



SUPPLEMENTARY SOILS WASTE CLASSIFICATION REPORT FOR HOPWOOD HALL COLLEGE, ROCHDALE

TE1880-TE-00-XX-RP-GE-006-V02

21 MAY 2025

FINAL

Prepared for:

Wilmott Dixon Construction Ltd

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1	FINAL	16/05/2025	Stefani Ellis	Adrian Read	Adrian Read
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1. INTRODUCTION

Tier Environmental was commissioned by Wilmott Dixon Construction Ltd to undertake a Supplementary Soils Waste Assessment for an area of land referred to as Hopwood Hall College, located at Hopwood Hall College, Rochdale Campus, St Mary's Gate, Rochdale OL12 6RY (the 'Site'). Whilst the *primary* objective of the works was to further the soil waste classification and waste disposal route understanding in the vicinity of a previously identified area of hazardous waste, the results have also been assessed with respect to human health risk assessment for the proposed new development.

1.1. Proposed Development

Under current proposals the development will comprise the partial demolition of the existing college buildings in the east of the site, with construction of the new proposed 4 No. storey college building in the north, a water tank and small ancillary building in the centre, and a substation in the northwest of the site. The remainder of the site will comprise car parking and soft landscaped areas, as presented in Appendix A.

As such, in accordance with the '*Updated technical background to the CLEA model*' (Environment Agency, 2009) and '*Suitable 4 Use Levels*' (LQM / CIEH 2015) the proposed generic land use for this development is commercial, which is deemed to be the most appropriate due to the activities that are likely to be undertaken on site (educational) and the limited frequency and duration of time end users are likely to spend on site.

1.2. Previous Reports

Tier Environmental have produced the following reports in relation to the site:

- Preliminary Risk Assessment Report For Hopwood Hall College, Rochdale (Report ref: TE1880-TE-00-XX-RP-GE-001-V01 dated January 30th, 2025)
- Ground Investigation Report for Hopwood Hall, College, Rochdale (Report ref: TE1880-TE-00-XX-RP-002-V02 dated 3rd March 2025) (hereafter referred to as 'GIR')
- Coal Mining Risk Assessment for Hopwood Hall, College, Rochdale (Report ref: TE1880-TE-00-XX-RP-003-V01 dated 6th February 2025)
- Asbestos Detailed Quantitative Risk Assessment For Hopwood Hall College, Rochdale (Report ref: TE1880-TE-00-XX-RP-004-V01 dated 28th February 2025) (hereafter referred to as 'DQRA')
- Specification For The Stabilisation Of Shallow Mineworkings, Hopwood Hall College, Rochdale (Report ref: TE1880-TE-00-XX-RP-005-V02 dated 11th April 2025)
- Environmental Health Senior Officer Comments Response Letter – Hopwood Hall College, Rochdale Preapp-00012-25 (Report Ref: TE1880-TE-00-XX-CO-GE-001-V01, dated 17th April 2025)

In addition the following third party reports have been obtained by Tier Environmental; however, no reliance can be sought on information contained within this report and so have been reviewed for information purposes only:

- Geotechnics Ltd – 'Geoenvironmental and Geotechnical Desk Study Report' (Report reference: PC218240, dated 30th July 2021);
- Geotechnics Ltd – 'Preliminary Ground Investigation Report with Interpretative Chapter' (Report reference PN214280, dated November 2021);
- Waterman – Coal Mining Risk Assessment (Report reference: WIE19085-100-R-5.1.3-CMRA Dated October 2022)



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It is understood that Wilmott Dixon do not have reliance on the previous third party reports. Information from the previous third party reports has been included within this report for information purposes only.

1.3. Objectives

Taking into account the proposed development of the site, the objectives of this appraisal were:

- To delineate the extent of potential materials classed as hazardous waste, due to a previously recorded elevated TPH concentration from sample location WS105 (at 0.60m bgl) located towards the northwestern area of the proposed development (and beneath the proposed new building footprint).
- To provide an updated and supplementary waste soils classification and assessment.
- To conduct supplementary human health risk assessment on the measured concentrations of potential contaminants of concern.
- Provide preliminary outline remedial measures to manage any identified human health risks, if these differ from those already determined within the previously issued GIR and DQRA.

1.4. Assumptions

The following assumptions are made in this report:

- It is assumed that ground levels will not change significantly from those described in this report or as shown on proposed development drawings. If this is not the case, then amendments to the recommendations made in this report may be required.
- The ground investigation has been designed with due consideration of known or suspected constraints (including underground services and access constraints).
- Any references to observations of suspected asbestos-containing materials are for information only and should be verified by a suitably qualified asbestos specialist and/or confirmed by laboratory analysis.
- The use of the term 'Topsoil' within this report is based on a visual identification only and that these materials have not been classified in accordance with BS3882:2015.
- The use of the terms 'shallow' and 'deep' within this report (from a geotechnical perspective) assume *typically* between ground level to circa 3.00m below ground level (bgl) for 'shallow' and greater than 3.00m bgl regarded as 'deep';
- The comments and opinions presented in this report are based on the findings of the previous Tier Environmental and third party reports, ground conditions encountered during this additional intrusive investigation works performed by Tier Environmental and the results of tests carried out within one or more laboratories. There may be other conditions prevailing on the site which have not been revealed by this investigation and which have not been taken into account by this report.
- Responsibility cannot be accepted for any conditions not revealed by this investigation. Any diagram or opinion on the possible configuration of the findings is conjectural and given for guidance only. Confirmation of intermediate ground conditions should be undertaken if deemed necessary.

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2. SITE DETAILS AND DESCRIPTION

Table 2-1 Current Site Overview.

Site name	Hopwood Hall College
Site address	Hopwood Hall College, Rochdale Campus, St Mary's Gate, Rochdale OL12 6RY. A site location plan is included as Drawing No. TE1880-TE-00-XX-DR-GE-001-V01 within Appendix A.
National Grid Reference (NGR)	389299 413363
Approximate site area	1.75 ha
Site shape	The site is approximately triangular in shape
Current land use on the site	The site currently comprises a college with a building of several storeys (including a basement/undercroft) present in the east of the site, and an asphalt surfaced car park across the majority of the remainder of the site and a drop off lane present along the northern and western boundaries. It is understood that an interceptor is present in the northeastern corner of the car park/drop off lane. Metal fencing around 2m height is present at the northern and western extent of the car park, with a brick retaining wall of between approx. 1.00m and 2.00m height present at the northern boundary of the drop off lane, marking the site boundary with College Road. A second brick retaining wall is present at the south of the car park, separating the car park from the river embankment which lies approx. 1.00m to 2.00m below the car park. No cracks or visible signs of stress were visible on either of the retaining walls. Limited soft landscaped areas are present, including a small, sloped grass verge in the northwest of the site, a grassed embankment between the car park/college buildings and the river in the south of the site, and as a grassed terraced area to the north east of the building, which steps down to the basement floor level. The basement/undercroft area is accessible from the car park and is understood to comprise storage, waste disposal areas (bins/skips) and a plant room. The plant room contains the heating infrastructure for the building, including 2 no. oil tanks, both of which are understood to no longer be used with one understood to have been emptied via tanker (but not decommissioned) in the past couple of years. These oil tanks are present within a separate concrete bunded room, only accessible via locked ladder access. From the limited viewpoint accessible during the walkover, no spills or leakages were observed. An electric substation is present in the northeast of the site, to the northwest of the existing college building. Underground services are known to be present beneath the site, including electricity, gas, water and drainage. There is limited surface water drainage around the car park area, observed only to be present at the car park boundaries. Vehicular access for deliveries and disabled parking is present from College Road close to the centre north of the site, leading to the drop off lane, a small parking area and the basement/undercroft access. An access road for the main car park is present in the northwest of the site, with a smaller car park present to the west of this access road. This smaller car park is understood to be let out and was not accessible during the ground investigation. During college opening hours, pedestrian access is freely available. A hedge of approximately 1m height is present surrounding the northeastern soft landscaped area, with limited shrubs present elsewhere around site. Mature trees are present in the far northwest of the site, surrounding the smaller car park (it is understood that development is to be undertaken in this area). It should be noted that the car park in the northwest of the site and the terraced soft landscaping in the east of the site were not accessible during the walkover, and are unlikely to be accessible for any ground investigation.
Surrounding land uses	The site is set within a mixed commercial and residential area, with Rochdale Town centre located approximately 500m northeast of the site.
General topography and ground levels	The main car park area of the site is generally level at around 119m AOD. However, College Road to the north of the site lies between approx. the same level as the site in the northeast (120m AOD) rising to around 1.0m higher than the site in the northwest (120m AOD), separated from the site by a brick retaining wall. Similarly, in the south of the site the highest level of the grassed banks of the River Roch lies between 0.5m to 1.00m below the car park level at around 118m AOD, separated by a brick retaining wall. Site levels between the existing building and St. Mary's Gate also vary, with grassed terraces leading from road level (120m AOD) in the northeast to 116m AOD in the centre east and back up to 120m AOD in the southeast. Again, a brick and concrete retaining wall was present at the site boundary (this area was not accessible during the walkover).



