20 15.45	IP CP	Hand Dug Dando 2000					
Status: FINAL	Coords: 384338.82E/398277.79N	Level: 45.64mOD										
	Scale: 1:30	Final Depth: 15.45 m										
Sheet 3 of 3	Date Start: 23/07/2026	Date End: 24/07/2026										

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
									Stiff dark brown gravelly CLAY. Gravel is subrounded to rounded fine of chert and mudstone. [GLACIAL TILL]
	13.0								
		13.50 - 13.95 13.50 - 13.95	B 14 D 8	SPT() 13.50m N=32 (3,5/7,8,8,9)					
		13.90	EW 1						
	14.0								
	15.0	15.00 - 15.45	D 9	SPT() 15.00m 50 (25 for 105mm/50 for 95mm)		30.64	15.00		Extremely weak red SANDSTONE. [CHESTER FORMATION]
						30.19	15.45		EOH at 15.45m - Achieved target depth
	16.0								
	17.0								
	18.0								

Notes:

1. Borehole terminated at target depth of 15.45mbgl.
2. No groundwater encountered.
3. ES= Environmental Sample. B= Bulk sample. D= Disturbed Sample. U= Undisturbed U100 Sample. SPT = Standard Penetration Test. N=SPT 'N' Value.
4. Duel install. Shallow well details: 0.00m to 1.00m plain 50mm diameter pipe with bentonite; 1.00m to 3.00m slotted 50mm diameter pipe with gravel filter and geosock; Deep well details: 0.00-5.00m plain 50mm pipe with bentonite seal; 5.00-14.50m slotted 50mm pipe with gravel filter and geosoc. Gas tap, bung and flush cover.
5. Coordinates from GPS.

Hole Diameter		Casing		Hammer Information	
Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	Energy Ratio	Serial No.
15.45	150	15.00	150	71%	BBLSPT3

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

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP06**	Location Type: Trial pit/trench			0.00	1.40	TP	Tracked Excavator				
Status: FINAL	Coords: 384367.00E/398299.00N	Level: 45.42mOD									
	Scale: 1:25	Final Depth: 1.40									
Sheet 1 of 1	Date Start: 01/07/2026	Date End: 02/07/2026									

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
		0.20	ES 1			45.01	0.41		Brown slightly gravelly silty sand with frequent rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to coarse of sandstone and chert. [TOPSOIL/MADE GROUND]
						44.92	0.50		Cream slightly clayey gravel. Gravel is subrounded fine to medium of dolerite. [MADE GROUND]
		0.60	ES 2						Brown to grey slightly clayey sandy gravel. Gravel is rounded to subrounded fine to coarse of multiple lithologies. Sand is fine to coarse. Frequent angular to subangular cobbles of concrete and paving slab. [MADE GROUND]
	1.0					44.02	1.40		EOH at 1.40m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 1.40mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Trial pit backfilled with arisings.
5. Coordinates and levels are approximate.
6. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None		0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP07**	Location Type: Trial pit/trench			0.00	0.95	TP	Tracked Excavator				
Status: FINAL	Coords: 384328.00E/398291.00N	Level: 45.56mOD									
	Scale: 1:25	Final Depth: 0.95									
Sheet 1 of 1	Date Start: 01/07/2026	Date End: 02/07/2026									

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
						45.52	0.04		Black sandy silt. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.49	0.07		Orangish brown sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
									Greyish brown gravelly sand. Sand is fine to coarse. Gravel is angular to rounded fine to coarse of dolerite, sandstone, chert and flint. Rare subangular cobbles of brick and frequent plastic fibres. [TOPSOIL/MADE GROUND]
						45.01	0.55		Cream slightly clayey gravel. Gravel is angular to subangular fine to coarse of dolerite. [MADE GROUND]
	1.0					44.61	0.95		EOH at 0.95m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.95mbgl.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.10	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	
Location ID: **TP07A**	Location Type: Inspection pit		
	Coords: 384328.00E/398291.00N	Level: 45.56mOD	
Status: FINAL	Scale: 1:10	Final Depth: 1.00	
Sheet 1 of 1	Date Start: 23/07/2026	Date End: 23/07/2026	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	1.00	IP	Hand Tools			

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
									Greyish brown slightly clayey gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of chalk, chert, sandstone and mudstone. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
	1.0	1.00	ES 1			44.56	1.00		EOH at 1.00m - Terminated due to sides undermining
	2.0								

Notes:

1. Hand pit terminated at 1.00mbgl due to sides of hand pit undermining from 0.60mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Backfilled with arisings.
5. Coordinates and levels are approximate.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Unstable			

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP08**	Location Type: Trial pit/trench			0.00	0.96	TP	Tracked Excavator				
Status: FINAL	Coords: 384334.00E/398290.00N	Level: 45.60mOD									
Sheet 1 of 1	Scale: 1:25	Final Depth: 0.96									
	Date Start: 01/07/2026	Date End: 02/07/2026									

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
						45.54	0.06		Dark brown to black clayey sand with frequent rootlets. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.53	0.07		Orangish brown sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
									Greyish brown slightly silty gravelly sand. Sand is fine. Gravel is angular to rounded fine to coarse of dolerite, brick, sandstone, chert and flint. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
						45.04	0.56		Brown clayey gravel. Gravel is angular to subangular fine to coarse of dolerite and sandstone. [MADE GROUND]
	1.0					44.64	0.96		EOH at 0.96m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.96mbgl.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.60	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP09**	Location Type: Trial pit/trench			0.00	0.90	TP	Tracked Excavator				
Status: FINAL	Coords: 384340.00E/398289.00N	Level: 45.63mOD									
Sheet 1 of 1	Scale: 1:25	Final Depth: 0.90									
	Date Start: 01/07/2026	Date End: 02/07/2026									

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
						45.58	0.05		Dark brown to black clayey sand with frequent rootlets. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.55	0.08		Orangish brown sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.33	0.30		Greyish brown slightly silty gravelly sand. Sand is fine to coarse. Gravel is subrounded fine to coarse of dolerite. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
									Dark grey sandy gravel. Gravel is subangular to subrounded fine to coarse of dolerite, brick, sandstone and mudstone. Sand is fine to coarse. Occasional subangular cobbles of brick and rare metal. [MADE GROUND]
						44.73	0.90		EOH at 0.90m - Achieved target depth
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.90mbgl.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.30	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP11A**	Location Type: Trial pit/trench			0.00	0.50	TP	Tracked Excavator				
Status: FINAL	Coords: 384379.00E/398276.00N	Level: 45.76mOD									
	Scale: 1:25	Final Depth: 0.50									
Sheet 1 of 1	Date Start: 02/07/2026	Date End: 02/07/2026									

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
						45.68	0.08		Dark brown silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.62	0.14		Layer of plastic green grass. [MADE GROUND]
						45.51	0.25		Cream to pale brown sand. Sand is fine to medium. [MADE GROUND]
						45.26	0.50		Greyish brown sandy gravel/gravelly sand. Sand is fine to coarse. Gravel is fine to medium subrounded to rounded of chert and sandstone. Frequent plastic fibres and rare metal. [MADE GROUND]
									EOH at 0.50m - Terminated due to services
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 0.50mbgl due to a water pipe.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	1.50	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.95	TP	Tracked Excavator			

Location ID: **TP11B**	Location Type: Trial pit/trench	
Status: FINAL	Coords: 384379.00E/398276.00N	Level: 45.76mOD
Sheet 1 of 1	Scale: 1:25	Final Depth: 0.95
	Date Start: 02/07/2026	Date End: 02/07/2026

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
						45.68	0.08		Dark brown silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.62	0.14		Layer of plastic green grass. [MADE GROUND]
						45.51	0.25		Cream to pale brown sand. Sand is fine to medium. [MADE GROUND]
						45.26	0.50		Greyish brown sand and gravel. Sand is fine to coarse. Gravel is fine to medium subrounded to rounded of chert. Frequent plastic fibres and rare metal. [MADE GROUND]
		0.65	ES 1			45.11	0.65		Gravel of concrete. [MADE GROUND]
		0.80	ES 1			44.81	0.95		Dark brown slightly clayey sandy gravel. Gravel is subangular to subrounded fine to medium of brick. Sand is fine to coarse. Frequent tile fragments and angular to subangular cobbles of brick. [MADE GROUND]
	1.0								EOH at 0.95m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.95mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Trial pit backfilled with arisings.
5. Coordinates and levels are approximate.
6. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.60	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP12**	Location Type: Trial pit/trench			0.00	0.90	TP	Tracked Excavator				
Status: FINAL	Coords: 384351.00E/398273.00N	Level: 45.52mOD									
	Scale: 1:25	Final Depth: 0.55									
Sheet 1 of 1	Date Start: 02/07/2026	Date End: 02/07/2026									

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
						45.47	0.05		Dark brown to black silty sand. Sand is fine to medium.
						45.45	0.07		[TPOSOIL/MADE GROUND]
									Layer of plastic green grass.
									[MADE GROUND]
						45.12	0.40		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of sandstone, chert and flint. Frequent plastic fibres.
									[MADE GROUND]
						44.99	0.53		Grey gravel. Gravel is subrounded to rounded fine to medium of sandstone, chert and flint.
						44.97	0.55		[MADE GROUND]
									Cement.
									[MADE GROUND]
									EOH at 0.55m - Terminated due to obstruction
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 0.50mbgl due to concrete obstruction.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.45	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.55	TP	Tracked Excavator			

Location ID: **TP13**	Location Type: Trial pit/trench	
Status: FINAL	Coords: 384380.00E/398297.00N	Level: 45.62mOD
Sheet 1 of 1	Scale: 1:25	Final Depth: 0.90
	Date Start: 02/07/2026	Date End: 02/07/2026

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
						45.57	0.05		Dark brown to black silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.42	0.20		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of sandstone, chert and flint. Frequent plastic fibres. [TOPSOIL/MADE GROUND]
						45.27	0.35		Grey gravel. Gravel is subrounded to rounded fine to medium of sandstone, chert and flint. [MADE GROUND]
		0.75	ES 1						Dark brown to black clayey gravel. Gravel is angular to subrounded fine to coarse of brick, sandstone, slag, coal, slate and chalk. [MADE GROUND] *from 0.70 to 0.75mbgl - Faint hydrocarbon odour and sheen noted.*
						44.72	0.90		EOH at 0.90m - Achieved target depth
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at target depth of 0.90mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Trial pit backfilled with arisings.
5. Coordinates and levels are approximate.
6. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.80	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**								
	Project Number: **51334-01**	Logged By: KIA Checked By: GO		Method and Plant Used				Groundwater				
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To		
Location ID: **TP15**	Location Type: Trial pit/trench			0.00	0.80	TP	Tracked Excavator					
Status: FINAL	Coords: 384408.00E/398262.00N	Level: 46.10mOD										
	Scale: 1:25	Final Depth: 0.80										
Sheet 1 of 1	Date Start: 02/07/2026	Date End: 02/07/2026										

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
						46.05	0.05		Dark brown to black silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
									Dark brown slightly clayey sand. Sand is fine to medium. Frequent plastic fibres. [MADE GROUND]
						45.45	0.65		Grey gravel. Gravel is subrounded to rounded fine to medium of sandstone, chert and flint. Frequent plastic fibres. [MADE GROUND]
						45.30	0.80		EOH at 0.80m - Terminated due to obstruction
	1.0								
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 0.80mbgl due to concrete obstruction.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.15	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: Galliford Try Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP16**	Location Type: Trial pit/trench			0.00	1.00	TP	Tracked Excavator				
Status: FINAL	Coords: 384381.00E/398240.00N	Level: 45.40mOD									
	Scale: 1:25	Final Depth: 1.00									
Sheet 1 of 1	Date Start: 03/07/2026	Date End: 03/07/2026									

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
						45.05	0.35		Dark brown to black silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						44.90	0.50		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is fine to medium subangular to subrounded of sandstone, chert and flint. Frequent plastic fibres. [MADE GROUND]
						44.65	0.75		Cream slightly clayey gravel. Gravel is fine to medium of dolerite. [MADE GROUND]
						44.40	1.00		Dark brown to black clayey gravel. Gravel is fine to coarse angular to subrounded of brick, sandstone, slag, coal, slate and chalk. [MADE GROUND]
	1.0								EOH at 1.00m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 1.00mbgl.
2. No groundwater encountered.
3. Trial pit backfilled with arisings.
4. Coordinates and levels are approximate.
5. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.00	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**			Client: **Manchester City Council**							
	Project Number: **51334-01**	Logged By: Galliford Try Checked By: GO		Method and Plant Used				Groundwater			
				From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To	
Location ID: **TP17**	Location Type: Trial pit/trench			0.00	1.00	TP	Tracked Excavator				
Status: FINAL	Coords: 384393.00E/398245.00N	Level: 45.62mOD									
	Scale: 1:25	Final Depth: 1.00									
Sheet 1 of 1	Date Start: 03/07/2026	Date End: 03/07/2026									

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
						45.57	0.05		Black sandy silt. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.32	0.30		Dark brown silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]
						45.22	0.40		Cream slightly clayey gravel. Gravel is fine to medium of dolerite. [MADE GROUND]
		0.75	ES 1						Dark brown to black clayey gravel. Gravel is fine to coarse angular to subrounded of brick, sandstone, slag, coal, slate and chalk. [MADE GROUND]
	1.0					44.62	1.00		EOH at 1.00m - Achieved target depth
	2.0								
	3.0								
	4.0								
	5.0								

Notes:

1. Trial pit terminated at 1.00mbgl.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Trial pit backfilled with arisings.
5. Coordinates and levels are approximate.
6. Trial pits were excavated by Galliford Try ahead of Civic attendance.

Soakaway Tests

Test Number	Date	Duration (hh:mm)	Infiltration Rate

Pit Details

Stability	Shoring Used	Length (m)	Width (m)
Stable	None	2.00	0.65

CIVIC	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.40	IP	Hand Tools			

Location ID: **WS01**	Location Type: Window Sampler		
Status: FINAL	Coords: 384339.68E/398305.04N	Level: 45.70mOD	
Sheet 1 of 1	Scale: 1:30	Final Depth: 0.40 m	
	Date Start: 23/07/2026	Date End: 23/07/2026	

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 (%)
						45.68	0.02		Dark brown to black silty sand. Sand is fine to medium. [TOPSOIL/MADE GROUND]			
						45.30	0.40		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of sandstone, flint and chert. Frequent plastic fibres. [TOPSOIL/MADE GROUND]			
									EOH at 0.40m - Terminated due to obstruction			

1.0
2.0
3.0
4.0
5.0
6.0

Notes:

1. Borehole terminated at 0.40mbgl due to concrete obstruction.
2. No groundwater encountered.
3. Borehole backfilled with arisings.

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	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	
Location ID: **WS02**	Location Type: Window Sampler		
	Coords: 384382.88E/398279.95N	Level: 45.87mOD	
Status: FINAL	Scale: 1:30	Final Depth: 0.40 m	
Sheet 1 of 1	Date Start: 23/07/2026	Date End: 23/07/2026	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.40	IP	Hand Tools			

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	Window Sampling: WS Run	Window Sampling: Dia (mm)	Window Sampling: Recovery (%)
						45.85	0.02		Dark brown to black clayey sand with frequent rootlets. [TOPSOIL/MADE GROUND]			
						45.82	0.05		Orangish brown sand. [TOPSOIL/MADE GROUND]			
						45.47	0.40		Greyish brown slightly gravelly silty sand. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of sandstone, flint and chert. Frequent plastic fibres. [TOPSOIL/MADE GROUND]			
									EOH at 0.40m - Terminated due to obstruction			
	1.0											
	2.0											
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated at 0.40mbgl due to concrete obstruction.
2. No groundwater encountered.
3. Installation Details: 0.00m to 0.20m plain 50mm diameter pipe with bentonite; 0.20m to 0.40m slotted 50mm 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.

Install Response Zones		
Ref	From (m)	To (m)
Pipe1	0.20	0.40

CIVIC

Project Title:	**Piccadilly Gardens, Manchester**	Client:	**Manchester City Council**
Project Number:	**51334-01**	Logged By: KIA / Checked By: GO	
Location ID:	**WS03**	Location Type: Window Sampler	
Coords: 384384.81E/398246.55N	Level: 45.67mOD		
Status:	FINAL	Scale: 1:30	Final Depth: 0.40 m
Sheet 1 of 1		Date Start: 23/07/2026	Date End: 23/07/2026

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.40	IP	Hand Tools			

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 (%)
						45.65	0.02		Dark brown to black clayey sand with frequent rootlets. [TOPSOIL/MADE GROUND]			
						45.62	0.05		Orangish brown sand. [TOPSOIL/MADE GROUND]			
		0.30	ES 1			45.37	0.30		Greyish brown slightly gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of chalk, chert, sandstone and dolomite. Frequent plastic fibres. [TOPSOIL/MADE GROUND]			
						45.27	0.40		Greyish brown sandy gravel. Gravel is subangular to rounded fine to medium of dolomite, chert and sandstone. Frequent plastic fibres and wood sticks. [TOPSOIL/MADE GROUND]			
	1.0								EOH at 0.40m - Terminated due to obstruction			
	2.0											
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated at 0.40mbgl due to concrete obstruction.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Borehole backfilled with arisings.

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	Project Title: **Piccadilly Gardens, Manchester**		Client: **Manchester City Council**
	Project Number: **51334-01**	Logged By: KIA Checked By: GO	

Method and Plant Used				Groundwater		
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To
0.00	0.60	IP	Hand Tools			

Location ID: **WS04**	Location Type: Window Sampler	
Status: FINAL	Coords: 384403.37E/398259.91N	Level: 46.35mOD
Sheet 1 of 1	Scale: 1:30	Final Depth: 0.60 m
	Date Start: 23/07/2026	Date End: 23/07/2026

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	Window Sampling: WS Run	Window Sampling: Dia (mm)	Window Sampling: Recovery (%)
						46.30	0.05		Soft dark brown to black clay. Frequent rootlets. [TOPSOIL/MADE GROUND]			
		0.50	ES 1			45.75	0.60		Dark brown slightly clayey gravelly sand. Sand is fine to medium. Gravel is subangular to rounded fine to medium of chalk, chert, sandstone and mudstone. Frequent plastic fibres. [TOPSOIL/MADE GROUND]			
									EOH at 0.60m - Terminated due to obstruction			
	1.0											
	2.0											
	3.0											
	4.0											
	5.0											
	6.0											

Notes:

1. Borehole terminated at 0.40mbgl due to concrete obstruction.
2. No groundwater encountered.
3. ES = Environmental Sample.
4. Borehole backfilled with arisings.