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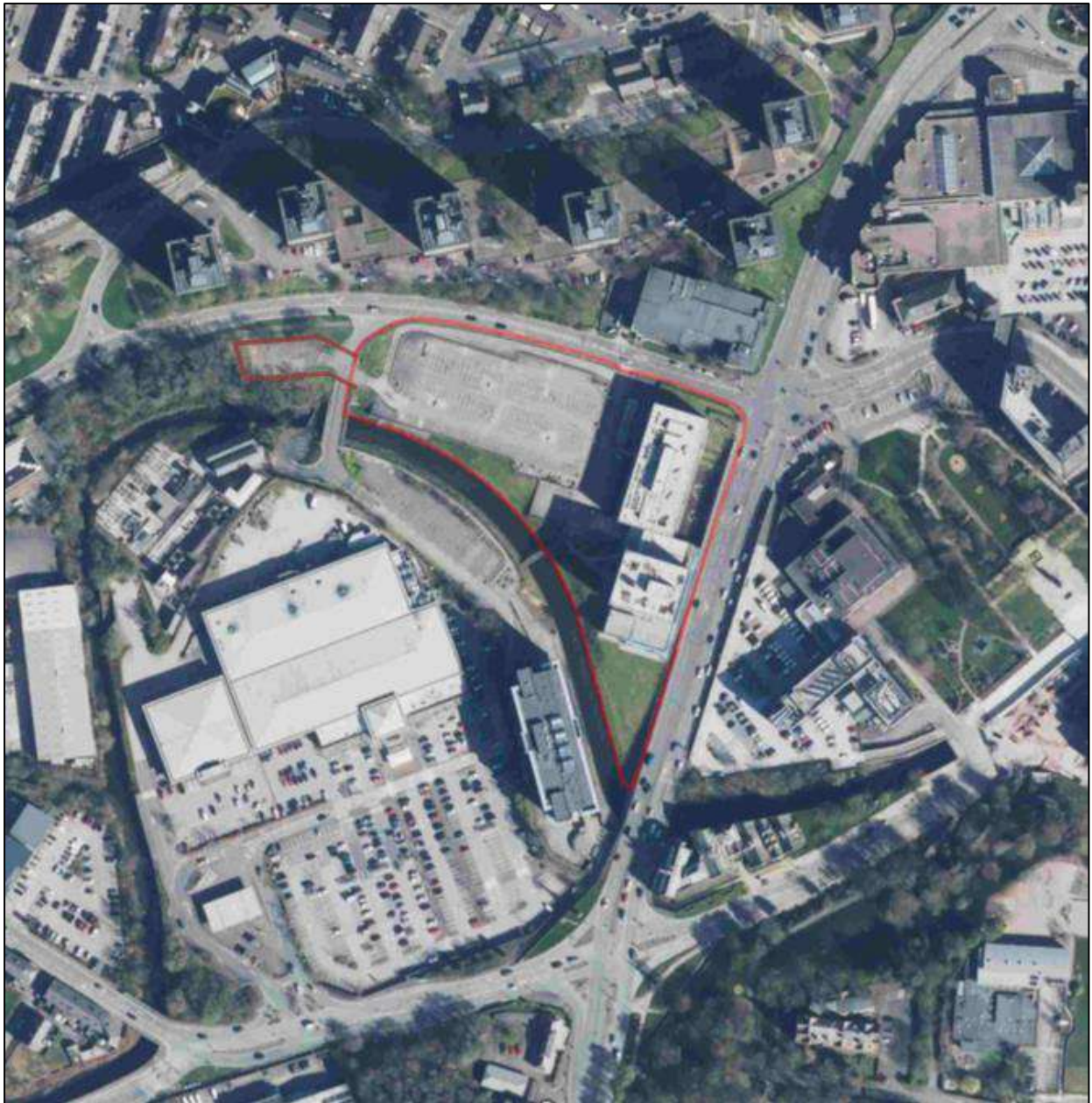
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An aerial photograph (from the Groundsure report) of the site and site boundary is shown below. Relevant site photographs are presented in Appendix D.

Figure 2-1 Recent Aerial Photograph from Groundsure





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4. FIELDWORK

The information contained in this report is limited to areas of land accessible during the supplementary ground investigation within the site boundary, as indicated on the site plan, presented in Appendix A as Drawing No. TE1880-TE-00-XX-DR-GE-028-V01.

Tier Environmental scoped the supplementary intrusive ground investigation using guidance presented in:

- BS 10175:2011+A2:2017;
- Land Contamination Risk Management (LCRM) - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>;
- BS 5930:2015+A1:2020;
- BS EN 1997:2004 and 2007.

Tier Environmental's standard strata description criteria are compliant with the above guidance.

4.1. Scope of Supplementary Ground Investigation

The supplementary ground investigation was conducted between 7th and 14th April 2025 and was supervised by a suitably qualified Tier Environmental engineer. Table 4-1 below provides a summary of the exploratory holes completed and rationale. Exploratory hole locations are presented on Drawing No. TE1880-TE-00-XX-DR-GE-028-V01.

Table 4-1 Scope of Ground Investigation and Rationale

Exploratory Hole Type	Exploratory Hole Reference	Exploratory Hole Depths (m bgl)	Rationale
Concrete core and hand dug pit	WC201 to WC223, WC223A, WC224 to WC234	0.30 to 1.10	To confirm the concrete slab thickness, the shallow ground conditions across the site, shallow groundwater presence and rate of inflow, and to enable shallow soil sampling for geoenvironmental parameters.

The following constraints were identified during the ground investigation works:

- Existing underground services were present across the area of investigation, as shown in the Utility Survey, Drawing No. S25552-U 01 and S25552-U 02, included within Appendix A.

Depths and accurate descriptions of strata and groundwater observations made during investigation works, together with details of the samples recovered, are presented on the Engineer's exploratory hole records in Appendix B.

4.2. Geoenvironmental Testing

Sampling and QA/QC protocols are presented in Appendix G. The testing was carried out by Element Materials Technology, a UKAS and MCerts (where appropriate for soils analysis) accredited laboratory.



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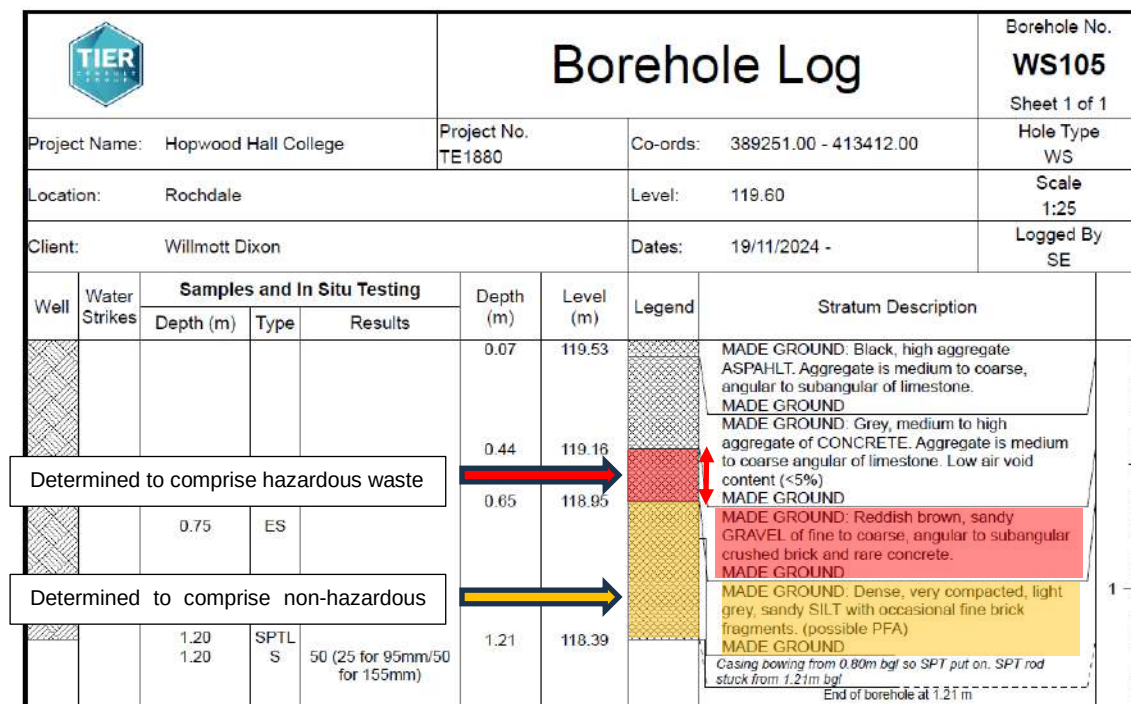
Human Health and Preliminary Waste Classification Laboratory Testing

Based upon the conclusions of the preliminary risk assessment, Tier Environmental scheduled chemical laboratory testing on selected soil samples. The purpose of the testing was to:

- Determine the concentration and spatial distribution of potential contaminants of concern in the Made Ground in the locale around WS105 located in the northwestern part of the site;
- Determine the chemical composition and properties of the shallow Made Ground soils;
- Determine the nature and extent of any hydrocarbon impacts in the vicinity of previously recorded elevated results of concern;
- Undertake a *preliminary* soils waste classification and waste disposal route determination.
- Provide additional asbestos in soils data and obtain a sample of suspected asbestos containing material associated with the membrane located beneath the pre-existing concrete slab.
- Conduct supplementary human health risk assessment on the reported concentrations.

In the previous Tier Environmental ground investigation undertaken in November 2024, the sample reference WS105 at 0.60m bgl recorded elevated TPH concentrations that resulted in the material being classed as hazardous waste. As a result, the samples taken within this investigation were targeted on a grid pattern surrounding this location and targeting the same granular Made Ground material that the hazardous result was recorded within, in order to delineate its lateral extent. The vertical extent of the hazardous waste was determined by examining the soil populations encountered within that log and the representative sampling of the underlying population of soil as described below where it can be seen that the vertical extent was delineated by the presence of the underlying non-hazardous suspected PFA materials.

Figure 4-1 WS105 Log Extract





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5. GROUND CONDITIONS

The following section provides a summary of the ground conditions encountered during the ground investigation including strata profile, obstructions and visual / olfactory evidence of contamination. Exploratory hole logs are provided in Appendix B.

Photographs of these supplementary ground investigation works are provided in Appendix D.

5.1. Strata Descriptions

The aim of this supplementary ground investigation was to delineate the extent of potential materials classed as hazardous waste due to a previously recorded elevated TPH concentration from sample location WS105 (at 0.60m bgl). This material was encountered within MG2 (Gravel) and as such the strata descriptions of this report have been aligned with those presented in the Tier Environmental Ground Investigation Report. As some strata (e.g. MG1 (Made Ground Topsoil) and those below MG3 (Silt - Possible PFA)) were not encountered within the supplementary ground investigation, these stratum have not been included within the below strata descriptions for the supplementary ground investigation.

Made Ground – Hardstanding

ASPHALT Black high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	
Locations encountered	All locations
Depths encountered from top of stratum (range)	Ground level
Depths encountered to base of stratum (range)	0.05m to 0.22m bgl
Thickness (range)	0.05m to 0.22, but generally around 0.11m
Spatial location on site	Within the car park and drop off lane across the site

CONCRETE (generally encountered in 3 layers as below) Layer 1: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar. Layer 2: Strong, bluish grey, medium aggregate CONCRETE. Aggregate is fine to medium, subangular of limestone. No rebar. Layer 3: Strong, grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. Rare rebar approximately 5mm Ø at 0.36m bgl. Thin black plastic/rubber layer at base.	
Locations encountered	All locations except WC201 to WC205, WC213, WC214, WC222
Depths encountered from top of stratum (range)	0.05m to 0.22m bgl
Depths encountered to base of stratum (range)	0.14m to >1.10m bgl (0.60m bgl where proven). Base not encountered within WC219, WC223, WC226, WC231 to WC233
Thickness (range)	0.07m to 0.52m (where proven). Generally approximately 0.30m thickness
Spatial location on site	Within the car park (not encountered within the drop off lane)



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Made Ground – MG2 (Gravel)

Locations encountered	All locations except WC219, WC223, WC226, WC231 to WC234 where the base of the concrete was not encountered). Also not encountered within WC228
Depths encountered from top of stratum (range)	0.05m to 0.22m bgl
Depths encountered to base of stratum (range)	0.41m to 0.77m bgl
Thickness (range)	0.05m to 0.57m
Spatial location on site	Widespread across the site
General description	Dark brown to greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subangular of brick, concrete, sandstone, limestone, occasional clinker/slag, rare plastic and metal. Compacted/medium dense, reddish brown to dark brownish grey, slightly sandy to sandy, slightly clayey to clayey, slightly ashy to ashy, GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, concrete, limestone and occasional clinker. Reddish brown, fine to coarse, angular GRAVEL of crushed brick and rare concrete. Grey, fine to coarse, subangular to subrounded GRAVEL of concrete and limestone (generally recorded as subbase beneath concrete) Gravel often recorded to contain occasional cobbles of concrete, brick, sandstone

Made Ground – MG3 (Silt – Possible PFA)

Locations encountered	All locations except WC219, WC223, WC226, WC231 to WC234 where the base of the concrete was not encountered).
Depths encountered from top of stratum (range)	0.42m to 0.77m bgl
Depths encountered to base of stratum (range)	Not proven within the supplementary investigation (see previous Tier Environmental Ground Investigation Report for further details)
Thickness (range)	Not proven within the supplementary investigation (see previous Tier Environmental Ground Investigation Report for further details)
Spatial location on site	Widespread across the site
General description	Medium dense to dense, grey slightly sandy SILT. It is anticipated that the Made Ground Silt may represent a former PFA ground improvement layer for the previous building within the car park area, which may have been cement stabilised to provide a suitable development platform following the infilling of the former watercourse

5.2. Obstructions

The following potential obstructions were encountered during the original 2024 ground investigation works, with the additional obstructions encountered within the supplementary ground investigation works added in red text.



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Table 5-1 Obstructions Summary Table

Exploratory Hole Location	Location on Site	Depths recorded from (m bgl)	Depth of Base of Feature (m bgl)	General description and comments
HDP102	Northeast	0.60	0.87	Concrete footing of retaining wall from 0.60m to 0.87m in north face of pit.
HDP104	Southeast	0.05	>1.07	Concrete from 0.05m to beyond base of pit at 1.07m in southern pit wall.
		0.67	1.07	Grey CONCRETE. Hand drilled through to find base of concrete slab.
HDP105	East	0.82	1.52	Concrete foundation of brick wall encountered from 0.82 to 1.52m bgl. Hand dug pit terminated at 1.20m bgl, hand drilled through concrete final base.
RH101	Northwest	0.50	0.70	Red brick.
RH101A	Northwest	0.45	0.54	Red brick.
		2.20		Possible metal reported by drillers, drill bit slipping, can't grip to cut through. SPT refusal, no progress. Terminated on possible metal obstruction.
RH103	Northeast	6.50		Loss of flush. Core barrel stuck and loss of drill bit (possible cast iron).
RH103A	Northeast	6.00	6.50	Loss of flush, drilling rods dropped to 6.50m bgl, core barrel sticking on possible cast iron.
RH103B	Northeast	0.28	>0.30	Red BRICK (possible footing)
SA01	Northwest	1.98		Possible cobbles and boulders at base of pit
WS102	Northwest	0.61	>0.82	Brick cobbles
WS102A	Northwest	0.67	>0.69	Brick cobbles
WS103	Northwest	0.52	>0.61	Sandstone cobbles
WS103A	Northwest	0.80	>0.85	Sandstone cobbles
WS103B	Northwest	0.80	>0.82	Brick cobbles
WS106	North	3.80	4.10	No recovery, assumed Made Ground cobbles
WS107	North	1.33	>1.34	Possible brick/concrete obstruction
WS108	Centre	0.79		Refusal on possible obstruction
WS110	Centre	0.65	0.66	Brick
WS113	Northeast	0.55	>0.61	Cobbles of brick and occasional concrete
WS113B	Northeast	0.67	>0.71	Cobbles of concrete and brick
WS115	Northeast	0.60	>0.62	Cobbles of concrete and brick
WS115B	Northeast	1.40	>1.46	Cobbles of sandstone and concrete
WS116	East	0.90	1.10	Brick cobbles
		2.60	3.00	
WS117	Southeast	2.10	2.38	Red crushed brick
		2.89	>2.90	Refusal on suspected brick
WS118	Southeast	0.42	>0.43	Concrete cobbles
WS118A	Southeast	0.56	>0.57	Concrete cobbles
WS118B	Southeast	0.52	>0.56	Cobbles of sandstone, brick and concrete
WC208	North	0.44	>0.45	Obstruction – possible brick
WC209	North	0.43	>0.44	Concrete obstruction
WC210	North	0.41	>0.42	Cobbles of sandstone and concrete
WC218	Centre	0.55	>0.56	Brick obstruction



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Exploratory Hole Location	Location on Site	Depths recorded from (m bgl)	Depth of Base of Feature (m bgl)	General description and comments
WC219	Centre	0.29	>0.30	Suspected concrete (core snapped off and remainder could not be removed from core hole)
WC220	Centre	0.59	>0.60	Brick obstruction
WC223	West	0.22	>0.31	Stepped concrete obstruction
WC226	Centre	>1.10		Concrete – hand drilled from 0.56 with concrete extending beyond reach of drill at 1.10m bgl
WC230	Southwest	0.52	>0.53	Concrete obstruction in centre of pit
WC231	Southwest	0.46	>0.90	Concrete, sloping down to 0.46m bgl. Core not recoverable. Hand drilled to 0.90m bgl with concrete continuing beyond this depth.
WC232	Southwest	0.46	>1.00	Stepped concrete obstruction. Cored to 1.00m bgl but unable to break off / recover core due to further concrete beyond base.
WC233	Centre	0.77	>0.86	Concrete over northern half of borehole.
WC234	Centre	0.42	>0.49	Stepped concrete obstruction 0.42m bgl north of hole, 0.49m bgl south.

A geophysics survey was also previously undertaken for the site which has recorded areas of potential obstructions other than those encountered in the table above, and is included within the Tier Environmental Ground Investigation Report.

5.3. Visual and Olfactory Evidence of Contamination

A summary of visual and/or olfactory evidence of contamination and/or pertinent anthropogenics noted during the previous Tier Environmental investigations is summarised in Table 5-2 below, with additional observations from this supplementary ground investigation added in red text.

Table 5-2 Visual and/or Olfactory Evidence of Contamination Summary

Exploratory Hole Location	Location on Site	Depth Range (m bgl) Encountered From	Depth Range (m bgl) Encountered To	Description
CP101	Centre	0.21	0.50	Frequent gravel sized silt pockets with white coating.
CP102	East	4.20	5.40	Ashy gravel
CP103	Southwest	2.20	3.40	Rare gravel of coal/ash
		5.10	6.50	Ashy gravel with slight organic odour
CP104/RH102	Centre	0.35	0.80	Frequent gravel sized silt pockets with white coating.
HDP101	Northwest	0.13	0.54	Ashy gravel
HDP102	Northeast	0.15	0.45	Ashy gravel
WS111	Centre east	0.50	0.65	Ashy gravel
WS112	Southeast	0.60	1.10	Slightly ashy gravel
		2.15	2.40	Gravel of brick, ash, possible clinker
WS116	East	1.10	1.85	Slightly ashy gravel
WC202	North	0.42	0.50	Slightly ashy gravel and rare timber fragments
WC203	North	0.35	0.47	Slightly ashy gravel



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Exploratory Hole Location	Location on Site	Depth Range (m bgl) Encountered From	Depth Range (m bgl) Encountered To	Description
WC205	West	0.32	0.48	Slightly ashy gravel
WC211	Centre	0.36	0.50	Ashy gravel
WC214	West	0.22	0.39	Asphalt with slight tar odour with 'shiny' pockets
WC225	Centre	0.45	0.49	Thin black plastic / rubber DPM at base – split open by coring action to expose fibrous material between plastic/rubber outer
WC228	Centre	0.44	0.49	Thin black plastic / rubber (DPM) layer (degraded to large fibrous pieces present within underlying gravel) at base of concrete

It should be noted that the thin black plastic/rubber possible DPM encountered at the base of the concrete within WC225 at 0.45-0.49m bgl generally looked the same as the thin black plastic/rubber possible DPM noted to be widespread across the site, except that it appeared to be locally thicker within WC225 and as a result had been torn apart by the coring action. A similar material was also noted to be degraded to fibrous pieces present within the underlying Made Ground within WC228 at 0.44m to 0.49m bgl. In all other locations it was noted to be approximately 2mm thick, and was in generally good condition, being removed intact from the core hole and generally removable from the base of the concrete core.

5.4. Groundwater Observations During Fieldwork

Groundwater was not encountered within the supplementary ground investigation, likely due to the shallow depth exploratory holes were terminated at. For further information regarding the groundwater regime at the site, reference should be made to Sections 6.4 and 6.5 of the Tier Environmental Ground Investigation Report.



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6. HUMAN HEALTH RISK ASSESSMENT

The results of chemical analysis are presented in full in Appendix C.

6.1. Data Interpretation Approach

The analytical data obtained were reviewed for completeness and consistency. The data for each sample type was then compiled, screened against the Generic Assessment Criteria (GACs) for a commercial land use and those potential contaminants of concern which were found to exceed the GACs were then subjected to detailed analysis as described below.

Previously, it was possible for results from soil (and leachate) samples to be subject to statistical assessment in accordance with a 2008 guidance document (CL:AIRE / CIEH Guidance on Comparing Soil Contamination Data with a Critical Concentration). This guidance has now been withdrawn and replaced with the following document:

- Professional Guidance: Comparing Soil Contamination Data with a Critical Concentration (CL:AIRE 2020)

The purpose behind statistical assessment is ultimately to determine whether concentrations of contaminants are at levels that present potential risk to the future site users (and the wider environment if the statistical assessment is conducted on leachate test results).

The new guidance places even greater emphasis and reliance on the desk study being carried out first, appropriately detailed sampling strategies, collection and testing of samples for contamination and use of appropriate screening criteria.

The guidance requires an increased number of criteria to be met before a robust statistical assessment can be conducted and introduces the principle of the Central Limit Theorem (CLT); a key tool of statistics that is used in the comparison of confidence intervals with the critical concentration. A common 'rule of thumb' is that the CLT will apply provided your sample size is between 20 and 50.