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

Ground Gas Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**KIA**
Date of Visit:	**05 August 2026**	**Time of Visit:**	**09:00 to 12:00**

Atm. Pressure:	**1010 to 1012mbar**	**Local Pressure System*:**	**Rising**
Air Temperature:	**17°C to 18°C**	**Gas Monitor Model:**	**GFM436 and MiniRAE Lite+**

State of Ground:	**Dry**	**X**	**Damp**		**Wet**		**Saturated**	
Wind Strength:	**Calm**		**Light**		**Moderate**	**X**	**Strong**	
Cloud Cover:	**Clear**		**Slight**		**Cloudy**	**X**	**Overcast**	
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)
BH01 (S) [10:08]	1004	0	-3.7	-24.0	20.7	0.0	0.0	0.0	Dry	4.16
		15	-3.8	-25.0	20.6	0.8	0.0	0.0		
		30	-3.8	-25.0	20.5	0.8	0.0	0.0		
		45	-3.9	-26.0	20.5	0.9	0.0	0.0		
		60	-3.8	-27.0	20.2	1.5	0.0	0.0		
		90	-3.9	-26.0	19.3	2.3	0.0	0.0		
		120	-4.0	-27.0	19.6	2.4	0.0	0.0		
		150	-3.6	-26.0	19.5	2.5	0.0	0.0		
		180	-3.3	-25.0	19.5	2.4	0.0	0.0		
		240	-4.1	-28.0	19.7	2.3	0.0	0.0		
		300	-3.7	-25.0	19.7	2.2	0.0	0.0		
		360	-	-	19.9	2.1	0.0	-		
		420			19.9	2.0	0.0			
		480			20.0	1.9	0.0			
		540			20.0	1.9	0.0			
		600			20.0	1.8	0.0			
BH02 (S) [11:30]	1003	0	0.0	0.0	20.6	0.0	0.0	0.0	Dry	2.70
		15	0.0	0.0	20.3	0.4	0.0	0.5		
		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	20.3	0.4	0.0	0.0		
		120	0.0	0.0	20.3	0.4	0.0	0.0		
		150	0.0	0.0	20.3	0.4	0.0	0.0		
		180	0.0	0.0	20.3	0.4	0.0	0.0		
		240	0.0	0.0	20.0	0.5	0.0	0.0		
		300	0.0	0.0	19.7	0.7	0.0	0.0		
		360	-	-	19.6	0.7	0.0	-		
		420			19.6	0.8	0.0			
		480			19.7	0.7	0.0			
		540			19.8	0.7	0.0			
		600			19.8	0.7	0.0			
WS02 [11:50]	1003	0	0.0	0.0	20.9	0.0	0.0	0.0	Dry	0.40
		15	0.0	0.0	21.2	0.1	0.0	0.0		
		30	0.0	0.0	21.1	0.1	0.0	0.0		
		45	0.0	0.0	21.1	0.0	0.0	0.0		
		60	0.0	0.0	21.1	0.0	0.0	0.0		
		90	0.0	0.0	21.2	0.0	0.0	0.0		
		120	0.0	0.0	21.1	0.0	0.0	0.0		
		150	0.0	0.0	21.1	0.0	0.0	0.0		
		180	0.0	0.0	21.1	0.0	0.0	0.0		
		240	0.0	0.0	21.1	0.0	0.0	0.0		
		300	0.0	0.0	21.1	0.0	0.0	0.0		

Notes:

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

Ground Gas Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**GD**
Date of Visit:	**19 August 2026**	**Time of Visit:**	**09:30 to 12:00**

Atm. Pressure:	**996 to 997**	**Local Pressure System*:**	**Falling**
Air Temperature:	**16°C to 17°C**	**Gas Monitor Model:**	**GFM436 and MiniRAE Lite+**

State of Ground:	**Dry**		**Damp**	**X**	**Wet**		**Saturated**	
Wind Strength:	**Calm**		**Light**	**X**	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	**X**	**Cloudy**		**Overcast**	
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)
BH01 (S) [10:33]	996	0	7.0	63.0	20.5	0.0	0.0	0.0	Dry	4.15
		15	8.4	79.0	13.0	6.7	0.0	0.0		
		30	8.3	79.0	11.1	17.2	0.0	0.0		
		45	8.2	78.0	10.9	17.7	0.0	0.0		
		60	8.3	79.0	10.8	17.8	0.0	0.0		
		90	8.3	79.0	10.8	17.8	0.0	0.1		
		120	8.3	79.0	10.8	17.8	0.0	0.1		
		150	8.3	79.0	10.8	17.8	0.0	0.1		
		180	8.3	79.0	10.8	17.8	0.0	0.1		
		240	8.3	79.0	10.8	17.8	0.0	0.1		
		300	8.3	79.0	10.8	17.8	0.0	0.1		
BH02 (S) [10:10]	997	0	0.0	0.0	20.1	0.0	0.0	0.3	Dry	2.66
		15	0.0	0.0	17.4	1.1	0.0	0.8		
		30	0.0	0.0	16.9	1.2	0.0	0.8		
		45	0.0	0.0	16.8	1.2	0.0	0.8		
		60	0.0	0.0	16.8	1.2	0.0	0.8		
		90	0.0	0.0	16.8	1.2	0.0	0.8		
		120	0.0	0.0	16.9	1.1	0.0	0.7		
		150	0.0	0.0	17.1	1.1	0.0	0.7		
		180	0.0	0.0	17.3	1.0	0.0	0.7		
		240	0.0	0.0	17.8	0.9	0.0	0.7		
		300	0.0	0.0	18.2	0.9	0.0	0.7		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
**WS02 not monitored due to damaged headworks.

Ground Gas Monitoring Record

Project Name:	Piccadilly Gardens	**Client:**	Manchester City Council
Project Reference:	51334/01	**Engineer:**	GD
Date of Visit:	15 September 2026	**Time of Visit:**	09:00 to 16:30

Atm. Pressure:	1006	**Local Pressure System*:**	Falling
Air Temperature:	16°C to 17°C	**Gas Monitor Model:**	GFM436 and MiniRAE Lite+

State of Ground:	**Dry**		**Damp**		**Wet**	X	**Saturated**	
Wind Strength:	**Calm**		**Light**	X	**Moderate**		**Strong**	
Cloud Cover:	**Clear**		**Slight**	X	**Cloudy**		**Overcast**	
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)
BH01 (S) [09:15]	1006	0	0.2	1.0	20.8	0.0	0.0	0.4	Damp at base	4.18
		15	0.6	1.0	17.0	0.0	0.0	0.4		
		30	0.4	1.0	15.4	0.0	0.0	0.3		
		45	0.4	1.0	15.0	0.0	0.0	0.3		
		60	0.7	3.0	15.0	0.0	0.0	0.2		
		90	0.7	3.0	14.9	0.0	0.0	0.1		
		120	0.6	1.0	14.8	0.0	0.0	0.1		
		150	0.7	3.0	14.6	0.0	0.0	0.1		
		180	0.7	2.0	14.5	0.0	0.0	0.1		
		240	0.7	1.0	14.1	0.0	0.0	0.1		
		300	0.7	3.0	13.6	0.0	0.0	0.1		
BH02 (S) [10:28]	1006	0	-3.0	-5.0	20.6	0.0	0.0	0.3	Dry	2.58
		15	0.0	0.0	20.8	0.0	0.0	0.6		
		30	0.0	0.0	20.7	0.0	0.0	0.7		
		45	0.0	0.0	20.6	0.0	0.0	0.7		
		60	0.0	0.0	20.6	0.0	0.0	0.7		
		90	0.0	0.0	20.6	0.0	0.0	0.6		
		120	0.0	0.0	20.6	0.0	0.0	0.6		
		150	0.0	0.0	20.6	0.0	0.0	0.6		
		180	0.0	0.0	20.6	0.0	0.0	0.6		
		240	0.0	0.0	20.6	0.0	0.0	0.6		
		300	0.0	0.0	20.6	0.0	0.0	0.6		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
**WS02 not monitored due to damaged headworks. It is also noted that the GFM436 gas monitor was faulty during the last monitoring visit and has likely produced incorrect concentrations of CH4 (%v/v) and CO2 (%v/v). Further monitoring rounds are recommended to determine the gas concentrations.

Ground Gas Monitoring Record

Project Name:	Piccadilly Gardens	**Client:**	Manchester City Council
Project Reference:	51334/01	**Engineer:**	JF
Date of Visit:	23 September 2026	**Time of Visit:**	08:50 to 10:40

Atm. Pressure:	1016	**Local Pressure System*:**	Rising
Air Temperature:	16°C to 17°C	**Gas Monitor Model:**	GFM436 and MiniRAE Lite+

State of Ground:	**Dry**		**Damp**	X	**Wet**		**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)
BH01 (S) [09:46]	1015	0	1.9	10.0	20.7	0.9	0.0	0.0	Dry	4.10
		15	2.2	10.0	17.2	4.3	0.0	0.0		
		30	2.4	11.0	16.9	4.8	0.0	0.0		
		45	2.2	10.0	16.8	4.8	0.0	0.0		
		60	2.4	11.0	16.8	4.8	0.0	0.0		
		90	2.2	10.0	16.8	4.9	0.0	0.0		
		120	2.4	11.0	16.8	4.9	0.0	0.0		
		150	2.1	10.0	16.8	4.9	0.0	0.0		
		180	2.4	11.0	16.8	4.9	0.0	0.0		
		240	2.2	10.0	16.8	4.9	0.0	0.0		
		300	2.2	10.0	16.8	4.9	0.0	0.0		
		360	2.2	10.0	16.8	4.9	0.0	0.0		
BH02 (S) [09:05]	1016	0	0.0	0.0	20.9	0.1	0.0	0.0	Dry	2.52
		15	0.0	0.0	20.6	0.4	0.0	0.1		
		30	0.0	0.0	20.6	0.4	0.0	0.1		
		45	0.0	0.0	20.6	0.4	0.0	0.2		
		60	0.0	0.0	20.6	0.4	0.0	0.2		
		90	0.0	0.0	20.5	0.4	0.0	0.2		
		120	0.0	0.0	20.5	0.4	0.0	0.2		
		150	0.0	0.0	20.5	0.4	0.0	0.2		
		180	0.0	0.0	20.5	0.4	0.0	0.2		
		240	0.0	0.0	20.5	0.4	0.0	0.1		
		300	0.0	0.0	20.5	0.4	0.0	0.1		

Notes:

*With reference to the Weather Underground rolling weather archive station.
*Atm. = Atmospheric
**WS02 not monitored due to damaged headworks.

Groundwater Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**KIA**
Date of Visit:	**05 August 2026**	**Time of Visit:**	**09:00 to 12:00**

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

Borehole Reference	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**	**WS02**			
Target Stratum	Made Ground	Glacial Till	Made Ground	Glacial Till	Made Ground			
Ground Level (mOD)	45.68	45.68	45.64	45.64	45.87			
Groundwater Depth (mbgl)	Dry	Dry	Dry	12.90	Dry			
Groundwater Level (mOD)	Dry	Dry	Dry	32.74	Dry			
Base of Well (mbgl)	4.16	14.68	2.70	14.45	0.40			
Diameter of Well (m)	0.05	0.05	0.05	0.05	0.05			
Condition of Well	Good	Good	Good	Good	Good			
Top of Response Zone (mbgl)	1.00	6.00	1.00	5.00	0.20			
Base of Response Zone (mbgl)	4.00	14.50	3.00	14.50	0.20			
Top of Response Zone (mOD)	44.68	39.68	44.64	40.64	45.67			
Base of Response Zone (mOD)	41.68	31.18	42.64	31.14	0.40			
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:

Groundwater Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**GD**
Date of Visit:	**19 August 2026**	**Time of Visit:**	**09:30 to 12:00**

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

Borehole Reference	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**				
Target Stratum	Made Ground	Glacial Till	Made Ground	Glacial Till				
Ground Level (mOD)	45.68	45.68	45.64	45.64				
Groundwater Depth (mbgl)	Dry	Damp at base	Dry	12.84				
Groundwater Level (mOD)	Dry	Damp at base	Dry	32.80				
Base of Well (mbgl)	4.15	14.68	2.66	14.55				
Diameter of Well (m)	0.05	0.05	0.05	0.05				
Condition of Well	Good	Good	Good	Good				
Top of Response Zone (mbgl)	1.00	6.00	1.00	5.00				
Base of Response Zone (mbgl)	4.00	14.50	3.00	14.50				
Top of Response Zone (mOD)	44.68	39.68	44.64	40.64				
Base of Response Zone (mOD)	41.68	31.18	42.64	31.14				
Hydrocarbon Sheen Observed?	N/A	N/A	N/A	No				
Thickness of Free Product (m)	N/A	N/A	N/A	0.00				

Groundwater Sampling Details	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**				
Purge Method	-	Not enough to sample	-	Bailing				
Purged Volume (litres)	-		-	10.0				
Recharge (Good / Poor)	-		-	Good				
Sampling Method	-		-	Bailing				
Volume of Water Sampled (ltrs)	-		-	0.68				
Volume of Free Product Sampled (ltrs)	-		-	N/A				
Colour / Odours Noted	-		-	Brown very silty water / No odour				
In-situ pH	-		-	6.52				
In-situ Temperature (°C)	-		-	16.5				
In-situ Dissolved Oxygen (%)	-		-	2.6				
In-situ Electrical Conductivity (mS/cm)	-		-	1.91				
In-situ Total Dissolved Solids (ppt)	-		-	0.96				

Notes:

WS02 not monitored due to damaged headworks of the well.

Groundwater Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**GD**
Date of Visit:	**15 September 2026**	**Time of Visit:**	**09:00 to 16:30**

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

Borehole Reference	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**				
Target Stratum	Made Ground	Glacial Till	Made Ground	Glacial Till				
Ground Level (mOD)	45.68	45.68	45.64	45.64				
Groundwater Depth (mbgl)	Damp at base	Dry	Dry	12.84				
Groundwater Level (mOD)	Damp at base	Dry	Dry	32.80				
Base of Well (mbgl)	4.18	14.70	2.58	14.50				
Diameter of Well (m)	0.05	0.05	0.05	0.05				
Condition of Well	Good	Good	Good	Good				
Top of Response Zone (mbgl)	1.00	6.00	1.00	5.00				
Base of Response Zone (mbgl)	4.00	14.50	3.00	14.50				
Top of Response Zone (mOD)	44.68	39.68	44.64	40.64				
Base of Response Zone (mOD)	41.68	31.18	42.64	31.14				
Hydrocarbon Sheen Observed?	N/A	N/A	N/A	No				
Thickness of Free Product (m)	N/A	N/A	N/A	0.00				

Groundwater Sampling Details								
Purge Method								
Purged Volume (litres)								
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 (mS/cm)								
In-situ Total Dissolved Solids (ppt)								

Notes:

WS02 not monitored due to damaged headworks of the well.

Groundwater Monitoring Record

Project Name:	**Piccadilly Gardens**	**Client:**	**Manchester City Council**
Project Reference:	**51334/01**	**Engineer:**	**JF**
Date of Visit:	**23 September 2026**	**Time of Visit:**	**08:50 to 10:40**

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

Borehole Reference	**BH01 (S)**	**BH01 (D)**	**BH02 (S)**	**BH02 (D)**				
Target Stratum	Made Ground	Glacial Till	Made Ground	Glacial Till				
Ground Level (mOD)	45.68	45.68	45.64	45.64				
Groundwater Depth (mbgl)	Dry	Damp at base	Dry	12.68				
Groundwater Level (mOD)	Dry	Damp at base	Dry	32.96				
Base of Well (mbgl)	4.10	14.64	2.52	14.42				
Diameter of Well (m)	0.05	0.05	0.05	0.05				
Condition of Well	Good	Good	Good	Good				
Top of Response Zone (mbgl)	1.00	6.00	1.00	5.00				
Base of Response Zone (mbgl)	4.00	14.50	3.00	14.50				
Top of Response Zone (mOD)	44.68	39.68	44.64	40.64				
Base of Response Zone (mOD)	41.68	31.18	42.64	31.14				
Hydrocarbon Sheen Observed?	N/A	N/A	N/A	No				
Thickness of Free Product (m)	N/A	N/A	N/A	0.00				

Groundwater Sampling Details								
Purge Method								
Purged Volume (litres)								
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 (mS/cm)								
In-situ Total Dissolved Solids (ppt)								

Notes:

WS02 not monitored due to damaged headworks of the well.

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Civic Earth Limited
Carvers Warehouse
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08 September 2026
Report No : GEO/45859/01

For the attention of Ms K I'Anson / Ms K Poore

		Date samples received	28/07/2026
Our ref	**GEO / 45859**	Date written instructions received	06/08/2026
Your ref	**51334/01**	Date testing commenced	07/08/2026
Order ref	**PO-0694**	**Date of sample disposal**	**06/10/2026**

Project **PICCADILLY GARDENS, MANCHESTER**

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
~	6	Water Content
2	6	Liquid & Plastic Limits
3	6	Unconsolidated Undrained Triaxial Compression

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

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

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

Yours faithfully
on behalf of **GEOLABS Limited**

J A Reynolds
Director

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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
BH1	0.80-0.90		B	Black clayey SAND with abundant fine to coarse gravel.	10.6	~	NP		34	~	3	3
BH1	4.00-4.45		B	Black mottled dark grey CLAY.	27.8	48	21	27	100	CIM	2	1
BH1	6.00-6.45		D	Dark brown CLAY with rare medium gravel.	19.5	46	16	30	98	CIM	1	1
BH1	12.00-12.45		D	Dark brown sandy CLAY with rare fine to medium gravel.	12.9	32	12	20	98	CIL	1	1
BH2	3.00-3.45		B	Dark brown CLAY with rare fine to coarse gravel.	19.3	43	14	29	98	CIM	2	1
BH2	7.50-7.95		B	Dark brown CLAY.	15.5	28	12	16	100	CIL	2	1

Test Type:
1 - 1 point 80g / 30° fall cone method.
2 - 4 point 80g / 30° fall cone method.
3 - Non plastic determination.

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

Checked and Approved by:

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

Location	BH1
Depth (m)	0.80
Sample Type	B

Description:

Black clayey SAND with abundant fine to coarse gravel.

Preparation : Particles >425µm removed by wet sieving and air drying.