On this basis, Tier Environmental considers that statistical assessment in accordance with the CL:AIRE 2020 guidance may not be applied in this instance given that the number of samples obtained is below 20 No. for any given identified soil population.

Due consideration of the ground conditions, distinct identifiable populations of soil and proposed development layout has been undertaken and, where appropriate, laboratory results associated with discrete populations or 'hotspots' have been assessed separately.

6.2. Selection of Generic Assessment Criteria (GAC)

In short, for the majority of the contaminants of concern, LQM/CIEH Suitable 4 Use Levels (S4ULs) published in 2015 have been adopted as GACs for a commercial land use; however, further details on the hierarchical approach for the selection of the GACs used as screening criteria for this assessment is provided in Appendix F.

These values are considered as appropriate screening criteria as they incorporate updated assumption exposures derived for the production of C4SLs but within the context of deriving screening criteria above which assessment of the risks or remedial action may be needed (i.e. within the context of the planning regime rather than Part 2A context for which C4SLs were derived).

For those potential contaminants of concern where the selected GAC is dependent on Soil Organic Matter content (SOM), an assumed SOM of 2.5% has been selected based on the reported Total Organic Carbon (TOC) concentrations (which have been converted to SOM by dividing by a conversion



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factor of 0.58). It should be noted; however, that for any soil samples where the TOC may be artificially driven by the presence of petroleum hydrocarbons, that these TOC results have been removed from the data set when determining an appropriate characteristic SOM. For this purpose, Tier Environmental have notionally considered that any TOC results from soil samples where the measured total TPH concentration exceeds 500mg/kg should be removed.

6.3. Human Health Risk Assessment

No measured concentrations of potential contaminants of concern have been reported in excess of the respective GACs protective of human health for a commercial land use.

It is understood that site levels are to be raised, and therefore it is unlikely that materials will be excavated and reused elsewhere on site. Therefore, as a worst case scenario in the event that materials are re-used within soft landscaped areas, further sensitivity analysis has been undertaken using Public Open Space (POS) Park GACs. When comparing the results to these more sensitive GACs, again no measured concentrations of potential contaminants of concern have been reported to exceed the screening criteria.

In accordance with the 'The LQM/CIEH S4ULs for Human Health Risk Assessment' (2015), in order to consider the additive effects of all the hydrocarbon fractions, the LQM/CIEH S4ULs should be used to calculate an individual Hazard Quotient (HQ) for each fraction. The HQs can then be added to form a Hazard Index (HI) for petroleum hydrocarbon. Where the HI exceeds unity this can indicate a potentially significant risk to human health. Due consideration has also been given of 'The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils' (reference: Science Report P5-080/TR3, Environment Agency, dated 2005) which states "Depending on circumstances, where a [GAC] is exceeded the site assessment can proceed to a site-specific risk assessment and/or directly to remediation. However, even where SGVs for individual fractions are not exceeded, potential additivity of toxicological effects between the fractions means that a significant possibility of significant harm could exist.....Where the HI exceeds unity, this can indicate a potentially significant risk to human health and the investigation proceeds to the next stage (remediation or further assessment)".

In order to conduct "further assessment", Tier Environmental has considered the text included in the Environment Agency 2005 document that states "Fractions exhibiting different toxicological properties might be excluded from the hazard index". Calculating separate hazard indices for different TPH fractions is a recognized and legitimate approach supported by the TPHCWG guidance and other regulatory frameworks. It allows for a more accurate assessment of potential health risks, given the varied properties of the hydrocarbon fractions.

Tier Environmental has therefore considered the following fractions separately owing to their toxicological relevance and risk-based prioritisation:

- Aliphatic (ali) C8-C16 Fraction: This range includes hydrocarbons that are relatively more volatile and may present a risk through inhalation exposure, dermal contact, and ingestion. This fraction is often considered when evaluating the potential for acute and chronic health effects due to its intermediate volatility and mobility
- Aromatic (aro) C8-C16 and C16-C35 Fractions: Aromatic hydrocarbons are generally more toxic than aliphatic hydrocarbons. The C8-C16 range includes lighter aromatics, which can be more volatile and potentially more hazardous in terms of inhalation risk. The C16-C35 range includes heavier, less volatile aromatics, which may present different exposure risks, primarily through soil ingestion or dermal contact."

The hazard indices calculated for 1) all fractions, and 2) fractions exhibiting different toxicological properties, have both been found to exceed 1 locally at WS215 (0.30m bgl) for Public Open Space (Park) land use only, and not for commercial land use. As such, it is considered that the measured concentrations of TPH (when additive effects are considered) represents a potential risk to human health for this land use; however, this is located within an area of proposed building / hardstanding and in an area where levels are set to be increased such that the commercial land use criteria can be appropriately applied in this instance to demonstrate that the TPH concentrations in this area do not represent a potential risk to the end-users.



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It should be noted that further confidence in this conclusion is provided by virtue of all other reported TPH concentrations being below the individual GACs and the hazard indices (calculated considering the additive effects of all the hydrocarbon fractions) not exceeding 1. Therefore, it is considered that TPH reported during this supplementary investigation work does not present a risk to human health for the proposed land use.

Asbestos

Asbestos can be present in soil as fragments of bulk Asbestos Containing Materials (ACMs) (e.g. asbestos cement sheeting) and also as discrete asbestos fibres within the soil matrix. This investigation has carried out assessments to determine whether both bulk fragments and / or fibres are present in the soil at the site. The asbestos assessment commenced on site with inspection of the Made Ground by our suitably qualified supervising engineer for the presence of bulk ACMs.

A suspected ACM was visually observed within the DPM layer beneath the concrete at WC225. The DPM appeared visually to be thicker than encountered elsewhere and as a result had torn during the coring action, allowing the inner materials to be observed as fibrous. As a result, a sample of the material was sent to the laboratory for confirmatory asbestos screening. It should be noted that this DPM appeared visually consistent with the membrane encountered beneath the pre-existing concrete slab with a rubber/plastic layer observed at the top and bottom of the DPM. In all other locations it was noted to be approximately 2mm thick, and was in generally good condition, being removed intact from the core hole and generally removable from the base of the concrete core.

Of the 33 No. samples of Made Ground submitted for asbestos screening from the supplementary ground investigation, 13 No. were reported to contain asbestos. The asbestos summary table from the Tier Environmental Ground Investigation Report has been reproduced as Table 6-1 and Table 6-2 below, with the positive identifications from the supplementary ground investigation added in red text in below. The resulting total of samples identifying asbestos to be present is 23 No. of 51 No. samples tested over both investigations.

Table 6-1 Summary of ACM Encountered During Fieldworks

Exploratory Hole Location	Depth (m bgl)	Location on Site Description	Soil Population	Asbestos Type
WC225	0.45-0.49	Centre (beneath proposed building footprint)	DPM at base of concrete slab, noted to be locally thickened and torn as a result of coring	Chrysotile bitumen

Table 6-2 Summary of Asbestos Assessment

Exploratory Hole Location	Depth (m bgl)	Location on Site Description	Soil Population	Asbestos Type	Quantification (% w/w)
WS103A	0.40	Northwest (proposed car park with soft landscaping)	MG5 (gravelly sand)	Chrysotile and amosite fibre bundles	<0.001
WS105	0.60	Centre (beneath proposed building footprint)	MG2 (gravel)	Chrysotile fibre bundles and bitumen products	0.019
WS106	1.00	North (north of proposed building footprint)	MG2 (gravel)	Chrysotile and amosite fibre bundles	0.03



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Exploratory Hole Location	Depth (m bgl)	Location on Site Description	Soil Population	Asbestos Type	Quantification (% w/w)
WS108	0.70	Centre east (beneath proposed building footprint)	MG2 (gravel)	Chrysotile and amosite fibre bundles and ACM debris	0.017
WS113B	0.35	Northeast (proposed car park with soft landscaping)	MG4 (clay)	Chrysotile and amosite fibre bundles	<0.001
WS114	0.50	East (east of proposed building footprint)	MG2 (gravel)	Chrysotile and amosite fibre bundles and ACM debris	0.021
WS115B	0.90	Northeast (proposed soft landscaped area)	MG3 (silt)	Chrysotile and amosite fibre bundles	0.002
WS116	1.90	Southeast (east of proposed building footprint)	MG3 (silt)	Chrysotile fibre bundles	<0.001
WS117	2.20	East (southeastern current soft landscaped area not to change)	MG2 (gravel)	Amosite fibre bundles	<0.001
WS117	2.40	East (southeastern current soft landscaped area not to change)	MG5 (gravelly sand)	Chrysotile and amosite fibre bundles	<0.001
WC204	0.45	North (north of proposed building footprint)	MG2 (gravel)	Chrysotile and amosite fibre bundles	<0.001
WC206	0.60	West (west of proposed building footprint)	MG2 (gravel)	Chrysotile free fibres	<0.001
WC207	0.40	West (beneath proposed building footprint)	MG2 (gravel)	Chrysotile and amosite fibre bundles	0.001
WC208	0.40	West (beneath proposed building footprint)	MG2 (gravel)	Chrysotile fibre bundles, amosite free fibres	<0.001
WC209	0.40	Centre (beneath proposed building footprint)	MG2 (gravel)	Chrysotile fibres and bitumen products (ACM)	0.075
WC212	0.48	Centre (beneath proposed building footprint)	MG2 (gravel)	Chrysotile fibre bundles	<0.001
WC213	0.35	West (west of proposed building footprint)	MG2 (gravel)	Chrysotile and amosite fibre bundles	0.004
WC214	0.50	West (west of proposed building footprint)	MG2 (gravel)	Chrysotile fibre bundles	<0.001
WC216	0.55	Centre (beneath proposed building footprint)	MG2 (gravel)	Chrysotile fibre bundles	<0.001
WC220	0.55	Centre (beneath proposed building footprint)	MG2 (gravel)	Chrysotile fibre bundles	<0.001
WC222	0.45	West (west of proposed building footprint)	MG2 (gravel)	Amosite fibre bundles	<0.001
WC227	0.60	South (south of proposed building footprint)	MG2 (gravel)	Chrysotile fibre bundles and bitumen products (ACM), amosite fibre bundles	0.023

6.4. Update to Asbestos DQRA

Asbestos DQRA Summary

It was conservatively assumed that worst case exposure would occur during digging and landscape maintenance activities. Landscape maintenance workers were assumed, very conservatively, to conduct activities in landscaped areas under dry and dusty conditions for an average of 1 hour per day



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for 68 days per year (FiTi) consistent with the approach in example 13.3 in CIRIA C733 and based on the average rainfall for Rochdale between 1991 and 2020. It was also conservatively assumed that a commercial worker may work on the site from age 15 to retirement. The following cumulative and total risks were calculated based on these assumptions:

- The cumulative risk for mesothelioma was calculated as 0.48 per 100,000 over a lifetime of 80 years, whilst the cumulative risk for lung cancer was calculated as 0.062 per 100,000 over a lifetime of 80 years.
- This exposure-risk model can be used to investigate the significance of potential exposures in terms of likely ELCR. The ELCR of 1:100,000 is generally considered the limit of minimal risk; however, uncertainties need to be treated carefully if unrealistically cautious assessments are to be avoided.
- The above mesothelioma and lung cancer risk calculations provides a total risk of 0.54 per 100,000 over a lifetime of 80 years with significant conservatism built into the model.