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	10.6 %
Measured percentage passing 425µm sieve :	34 %
Liquid Limit - Fall Cone Method (cone angle 30°) :	Not Determined
Plastic Limit :	Non-Plastic

Equivalent Water Content of material passing 425µm sieve : 31 %

Sample was determined to be Non-Plastic after preparation

Tested by JT
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

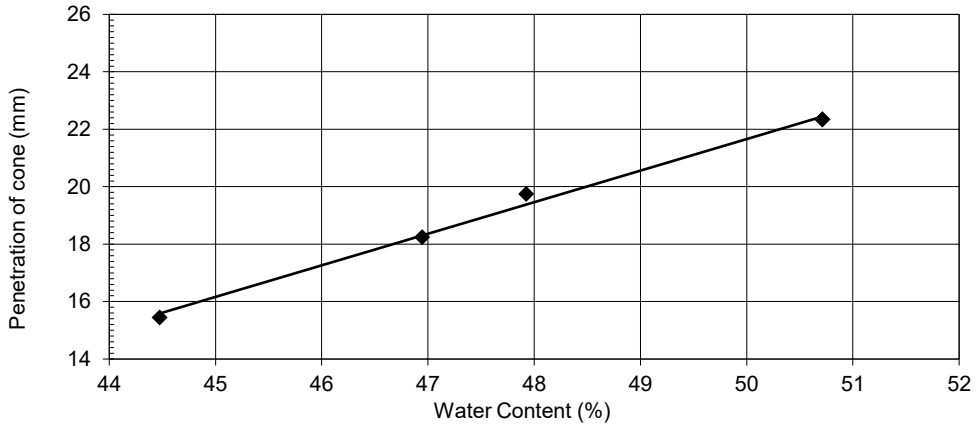
Location	BH1
Depth (m)	4.00
Sample Type	B

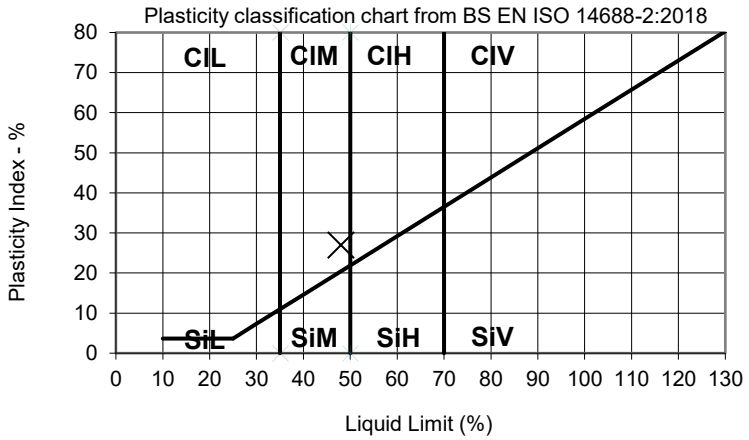
Description:

Black mottled dark grey CLAY.

Preparation : Sample as received.

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	27.8	%
Estimated percentage passing 425µm sieve :	100	%
Liquid Limit - Fall Cone 4 point Method (cone angle 30°) with increasing water content :	48	%
Plastic Limit :	21	%
Plasticity Index :	27	%
Equivalent Water Content of material passing 425µm sieve :	27.8	%
Liquidity Index :	0.25	





Tested by JB
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS

UKAS TESTING 1982

BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

Location	BH1
Depth (m)	6.00
Sample Type	D

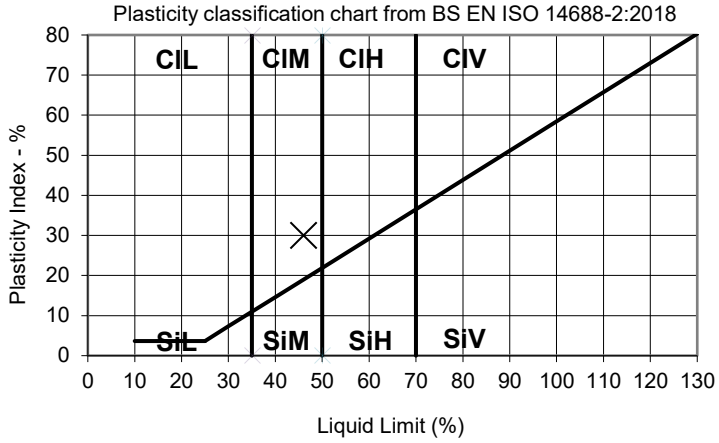
Description:

Dark brown CLAY with rare medium gravel.

Insufficient sample for 4 point test ,

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

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	19.5	%
Estimated percentage passing 425µm sieve :	98	%
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) :	46	%
Plastic Limit :	16	%
Plasticity Index :	30	%
Equivalent Water Content of material passing 425µm sieve :	20.0	%
Liquidity Index :	0.13	



Insufficient sample for 4 point test

***One point liquid limit test readings**

Cone penetration	20.6	mm
Water content	46.2	%
One point method correlation factor : *BS 1377-2 : 2022 : 5.3.2*	0.990	

Tested by JT
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

Location	BH1
Depth (m)	12.00
Sample Type	D

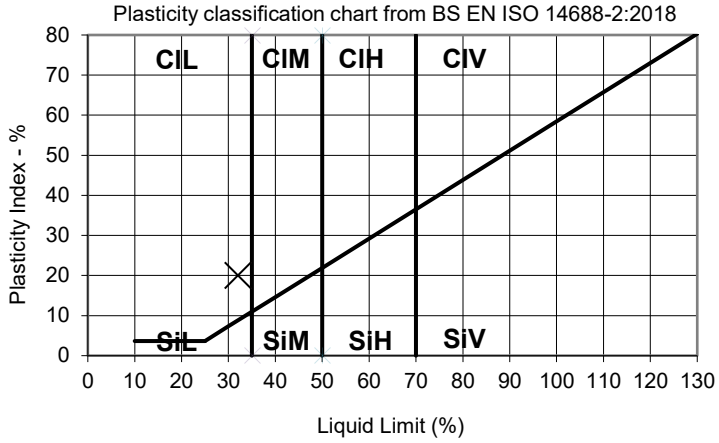
Description:

Dark brown sandy CLAY with rare fine to medium gravel.

Insufficient sample for 4 point test ,

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

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	12.9	%
Estimated percentage passing 425µm sieve :	98	%
*Liquid Limit - Fall Cone 1 point Method (cone angle 30°) :	32	%
Plastic Limit :	12	%
Plasticity Index :	20	%
Equivalent Water Content of material passing 425µm sieve :	13.2	%
Liquidity Index :	0.06	



Insufficient sample for 4 point test

***One point liquid limit test readings**

Cone penetration	19.8	mm
Water content	32.0	%
One point method correlation factor : *BS 1377-2 : 2022 : 5.3.2*	1.002	

Tested by JT
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

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GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

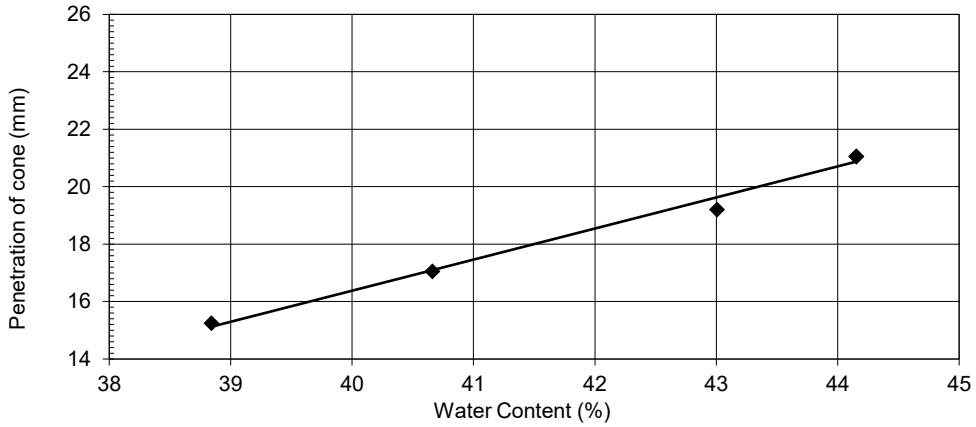
Location	BH2
Depth (m)	3.00
Sample Type	B

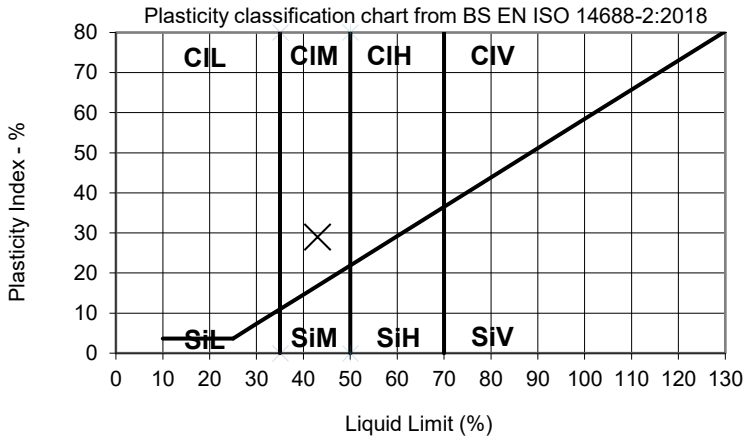
Description:

Dark brown CLAY with rare fine to coarse gravel.

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

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	19.3	%
Estimated percentage passing 425µm sieve :	98	%
Liquid Limit - Fall Cone 4 point Method (cone angle 30°) with increasing water content :	43	%
Plastic Limit :	14	%
Plasticity Index :	29	%
Equivalent Water Content of material passing 425µm sieve :	19.8	%
Liquidity Index :	0.20	





Tested by JT
Checked and Approved by

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GEOLABS

UKAS TESTING 1982

BS EN ISO 17892-12 : 2018+A2:2022 : Clause 5.3 & 5.5

LIQUID AND PLASTIC LIMITS

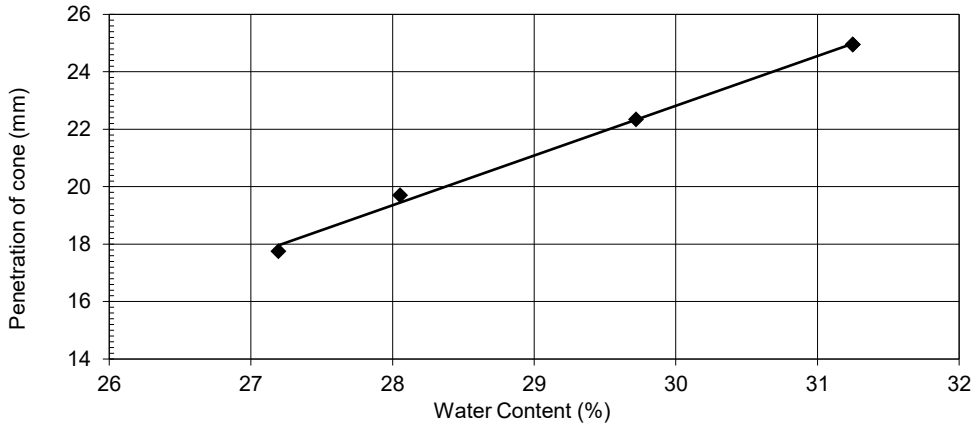
Location	BH2
Depth (m)	7.50
Sample Type	B

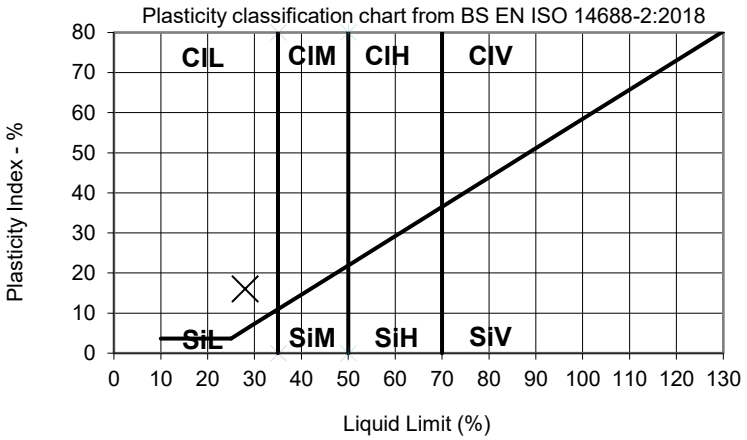
Description:

Dark brown CLAY.

Preparation : Sample as received.

Water Content : (BS EN ISO 17892-1:2014+A1:2022)	15.5	%
Estimated percentage passing 425µm sieve :	100	%
Liquid Limit - Fall Cone 4 point Method (cone angle 30°) with increasing water content :	28	%
Plastic Limit :	12	%
Plasticity Index :	16	%
Equivalent Water Content of material passing 425µm sieve :	15.5	%
Liquidity Index :	0.22	





Tested by JB
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS

UKAS TESTING 1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH1
Sample Depth	5.00-5.45 m
Sample Type	U

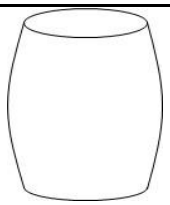
Description:

Firm brown CLAY.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.1
Diameter	(mm)	102.6
Water content	(%)	19.9
Bulk density	(Mg/m³)	2.10
Dry density	(Mg/m³)	1.75
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	202.1
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	95
Strain at failure	(%)	14.8
Maximum deviator stress	(kPa)	352
Shear Stress Cu	(kPa)	176

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	53

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH1
Sample Depth	7.50-7.95 m
Sample Type	U

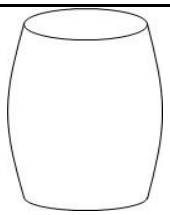
Description:

Firm brown CLAY with rare fine to coarse gravel.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.1
Diameter	(mm)	102.6
Water content	(%)	15.0
Bulk density	(Mg/m³)	2.20
Dry density	(Mg/m³)	1.91
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	202.1
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	145
Strain at failure	(%)	14.8
Maximum deviator stress	(kPa)	288
Shear Stress Cu	(kPa)	144

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	38

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

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Project Name:

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51334/01

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UKAS TESTING 1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH1
Sample Depth	10.50-10.95 m
Sample Type	U

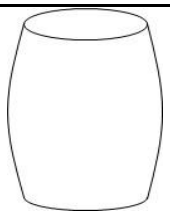
Description:

Firm brown CLAY with frequent fine to medium gravel.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.1
Diameter	(mm)	101.6
Water content	(%)	14.3
Bulk density	(Mg/m³)	2.20
Dry density	(Mg/m³)	1.92
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	202.1
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	200
Strain at failure	(%)	14.8
Maximum deviator stress	(kPa)	254
Shear Stress Cu	(kPa)	127

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	82

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

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51334/01

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UKAS TESTING 1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH2
Sample Depth	4.00-4.45 m
Sample Type	U

Description:

Firm brown CLAY.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	201.7
Diameter	(mm)	100.8
Water content	(%)	19.8
Bulk density	(Mg/m³)	2.11
Dry density	(Mg/m³)	1.76
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	201.7
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	75
Strain at failure	(%)	14.9
Maximum deviator stress	(kPa)	334
Shear Stress Cu	(kPa)	167

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	33

Tested by DF
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J A Reynolds - Director
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Project Name:

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51334/01

GEOLABS® UKAS TESTING 1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH2
Sample Depth	6.00-6.45 m
Sample Type	U

Description:

Firm brown CLAY.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	201.7
Diameter	(mm)	102.5
Water content	(%)	13.8
Bulk density	(Mg/m³)	2.18
Dry density	(Mg/m³)	1.92
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	201.6
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	115
Strain at failure	(%)	14.9
Maximum deviator stress	(kPa)	203
Shear Stress Cu	(kPa)	101

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	35

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

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Project Name:

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51334/01

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BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH2
Sample Depth	10.50-10.95 m
Sample Type	U

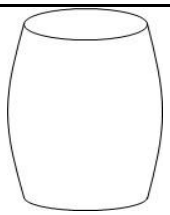
Description:

Firm brown CLAY with rare fine to medium gravel.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.2
Diameter	(mm)	103.2
Water content	(%)	15.3
Bulk density	(Mg/m³)	2.19
Dry density	(Mg/m³)	1.90
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	202.1
Membrane correction	(kPa)	0.9
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	200
Strain at failure	(%)	14.8
Maximum deviator stress	(kPa)	172
Shear Stress Cu	(kPa)	86

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	37

Tested by DF
Checked and Approved by

J A Reynolds - Director
08/09/2026

Project Number:

GEO / 45859

Project Name:

PICCADILLY GARDENS, MANCHESTER

51334/01

GEOLABS® UKAS TESTING 1982

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	15/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH01(D)	**Test No.**	1

Monitoring Details	
Groundwater Depth	14.70 mbgl
Base of Well	14.70 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	2.41 m
L/D Ratio	48.2
Test Located in Saturated Zone	No

Calculation

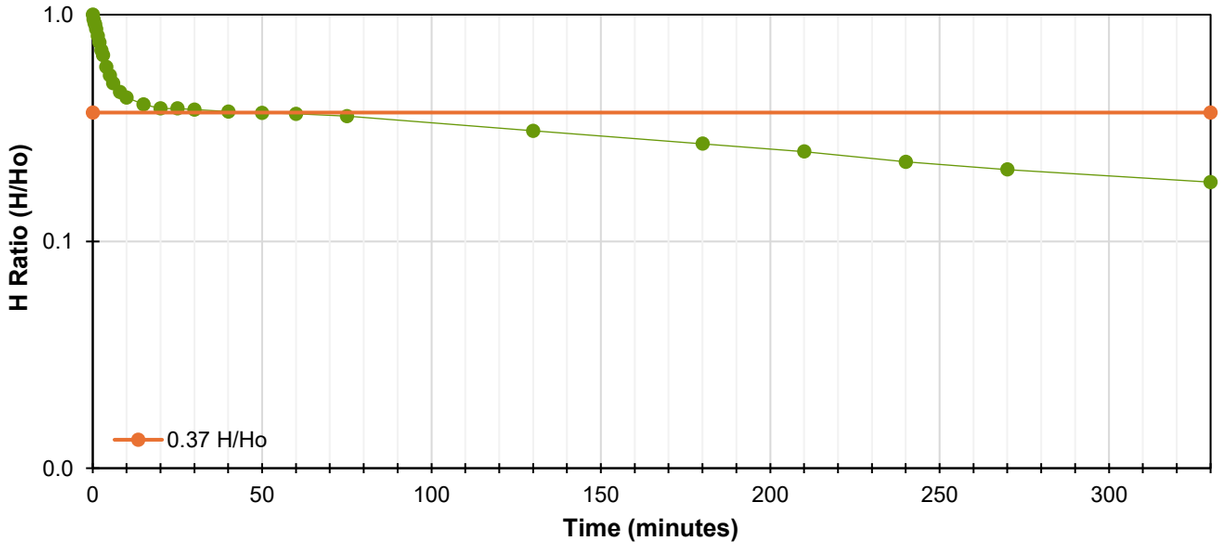
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	3.3145
H_1 = Variable Head (H) measured at t_1 (m)	2.41
H_2 = Variable Head (H) measured at t_2 (m)	0.44
t_1 = Time at H_1 (minutes)	0.0
t_2 = Time at H_2 (minutes)	330.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	40.0

Permeability (k)	**5.09E-08**	m/s
	4.40E-03	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	12.29	2.41	1.000
0.3	15	12.40	2.30	0.954
0.5	30	12.48	2.22	0.921
0.8	45	12.52	2.18	0.905
1.0	60	12.62	2.08	0.863
1.5	90	12.76	1.94	0.805
2.0	120	12.88	1.82	0.755
2.5	150	13.02	1.68	0.697
3.0	180	13.10	1.60	0.664
4.0	240	13.28	1.42	0.589
5.0	300	13.40	1.30	0.539
6.0	360	13.50	1.20	0.498
8.0	480	13.60	1.10	0.456
10.0	600	13.66	1.04	0.432
15.0	900	13.73	0.97	0.402
20.0	1200	13.77	0.93	0.386
25.0	1500	13.77	0.93	0.386
30.0	1800	13.78	0.92	0.382
40.0	2400	13.80	0.90	0.373
50.0	3000	13.81	0.89	0.369
60.0	3600	13.82	0.88	0.365
75.0	4500	13.84	0.86	0.357
130.0	7800	13.96	0.74	0.307
180.0	10800	14.05	0.65	0.270
210.0	12600	14.10	0.60	0.249
240.0	14400	14.16	0.54	0.224
270.0	16200	14.20	0.50	0.207
330.0	19800	14.26	0.44	0.183