On this basis, it was considered that the reported concentrations of chrysotile and amosite asbestos within the Made Ground materials would present a minimal risk for the proposed commercial land use, including soft landscaped areas.

Tier Environmental have responded to comments from the Contaminated Land Officer in regard to assumptions made within the Asbestos DQRA (amongst other comments relating to the Ground Investigation Report). The response letter (Report Ref: TE1880-TE-00-XX-CO-GE-001-V01, dated 17th April 2025) has been included as Appendix E.

Additional Test Results

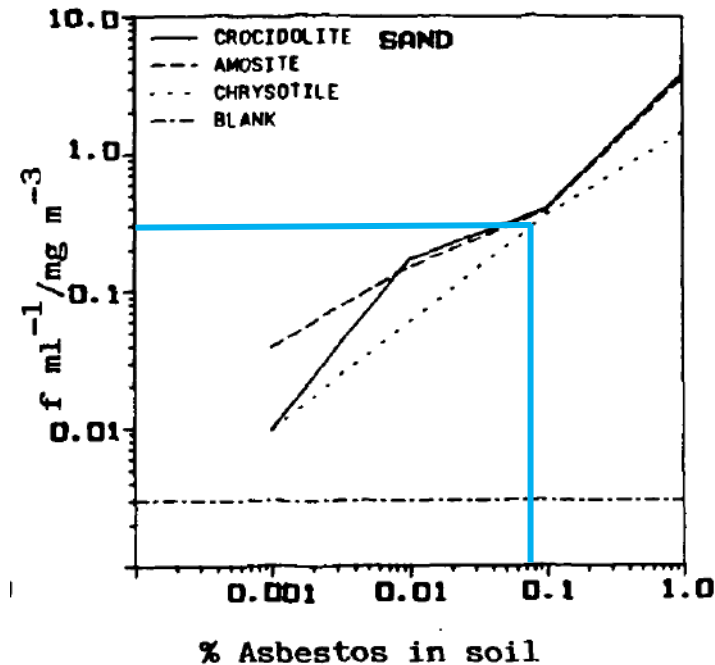
Of the 33 No. samples of Made Ground submitted for asbestos screening from the supplementary ground investigation, 13 No. were reported to contain asbestos. The resulting total number of samples across both this and the Tier Environmental Ground Investigation Report identifying asbestos to be present is 23 No. of 51 No. samples.

Previously within the 2024 Ground Investigation Report, the highest reported concentration of asbestos was recorded as 0.03% w/w comprising chrysotile and amosite fibre bundles (at WS106 at 1.00m bgl). Within Table 6-2 above, only 1 No. sample is noted to exceed this concentration (WC209 at 0.40m bgl), with an asbestos concentration of 0.075% w/w comprising chrysotile fibres and bitumen products.

The previous risk assessment tool was run with a worst case assumption of amosite asbestos fibre bundles at a concentration of 0.03% w/w. The tool has been rerun with the same assumptions (in regard to weather, receptor exposure type and timeframe) but with the higher concentration of chrysotile fibres at 0.075%w/w in order to update the risk assessment following receipt of these supplementary results.

Figure 7 from Addison et al (1988) has been used to estimate the normalised airborne respirable fibre concentration (f/ml) for chrysotile asbestos (based on the highest asbestos concentration type from the additional asbestos screen results i.e. chrysotile) assuming a sand soil type. The maximum reported concentration is 0.075% w/w from WC209 at 0.40m bgl.

Figure 6-1 Variations in the Normalised Airborne Respirable Fibre Concentrations (f ml⁻¹/mg m⁻³) in Relation to Bulk Asbestos Content (Sand Soils)
Reproduced from Figure 7 Addison et al (1988)



Taking the maximum reported chrysotile concentration reported in the soil during the supplementary investigation works and assuming worst case that it comprises solely chrysotile, the graph gives a normalised fibre concentrations of 0.30 f/ml mg/m³ (shown in blue on Figure 6-1 above).

As such, when the value derived for chrysotile and the concentration of soil dust is taken into consideration then an airborne fibre concentration during such activities in a dry and dusty conditions has been estimated to be 0.030 f/ml (Ci) and assumed to be insignificant at other times.

The release of airborne asbestos is also strongly influenced by soil moisture content, with the addition of 5% moisture reducing potential airborne asbestos by 80% to 95%, with no fibres being detected at above 15% moisture content (as described on page 64 of CIRIA C733). The average moisture content of the samples obtained across the site was reported as 22.99%. It is not unreasonable to assume as a worst-case scenario that the soils could lose half of their natural moisture content, i.e. the soils drying out to c. 11.5% in the summer months, close to the surface. This has the effect of reducing the potential airborne asbestos (Ci) by a minimum of 80% which would equate to 0.006 f/ml.

Using the same exposure Scenario for the Critical Receptor as described within Section 4.4 of the Asbestos DQRA, the following risks can be calculated with the updated asbestos results:

- The cumulative risk for mesothelioma is calculated as 0.0066 per 100,000 over a lifetime of 80 years.
- The cumulative risk for lung cancer is calculated as 0.0016 per 100,000 over a lifetime of 80 years.
- The above mesothelioma and lung cancer risk calculations provides a total risk of 0.0082 per 100,000 over a lifetime of 80 years with significant conservatism built into the model.
- On this basis, it is considered that the additional and previously reported concentrations of chrysotile and amosite asbestos within the Made Ground materials will present a minimal risk for the proposed commercial land use, including soft landscaped areas.

Based on the above, no further updates to the Updated Conceptual Site Model presented within Section 5 of the Asbestos DQRA are required.



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It should be noted that the above relates to asbestos within soils, and therefore is not applicable to the bitumen ACM recorded within the DPM at WC225 which should be considered separately as an Asbestos Containing Material that should be segregated and removed during enabling works.

6.5. Construction and Maintenance Workers

Contamination may pose a short-term (acute) or long-term (chronic) risk to workers during construction and maintenance. The potential risks must be specifically assessed as part of the health and safety evaluation for the works to be performed in accordance with prevailing legislation. Site practices must conform to the specific legislative requirements and follow appropriate guidance (e.g., HSE, 1991; CIRIA, 1996).

On the basis of the results obtained, the following potential exposure risks to construction and maintenance workers have been highlighted:

- Localised elevated benzo(a)pyrene (from previous Tier Environmental Ground Investigation) – Minor exceedance (13.24mg/kg) within the same order of magnitude as the GAC for POS Park (12mg/kg). Note that this is not elevated when compared to the GAC for commercial end use (35mg/kg).
- Asbestos within the Made Ground – chrysotile and amosite fibre bundles, bitumen products and ACM debris at a maximum concentration of 0.075% w/w.

As asbestos has been reported at concentrations potentially above 0.001% w/w (i.e. above 'trace' levels), the Control of Asbestos Regulations 2012 should be adhered to. A summary of complying with CAR: risk assessments, licensing and training is provided in Appendix H.



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7. PRELIMINARY WASTE MATERIALS CLASSIFICATION AND WASTE DISPOSAL ROUTE DETERMINATION

7.1. Introduction

If the site is to be redeveloped and materials are disposed off site, the material exported from the site to Landfill should be hauled by a register waste carrier in accordance with Duty of Care Regulations 1991 and the Hazardous Waste Regulations 2005.

There will be requirement for the waste producer to provide appropriate Waste Acceptance Criteria (WAC) testing of the Soils for disposal to ensure that the soils are appropriately classified and that the landfill is licensed to receive such soils. Mixing of hazardous and non-hazardous waste is not permitted. For any hazardous wastes, a consignment note shall be completed, signed, and retained by all parties involved. The consignment note shall state the volume of waste, a physical description of the material and statement of its chemical composition. The waste consignment notes shall be kept by the contractor for a period of at least two years. For non-hazardous wastes, a Waste Transfer Note (WTN) shall be completed. The WTN should be signed and a copies should be kept by the contractor for a period of at least two years. Finally, consignment notes and WTNs shall be shown to an enforcement officer from the local council or the Environment Agency, if asked.

Approach to Assessing Hazard Properties

Flammability and Oxidisability

For any samples flagged as possessing hazardous properties flammability and oxidisability, for which there are no thresholds, Tier Environmental has used professional judgment and on-site observations to decide whether the waste soil, as a whole, is likely to be flammable or oxidising. It should be noted that flammability/oxidisability alone are unlikely to result in a hazardous classification for waste soil.

Worst Case Metal Compounds

The choice of an appropriate worst case metal compound in soil has been made on the basis of the available lines of evidence. For example, if laboratory chemical analysis has demonstrated that no measured concentrations of hexavalent chromium have been reported in excess of the laboratory method detection limit, there it would be regarded as evidence of an absence of a soil source of hexavalent chromium. In such an instance, the worst case metal chromates may be replaced in favour of the next worst case metal compound.

pH

For samples that have been determined as hazardous based on pH alone and cement/concrete has been identified in the sample, Tier Environmental may assume that the high pH was due to the crushing process in the laboratory and is not representative of the waste as a whole. If further detailed determination of this is required then Tier Environmental recommend that such assessment is carried out on these results in a manner described in the AGS Waste Classification for Soils – A Practitioners' Guide (dated 2019):

- Consideration of the acid/alkali reserve to be conducted (as described in WM3 Appendix C4 and C8).
- If large enough, the cement/concrete fraction may be separated manually before testing. Waste concrete from construction and demolition which doesn't contain hazardous substances is non-hazardous (LoW code 17-01-01).
- If cement/concrete has been identified in the sample, a second analysis may be conducted on an 'as received' sample, avoiding the need for crushing before testing. The high pH is typically associated with the finer fractions of cement. If the 'as received' sample has an



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acceptable pH, this provides additional confidence that the high pH was due to the crushing process and is not representative of the waste as a whole.