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	16/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH01(D)	**Test No.**	2

Monitoring Details	
Groundwater Depth	14.63 mbgl
Base of Well	14.63 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	2.85 m
L/D Ratio	57.0
Test Located in Saturated Zone	No

Calculation

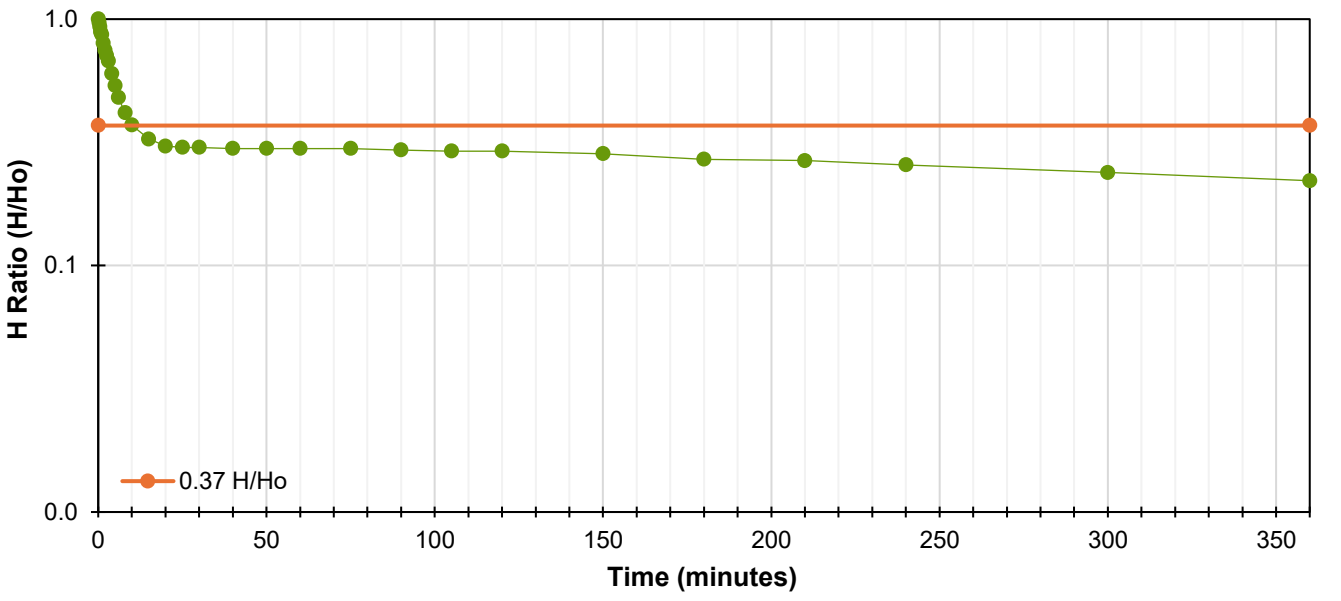
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	3.7809
H_1 = Variable Head (H) measured at t_1 (m)	2.85
H_2 = Variable Head (H) measured at t_2 (m)	0.68
t_1 = Time at H_1 (minutes)	0.0
t_2 = Time at H_2 (minutes)	300.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	10.0

Permeability (k)	**4.13E-08**	m/s
	3.57E-03	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	11.78	2.85	1.000
0.3	15	11.87	2.76	0.968
0.5	30	11.98	2.65	0.930
0.8	45	12.10	2.53	0.888
1.0	60	12.16	2.47	0.867
1.5	90	12.35	2.28	0.800
2.0	120	12.50	2.13	0.747
2.5	150	12.60	2.03	0.712
3.0	180	12.70	1.93	0.677
4.0	240	12.92	1.71	0.600
5.0	300	13.10	1.53	0.537
6.0	360	13.26	1.37	0.481
8.0	480	13.44	1.19	0.418
10.0	600	13.57	1.06	0.372
15.0	900	13.70	0.93	0.326
20.0	1200	13.76	0.87	0.305
25.0	1500	13.77	0.86	0.302
30.0	1800	13.77	0.86	0.302
40.0	2400	13.78	0.85	0.298
50.0	3000	13.78	0.85	0.298
60.0	3600	13.78	0.85	0.298
75.0	4500	13.78	0.85	0.298
90.0	5400	13.79	0.84	0.295
105.0	6300	13.80	0.83	0.291
120.0	7200	13.80	0.83	0.291
150.0	9000	13.82	0.81	0.284
180.0	10800	13.86	0.77	0.270
210.0	12600	13.87	0.76	0.267
240.0	14400	13.90	0.73	0.256
300.0	18000	13.95	0.68	0.239
360.0	21600	14.00	0.63	0.221



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	02/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH02(D)	**Test No.**	1

Monitoring Details	
Groundwater Depth	12.87 mbgl
Base of Well	14.50 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	6.30 m
L/D Ratio	126.0
Test Located in Saturated Zone	No

Calculation

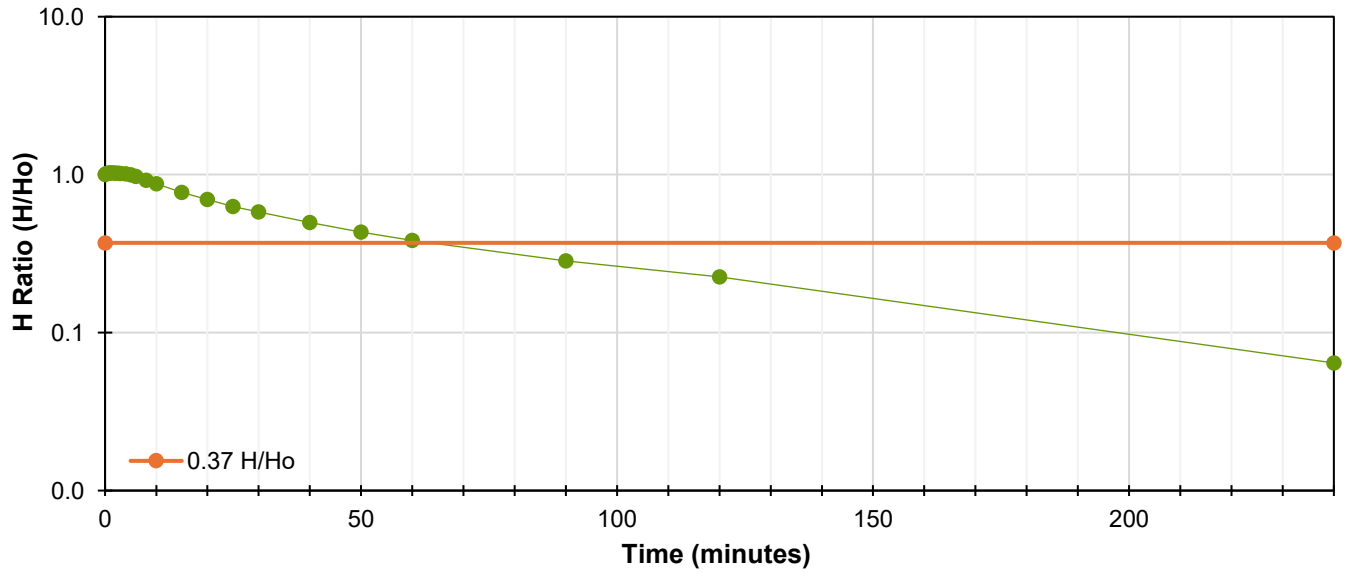
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	7.1588
H_1 = Variable Head (H) measured at t_1 (m)	4.78
H_2 = Variable Head (H) measured at t_2 (m)	1.05
t_1 = Time at H_1 (minutes)	0.0
t_2 = Time at H_2 (minutes)	120.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	

Permeability (k)	**5.77E-08**	m/s
	4.99E-03	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	8.20	4.67	1.000
0.3	15	8.12	4.75	1.017
0.5	30	8.10	4.77	1.021
0.8	45	8.10	4.77	1.021
1.0	60	8.09	4.78	1.024
1.5	90	8.09	4.78	1.024
2.0	120	8.10	4.77	1.021
2.5	150	8.11	4.76	1.019
3.0	180	8.12	4.75	1.017
4.0	240	8.15	4.72	1.011
5.0	300	8.21	4.66	0.998
6.0	360	8.32	4.55	0.974
8.0	480	8.56	4.31	0.923
10.0	600	8.78	4.09	0.876
15.0	900	9.27	3.60	0.771
20.0	1200	9.62	3.25	0.696
25.0	1500	9.93	2.94	0.630
30.0	1800	10.16	2.71	0.580
40.0	2400	10.55	2.32	0.497
50.0	3000	10.85	2.02	0.433
60.0	3600	11.08	1.79	0.383
90.0	5400	11.54	1.33	0.285
120.0	7200	11.82	1.05	0.225
240.0	14400	12.57	0.30	0.064



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	15/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH02(D)	**Test No.**	2

Monitoring Details	
Groundwater Depth	12.84 mbgl
Base of Well	14.50 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	9.62 m
L/D Ratio	192.4
Test Located in Saturated Zone	No

Calculation

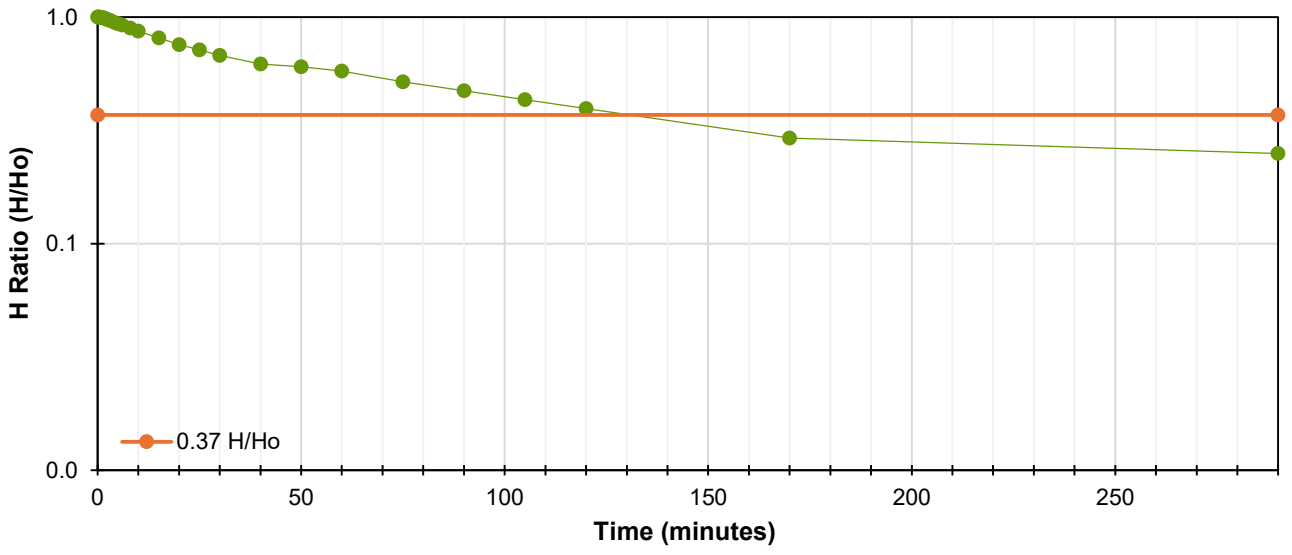
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	10.1540
H_1 = Variable Head (H) measured at t_1 (m)	5.39
H_2 = Variable Head (H) measured at t_2 (m)	1.99
t_1 = Time at H_1 (minutes)	30.0
t_2 = Time at H_2 (minutes)	290.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	130.0

Permeability (k)	**1.24E-08**	m/s
	1.07E-03	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	4.88	7.96	1.000
0.3	15	4.88	7.96	1.000
0.5	30	4.89	7.95	0.999
0.8	45	4.89	7.95	0.999
1.0	60	4.91	7.93	0.996
1.5	90	4.94	7.90	0.992
2.0	120	5.02	7.82	0.982
2.5	150	5.08	7.76	0.975
3.0	180	5.15	7.69	0.966
4.0	240	5.28	7.56	0.950
5.0	300	5.39	7.45	0.936
6.0	360	5.50	7.34	0.922
8.0	480	5.72	7.12	0.894
10.0	600	5.94	6.90	0.867
15.0	900	6.40	6.44	0.809
20.0	1200	6.82	6.02	0.756
25.0	1500	7.14	5.70	0.716
30.0	1800	7.45	5.39	0.677
40.0	2400	7.89	4.95	0.622
50.0	3000	8.04	4.80	0.603
60.0	3600	8.24	4.60	0.578
75.0	4500	8.72	4.12	0.518
90.0	5400	9.07	3.77	0.474
105.0	6300	9.40	3.44	0.432
120.0	7200	9.70	3.14	0.394
170.0	10200	10.51	2.33	0.293
290.0	17400	10.85	1.99	0.250



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

Borehole Falling Head Test

CIVIC

Project Name	Piccadilly Gardens	**Date**	16/09/2026
Project Reference	51334-01	**Engineer**	GD
Borehole ID	BH02(D)	**Test No.**	3

Monitoring Details	
Groundwater Depth	12.84 mbgl
Base of Well	14.45 mbgl
Diameter of Well (D)	0.05 m
Length of Tested Section (L)	9.60 m
L/D Ratio	192.0
Test Located in Saturated Zone	No

Calculation

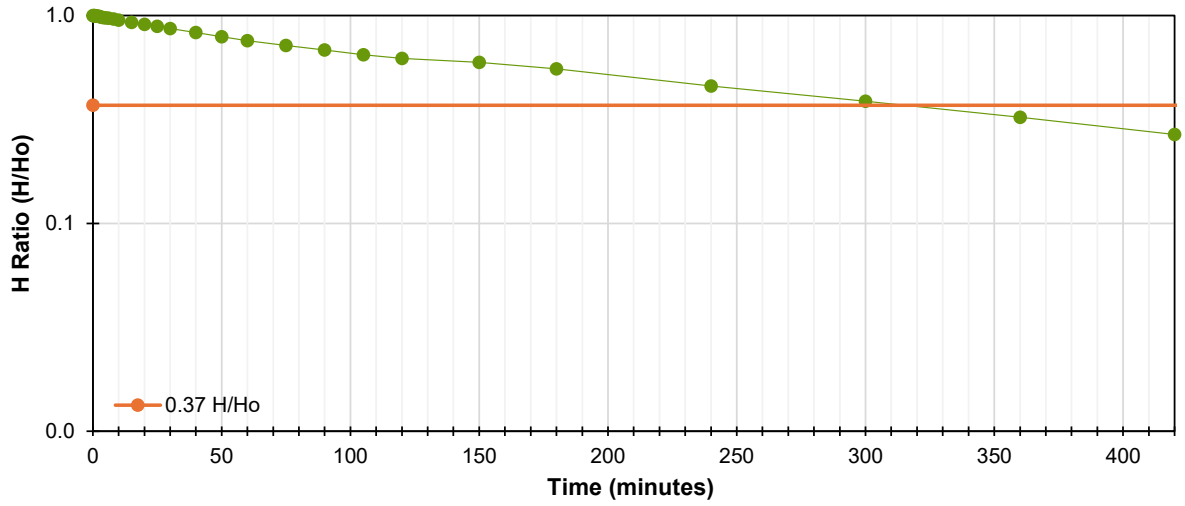
$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Well Type (BS:5930/BS EN ISO 22282-1)	d.2
F = Intake Factor	10.1365
H_1 = Variable Head (H) measured at t_1 (m)	7.99
H_2 = Variable Head (H) measured at t_2 (m)	1.95
t_1 = Time at H_1 (minutes)	0.0
t_2 = Time at H_2 (minutes)	450.0
A = Cross sectional area (m^2)	0.002
T = Basic Time Lag Factor where H/Ho = 0.37	

Permeability (k)	**1.01E-08**	m/s
	8.74E-04	m/day

Test Results

Time (minutes)	Time (seconds)	Depth (mbgl)	Head, H (m)	H Ratio H/Ho
0.0	0	4.85	7.99	1.000
0.3	15	4.85	7.99	1.000
0.5	30	4.86	7.98	0.999
0.8	45	4.87	7.97	0.997
1.0	60	4.88	7.96	0.996
1.5	90	4.90	7.94	0.994
2.0	120	4.92	7.92	0.991
2.5	150	4.94	7.90	0.989
3.0	180	4.97	7.87	0.985
4.0	240	5.02	7.82	0.979
5.0	300	5.06	7.78	0.974
6.0	360	5.08	7.76	0.971
8.0	480	5.15	7.69	0.962
10.0	600	5.25	7.59	0.950
15.0	900	5.44	7.40	0.926
20.0	1200	5.60	7.24	0.906
25.0	1500	5.75	7.09	0.887
30.0	1800	5.93	6.91	0.865
40.0	2400	6.22	6.62	0.829
50.0	3000	6.52	6.32	0.791
60.0	3600	6.80	6.04	0.756
75.0	4500	7.10	5.74	0.718
90.0	5400	7.39	5.45	0.682
105.0	6300	7.67	5.17	0.647
120.0	7200	7.88	4.96	0.621
150.0	9000	8.09	4.75	0.594
180.0	10800	8.41	4.43	0.554
240.0	14400	9.18	3.66	0.458
300.0	18000	9.75	3.09	0.387
360.0	21600	10.25	2.59	0.324
420.0	25200	10.70	2.14	0.268
450.0	27000	10.89	1.95	0.244



Infiltration testing undertaken in general accordance with Variable Head Test in Open System (BS EN ISO 22282-2:2012).

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Analytical Report Number : 26-036395

Replaces Analytical Report Number: 26-036395, issue no. 1
Additional analysis undertaken.
Asbestos i/d added to all samples as per client's request

Project / Site name:	Piccadilly Gardens	**Samples received on:**	07/07/2026
Your job number:	51334/02	**Samples instructed on/ Analysis started on:**	07/07/2026
Your order number:		**Analysis completed by:**	05/08/2026
Report Issue Number:	2	**Report issued on:**	06/08/2026
Samples Analysed:	4 soil samples		

Signed:

Trevor Hill
Customer Service
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: 26-036395
Project / Site name: Piccadilly Gardens

Lab Sample Number				974330	974331	974332	974333
Sample Reference				TP17	TP11	TP13	TP06
Sample Number				1	1	1	1
Water Matrix				N/A	N/A	N/A	N/A
Depth (m)				0.75	0.80	0.75	0.60
Date Sampled				03/07/2026	02/07/2026	02/07/2026	01/07/2026
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status				
Mass of stone >10mm	%	0.1	NONE	< 0.1	24.1	52.3	16.9
Moisture Content	%	0.01	NONE	15	10	11	6.2
Total mass of sample received	kg	0.1	NONE	1.5	1.5	1.1	1.2
Whole Sample Crushed	N/A	N/A	NONE	-	-	Crushed	-
Asbestos							
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	CZJ	CZJ	CZJ	CZJ
Analysis completed	N/A	N/A	N/A	05/08/2026	05/08/2026	05/08/2026	05/08/2026
General Inorganics							
pH (L099)	pH Units	N/A	MCERTS	8.5	9.3	7.7	7.8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	1500	3300	950	270
Organic Matter (automated)	%	0.1	MCERTS	3	3.4	3.6	3.3
Total Phenols							
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	0.83	2.1	0.44	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.17	0.25	0.07	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	1	5.5	0.22	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.89	3.7	0.2	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	6.4	38	2.1	0.1
Anthracene	mg/kg	0.05	MCERTS	1.6	8.6	0.47	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	9.4	40	2.9	0.23
Pyrene	mg/kg	0.05	MCERTS	8.8	35	2.9	0.24
Benzo(a)anthracene	mg/kg	0.05	MCERTS	4.2	16	1.4	0.14
Chrysene	mg/kg	0.05	MCERTS	3.8	16	1.4	0.13
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	4.6	17	1.5	0.18
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.8	6.7	0.64	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	4	15	1.4	0.14
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	2	7.2	0.67	0.09
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.42	1.8	0.19	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	2.1	8.1	0.77	0.1
Coronene	mg/kg	0.05	NONE	0.61	2.5	0.22	< 0.05
Total PAH							
Total WAC-17 PAHs	mg/kg	0.85	NONE	52.6	221	17.5	1.35

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Analytical Report Number: 26-036395
Project / Site name: Piccadilly Gardens

Lab Sample Number				974330	974331	974332	974333
Sample Reference				TP17	TP11	TP13	TP06
Sample Number				1	1	1	1
Water Matrix				N/A	N/A	N/A	N/A
Depth (m)				0.75	0.80	0.75	0.60
Date Sampled				03/07/2026	02/07/2026	02/07/2026	01/07/2026
Time Taken				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	3.8	3.6	4.9	1
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	19	14	2.4
Barium (aqua regia extractable)	mg/kg	1	MCERTS	170	270	130	31
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.1	0.95	1.1	0.27
Boron (water soluble)	mg/kg	0.2	MCERTS	2.3	1.8	0.8	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.7	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	U/S *U/S g
Chromium (III)	mg/kg	1	NONE	23	18	22	U/S *U/S g
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	-	-	-	< 1.80
Chromium (III) by IC	mg/kg	1	NONE	-	-	-	6.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	18	22	6.8
Copper (aqua regia extractable)	mg/kg	1	MCERTS	53	61	93	22
Lead (aqua regia extractable)	mg/kg	1	MCERTS	200	790	1600	21
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	2	3	4.4	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	24	18	25	5.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.1	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	31	27	29	7.1
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	90	160	75	67
Petroleum Hydrocarbons							
TPHCWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 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
TPHCWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 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
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	5.1	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	8.5	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	11	35	13	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	11	48	13	< 10
TPHCWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 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
TPHCWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	1	2.2	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	6.4	23	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	28	120	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	52	190	10	27
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	87	330	10	27
VOCs							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
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

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

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Analytical Report Number : 26-036395
Project / Site name: Piccadilly Gardens

* 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 *
974330	TP17	1	0.75	Brown clay and sand with gravel
974331	TP11	1	0.8	Brown loam and sand with gravel and stones
974332	TP13	1	0.75	Brown sand with stones
974333	TP06	1	0.6	Brown loam and sand with vegetation and stones

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Analytical Report Number : 26-036395
Project / Site name: Piccadilly Gardens

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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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

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Analytical Report Number : 26-036395
Project / Site name: Piccadilly Gardens

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
Whole Sample Crushed	Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis	In house method, applicable to dry samples only	L019B	D	NONE
Hexavalent chromium in soil 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

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.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

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.

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

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Analytical Report Number : 26-041235

Project / Site name:	Piccadilly Gardens	**Samples received on:**	29/07/2026
Your job number:	51334/01	**Samples instructed on/ Analysis started on:**	29/07/2026
Your order number:	PO-0700	**Analysis completed by:**	10/08/2026
Report Issue Number:	1	**Report issued on:**	10/08/2026
Samples Analysed:	6 soil samples		

Signed:

Rachel Chappell
Key Account Manager
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: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Mass of stone >10mm	%	0.1	NONE	68.6	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	3.7	4.7	10	6.9	4
Total mass of sample received	kg	0.1	NONE	2	2	2	1.9	2
Whole Sample Crushed	N/A	N/A	NONE	Crushed	-	-	-	-
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	OGR	OGR	CAD	OGR	OGR
Analysis completed	N/A	N/A	N/A	04/08/2026	04/08/2026	04/08/2026	04/08/2026	04/08/2026
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 Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	Loose Fibres	-	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	7.6	7.7	8.9	9.2	8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	200	310	1300	560	170
Organic Matter (automated)	%	0.1	MCERTS	1.5	2.2	4.4	1.5	0.9
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	0.21	1.1	0.23	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.17	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.07	1.2	0.22	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1	0.16	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.12	0.21	6.8	1.5	0.09
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	2.1	0.42	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.19	0.23	9.4	2.4	0.11
Pyrene	mg/kg	0.05	MCERTS	0.19	0.22	8.8	2.4	0.11
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.12	0.1	4.1	1.2	0.06
Chrysene	mg/kg	0.05	MCERTS	0.1	0.14	4	1.1	0.07
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.13	0.14	4.2	1.3	0.09
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.07	1.7	0.58	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.12	0.12	3.8	1.2	0.06
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.06	0.06	1.9	0.6	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.43	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.08	0.08	2.1	0.71	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	0.17	< 0.05
Total PAH								
Total WAC-17 PAHs	mg/kg	0.85	NONE	1.19	1.66	52.7	14.3	< 0.85

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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	2.8	< 1.0	1.3
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.7	2.6	7.1	3.3	3
Barium (aqua regia extractable)	mg/kg	1	MCERTS	60	25	83	58	26
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.4	0.33	0.49	0.41	0.45
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.6	1.2	0.9	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.2	< 0.2	0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	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	19	11	12
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	-	-	-
Chromium (III) by IC	mg/kg	1	NONE	13	9	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	9	19	11	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	33	110	18	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	18	12	59	20	8.7
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	10	8.2	18	11	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.1	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	16	9.8	25	15	13
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	41	43	65	54	41
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	2	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	21	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	35	8.1	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	72	52	210	79	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	72	52	270	87	< 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	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	19	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	63	11	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	81	310	97	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	< 10	81	400	110	< 10
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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								
PCB Congener 077	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 081	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 105	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 114	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 118	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 126	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 156	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 157	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 167	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 169	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 189	mg/kg	0.001	NONE	-	< 0.001	-	-	-
Total PCBs	mg/kg	0.012	NONE	-	< 0.012	-	-	-

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

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
Mass of stone >10mm	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	4.9
Total mass of sample received	kg	0.1	NONE	2
Whole Sample Crushed	N/A	N/A	NONE	-
Asbestos				
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	OGR
Analysis completed	N/A	N/A	N/A	04/08/2026
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 Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-
General Inorganics				
pH (L099)	pH Units	N/A	MCERTS	7.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	200
Organic Matter (automated)	%	0.1	MCERTS	2.1
Total Phenols				
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
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	0.09
Pyrene	mg/kg	0.05	MCERTS	0.09
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.06
Chrysene	mg/kg	0.05	MCERTS	0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.08
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.06
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

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
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	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.9
Barium (aqua regia extractable)	mg/kg	1	MCERTS	26
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.32
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S *U/S g
Chromium (III)	mg/kg	1	NONE	U/S *U/S g
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80
Chromium (III) by IC	mg/kg	1	NONE	8.3
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	8.3
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15
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	7.5
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	9.7
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	37
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

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
PCBs				
PCB Congener 077	mg/kg	0.001	NONE	-
PCB Congener 081	mg/kg	0.001	NONE	-
PCB Congener 105	mg/kg	0.001	NONE	-
PCB Congener 114	mg/kg	0.001	NONE	-
PCB Congener 118	mg/kg	0.001	NONE	-
PCB Congener 123	mg/kg	0.001	NONE	-
PCB Congener 126	mg/kg	0.001	NONE	-
PCB Congener 156	mg/kg	0.001	NONE	-
PCB Congener 157	mg/kg	0.001	NONE	-
PCB Congener 167	mg/kg	0.001	NONE	-
PCB Congener 169	mg/kg	0.001	NONE	-
PCB Congener 189	mg/kg	0.001	NONE	-
Total PCBs	mg/kg	0.012	NONE	-

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

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Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

* 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 *
999464	TP07A	1	1	Brown loam and sand with vegetation and stones
999465	BH01	1	0.2	Brown loam and sand with gravel and vegetation
999466	BH01	2	0.8	Brown loam and clay with gravel and vegetation
999467	BH02	1	1	Brown sand with gravel
999468	WS03	1	0.3	Brown gravelly sand
999469	WS04	1	0.5	Brown sand with gravel and vegetation

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Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

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
Whole Sample Crushed	Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis	In house method, applicable to dry samples only	L019B	D	NONE
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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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
Hexavalent chromium in soil 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

Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

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
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
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
PCBs WHO 12 in soil	Determination of PCBs (WHO-12 Congeners) by GC-MS	In-house method based on USEPA 8082	L027B	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.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

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.

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Analytical Report Number : 26-041235

Replaces Analytical Report Number: 26-041235, issue no. 1
Additional analysis undertaken.
Asbestos quantification added to sample 999466, WAC testing added to sample 99467 at clients request

Project / Site name:	Piccadilly Gardens	**Samples received on:**	29/07/2026
Your job number:	51334/01	**Samples instructed on/ Analysis started on:**	29/07/2026
Your order number:	PO-0700	**Analysis completed by:**	09/09/2026
Report Issue Number:	2	**Report issued on:**	09/09/2026
Samples Analysed:	6 soil samples - 1 leachate sample		

Signed:

Adam Fenwick
Customer Relationship Manager
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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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Mass of stone >10mm	%	0.1	NONE	68.6	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	3.7	4.7	10	6.9	4
Total mass of sample received	kg	0.1	NONE	2	2	2	1.9	2
Whole Sample Crushed	N/A	N/A	NONE	Crushed	-	-	-	-

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	OGR	OGR	CAD	OGR	OGR
Analysis completed	N/A	N/A	N/A	04/08/2026	04/08/2026	04/08/2026	04/08/2026	04/08/2026
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 (L005B)	pH Units	N/A	MCERTS	-	-	-	9.2	-
pH (L099)	pH Units	N/A	MCERTS	7.6	7.7	8.9	9.2	8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	200	310	1300	560	170
Organic Matter (automated)	%	0.1	MCERTS	1.5	2.2	4.4	1.5	0.9
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-	-	-	0.9	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	-	-	-	1.6	-
Acid Neutralisation Capacity	+/- mmol/kg	-9999	NONE	-	-	-	17	-

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: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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	< 0.05	0.21	1.1	0.23	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.17	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.07	1.2	0.22	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1	0.16	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.12	0.21	6.8	1.5	0.09
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	2.1	0.42	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.19	0.23	9.4	2.4	0.11
Pyrene	mg/kg	0.05	MCERTS	0.19	0.22	8.8	2.4	0.11
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.12	0.1	4.1	1.2	0.06
Chrysene	mg/kg	0.05	MCERTS	0.1	0.14	4	1.1	0.07
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.13	0.14	4.2	1.3	0.09
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.07	1.7	0.58	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.12	0.12	3.8	1.2	0.06
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.06	0.06	1.9	0.6	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.43	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.08	0.08	2.1	0.71	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	0.17	< 0.05
Total PAH								
Total WAC-17 PAHs	mg/kg	0.85	NONE	1.19	1.66	52.7	14.3	< 0.85
Heavy Metals / Metalloids								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	< 1.0	< 1.0	2.8	< 1.0	1.3
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.7	2.6	7.1	3.3	3
Barium (aqua regia extractable)	mg/kg	1	MCERTS	60	25	83	58	26
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.4	0.33	0.49	0.41	0.45
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.6	1.2	0.9	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.2	< 0.2	0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	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	19	11	12
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	-	-	-
Chromium (III) by IC	mg/kg	1	NONE	13	9	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	9	19	11	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	33	110	18	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	18	12	59	20	8.7
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	10	8.2	18	11	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.1	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	16	9.8	25	15	13
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	41	43	65	54	41

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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	2	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	21	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	35	8.1	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	72	52	210	79	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	72	52	270	87	< 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	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	19	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	63	11	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	81	310	97	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	< 10	81	400	110	< 10
Mineral Oil (EC10 - EC40) $_{EH_CU_1D_AL}$	mg/kg	10	NONE	-	-	-	130	-
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total BTEX	µg/kg	10	MCERTS	-	-	-	< 10	-
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	< 0.007	-

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999464	999465	999466	999467	999468
Sample Reference				TP07A	BH01	BH01	BH02	WS03
Sample Number				1	1	2	1	1
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.20	0.80	1.00	0.30
Date Sampled				23/07/2026	23/07/2026	24/07/2026	24/07/2026	23/07/2026
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								
PCB Congener 077	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 081	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 105	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 114	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 118	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 123	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 126	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 156	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 157	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 167	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 169	mg/kg	0.001	NONE	-	< 0.001	-	-	-
PCB Congener 189	mg/kg	0.001	NONE	-	< 0.001	-	-	-
Total PCBs	mg/kg	0.012	NONE	-	< 0.012	-	-	-

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

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
Mass of stone >10mm	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	4.9
Total mass of sample received	kg	0.1	NONE	2
Whole Sample Crushed	N/A	N/A	NONE	-

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	OGR
Analysis completed	N/A	N/A	N/A	04/08/2026
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 (L005B)	pH Units	N/A	MCERTS	-
pH (L099)	pH Units	N/A	MCERTS	7.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	200
Organic Matter (automated)	%	0.1	MCERTS	2.1
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	-
Acid Neutralisation Capacity	+/- mmol/kg	-9999	NONE	-

Total Phenols

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

Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
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	0.09
Pyrene	mg/kg	0.05	MCERTS	0.09
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.06
Chrysene	mg/kg	0.05	MCERTS	0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.08
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.06
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	2.9
Barium (aqua regia extractable)	mg/kg	1	MCERTS	26
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.32
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S *U/S g
Chromium (III)	mg/kg	1	NONE	U/S *U/S g
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80
Chromium (III) by IC	mg/kg	1	NONE	8.3
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	8.3
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15
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	7.5
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	9.7
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	37

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Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
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	< 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
Mineral Oil (EC10 - EC40) $_{EH_CU_1D_AL}$	mg/kg	10	NONE	-
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
Total BTEX	µg/kg	10	MCERTS	-
PCBs by GC-MS				
PCB Congener 28	mg/kg	0.001	MCERTS	-
PCB Congener 52	mg/kg	0.001	MCERTS	-
PCB Congener 101	mg/kg	0.001	MCERTS	-
PCB Congener 118	mg/kg	0.001	MCERTS	-
PCB Congener 138	mg/kg	0.001	MCERTS	-
PCB Congener 153	mg/kg	0.001	MCERTS	-
PCB Congener 180	mg/kg	0.001	MCERTS	-
Total PCBs	mg/kg	0.007	MCERTS	-

Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens
Your Order No: PO-0700

Lab Sample Number				999469
Sample Reference				WS04
Sample Number				1
Water Matrix				N/A
Depth (m)				0.50
Date Sampled				23/07/2026
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**	
PCBs				
PCB Congener 077	mg/kg	0.001	NONE	-
PCB Congener 081	mg/kg	0.001	NONE	-
PCB Congener 105	mg/kg	0.001	NONE	-
PCB Congener 114	mg/kg	0.001	NONE	-
PCB Congener 118	mg/kg	0.001	NONE	-
PCB Congener 123	mg/kg	0.001	NONE	-
PCB Congener 126	mg/kg	0.001	NONE	-
PCB Congener 156	mg/kg	0.001	NONE	-
PCB Congener 157	mg/kg	0.001	NONE	-
PCB Congener 167	mg/kg	0.001	NONE	-
PCB Congener 169	mg/kg	0.001	NONE	-
PCB Congener 189	mg/kg	0.001	NONE	-
Total PCBs	mg/kg	0.012	NONE	-

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

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Analytical Report Number: **26-041235**
Project / Site name: **Piccadilly Gardens**
Your Order No: **PO-0700**

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
999466	BH01	0.8	178	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**	31/08/2026	CAD

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

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Analytical Report Number: 26-041235
Project / Site name: Piccadilly Gardens

Your Order No: PO-0700

Lab Sample Number	999467
Sample Reference	BH02
Sample Number	1
Water Matrix	N/A
Depth (m)	1.00
Date Sampled	24/07/2026
Time Taken	None Supplied

Analytical Parameter (Leachate Analysis)	Units	Test Limit of detection	Test Accreditation Status	
10:1 WAC Leachate				
Arsenic	mg/l	0.001	ISO 17025	0.0022
Barium	mg/l	0.00005	ISO 17025	0.0107
Cadmium	mg/l	0.0001	ISO 17025	< 0.000100
Chromium	mg/l	0.0004	ISO 17025	0.00052
Copper	mg/l	0.0007	ISO 17025	0.0043
Mercury	mg/l	0.0005	ISO 17025	< 0.000500
Molybdenum	mg/l	0.0004	ISO 17025	0.00505
Nickel	mg/l	0.0003	ISO 17025	0.00037
Lead	mg/l	0.001	ISO 17025	< 0.0010
Antimony	mg/l	0.0017	ISO 17025	0.0025
Selenium	mg/l	0.004	ISO 17025	< 0.0040
Zinc	mg/l	0.0004	ISO 17025	0.0023
Chloride	mg/l	0.15	ISO 17025	1
Fluoride	mg/l	0.05	ISO 17025	0.22
Sulphate	mg/l	0.045	ISO 17025	26
Total dissolved solids	mg/l	6	ISO 17025	66
Total monohydric phenols	mg/l	0.01	ISO 17025	< 0.010
Dissolved organic carbon	mg/l	0.1	NONE	4.2
10:1 WAC Leachate				
Arsenic	mg/kg	0.01	NONE	0.022
Barium	mg/kg	0.0005	NONE	0.107
Cadmium	mg/kg	0.001	NONE	< 0.00100
Chromium	mg/kg	0.004	NONE	0.0052
Copper	mg/kg	0.007	NONE	0.043
Mercury	mg/kg	0.005	NONE	< 0.00500
Molybdenum	mg/kg	0.004	NONE	0.0505
Nickel	mg/kg	0.003	NONE	0.0037
Lead	mg/kg	0.01	NONE	< 0.010
Antimony	mg/kg	0.017	NONE	0.025
Selenium	mg/kg	0.04	NONE	< 0.040
Zinc	mg/kg	0.004	NONE	0.023
Chloride	mg/kg	1.5	NONE	10
Fluoride	mg/kg	0.5	NONE	2.2
Sulphate	mg/kg	0.45	NONE	260
Total dissolved solids	mg/kg	60	NONE	660
Total monohydric phenols	mg/kg	0.1	NONE	< 0.10
Dissolved organic carbon	mg/kg	1	NONE	41.9

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

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Waste Acceptance Criteria Analytical Results

Report No:	**26-041235**						
					Client:	**Civic Earth Limited**	
Location	**Piccadilly Gardens**						
Lab Reference (Sample Number)	999467				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	24/07/2026				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH02 1						
Depth (m)	1.00						
Solid Waste Analysis							
TOC (%)**	0.9				3%	5%	6%
Loss on Ignition (%) **	1.6				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	130				500	--	--
Total PAH (WAC-17) (mg/kg)	14.3				100	--	--
pH (units)**	9.2				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	17				--	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 *	0.0107			0.107	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.00052			0.0052	0.5	10	70
Copper *	0.0043			0.043	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00505			0.0505	0.5	10	30
Nickel *	0.00037			0.0037	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	0.0025			0.025	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0023			0.023	4	50	200
Chloride *	1			10	800	15000	25000
Fluoride*	0.22			2.2	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	4.2			41.9	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.9						
Dry Matter (%)	93						
Moisture (%)	6.9						

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

*= UKAS accredited (liquid eluate analysis only)

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

** = MCERTS accredited

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

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Project / Site name: Piccadilly Gardens

* 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 *
999464	TP07A	1	1	Brown loam and sand with vegetation and stones
999465	BH01	1	0.2	Brown loam and sand with gravel and vegetation
999466	BH01	2	0.8	Brown loam and clay with gravel and vegetation
999467	BH02	1	1	Brown sand with gravel
999468	WS03	1	0.3	Brown gravelly sand
999469	WS04	1	0.5	Brown sand with gravel and vegetation

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Project / Site name: Piccadilly Gardens

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
Whole Sample Crushed	Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis	In house method, applicable to dry samples only	L019B	D	NONE
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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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
Hexavalent chromium in soil 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 : 26-041235
Project / Site name: Piccadilly Gardens

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
PCBs WHO 12 in soil	Determination of PCBs (WHO-12 Congeners) by GC-MS	In-house method based on USEPA 8082	L027B	D	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
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
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
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

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Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total petroleum hydrocarbons by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID	In-house method	L076B	D	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025

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

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

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.