Asbestos

With respect to asbestos, if the waste contains fibres that are free and dispersed then the waste will be hazardous if the waste as a whole contains 0.1% w/w or more asbestos in accordance with WM3. If the waste contains any identifiable pieces of suspected asbestos containing material (i.e. any particle of a size that can be identified as potentially being asbestos by a competent person if examined by the naked eye), then these pieces must be assessed separately. The waste is hazardous if the concentration of asbestos in the piece of asbestos containing material is 0.1% w/w or more. The waste shall then be regarded as a mixed waste and classified accordingly.

The following codes will then be assigned to the asbestos waste as appropriate:

- 17 06 05* Construction material containing asbestos.
- 17 06 01* Insulation material containing asbestos.

17 06 05* would normally be used in preference to 17 06 01* for the asbestos in asbestos contaminated soil and stones in accordance with WM3.

Tier Environmental Geoenvironmental engineers hold up to date UKATA Asbestos Awareness training certificates in order to demonstrate 'competence' that is required as described in WM3.

Flammable Liquid Waste

Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As such, in those instances where materials are classified as hazardous based on this alone and no free phase product is encountered, it is considered that the materials may be regarded as being non-hazardous. Please note that the table below includes a column to show whether free phase product has been encountered within the sample location.

7.2. Preliminary Waste Materials Classification and Waste Disposal Route Determination

Tier Environmental have assessed the chemical results in terms of basic waste characterisation of materials on site. This provides a preliminary assessment of whether a material is potentially non-hazardous or hazardous waste. In addition, Waste Acceptance Criteria (WAC) testing has been carried out on selected samples with a determination made as to the appropriate waste disposal route in each case.

The previous results of the preliminary assessment undertaken within the Tier Environmental 2024 ground investigation have been reproduced below, with the results of this preliminary assessment summarised in red text within the following table.

Natural Soils / Bedrock

Representative samples of natural soils were obtained during the previous Tier Environmental 2024 ground investigation. No further samples of natural soils were obtained during the supplementary works, and as such the previous conclusions remain.



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Table 7-1 Preliminary Materials Waste Classification and Waste Disposal Route Determination

Exploratory Hole Location	Sample Depth (m bgl)	Simplified Description of the Sample	Basic Waste Characterisation Result	If 'Potentially Hazardous': Is it Possible to Demonstrate the Material is Non-Hazardous?	If the material is Hazardous – What is the Driver for Hazardous Waste Classification?	Asbestos Presence, Type and Quantification	WAC Sample Available?	Soil Waste Disposal Route Determination
WS114	0.50m	MADE GROUND: Greyish brown, slightly sandy, clayey GRAVEL with medium cobble content. Sand is fine to medium, gravel is fine to coarse, subangular to angular of brick, sandstone, slate and limestone of slag. Cobbles are angular of brick and concrete	Potentially Hazardous Waste	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour."). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	Chrysotile and Amosite fibre bundles and ACM debris - 0.002% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS108	0.70m	MADE GROUND: Dark greyish black, slightly clayey, sandy GRAVEL of fine to coarse, angular to subangular of mixed lithologies including brick, sandstone, rare plastic and metal	Non-hazardous	N/A	N/A	Chrysotile and Amosite fibre bundles and ACM debris - 0.017% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS109	0.40-0.60m	MADE GROUND: Very stiff, light grey, slightly gravelly SILT. Gravel is fine to medium, angular of brick. (possible PFA)	Non-hazardous	N/A	N/A	Not analysed.	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS111	0.80m	MADE GROUND: Very stiff, light grey, slightly sandy, slightly gravelly SILT. Gravel is medium to coarse, angular to subangular of brick. Refusal of core barrel at 0.80m bgl. (possible PFA) MADE GROUND	Potentially Hazardous Waste	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour."). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected.	Yes	Materials should be disposed to a non-hazardous waste facility due to elevated selenium and arsenic in excess of the inert waste landfill WAC threshold.
WS116	1.90m	MADE GROUND: Firm, dark grey, gravelly CLAY/SILT. Gravel is fine to coarse, angular to subangular of brick. (possible PFA)	Potentially Hazardous Waste	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour."). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	Chrysotile fibre bundles <0.001 w/w	Yes	Materials should be disposed to a non-hazardous waste facility due to elevated TOC and sulphate as SO4 in excess of the inert waste landfill WAC threshold.
WS116	3.40m	Loose, brownish grey silty SAND. Wet material between 3.30m and 3.50m bgl.	Non-hazardous	N/A	N/A	No asbestos detected.	No	Natural soils, likely to be suitable for disposal to an inert waste landfill.
WS103A-	0.40m	MADE GROUND: Greyish brown, clayey, gravelly SAND. Gravel is fine to coarse, angular to subangular of brick, sandstone, occasional concrete, timber and rare glass.	Potentially Hazardous	Yes. Driven by 'HP 3(iv): Flammable "flammable gaseous waste"' (hazard statement: Flam. Gas. 1; H220 "Extremely flammable gas."). However, Tier Environmental consider that such a hazard property does not apply to soils and as no flammable properties were observed during the ground investigation (i.e. during sampling) it is considered that the materials above may be regarded as being non-hazardous.	N/A	Chrysotile and amosite fibre bundles <0.001 w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS105	0.60m	MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular crushed brick and rare concrete.	Hazardous	N/A	TPH (C6 to C40) petroleum group (conc.: 0.137%), toluene (conc.: 2.32e-06%), xylene (conc.: 6.02e-07%) & chlorobenzene (conc.: 4.3e-07%)	Chrysotile fibre bundles and bitumen products 0.019% w/w	Yes	Materials are suitable for being disposed of as hazardous waste to a Stable Non-Reactive Hazardous Waste facility.
WS105	0.75m	MADE GROUND: Dense, very compacted, light grey, sandy SILT with occasional fine brick fragments. (possible PFA)	Non Hazardous	N/A	N/A	No asbestos detected.	Yes	Materials should be disposed to a non-hazardous waste facility due to elevated TOC and arsenic in excess of the inert waste landfill WAC threshold.
WS107	0.40m	MADE GROUND: Reddish brown, fine to coarse, angular GRAVEL of crushed brick.	Non Hazardous	N/A	N/A	No asbestos detected.	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS107	0.65m	MADE GROUND: Light grey, friable SILT/SAND (possible PFA)	Non Hazardous	N/A	N/A	Not analysed.	No	Non-hazardous waste landfill, based on WAC results from other samples.



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WS110	0.61m	Greyish brown, sandy, fine to coarse, angular to subangular GRAVEL of brick, limestone and sandstone.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	Not analysed.	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS112	1.20m	MADE GROUND: Medium dense, light grey, friable, silty, slightly gravelly SAND. Gravel is fine to medium, angular of brick. Cobble of brick at 1.50m to 1.60m bgl and 1.90 to 1.92m bgl. (possible PFA)	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected.	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS112	3.35m	POSSIBLE MADE GROUND: Very loose, grey, mottled dark grey, clayey, silty SAND	Non Hazardous	N/A	N/A	Not analysed.	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS113B	0.35m	MADE GROUND: Dark brown, sandy, gravelly CLAY. Gravel is fine to coarse, angular to subangular of brick, concrete, sandstone. Occasional cobbles of brick and sandstone. Cobble content increasing from 0.50m bgl.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	Chrysotile and amosite fibre bundles <0.001% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS115	0.10m	TOPSOIL: Grass over dark brown, slightly silty, sandy LOAM with occasional rootlets. Cobbles of sandstone and brick.	Non Hazardous	N/A	N/A	No asbestos detected.	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS115B	0.90m	MADE GROUND: Grey, stiff, gravelly SILT. Gravel is fine to medium, angular to subangular of brick, occasional concrete. Gravel content increasing around 1.05m bgl. (possible PFA)	Non Hazardous	N/A	N/A	Chrysotile and amosite fibre bundles 0.002% w/w	Yes	Materials should be disposed to a non-hazardous waste facility due to elevated TOC in excess of the inert waste landfill WAC threshold. Fluoride has also been reported at the inert waste landfill threshold.
WS117	1.10m	MADE GROUND: Firm, light grey, sandy SILT. (possible PFA)	Non Hazardous	N/A	N/A	Not analysed.	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS117	0.40m	MADE GROUND: Dark brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subangular of brick, concrete, sandstone, limestone and occasional clinker.	Hazardous	N/A	TPH (C6 to C40) petroleum group (conc.: 0.16%)	No asbestos detected.	No	Maybe suitable for disposal to a stable non-reactive hazardous waste facility based on site-wide WAC results.
WS117	2.40m	MADE GROUND: Dense, dark grey, slightly clayey, gravelly SAND. Gravel is fine to coarse, angular to subangular of brick, occasional concrete, limestone and sandstone.	Non Hazardous	N/A	N/A	Chrysotile and amosite fibre bundles <0.001% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS117	2.20m	Red crushed BRICK	Non Hazardous	N/A	N/A	Amosite fibre bundles <0.001% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WS118	0.20m	TOPSOIL: Grass over, dark brown, slightly silty, sandy LOAM with occasional rootlets	Non Hazardous	N/A	N/A	No asbestos detected.	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC201	0.40	MADE GROUND: Blackish brown, clayey, fine to coarse, angular to subangular GRAVEL of mixed lithologies including brick, sandstone and concrete.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 2; H225 and Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.



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				materials above may be regarded as being non-hazardous.				
WC202	0.45	MADE GROUND: Blackish grey, slightly ashy, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick, limestone, sandstone, concrete and rare timber fragments.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 2; H225 and Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	Yes	Materials should be disposed to a non-hazardous waste facility due to elevated TOC in excess of the inert waste landfill WAC threshold.
WC203	0.40	MADE GROUND: Blackish grey, slightly ashy, slightly clayey GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, limestone, mudstone and coal.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 2; H225 and Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC204	0.45	MADE GROUND: Blackish grey, ashy, fine to coarse, angular to subrounded GRAVEL of mixed lithologies including brick and limestone.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 2; H225 and Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	Chrysotile and amosite fibre bundles <0.001% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC205	0.45	MADE GROUND: Dark grey, slightly ashy, slightly sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, concrete and sandstone.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 2; H225 and Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC206	0.60	MADE GROUND: Dark greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, subangular to subrounded of mixed lithologies including brick, concrete, sandstone and mudstone.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	Chrysotile free fibres <0.001% w/w	Yes	Materials should be disposed to a non-hazardous waste facility due to elevated TOC in excess of the inert waste landfill WAC threshold.
WC207	0.40	MADE GROUND: Dark greyish brown, sandy GRAVEL of fine to coarse, angular to subangular of brick, occasional concrete and mudstone. Rare glass.	Non Hazardous	N/A	N/A	Chrysotile and amosite fibre bundles 0.001% w/w	Yes	Non-hazardous waste landfill, based on WAC results from other samples.
WC208	0.40	MADE GROUND: Dark brownish grey, sandy GRAVEL of fine to coarse, angular to subangular of mixed lithologies including brick, sandstone and concrete.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the	N/A	Chrysotile fibre bundles and amosite free fibres <0.001% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.