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

Analytical Report Number : 26-041235
Project / Site name: Piccadilly Gardens

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
BH02	1	L	999467	b	One stage WAC 10:1 leachate preparation	L043B	b

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

4041

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Analytical Report Number : 26-045768

Project / Site name:	Piccadilly Gardens	**Samples received on:**	20/08/2026
Your job number:	51334-01	**Samples instructed on/ Analysis started on:**	20/08/2026
Your order number:	PO-0709	**Analysis completed by:**	27/08/2026
Report Issue Number:	1	**Report issued on:**	27/08/2026
Samples Analysed:	1 water sample		

Signed:

Eric Crociquia
Customer Service
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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UKAS TESTING
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Normec i2 Analytical

Analytical Report Number: 26-045768
Project / Site name: Piccadilly Gardens

Your Order No: PO-0709

Lab Sample Number	1022918
Sample Reference	BH02 (D)
Sample Number	EW1
Water Matrix	Ground water
Depth (m)	13.90
Date Sampled	19/08/2026
Time Taken	None Supplied

Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status	
General Inorganics				
pH (L099)	pH Units	N/A	ISO 17025	7.3
Total Cyanide (Low Level 1 µg/l)	µg/l	1	NONE	< 1.0
Sulphate as SO_4	mg/l	0.045	ISO 17025	190
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	1.74
Hardness - Total	mgCaCO3/l	1	ISO 17025	888
Total Phenols				
Total Phenols (Monohydric) Low Level	µg/l	1	NONE	2.2
Speciated PAHs				
Naphthalene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	0.04
Fluorene	µg/l	0.01	ISO 17025	0.05
Phenanthrene	µg/l	0.01	ISO 17025	0.23
Anthracene	µg/l	0.01	ISO 17025	0.04
Fluoranthene	µg/l	0.01	ISO 17025	0.2
Pyrene	µg/l	0.01	ISO 17025	0.19
Benzo(a)anthracene	µg/l	0.01	ISO 17025	0.11
Chrysene	µg/l	0.01	ISO 17025	0.11
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	0.11
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	0.05
Benzo(a)pyrene	µg/l	0.01	ISO 17025	0.1
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	0.05
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	0.07
Total PAH				
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	1.36
Heavy Metals / Metalloids				
Antimony (dissolved)	µg/l	0.4	ISO 17025	< 0.4
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.49
Barium (dissolved)	µg/l	0.06	ISO 17025	140
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.21
Chromium (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Copper (dissolved)	µg/l	0.5	ISO 17025	1.2
Lead (dissolved)	µg/l	0.2	ISO 17025	0.3
Mercury (dissolved)	µg/l	0.05	NONE	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	6.6
Selenium (dissolved)	µg/l	0.6	ISO 17025	< 0.6
Vanadium (dissolved)	µg/l	0.2	ISO 17025	0.2
Zinc (dissolved)	µg/l	0.5	ISO 17025	9.3

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Analytical Report Number: 26-045768
Project / Site name: Piccadilly Gardens

Your Order No: PO-0709

Lab Sample Number	1022918
Sample Reference	BH02 (D)
Sample Number	EW1
Water Matrix	Ground water
Depth (m)	13.90
Date Sampled	19/08/2026
Time Taken	None Supplied

Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status	
Boron (dissolved)	µg/l	10	ISO 17025	120
Calcium (dissolved)	mg/l	0.012	ISO 17025	140
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0

Petroleum Hydrocarbons

TPH - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC10 - EC12 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10
TPH - Aliphatic >EC12 - EC16 $_{EH_1D_AL_MS}$	µg/l	10	NONE	11
TPH - Aliphatic >EC16 - EC21 $_{EH_1D_AL_MS}$	µg/l	10	NONE	12
TPH - Aliphatic >EC21 - EC35 $_{EH_1D_AL_MS}$	µg/l	10	NONE	16
TPH - Aliphatic >EC5 - EC35 $_{HS+EH_1D_AL_MS}$	µg/l	10	NONE	39

TPH - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC10 - EC12 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10
TPH - Aromatic >EC12 - EC16 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10
TPH - Aromatic >EC16 - EC21 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10
TPH - Aromatic >EC21 - EC35 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10
TPH - Aromatic >EC5 - EC35 $_{HS+EH_1D_AR_MS}$	µg/l	10	NONE	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0
Benzene	µg/l	1	ISO 17025	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0

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

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UKAS TESTING
4041

Normec i2 Analytical

Analytical Report Number : 26-045768
Project / Site name: Piccadilly Gardens

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
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
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.

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Analytical Report Number : 26-045768
Project / Site name: Piccadilly Gardens

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

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.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

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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Analytical Report Number : 26-053196

Project / Site name:	Piccadilly Gardens, Manchester	**Samples received on:**	11/08/2026
Your job number:	GEO 45859	**Samples instructed on/ Analysis started on:**	28/09/2026
Your order number:	GEO 45859	**Analysis completed by:**	06/10/2026
Report Issue Number:	1	**Report issued on:**	06/10/2026
Samples Analysed:	5 soil samples		

Gabriela Slupik

Signed:

Gabriela Slupik
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
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: 26-053196
Project / Site name: Piccadilly Gardens, Manchester
Your Order No: GEO 45859

Lab Sample Number				1062379	1062380	1062381	1062382	1062383
Sample Reference				246738	246749	246782	246765	246776
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Mass of stone >10mm	%	0.1	NONE	11.5	< 0.1	< 0.1	32.6	< 0.1
Moisture Content	%	0.01	NONE	19	10	12	9.4	15
Total mass of sample received	kg	0.1	NONE	0.3	0.3	0.2	0.2	0.2
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8	8.3	8.1	9	8.4
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	460	290	290	520	140
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent	mg/l	1.25	MCERTS	231	145	147	261	70.3
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	11	5	7.5	4	7.5
Nitrate as NO_3 (Water Soluble) (2:1)	mg/kg	0.9	NONE	25	< 0.90	22.3	6.35	< 0.90
Water Soluble Nitrate (2:1) as NO_3 (leachate equivalent)	mg/l	0.9	N/A	12.5	< 0.90	11.1	3.18	< 0.90
Heavy Metals / Metalloids								
Magnesium (leachate equivalent)	mg/l	2.5	NONE	19	44	8.4	5.9	22
Magnesium (water soluble)	mg/kg	5	NONE	37	87	17	12	44

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

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Analytical Report Number : 26-053196
Project / Site name: Piccadilly Gardens, Manchester

* 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 *
1062379	246738	None Supplied	None Supplied	Brown clay and sand with gravel and stones
1062380	246749	None Supplied	None Supplied	Brown clay and sand with gravel
1062381	246782	None Supplied	None Supplied	Brown clay and sand with gravel
1062382	246765	None Supplied	None Supplied	Brown clay and sand with gravel and stones
1062383	246776	None Supplied	None Supplied	Brown clay and sand with gravel

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Analytical Report Number : 26-053196
Project / Site name: Piccadilly Gardens, Manchester

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 (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES	In-house method based on TRL 447	L038B	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
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
Water Soluble Nitrate (2:1) as NO3 in soil	Determination of nitrate as NO3 in soil by discrete method	In-house method by discrete analyzer based on TON as N, Total Oxidized Nitrogen (Vanadium Chloride reduction), Thermo Fisher Scientific, MANUAL 2015-0	L082B	W	NONE
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.

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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 : 26-053196

Project / Site name: Piccadilly Gardens, Manchester

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
246738	None Supplied	S	1062379	a	Chloride, water soluble, in soil	L082B	a
246738	None Supplied	S	1062379	a	Magnesium, water soluble, in soil	L038B	a
246738	None Supplied	S	1062379	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246738	None Supplied	S	1062379	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246738	None Supplied	S	1062379	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246738	None Supplied	S	1062379	a	pH in soil (automated)	L099-PL	a
246749	None Supplied	S	1062380	a	Chloride, water soluble, in soil	L082B	a
246749	None Supplied	S	1062380	a	Magnesium, water soluble, in soil	L038B	a
246749	None Supplied	S	1062380	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246749	None Supplied	S	1062380	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246749	None Supplied	S	1062380	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246749	None Supplied	S	1062380	a	pH in soil (automated)	L099-PL	a
246765	None Supplied	S	1062382	a	Chloride, water soluble, in soil	L082B	a
246765	None Supplied	S	1062382	a	Magnesium, water soluble, in soil	L038B	a
246765	None Supplied	S	1062382	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246765	None Supplied	S	1062382	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246765	None Supplied	S	1062382	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246765	None Supplied	S	1062382	a	pH in soil (automated)	L099-PL	a
246776	None Supplied	S	1062383	a	Chloride, water soluble, in soil	L082B	a
246776	None Supplied	S	1062383	a	Magnesium, water soluble, in soil	L038B	a
246776	None Supplied	S	1062383	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246776	None Supplied	S	1062383	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246776	None Supplied	S	1062383	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246776	None Supplied	S	1062383	a	pH in soil (automated)	L099-PL	a
246782	None Supplied	S	1062381	a	Chloride, water soluble, in soil	L082B	a
246782	None Supplied	S	1062381	a	Magnesium, water soluble, in soil	L038B	a
246782	None Supplied	S	1062381	a	Sulphate, water soluble, in soil (16hr extraction)	L038B	a
246782	None Supplied	S	1062381	a	Water Soluble Nitrate (2:1) as N in soil	L082B	a
246782	None Supplied	S	1062381	a	Water Soluble Nitrate (2:1) as NO3 in soil	L082B	a
246782	None Supplied	S	1062381	a	pH in soil (automated)	L099-PL	a

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

Civic Earth Contamination Assessments

(1) Introduction

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, associated DEFRA guidance[1] and the Land Contamination Risk Management Guidance (LCRM)[2].

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.

(2) 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[3] 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[4] 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.

(3) 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

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

[2] Environment Agency (2025) Land Contamination Risk Management (LCRM)

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

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

vapour risk from NAPL. Where there is evidence of mobile or residual NAPL, the vapour risks from NAPL will be considered separately.

(4) 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[5]. Potential risks associated with ground gases are evaluated in accordance with CIRIA C665, BS 8485[6] and NHBC[7].

(5) 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.

(6) 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[8].

(7) 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.

[5] CIRIA (2007) Assessing risks posed by hazardous ground gases to buildings. C665.

[6] 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.

[7] NHBC (2023) Hazardous ground gas – an essential guide for housebuilders. NF94.

[8] British Standard Institution (2015) Specification for Topsoil. BS 3882.

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Table 1: Human Health Data Assessment - Potential Risks to Human Health from Soils

Land Use Category:		Public Open Space (Park)						SOM:	2.5%
Stratum:		Made Ground						No. Samples	10
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	170	-	2.4	19	0	-	-	-	-
Beryllium	63	-	0.27	1.1	0	-	-	-	-
Boron	46,000	-	0.6	2.3	0	-	-	-	-
Cadmium	532	-	<0.2	0.7	0	-	-	-	-
Chromium (III)	33,000	-	11	23	0	-	-	-	-
Chromium (VI)	220	-	<1.8	<1.8	0	-	-	-	-
Copper	44,000	-	14	110	0	-	-	-	-
Lead	1,300	-	8.7	1,600	1	-	TP13	1235.50	554
Mercury	240	-	<0.3	4.4	0	-	-	-	-
Nickel	3,400	-	5.7	25	0	-	-	-	-
Selenium	1,800	-	<1.0	1.1	0	-	-	-	-
Vanadium	5,000	-	7.1	31	0	-	-	-	-
Zinc	170,000	-	37	160	0	-	-	-	-
Benzene	100	-	<0.005	<0.005	0	-	-	-	-
Toluene	95,000	[1920]	<0.005	<0.005	0	0	-	-	-
Ethyl benzene	22,000	[1220]	<0.005	<0.005	0	0	-	-	-
o-Xylene	24,000	1120	<0.005	<0.005	0	0	-	-	-
m- & p-Xylene	23,000	1350	<0.008	<0.008	0	0	-	-	-
Total Phenols	760	-	<1.0	<1.0	0	-	-	-	-
Total Cyanide	34	-	<1.0	<1.0	0	-	-	-	-
Aliphatic EC5-6	130,000	558	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >6-8	220,000	322	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >8-10	18,000	[190]	<0.01	<0.01	0	0	-	-	-
Aliphatic EC >10-12	23,000	[118]	<1.0	2	0	0	-	-	-
Aliphatic EC >12-16	25,000	59	<2.0	21	0	0	-	-	-
Aliphatic EC >16-35	480,000	-	<16.00	245	0	-	-	-	-
Aromatic EC5-7	84,000	2,260	<0.01	<0.01	0	0	-	-	-
Aromatic EC >7-8	95,000	1,920	<0.01	<0.01	0	0	-	-	-
Aromatic EC >8-10	8,500	[1500]	<0.02	<0.02	0	0	-	-	-
Aromatic EC >10-12	9,700	899	<1.0	2.2	0	0	-	-	-
Aromatic EC >12-16	10,000	-	<2.0	23	0	-	-	-	-
Aromatic EC >16-21	7,700	-	<10	120	0	-	-	-	-
Aromatic EC >21-35	7,800	-	<10	310	0	-	-	-	-
Acenaphthene	30,000	-	<0.05	5.5	0	-	-	-	-
Acenaphthylene	30,000	-	<0.05	0.25	0	-	-	-	-
Anthracene	150,000	-	<0.05	8.6	0	-	-	-	-
Benzo(a)anthracene	56	-	0.06	16	0	-	-	-	-
Benzo(a)pyrene	12	-	0.06	15	1	-	TP11B	10.05	3.92
Benzo(b)fluoranthene	15	-	0.08	17	1	-	TP11B	11.42	4.44
Benzo(g,h,i)perylene	1,500	-	<0.05	8.1	0	-	-	-	-
Benzo(k)fluoranthene	410	-	<0.05	6.7	0	-	-	-	-
Chrysene	110	-	0.05	16	0	-	-	-	-
Dibenzo(a,h)anthracene	1.3	-	<0.05	1.8	1	-	TP11B	1.18	0.43
Fluoranthene	6,300	-	0.09	40	0	-	-	-	-
Fluorene	20,000	-	<0.05	3.7	0	-	-	-	-
Indeno(1,2,3,cd)pyrene	170	-	<0.05	7.2	0	-	-	-	-
Naphthalene	1,900	183.0	<0.05	2.1	0	0	-	-	-
Phenanthrene	6,200	-	0.05	38	0	-	-	-	-
Pyrene	15,000	-	0.09	35	0	-	-	-	-
Asbestos in Soils	Number of Samples with Positive Asbestos ID				1	BH01			

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 2: Human Health Data Assessment - Potential Groundwater Vapour Risk to Human Health from Groundwater					
Land Use Category:	**Commercial**			**No. Samples**	1
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	20,000	< 1.0	< 1.0	0	-
Toluene	21,000,000	< 1.0	< 1.0	0	-
Ethylbenzene	960,000	< 1.0	< 1.0	0	-
Total xylene	940,000	< 1.0	< 1.0	0	-
Methyl tertiary butyl ether (MTBE)	7,800,000	< 3.0	< 3.0	0	-
TPH aromatic EC5 to EC7	20,000,000	< 1.0	< 1.0	0	-
TPH aromatic >EC7 to EC8	21,000,000	< 1.0	< 1.0	0	-
TPH aromatic >EC8 to EC10	190,000	< 1.0	< 1.0	0	-
TPH aromatic >EC10 to EC12	660,000	< 10	< 10	0	-
TPH aromatic >EC12 to EC16	3,700,000	< 10	< 10	0	-
TPH aliphatic EC5 to EC6	190,000	< 1.0	< 1.0	0	-
TPH aliphatic >EC6 to EC8	150,000	< 1.0	< 1.0	0	-
TPH aliphatic >EC8 to EC10	5,700	< 1.0	< 1.0	0	-
TPH aliphatic >EC10 to EC12	3,600	< 10	< 10	0	-
Acenaphthene	15,000,000	0.04	0.04	0	-
Acenaphthylene	20,000,000	< 0.01	< 0.01	0	-
Fluorene	18,000,000	0.05	0.05	0	-
Naphthalene	23,000	< 0.01	< 0.01	0	-

Notes:
A. Criteria sourced from SoBRA (2017) *Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater.*
B. GAC for acenaphthene, acenaphythylene, fluorene, napthalene, speciated TPHs and toluene 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.

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Table 3: Controlled Waters Data Assessment - Potential Risks to Groundwater (Freshwater) from Dissolved Phase Contaminants							
Water Body		**Secondary Undifferentiated aquifer (Glacial Till)**				**No. Samples**	1
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	0.49	-	-	A
Beryllium	*	15	< 0.1	< 0.1	-	-	J
Boron	2,000	*	120	120	-	-	H
Cadmium	0.25	1.5	0.21	0.21	-	-	A
Chromium (III)	4.7	32	< 5	< 5	-	-	A
Chromium (VI)	3.4	*	< 5	< 5	-	-	A
Copper	1.0	*	1.2	1.2	0.17	-	A
Lead	1.2	14	0.3	0.3	0.17	-	A, B
Mercury	*	0.07	< 0.05	< 0.05	-	-	A
Nickel	4	34	6.6	6.6	2.02	-	A, B
Zinc	12.3	*	9.3	9.3	5.08	-	A, E
Total Phenols	7.7	46	2.2	2.2	-	-	A
Total Cyanide	1	5	< 1	< 1	-	-	F
Total TPH	*	10	39	39	-	**1**	K
Anthracene	0.1	0.1	0.04	0.04	-	-	A
Benzo(a)pyrene	0.00017	0.27	0.1	0.1	-	**1**	A
Benzo(b)fluoranthene	*	0.017	0.11	0.11	-	**1**	A, G
Benzo(k)fluoranthene	*	0.017	0.05	0.05	-	**1**	A, G
Benzo(ghi)perylene	*	0.0082	0.07	0.07	-	**1**	A, G
Fluoranthene	0.0063	0.12	0.2	0.2	-	**1**	A
Naphthalene	2	130	< 0.01	< 0.01	-	-	A
Benzene	10	50	< 1	< 1	-	-	A
Toluene	74	380	< 1	< 1	-	-	A
pH	*	6.0 to 9.0	7.3	7.3	-	-	H
Hardness (mg $CaCo_3$/l)	*	*	888	888	-	-	-

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 Irwell catchment

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 4: Controlled Waters Data Assessment - Potential Risks to Drinking Water from Dissolved Phase Contaminants						
Water Body	**Secondary Undifferentiated aquifer (Glacial Till)**				**No. Samples**	1
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	0.49	-	-	A
Boron	1,000	120	120	-	-	A
Cadmium	5	0.21	0.21	-	-	A
Chromium	50	< 0.2	< 0.2	-	-	A
Copper	2,000	1.2	1.2	0.17	-	A, B
Lead	10	0.3	0.3	0.17	-	A, B
Mercury	1	< 0.05	< 0.05	-	-	A
Nickel	20	6.6	6.6	2.02	-	A, B
Selenium	10	< 0.6	< 0.6	-	-	A
Zinc	5,000	9.3	9.3	5.08	-	A, B
Total Phenols	0.5	2.2	2.2	-	**1**	D
Total Cyanide	50	< 1	< 1	-	-	A
Total TPH	10	39	39	-	**1**	D
TPH Aliphatic EC5-6	15,000	< 1	< 1	-	-	G
TPH Aliphatic EC>6-8	15,000	< 1	< 1	-	-	G
TPH Aliphatic EC>8-10	300	< 1	< 1	-	-	G
TPH Aliphatic EC>10-12	300	< 10	< 10	-	-	G
TPH Aliphatic EC>12-16	300	11	11	-	-	G
TPH Aromatic EC>5-7	10	< 1	< 1	-	-	G
TPH Aromatic EC>7-8	700	< 1	< 1	-	-	G
TPH Aromatic EC>8-10	300	< 1	< 1	-	-	G
TPH Aromatic EC>10-12	90	< 10	< 10	-	-	G
TPH Aromatic EC>12-16	90	< 10	< 10	-	-	G
TPH Aromatic EC>16-21	90	< 10	< 10	-	-	G
TPH Aromatic EC>21-35	90	< 10	< 10	-	-	G
PAH	0.1	0.28	0.28	-	**1**	A, C
Benzo(a)pyrene	0.01	0.1	0.1	-	**1**	A
Benzene	1	< 1	< 1	-	-	A
Toluene	700	< 1	< 1	-	-	E
Ethylbenzene	300	< 1	< 1	-	-	E
p & m-xylene	500	< 1	< 1	-	-	E, F
o-xylene	500	< 1	< 1	-	-	E, F
pH	6.5 to 9.5	7.3	7.3	-	-	A
Total Sulphate (mg SO_4/l)	250	190	190	-	-	A
Hardness (mg $CaCo_3$/l)	-	888	888	-	-	-

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)

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 5: Soil Data Assessment - Potential Risks to Plants and Vegetation

Stratum:	Made Ground (Exisiting ground materials)					No. Samples	10
Determinand	**Assessment Threshold (mg/kg)**	**Min recorded (mg/kg)**	**Max recorded (mg/kg)**	**No. Samples exceeding GAC**	**Outliers Identified?**	**US_{95} incl. Outliers (mg/kg)**	**US_{95} excl. Outliers (mg/kg)**
Boron (water soluble)	5	0.6	2.3	0	-	-	-
Copper	135	135	14	0	-	-	-
Nickel	75	5.7	25	0	-	-	-
Zinc	200	37	160	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.

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Table 6: Soil Data Assessment - Potential Risks to Buried Water Supply Pipes

Materials Tested:	Existing ground materials (Made Ground)							
Test Group	**Testing Required**	**PE Threshold**	**Metal Pipes / Barrier Pipes**	**Laboratory Limit of Detection**	**Testing UKAS Accredited**	**Max. Concentration at Proposed Pipe Depth**	**Maximum Site Concentration**	**Locations and Depths of Exceedances**
Total VOCs	Where Preliminary Risk Assessment has identified land potentially affected by contamination	0.5	Pass	-	-	-	-	-
Total BTEX & MTBE		0.1	Pass	5 to 8	MCERTS	< 5.0 to < 8.0	< 5.0 to < 8.0	-
Total SVOCs (excluding PAHs and those substances marked with *)		2	Pass	-	-	-	-	-
EC5-EC10 aliphatic and aromatic hydrocarbons		2	Pass	< 0.01 to < 0.02	MCERTS	< 0.01 to < 0.02	< 0.01 to < 0.02	-
EC10-EC16 aliphatic and aromatic hydrocarbons		10	FAIL	1 to 2	MCERTS	< 2.0 to 43	< 2.0 to 43	BH01 at 0.80mbgl
EC16-EC35 aliphatic and aromatic hydrocarbons		500	FAIL	8 to 10	MCERTS	23 to 618	23 to 618	BH01 at 0.80mbgl
Phenols* (from SVOC analysis)		2	Pass	-	-	-	-	-
Cresols and chlorinated phenols* (from SVOC analysis)		2	Pass	-	-	-	-	-
Ethers*	Only where identified	0.5	Pass	-	-	-	-	-
Nitrobenzene*		0.5	Pass	-	-	-	-	-
Ketones*		0.5	Pass	-	-	-	-	-
Aldehydes*		0.5	Pass	-	-	-	-	-
Amines		Fail	Pass	-	-	-	-	-
Corrosive	Conductivity, Redox & pH	Pass	See Note 1	N/A	MCERTS	7.6 to 9.3	7.4 to 9.3	-

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.

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.

0369A-S7BMT-W7I5D

Report is invalid if pages are removed.

Job name

Piccadilly Gardens, Manchester

Description/Comments

i2 Analytical Report 26-036395

Project

51334/01

Site

Piccadilly Gardens, Manchester

Classified by

Name:
Kirsty Poore
Date:
30 Sep 2026 10:55 GMT
Telephone:
07983 740199

Company:
Civic Earth Limited
77 Dale Street
Manchester
M12HG

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

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	05 Oct 2023
Most recent 3 year Refresher	04 Aug 2026

Next 3 year Refresher due by Aug 2029

Purpose of classification

2 - Material Characterisation

Address of the waste

Piccadilly Gardens, Manchester **Post Code** M1 1RG

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 and reconfiguration of Piccadilly Gardens comprising works to the public realm including public open space and use of space for events, together with decommissioning and removal of the existing fountain; creation of play space, lawn area, hard and soft landscaping; lighting; and drainage and other associated infrastructure; and a severable plot for a future ancillary structure with associated interim landscaping.

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

Waste created during the excavation of soils during site investigation.

Description of the waste

Made Ground - a mixture of granular and cohesive soils with chalk, common plastic fragments, brick, rare wood, concrete, coal, flint, dolomite, sandstone, mudstone.
Underlying natural soils comprise Glacial Till above extremely weak red sandstone (Chester Formation).

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP17-1-03072026-0.75	0.75	Non Hazardous		3
2	TP11-1-02072026-0.80	0.80	Non Hazardous		6
3	TP13-1-02072026-0.75	0.75	Non Hazardous		9
4	TP06-1-01072026-0.60	0.60	Non Hazardous		12
5	TP07A-1-23072026-1.00	1.00	Non Hazardous		15
6	BH01-1-23072026-0.20	0.20	Non Hazardous		18
7	BH01-2-24072026-0.80	0.80	Non Hazardous		21
8	BH02-1-24072026-1.00	1.00	Non Hazardous		24
9	WS03-1-23072026-0.30	0.30	Non Hazardous		27
10	WS04-1-23072026-0.50	0.50	Non Hazardous		30

Related documents

#	Name	Description
1	26-036395_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	26-041235_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
3	Civic Earth Waste Stream	waste stream template used to create this Job

Report

Created by: Kirsty Poore

Created date: 30 Sep 2026 10:55 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	33
Appendix B: Rationale for selection of metal species	35
Appendix C: Version	36

Classification of sample: TP17-1-03072026-0.75

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

Sample details

Sample name:
TP17-1-03072026-0.75
Sample Depth:
0.75 m
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.5 pH		8.5 pH	8.5 pH		
2	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	3.867 mg/kg	0.000387 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		13 mg/kg	1.534	16.949 mg/kg	0.00169 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		170 mg/kg	1.623	234.592 mg/kg	0.0235 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.1 mg/kg	2.775	2.595 mg/kg	0.000259 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		2.3 mg/kg	3.22	6.295 mg/kg	0.000629 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.4 mg/kg	1.142	0.388 mg/kg	0.0000388 %	✓	
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		23 mg/kg	1.462	28.573 mg/kg	0.00286 %	✓	

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
13	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		53 mg/kg	1.126	50.721 mg/kg	0.00507 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	200 mg/kg		170 mg/kg	0.017 %	✓	
15	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		2 mg/kg	1.353	2.301 mg/kg	0.00023 %	✓	
16	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		24 mg/kg	2.637	53.788 mg/kg	0.00538 %	✓	
17	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.1 mg/kg	2.554	2.388 mg/kg	0.000239 %	✓	
18	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		31 mg/kg	1.785	47.04 mg/kg	0.0047 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		90 mg/kg	2.469	188.901 mg/kg	0.0189 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		98 mg/kg		83.3 mg/kg	0.00833 %	✓	
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		0.83 mg/kg		0.706 mg/kg	0.0000706 %	✓	
26	acenaphthylene		205-917-1	208-96-8		0.17 mg/kg		0.145 mg/kg	0.0000145 %	✓	
27	acenaphthene		201-469-6	83-32-9		1 mg/kg		0.85 mg/kg	0.000085 %	✓	
28	fluorene		201-695-5	86-73-7		0.89 mg/kg		0.757 mg/kg	0.0000757 %	✓	
29	phenanthrene		201-581-5	85-01-8		6.4 mg/kg		5.44 mg/kg	0.000544 %	✓	
30	anthracene		204-371-1	120-12-7		1.6 mg/kg		1.36 mg/kg	0.000136 %	✓	
31	fluoranthene		205-912-4	206-44-0		9.4 mg/kg		7.99 mg/kg	0.000799 %	✓	
32	pyrene		204-927-3	129-00-0		8.8 mg/kg		7.48 mg/kg	0.000748 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		4.2 mg/kg		3.57 mg/kg	0.000357 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		3.8 mg/kg		3.23 mg/kg	0.000323 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		4.6 mg/kg		3.91 mg/kg	0.000391 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.8 mg/kg		1.53 mg/kg	0.000153 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		4 mg/kg		3.4 mg/kg	0.00034 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		2 mg/kg		1.7 mg/kg	0.00017 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.42 mg/kg		0.357 mg/kg	0.0000357 %	✓	
40	benzo[ghi]perylene		205-883-8	191-24-2		2.1 mg/kg		1.785 mg/kg	0.000179 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.61	mg/kg		0.519	mg/kg	0.0000519 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		**<LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0936 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00833%)

Classification of sample: TP11-1-02072026-0.80

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

Sample details

Sample name:
TP11-1-02072026-0.80
Sample Depth:
0.80 m
Moisture content:
10%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		pH			PH		9.3	pH		9.3	pH	9.3 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		3.6	mg/kg	1.197	3.879	mg/kg	0.000388 %	✓	
6		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		19	mg/kg	1.534	26.229	mg/kg	0.00262 %	✓	
7		barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		270	mg/kg	1.623	394.504	mg/kg	0.0395 %	✓	
8		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.95	mg/kg	2.775	2.373	mg/kg	0.000237 %	✓	
9		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1.8	mg/kg	3.22	5.216	mg/kg	0.000522 %	✓	
10		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7	mg/kg	1.142	0.72	mg/kg	0.000072 %	✓	
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		18	mg/kg	1.462	23.677	mg/kg	0.00237 %	✓	

#		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		61	mg/kg	1.126	61.811	mg/kg	0.00618 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	790	mg/kg		711	mg/kg	0.0711 %	✓	
15		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		3	mg/kg	1.353	3.654	mg/kg	0.000365 %	✓	
16		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		18	mg/kg	2.637	42.714	mg/kg	0.00427 %	✓	
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		27	mg/kg	1.785	43.38	mg/kg	0.00434 %	✓	
19		zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		160	mg/kg	2.469	355.579	mg/kg	0.0356 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		378	mg/kg		340.2	mg/kg	0.034 %	✓	
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		2.1	mg/kg		1.89	mg/kg	0.000189 %	✓	
26		acenaphthylene		205-917-1	208-96-8		0.25	mg/kg		0.225	mg/kg	0.0000225 %	✓	
27		acenaphthene		201-469-6	83-32-9		5.5	mg/kg		4.95	mg/kg	0.000495 %	✓	
28		fluorene		201-695-5	86-73-7		3.7	mg/kg		3.33	mg/kg	0.000333 %	✓	
29		phenanthrene		201-581-5	85-01-8		38	mg/kg		34.2	mg/kg	0.00342 %	✓	
30		anthracene		204-371-1	120-12-7		8.6	mg/kg		7.74	mg/kg	0.000774 %	✓	
31		fluoranthene		205-912-4	206-44-0		40	mg/kg		36	mg/kg	0.0036 %	✓	
32		pyrene		204-927-3	129-00-0		35	mg/kg		31.5	mg/kg	0.00315 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		16	mg/kg		14.4	mg/kg	0.00144 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		16	mg/kg		14.4	mg/kg	0.00144 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		17	mg/kg		15.3	mg/kg	0.00153 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		6.7	mg/kg		6.03	mg/kg	0.000603 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		15	mg/kg		13.5	mg/kg	0.00135 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		7.2	mg/kg		6.48	mg/kg	0.000648 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.8	mg/kg		1.62	mg/kg	0.000162 %	✓	
40		benzo[ghi]perylene		205-883-8	191-24-2		8.1	mg/kg		7.29	mg/kg	0.000729 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				2.5	mg/kg		2.25	mg/kg	0.000225 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.222 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.034%)

Classification of sample: TP13-1-02072026-0.75

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

Sample details

Sample name:
TP13-1-02072026-0.75
Sample Depth:
0.75 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		7.7 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		4.9 mg/kg	1.197	5.221 mg/kg	0.000522 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		14 mg/kg	1.534	19.112 mg/kg	0.00191 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		130 mg/kg	1.623	187.836 mg/kg	0.0188 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.1 mg/kg	2.775	2.717 mg/kg	0.000272 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.8 mg/kg	3.22	2.293 mg/kg	0.000229 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3 mg/kg	1.142	0.305 mg/kg	0.0000305 %	✓	
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		22 mg/kg	1.462	28.617 mg/kg	0.00286 %	✓	

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
13	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		93 mg/kg	1.126	93.19 mg/kg	0.00932 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	1600 mg/kg		1424 mg/kg	0.142 %	✓	
15	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		4.4 mg/kg	1.353	5.3 mg/kg	0.00053 %	✓	
16	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		25 mg/kg	2.637	58.666 mg/kg	0.00587 %	✓	
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		29 mg/kg	1.785	46.076 mg/kg	0.00461 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		75 mg/kg	2.469	164.826 mg/kg	0.0165 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		23 mg/kg		20.47 mg/kg	0.00205 %	✓	
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		0.44 mg/kg		0.392 mg/kg	0.0000392 %	✓	
26	acenaphthylene		205-917-1	208-96-8		0.07 mg/kg		0.0623 mg/kg	0.00000623 %	✓	
27	acenaphthene		201-469-6	83-32-9		0.22 mg/kg		0.196 mg/kg	0.0000196 %	✓	
28	fluorene		201-695-5	86-73-7		0.2 mg/kg		0.178 mg/kg	0.0000178 %	✓	
29	phenanthrene		201-581-5	85-01-8		2.1 mg/kg		1.869 mg/kg	0.000187 %	✓	
30	anthracene		204-371-1	120-12-7		0.47 mg/kg		0.418 mg/kg	0.0000418 %	✓	
31	fluoranthene		205-912-4	206-44-0		2.9 mg/kg		2.581 mg/kg	0.000258 %	✓	
32	pyrene		204-927-3	129-00-0		2.9 mg/kg		2.581 mg/kg	0.000258 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.4 mg/kg		1.246 mg/kg	0.000125 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		1.4 mg/kg		1.246 mg/kg	0.000125 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.5 mg/kg		1.335 mg/kg	0.000133 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.64 mg/kg		0.57 mg/kg	0.000057 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.4 mg/kg		1.246 mg/kg	0.000125 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		0.67 mg/kg		0.596 mg/kg	0.0000596 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.19 mg/kg		0.169 mg/kg	0.0000169 %	✓	
40	benzo[ghi]perylene		205-883-8	191-24-2		0.77 mg/kg		0.685 mg/kg	0.0000685 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.22	mg/kg		0.196	mg/kg	0.0000196 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.207 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00205%)

Classification of sample: TP06-1-01072026-0.60

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

Sample details

Sample name:
TP06-1-01072026-0.60
Sample Depth:
0.60 m
Moisture content:
6.2%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 6.2% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		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		< %		< %	<		<**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	1.123 mg/kg	0.000112 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		2.4 mg/kg	1.534	3.453 mg/kg	0.000345 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		31 mg/kg	1.623	47.207 mg/kg	0.00472 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.27 mg/kg	2.775	0.703 mg/kg	0.0000703 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.812 mg/kg	0.000181 %	✓	
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		6.8 mg/kg	1.462	9.322 mg/kg	0.000932 %	✓	

#		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	23.234	mg/kg	0.00232 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21	mg/kg		19.698	mg/kg	0.00197 %	✓	
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		5.7	mg/kg	2.637	14.097	mg/kg	0.00141 %	✓	
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		7.1	mg/kg	1.785	11.889	mg/kg	0.00119 %	✓	
19		zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		67	mg/kg	2.469	155.185	mg/kg	0.0155 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		27	mg/kg		25.326	mg/kg	0.00253 %	✓	
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		0.1	mg/kg		0.0938	mg/kg	0.00000938 %	✓	
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		0.23	mg/kg		0.216	mg/kg	0.0000216 %	✓	
32		pyrene		204-927-3	129-00-0		0.24	mg/kg		0.225	mg/kg	0.0000225 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.14	mg/kg		0.131	mg/kg	0.0000131 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.13	mg/kg		0.122	mg/kg	0.0000122 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.18	mg/kg		0.169	mg/kg	0.0000169 %	✓	
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		0.14	mg/kg		0.131	mg/kg	0.0000131 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.09	mg/kg		0.0844	mg/kg	0.00000844 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		0.1	mg/kg		0.0938	mg/kg	0.00000938 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0314 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00253%)