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				materials above may be regarded as being non-hazardous.				
WC209	0.40	MADE GROUND: Brownish grey, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional sandstone.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour."). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	Chrysotile free fibres, bitumen products (ACM) 0.075% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples. However the landfill will need to be consulted prior to disposal of the waste due to the asbestos content.
WC210	0.35	MADE GROUND: Dark brownish grey, slightly clayey, sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, sandstone, mudstone and concrete.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour."). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC211	0.40	MADE GROUND: Dark blackish brown, ashy, sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, sandstone and occasional concrete.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour."). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC211	0.55	MADE GROUND: Reddish brown, sandy GRAVEL of fine to medium, angular to subangular brick and concrete.	Non Hazardous	N/A	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC212	0.48	MADE GROUND: Brown, sandy GRAVEL of fine to coarse, angular to subangular brick with occasional concrete.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour."). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	Chrysotile fibre bundles <0.001% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC213	0.40	MADE GROUND: Compacted light brown, sandy GRAVEL of fine to coarse, angular to subangular limestone.	Hazardous	N/A	Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 2; H225 and Flam. Liq. 3; H226 "Flammable liquid and vapour."), 'HP 7: Carcinogenic "waste which induces cancer or increases its incidence" (hazard statements Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard].")', and 'HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell" (hazard statement Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard].")	Chrysotile and amosite fibre bundles 0.004% w/w	No	Hazardous waste landfill, based on WAC results from other samples.
WC214	0.30	MADE GROUND: Black, high aggregate ASPHALT. Slight tar odour with 'shiny' pockets between 0.22m - 0.39m. Aggregate is fine to coarse, angular to subangular of limestone.	Hazardous	N/A	Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour."), 'HP 7: Carcinogenic "waste which induces cancer or increases its incidence" (hazard statements Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure	No asbestos detected	No	Hazardous waste landfill, based on WAC results from other samples.



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					cause the hazard]."), and 'HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell" (hazard statement Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard].")			
WC214	0.50	MADE GROUND: Compacted red, sandy GRAVEL of fine to coarse, angular to subangular brick with occasional cobbles of brick.	Non Hazardous	N/A	N/A	Chrysotile fibre bundles <0.001% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC215	0.40	MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular brick with occasional sandstone. Occasional cobbles of brick.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	Yes	Materials should be disposed to a non-hazardous waste facility due to elevated sulphate as SO4 and total dissolved solids in excess of the inert waste landfill WAC threshold.
WC216	0.55	MADE GROUND: Reddish brown and grey, sandy GRAVEL of fine to coarse, angular to subangular predominantly brick with occasional sandstone and rare ceramic and clinker. Frequent cobbles of brick at base.	Non Hazardous	N/A	N/A	Chrysotile fibre bundles <0.001% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC217	0.50	MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC218	0.50	MADE GROUND: Brownish grey, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded mixed lithologies including brick, sandstone and concrete.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC220	0.55	MADE GROUND: Reddish brown, sandy, fine to coarse, angular to subangular GRAVEL predominantly of brick with occasional sandstone and concrete.	Non Hazardous	N/A	N/A	Chrysotile free fibres <0.001% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC221	0.50	MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular brick with occasional concrete and sandstone.	Non Hazardous	N/A	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC222	0.45	MADE GROUND: Brown, sandy GRAVEL of fine to coarse, angular to subangular of mixed lithologies including limestone, sandstone, occasional brick and concrete.	Hazardous	N/A	Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 2; H225 and Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). 'HP 7: Carcinogenic "waste which induces cancer or increases its incidence" (hazard statements Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard].").', and 'HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell" (hazard statement	N/A	No	Hazardous waste landfill, based on WAC results from other samples.



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					Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard].")			
WC223A	0.50	MADE GROUND: Brown, slightly sandy, fine to coarse subangular GRAVEL of limestone.	Potentially Hazardous	Yes. Driven by ‘HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	Yes	Suitable for disposal at Inert Landfill
WC224	0.50	MADE GROUND: Grey, reddish brown, sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, sandstone, concrete, rare glass and metal wire. Frequent cobbles of brick, granite and concrete	Potentially Hazardous	Yes. Driven by ‘HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC225	0.60	MADE GROUND: Reddish brown/grey, silty, sandy GRAVEL of fine to coarse, angular to subangular brick.	Hazardous	N/A	Driven by ‘HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.") and ‘HP8: Corrosive’ (hazard statement: “pH "Assumed to be irritant/corrosive because of pH value")	No asbestos detected	Yes	Suitable for disposal to as ‘stable non-reactive hazardous waste in non-hazardous landfill’ However, Tier Environmental consider that a HP3 hazard property would apply if free phase product has been reported in the sample, which it has not. Similarly, for hazard property HP8, it is considered that the alkaline pH recorded is likely to be the result of the coring drilling liquid, which would have potentially affected the pH due to the overlying concrete As no free phase product was encountered, and the pH is considered to be affected by the coring through the overlying concrete, it is considered that the materials above may be regarded as being non-hazardous. It is recommended that the contractor approaches a landfill regarding acceptance of this material as non-hazardous waste suitable for disposal at Inert Landfill based on the above prior to disposal of the material
WC227	0.60	MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular, predominantly brick with occasional sandstone.	Potentially Hazardous	Yes. Driven by ‘HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	Chrysotile and amosite fibre bundles and bitumen products (ACM) 0.023% w/w	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC228	0.45	MADE GROUND: Brownish grey, clayey GRAVEL of fine to coarse, angular to subangular mixed lithologies including limestone and sandstone. Surrounding think black plastic / rubber (DPM) layer (degraded to large fibrous pieces)	Hazardous	N/A	Driven by ‘HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). ‘HP 7: Carcinogenic "waste which induces cancer or increases its incidence" (hazard statements Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."), and ‘HP 11: Mutagenic "waste	No asbestos detected	No	Hazardous waste landfill, based on WAC results from other samples.



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Exploratory Hole Location	Sample Depth (m bgl)	Simplified Description of the Sample	Basic Waste Characterisation Result	If 'Potentially Hazardous': Is it Possible to Demonstrate the Material is Non-Hazardous?	If the material is Hazardous – What is the Driver for Hazardous Waste Classification?	Asbestos Presence, Type and Quantification	WAC Sample Available?	Soil Waste Disposal Route Determination
					which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell" (hazard statement Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard].")			
WC229	0.65	MADE GROUND: Compacted reddish brown to grey slightly sandy fine to coarse angular to subangular GRAVEL of brick with rare mudstone and clinker.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC230	0.40	MADE GROUND: Compacted grey SILT with occasional fine to medium angular to subangular gravel of brick.	Non Hazardous	N/A	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC233	0.65	MADE GROUND: Dark bluish grey, sandy GRAVEL of fine to coarse, angular to subangular predominantly brick with occasional concrete and sandstone. Low cobble content of angular brick.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 2; H225 and Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	No asbestos detected	No	Non-hazardous waste landfill, based on WAC results from other samples.
WC234	0.40	MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subangular brick, occasional sandstone, mudstone and concrete.	Potentially Hazardous	Yes. Driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour.>"). However, Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous.	N/A	None detected	No	Non-hazardous waste landfill, based on WAC results from other samples.



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7.3. Updated Soils Waste Classification Discussion

Firstly, it can be confirmed, by virtue of the additional testing conducted in the immediate vicinity of WS105 (at locations labelled WC217, WC218, WC233 and WC234, that the previously identified hazardous waste soils in this area are localised to a small area at WS105. However, additional localised concentrations of TPH has triggered hazardous soil waste classifications at the following locations:

- WC213 at 0.35m bgl;
- WC214 at 0.30m bgl;
- WC222 at 0.45m bgl and
- WC228 at 0.45m bgl

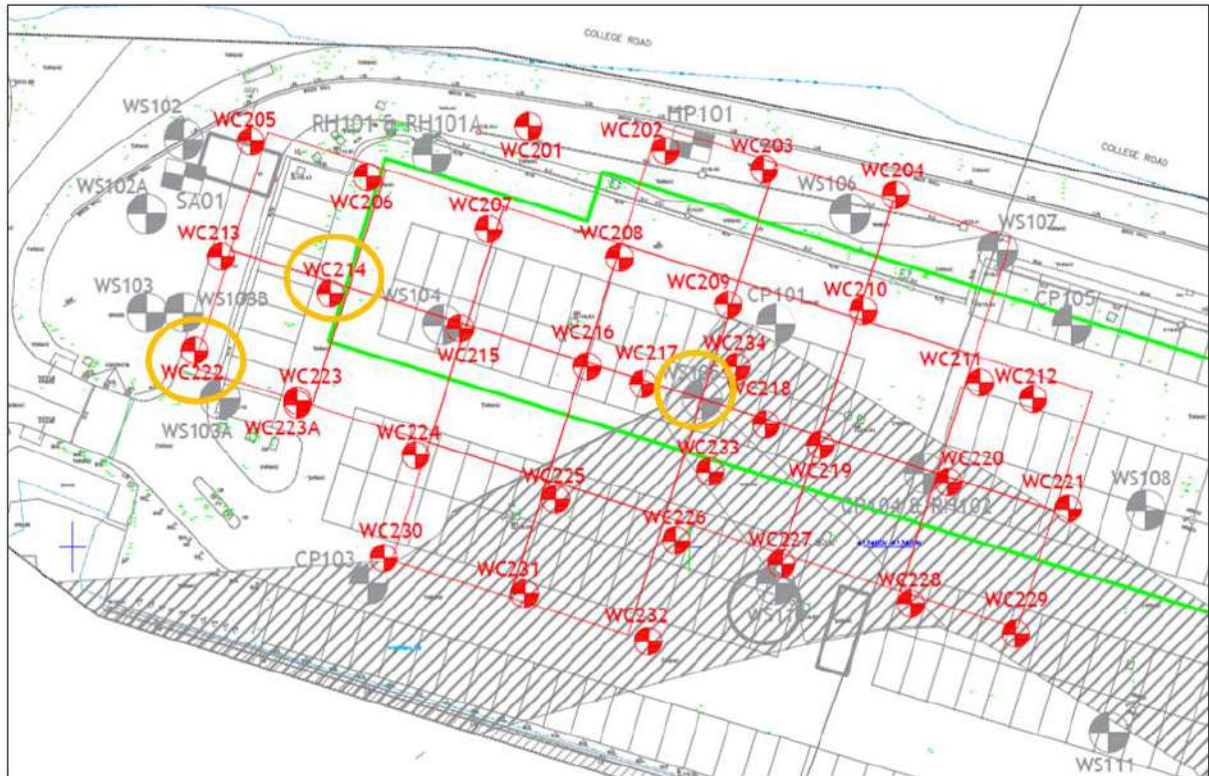
In addition, soils at WC225 at 0.60m bgl have initially been identified as hazardous waste due to pH and TPH; however,

- The TPH is driven by 'HP 3(i): Flammable "flammable liquid waste"' (hazard statement: Flam. Liq. 3; H226 "Flammable liquid and vapour."). Tier Environmental consider that such a hazard property would apply if free phase product has been reported in the sample. As no free phase product was encountered, it is considered that the materials above may be regarded as being non-hazardous due to TPH.
- The results indicate that soil pH values were generally near neutral, with no indication of significant alkalinity across the site. It is therefore considered that in this instance; the pH has been artificially lowered as a function of the concrete core flush as opposed to being representative of the soils at this location. On this basis, it is considered that soils at this location should not be regarded as being hazardous due to pH.