Classification of sample: TP07A-1-23072026-1.00

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

Sample details

Sample name:
TP07A-1-23072026-1.00
Sample Depth:
1.00 m
Moisture content:
3.7%
(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: 3.7% 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		7.6 pH		7.6 pH	7.6 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		2.7 mg/kg	1.534	3.988 mg/kg	0.000399 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		60 mg/kg	1.623	93.804 mg/kg	0.00938 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.4 mg/kg	2.775	1.069 mg/kg	0.000107 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.7 mg/kg	3.22	2.171 mg/kg	0.000217 %	✓	
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		13 mg/kg	1.462	18.297 mg/kg	0.00183 %	✓	

#	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		19 mg/kg	1.126	20.6 mg/kg	0.00206 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		17.334 mg/kg	0.00173 %	✓	
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		10 mg/kg	2.637	25.391 mg/kg	0.00254 %	✓	
17	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		1.1 mg/kg	2.554	2.705 mg/kg	0.000271 %	✓	
18	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		16 mg/kg	1.785	27.506 mg/kg	0.00275 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		41 mg/kg	2.469	97.495 mg/kg	0.00975 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		72 mg/kg		69.336 mg/kg	0.00693 %	✓	
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		0.12 mg/kg		0.116 mg/kg	0.0000116 %	✓	
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		0.19 mg/kg		0.183 mg/kg	0.0000183 %	✓	
32	pyrene		204-927-3	129-00-0		0.19 mg/kg		0.183 mg/kg	0.0000183 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.12 mg/kg		0.116 mg/kg	0.0000116 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.1 mg/kg		0.0963 mg/kg	0.00000963 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.13 mg/kg		0.125 mg/kg	0.0000125 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.06 mg/kg		0.0578 mg/kg	0.00000578 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.12 mg/kg		0.116 mg/kg	0.0000116 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		0.06 mg/kg		0.0578 mg/kg	0.00000578 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
40	benzo[ghi]perylene		205-883-8	191-24-2		0.08 mg/kg		0.077 mg/kg	0.0000077 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0381 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00693%)

Classification of sample: BH01-1-23072026-0.20

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

Sample details

Sample name:
BH01-1-23072026-0.20
Sample Depth:
0.20 m
Moisture content:
4.7%
(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: 4.7% 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		<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		2.6 mg/kg	1.534	3.801 mg/kg	0.00038 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		25 mg/kg	1.623	38.679 mg/kg	0.00387 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.33 mg/kg	2.775	0.873 mg/kg	0.0000873 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.841 mg/kg	0.000184 %	✓	
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		9 mg/kg	1.462	12.536 mg/kg	0.00125 %	✓	

#	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	35.408	mg/kg	0.00354 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12	mg/kg		11.436	mg/kg	0.00114 %	✓	
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		8.2	mg/kg	2.637	20.605	mg/kg	0.00206 %	✓	
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		9.8	mg/kg	1.785	16.673	mg/kg	0.00167 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		43	mg/kg	2.469	101.189	mg/kg	0.0101 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		133	mg/kg		126.749	mg/kg	0.0127 %	✓	
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		0.21	mg/kg		0.2	mg/kg	0.00002 %	✓	
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		0.07	mg/kg		0.0667	mg/kg	0.00000667 %	✓	
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		0.21	mg/kg		0.2	mg/kg	0.00002 %	✓	
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		0.23	mg/kg		0.219	mg/kg	0.0000219 %	✓	
32	pyrene		204-927-3	129-00-0		0.22	mg/kg		0.21	mg/kg	0.000021 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.1	mg/kg		0.0953	mg/kg	0.00000953 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.14	mg/kg		0.133	mg/kg	0.0000133 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.14	mg/kg		0.133	mg/kg	0.0000133 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.07	mg/kg		0.0667	mg/kg	0.00000667 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.12	mg/kg		0.114	mg/kg	0.0000114 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		0.06	mg/kg		0.0572	mg/kg	0.00000572 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
40	benzo[ghi]perylene		205-883-8	191-24-2		0.08	mg/kg		0.0762	mg/kg	0.00000762 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		polychlorobiphenyls; PCB				<0.012	mg/kg		<0.012	mg/kg	<0.0000012 %		<**LOD**
		602-039-00-4	215-648-1	1336-36-3									
43		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0371 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0127%)

Classification of sample: BH01-2-24072026-0.80

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

Sample details

Sample name:
BH01-2-24072026-0.80
Sample Depth:
0.80 m
Moisture content:
10%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.9 pH		8.9 pH	8.9 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 %		<0.001 %	<0.001 %		<**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		2.8 mg/kg	1.197	3.017 mg/kg	0.000302 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		7.1 mg/kg	1.534	9.801 mg/kg	0.00098 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		83 mg/kg	1.623	121.273 mg/kg	0.0121 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.49 mg/kg	2.775	1.224 mg/kg	0.000122 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1.2 mg/kg	3.22	3.477 mg/kg	0.000348 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.2 mg/kg	1.142	0.206 mg/kg	0.0000206 %	✓	
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		19 mg/kg	1.462	24.993 mg/kg	0.0025 %	✓	

#	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		110 mg/kg	1.126	111.463 mg/kg	0.0111 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	59 mg/kg		53.1 mg/kg	0.00531 %	✓	
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		18 mg/kg	2.637	42.714 mg/kg	0.00427 %	✓	
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	40.167 mg/kg	0.00402 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		65 mg/kg	2.469	144.454 mg/kg	0.0144 %	✓	
20	TPH (C6 to C40) petroleum group			TPH		670 mg/kg		603 mg/kg	0.0603 %	✓	
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		1.1 mg/kg		0.99 mg/kg	0.000099 %	✓	
26	acenaphthylene		205-917-1	208-96-8		0.17 mg/kg		0.153 mg/kg	0.0000153 %	✓	
27	acenaphthene		201-469-6	83-32-9		1.2 mg/kg		1.08 mg/kg	0.000108 %	✓	
28	fluorene		201-695-5	86-73-7		1 mg/kg		0.9 mg/kg	0.00009 %	✓	
29	phenanthrene		201-581-5	85-01-8		6.8 mg/kg		6.12 mg/kg	0.000612 %	✓	
30	anthracene		204-371-1	120-12-7		2.1 mg/kg		1.89 mg/kg	0.000189 %	✓	
31	fluoranthene		205-912-4	206-44-0		9.4 mg/kg		8.46 mg/kg	0.000846 %	✓	
32	pyrene		204-927-3	129-00-0		8.8 mg/kg		7.92 mg/kg	0.000792 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		4.1 mg/kg		3.69 mg/kg	0.000369 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		4 mg/kg		3.6 mg/kg	0.00036 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		4.2 mg/kg		3.78 mg/kg	0.000378 %	✓	
36	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.7 mg/kg		1.53 mg/kg	0.000153 %	✓	
37	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		3.8 mg/kg		3.42 mg/kg	0.000342 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		1.9 mg/kg		1.71 mg/kg	0.000171 %	✓	
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.43 mg/kg		0.387 mg/kg	0.0000387 %	✓	
40	benzo[ghi]perylene		205-883-8	191-24-2		2.1 mg/kg		1.89 mg/kg	0.000189 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.121 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0603%)

Classification of sample: BH02-1-24072026-1.00

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

Sample details

Sample name:
BH02-1-24072026-1.00
Sample Depth:
1.00 m
Moisture content:
6.9%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 6.9% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.2 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		3.3 mg/kg	1.534	4.713 mg/kg	0.000471 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		58 mg/kg	1.623	87.664 mg/kg	0.00877 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.41 mg/kg	2.775	1.059 mg/kg	0.000106 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.9 mg/kg	3.22	2.698 mg/kg	0.00027 %	✓	
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		11 mg/kg	1.462	14.968 mg/kg	0.0015 %	✓	

#		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		18	mg/kg	1.126	18.868	mg/kg	0.00189 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20	mg/kg		18.62	mg/kg	0.00186 %	✓	
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	27.002	mg/kg	0.0027 %	✓	
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		15	mg/kg	1.785	24.93	mg/kg	0.00249 %	✓	
19		zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		54	mg/kg	2.469	124.141	mg/kg	0.0124 %	✓	
20		TPH (C6 to C40) petroleum group			TPH		197	mg/kg		183.407	mg/kg	0.0183 %	✓	
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		0.214	mg/kg	0.0000214 %	✓	
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		0.22	mg/kg		0.205	mg/kg	0.0000205 %	✓	
28		fluorene		201-695-5	86-73-7		0.16	mg/kg		0.149	mg/kg	0.0000149 %	✓	
29		phenanthrene		201-581-5	85-01-8		1.5	mg/kg		1.396	mg/kg	0.00014 %	✓	
30		anthracene		204-371-1	120-12-7		0.42	mg/kg		0.391	mg/kg	0.0000391 %	✓	
31		fluoranthene		205-912-4	206-44-0		2.4	mg/kg		2.234	mg/kg	0.000223 %	✓	
32		pyrene		204-927-3	129-00-0		2.4	mg/kg		2.234	mg/kg	0.000223 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.2	mg/kg		1.117	mg/kg	0.000112 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		1.1	mg/kg		1.024	mg/kg	0.000102 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.3	mg/kg		1.21	mg/kg	0.000121 %	✓	
36		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.58	mg/kg		0.54	mg/kg	0.000054 %	✓	
37		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.2	mg/kg		1.117	mg/kg	0.000112 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		0.6	mg/kg		0.559	mg/kg	0.0000559 %	✓	
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		0.71	mg/kg		0.661	mg/kg	0.0000661 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				0.17	mg/kg		0.158	mg/kg	0.0000158 %	✓	
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0521 %		

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 concentration of: 1000 mg/kg (0.1%) because: No evidence of free product / liquid phase hydrocarbons in the majority of exploratory hole locations. Trial pit TP13 recorded a 'hydrocarbon sheen' from 0.70mbgl to 0.75mbgl, however as this is limited in nature and within a soil matrix it is considered that this would therefore not be flammable.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0183%)

Classification of sample: WS03-1-23072026-0.30

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

Sample details

Sample name:
WS03-1-23072026-0.30
Sample Depth:
0.30 m
Moisture content:
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% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8 pH		8 pH	8pH		
2	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		1.3 mg/kg	1.197	1.494 mg/kg	0.000149 %	✓	
6	arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3 mg/kg	1.534	4.418 mg/kg	0.000442 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		26 mg/kg	1.623	40.522 mg/kg	0.00405 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.45 mg/kg	2.775	1.199 mg/kg	0.00012 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.855 mg/kg	0.000185 %	✓	
10	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.2 mg/kg	1.142	0.219 mg/kg	0.0000219 %	✓	
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		12 mg/kg	1.462	16.837 mg/kg	0.00168 %	✓	

#	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	15.132 mg/kg	0.00151 %	✓	
14	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8.7 mg/kg		8.352 mg/kg	0.000835 %	✓	
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		13 mg/kg	2.637	32.906 mg/kg	0.00329 %	✓	
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	22.279 mg/kg	0.00223 %	✓	
19	zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		41 mg/kg	2.469	97.192 mg/kg	0.00972 %	✓	
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		0.09 mg/kg		0.0864 mg/kg	0.00000864 %	✓	
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		0.11 mg/kg		0.106 mg/kg	0.0000106 %	✓	
32	pyrene		204-927-3	129-00-0		0.11 mg/kg		0.106 mg/kg	0.0000106 %	✓	
33	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.06 mg/kg		0.0576 mg/kg	0.00000576 %	✓	
34	chrysene	601-048-00-0	205-923-4	218-01-9		0.07 mg/kg		0.0672 mg/kg	0.00000672 %	✓	
35	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.09 mg/kg		0.0864 mg/kg	0.00000864 %	✓	
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		0.0576 mg/kg	0.00000576 %	✓	
38	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
39	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
40	benzo[ghi]perylene		205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		coronene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1									
42		xylene				<0.013	mg/kg		<0.013	mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7									
										Total:	0.0243 %		

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: WS04-1-23072026-0.50

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

Sample details

Sample name:
WS04-1-23072026-0.50
Sample Depth:
0.50 m
Moisture content:
4.9%
(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: 4.9% 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		7.4 pH		7.4 pH	7.4 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		2.9 mg/kg	1.534	4.23 mg/kg	0.000423 %	✓	
7	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2		26 mg/kg	1.623	40.142 mg/kg	0.00401 %	✓	
8	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.32 mg/kg	2.775	0.845 mg/kg	0.0000845 %	✓	
9	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.6 mg/kg	3.22	1.837 mg/kg	0.000184 %	✓	
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		8.3 mg/kg	1.462	11.536 mg/kg	0.00115 %	✓	

#		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		15	mg/kg	1.126	16.061	mg/kg	0.00161 %	✓	
14		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12	mg/kg		11.412	mg/kg	0.00114 %	✓	
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		7.5	mg/kg	2.637	18.806	mg/kg	0.00188 %	✓	
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		9.7	mg/kg	1.785	16.468	mg/kg	0.00165 %	✓	
19		zinc { zinc sulphate }	030-006-00-9	231-793-3	7733-02-0		37	mg/kg	2.469	86.887	mg/kg	0.00869 %	✓	
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		0.0476	mg/kg	0.00000476 %	✓	
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		0.09	mg/kg		0.0856	mg/kg	0.00000856 %	✓	
32		pyrene		204-927-3	129-00-0		0.09	mg/kg		0.0856	mg/kg	0.00000856 %	✓	
33		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.06	mg/kg		0.0571	mg/kg	0.00000571 %	✓	
34		chrysene	601-048-00-0	205-923-4	218-01-9		0.05	mg/kg		0.0476	mg/kg	0.00000476 %	✓	
35		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.08	mg/kg		0.0761	mg/kg	0.00000761 %	✓	
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		0.0571	mg/kg	0.00000571 %	✓	
38		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		benzo[ghi]perylene		205-883-8	191-24-2		0.05	mg/kg		0.0476	mg/kg	0.00000476 %	✓	

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
			205-881-7	191-07-1							
42		xylene				<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<**LOD**
		601-022-00-9	215-535-7	1330-20-7							
								Total:	0.0209 %		

Key

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

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 version 1.1.NI and 1.2.GB 2021
Data source date: 30 Jan 2021
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.
Monohydric Phenol refers to a group of phenolic compounds that include phenol, the three methylphenol isomers (cresols) and the six di methylphenol isomers.
(CLP Index: 604-001-00-2, 604-004-00-9, 604-006-00-X)
Data source: Group Entry combining three CLP entries
Data source date: 18 May 2026
Hazard Statements: Acute Tox. 3; H301 , Acute Tox. 3; H311 , Acute Tox. 3; H331 , Skin Corr. 1B; H314 , Muta. 2; H341 , STOT RE 2; H373 , Aquatic Chronic 2; H411

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

Description/Comments: Data from ECHACHEM; notifications <1% & outliers (H360, H413) ignored
Data source: https://chem.echa.europa.eu/100.013.783/overview
Data source date: 16 Mar 2026
Hazard Statements: Acute Tox. 4; H302 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Resp. Sens. 1; H334

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

GB MCL index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from:: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

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

Description/Comments: Unknown Oil
Hazard statements taken from WM3 version 1.1.NI and 1.2.GB 2021
Data source: WM3 version 1.1.NI and 1.2.GB 2021
Data source date: 30 Jan 2021
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: IARC considers ethylbenzene Group 2B; Possibly carcinogenic to humans;
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
03 Jun 2026 - 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 ECHACHEM; CLP submissions;
SDS Sigma Aldrich v6.7 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.005.380/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/416703
Data source date: 02 Mar 2026
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H310 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 1; H330 , STOT SE 3; H335

acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from ECHACHEM; CLP submissions;
SDS Sigma Aldrich v6.8 dated 12/12/2025
Data source: https://chem.echa.europa.eu/100.001.336/industry/113817?searchText=83-32-9
https://www.sigmaaldrich.com/GB/en/sds/aldrich/215376
Data source date: 02 Mar 2026
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from ECHACHEM; CLP submissions;
SDS Sigma Aldrich v6.6 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.001.541/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/128333
Data source date: 02 Mar 2026
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 ECHACHEM; CLP submissions;
SDS Sigma Aldrich v7.2 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.001.437/overview
https://www.sigmaaldrich.com/GB/en/sds/supelco/48569
Data source date: 02 Mar 2026
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , EUH441

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

Description/Comments: Data from ECHACHEM; CLP submissions
SDS Sigma Aldrich v9.3 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.003.974/overview
https://www.sigmaaldrich.com/GB/en/sds/supelco/48567
Data source date: 03 Mar 2026
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , PBT; EUH440

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

Description/Comments: Data from ECHACHEM; CLP submissions
SDS Sigma Aldrich v7.2 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.005.376/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/f807
Data source date: 03 Mar 2026
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , PBT; EUH440 , EUH441

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

Description/Comments: Data from ECHACHEM; CLP submissions
SDS Sigma Aldrich v7.2 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.004.481/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/185515
Data source date: 03 Mar 2026
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , PBT; EUH440 , EUH441

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

Description/Comments: Data from ECHACHEM database; CLP submissions
SDS Sigma Aldrich v6.8 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.005.359/overview
https://www.sigmaaldrich.com/GB/en/sds/supelco/48499
Data source date: 03 Mar 2026
Hazard Statements: Carc. 2; H351 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from ECHACHEM; CLP submissions; Sigma Aldrich SDS v7.1 dated 25/12/2025
Data source: https://chem.echa.europa.eu/100.005.350/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/b9009
Data source date: 18 May 2026
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , vPvB; EUH441 , PBT; EUH440

coronene (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from ECHACHEM; CLP submissions;
Sigma Aldrich SDS v6.4 dated 23/12/2025
Data source: https://chem.echa.europa.eu/100.005.348/overview
https://www.sigmaaldrich.com/GB/en/sds/aldrich/c84801
Data source date: 03 Mar 2026
Hazard Statements: STOT SE 2; H371

polychlorobiphenyls; PCB (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
03 Jun 2026 - Carc. 1A; H350 hazard statement sourced from:: IARC Group 1 (23, Sup 7, 100C) 2012

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 barium and Cr(VI) present to make the worst case CLP (barium chromate) and it is 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}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that there is not Cr(VI) present to make hazardous levels of the worst case CLP (lead chromate) in any case.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight.

nickel {nickel sulfate}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: copper refining, electroplating and rechargeable batteries. Worst case compounds in CLP not expected as either very soluble and/or compounds industrial useage not related to site history.

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight.

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species.

zinc {zinc sulphate}

Reasonable case CLP species based on site history, hazard statements/molecular weight. Noted that not enough zinc and Cr(VI) present to make the worst case CLP (zinc chromate) and it is 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: 2026.272.7387.64714f5 (29 Sep 2026)
HazWasteOnline Database: 2026.272.7387.64714f5 (29 Sep 2026)

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
GB MCL List v7.0 - version 7.0 of 23rd September 2025

Appendix J – 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.