Tier Environmental has conducted further statistical assessment of the total TPH concentrations reported during these supplementary works and concluded that the reported concentrations of TPH at WC222 (0.45m) and WC214 (0.30m) are representative of statistical outliers or 'hotspots'.

When these are removed from the dataset, the 95th Upper Confidence Limit of the mean (calculated using both the Chebyshev and one-sided T-Test methodologies) of the data set demonstrate that the reported concentrations of total TPH at WC213 at 0.35m bgl and WC228 at 0.45m bgl are representative of the dataset as a whole and the calculated 95th UCL (614.88 mg/kg) is below the 1,000mg/kg hazardous waste threshold for unknown oils. As such, it is considered that the localised previously identified hazardous waste hotspot at WS105 and the identified hazardous waste hotspots at WC222 (0.45m) and WC214 (0.30m) should be excavated and segregated for off-site disposal as hazardous waste or they may be reasonably excavated and re-used beneath areas of hardstanding / buildings and retained on site due to the absence of any exceedances when compared to commercial GACs protective of human health. These locations have been highlighted in Figure 7-1 below.

Figure 7-1 Locations Classified as Hazardous Waste



7.4. Materials Re-Use

Subject to volumetric fill requirements and a future assessment of suitability of re-use (both chemically and geotechnically), some materials may be considered for potential re-use in line with an appropriate end-of-waste protocol such as WRAP Quality Protocol for Aggregates from Inert Waste, U1 Exemption or a Materials Management Plan in accordance with the CL:AIRE Definition of Waste Code of Practice (DoWCoP). Please note that any previously landfilled or mining waste materials may not be appropriately subject to consideration under DoWCoP and may not be re-used under DoWCoP unless sufficient lines of evidence and agreement with the local Environment Agency Waste Team can be sought beforehand.

Re-Use of Excavated and Stockpiled Clean Naturally Occurring Soils on Other Sites

In addition, Tier Environmental are aware that CL:AIRE is classing stockpiled clean, naturally occurring soils as waste, unless their final destination is identified in a Materials Management Plan, before they are excavated. However, Tier Environmental consider that any clean naturally occurring soils arising from enabling works, earthworks or construction activities would be regarded as an asset and the default assumption for this site (prior to excavation and stockpiling) is not the intention to discard these materials where they may be reasonably re-used on this, or another, development site. Stockpiling is a recognised, recommended means of safely storing soils. Whilst there may be advantages to leaving soils in-situ, stripping topsoil and subsoil prior to earthworks is a routine construction activity. Tier Environmental consider that it is not unreasonable to state that in the event that the developer owns another site where the construction phase is ongoing, soils can be transferred between their sites as an owned product and never become waste.



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The above paragraph above is therefore considered a clear intention to reuse any clean, naturally occurring soils derived from excavations at this site (which may also include temporary stockpiling these materials). It is considered; however, that in addition to this the following must be adhered to:

- Reuse does need to occur within a 'reasonable' timeframe (12 No. months); and,
- If soils are transferred to a third party (another developer), there needs to be some contractual agreement in place, as in this situation it is important to have something in place confirming that surplus soils are required by the third party.

Re-Use of Excavated and Stockpiled Clean Naturally Occurring Soils Within The Site They Are Excavated From

Further to the above, where soils are naturally occurring, uncontaminated and re-used on the site they are excavated from, they fall outside of the Waste Framework Directive (WFD) i.e. they will not be classified as a waste. Currently the CL:AIRE Definition of Waste Code of Practice states the following which appears to support this position: *"If the material is waste an Environmental Permit will be required to lawfully deposit or re-use it unless the material is "uncontaminated soil and other naturally occurring material excavated in the course of construction activities where it is certain that the material will be used for the purposes of construction in its natural state on the site from which it was excavated", which is excluded from waste regulation by the Waste Framework Directive (2008)."*



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8. CONCLUSIONS AND RECOMMENDATIONS

8.1. Conclusions

It should be noted that whilst this report has included the data from the previous Tier Environmental 2024 Ground Investigation for reference and completeness, the below conclusions are related to the findings of the supplementary ground investigation for soils waste classification only. The Tier Environmental 2024 Ground Investigation should be referred to and the conclusions read alongside this report.

- Basic waste characterisation and further quantitative risk assessment and statistical analysis have been applied to demonstrate that the localised previously identified hazardous waste hotspot at WS105 and the identified hazardous waste hotspots at WC222 (0.45m) and WC214 (0.30m) should be excavated and segregated for off-site disposal as hazardous waste, or they may be reasonably excavated and re-used beneath areas of hardstanding / buildings and retained on site due to the absence of any exceedances when compared to commercial GACs protective of human health.
- It should be noted that the thin black plastic/rubber possible DPM encountered at the base of the concrete within WC225 at 0.45-0.49m bgl generally looked the same as the thin black plastic/rubber possible DPM noted to be widespread across the site, except that it appeared to be locally thicker within WC225 and as a result had been torn apart by the coring action. A similar material was also noted to be degraded to fibrous pieces present within the underlying Made Ground within WC228 at 0.44m to 0.49m bgl. In all other locations it was noted to be approximately 2mm thick, and was in generally good condition, being removed intact from the core hole and generally removable from the base of the concrete core, suggesting the ACM is likely not to be degraded across the site, and likely to be easily separable for removal, segregation and disposal.
- Using the same exposure Scenario for the Critical Receptor as described within Section 4.4 of the Asbestos DQRA, the following risks can be calculated with the updated asbestos results:
 - The cumulative risk for mesothelioma is calculated as 0.0066 per 100,000 over a lifetime of 80 years.
 - The cumulative risk for lung cancer is calculated as 0.0016 per 100,000 over a lifetime of 80 years.
 - The above mesothelioma and lung cancer risk calculations provides a total risk of 0.0082 per 100,000 over a lifetime of 80 years with significant conservatism built into the model.
 - On this basis, it is considered that the additional and previously reported concentrations of chrysotile and amosite asbestos within the Made Ground materials will present a minimal risk for the proposed commercial land use, including soft landscaped areas.

8.2. Recommendations

The following further work is recommended:

- It is recommended that an Asbestos Management Plan is prepared for the site.
- Any further intrusive works, groundworks and earthworks will need to be undertaken in accordance with the Control Of Asbestos Regulations (CAR2012) due to the recorded presence of asbestos.
- Care should be taken when the contractor breaks out the concrete slab to ensure the underlying asbestos containing DPM is not damaged. The DPM will then need to be removed by a specialist asbestos contractor and suitable disposed of as an ACM.
- The Tier Environmental 2024 Ground Investigation should be referred to for further recommendations.



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9. REGULATORY APPROVALS

The conclusions and recommendations presented above are considered reasonable based on the findings of the site investigation. However, these cannot be guaranteed to gain regulatory approval and, therefore, the report should be passed to the appropriate regulatory authorities and/or other organisations for their comment and approval prior to undertaking any works on site.

It is recommended that conditions placed on any planning permission are discharged prior to commencement of site works.



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11.GLOSSARY OF TERMS

ACEC	Aggressive Chemical Environment for Concrete (classification)
aOD	Above Ordnance Datum
bgl	Below ground level
BGS	British Geological Survey
BRE	Building Research Establishment
CBR	California Bearing Ratio (test)
COMAH	Control of Major Accident Hazards (regulations)
Designated location	Site (and the ecosystem on that site) protected under national or international legislation. A potential ecological receptor to be considered as part of the assessment of land contamination. Example designated locations include SSSIs (q.v.), SACs (q.v.), national nature reserves, Ramsar sites and bird special protection areas.
DQA	Data Quality Assessment
DQO	Data Quality Objective
DQRA	Detailed Quantitative Risk Assessment
DWS	Drinking Water Standard
EQS	Environmental Quality Standard
GAC	Generic Assessment Criterion
GQA	General Quality Assessment (Environment Agency)
GSV	Gas Screening Value
HCV	Health Criteria Value
IPPC	Integrated Pollution Prevention and Control (regulations)
K _{ow}	Octanol-water partition coefficient
LEL	Lower Explosive Limit
LL	Liquid Limit
LoD	Limit of Detection (analytical)
LoQ	Limit of Quantification (analytical)
Mean Value Test	Statistical test (described in the CIEH Guidance) to estimate the mean value of a normally distributed population of data at a given level of confidence. Normally for contaminated land assessment, the 95th percentile (referred to as the 95%UCL or US95) is applied as a reasonable but conservative estimate of the mean concentration for comparison with the relevant assessment criteria.
Maximum Value Test	Statistical test (described in the CIEH Guidance) to identify whether an elevated concentration within a normally distributed data set forms part of the underlying population from which it has been sampled or whether it is an outlier (such as a localised area of contamination) that merits further consideration.
MC	Moisture Content
NGR	National Grid Reference
NIHHS	Notification of Installations Handling Hazardous Substances (regulations)
OS	Ordnance Survey
PI	Plasticity Index
PID	Photoionisation Detector
PL	Plastic Limit
ppm	Parts per million
ppmv	Parts per million by volume
QA	Quality Assurance
QC	Quality Control
SAC	Special Area of Conservation
SOM	Soil Organic Matter



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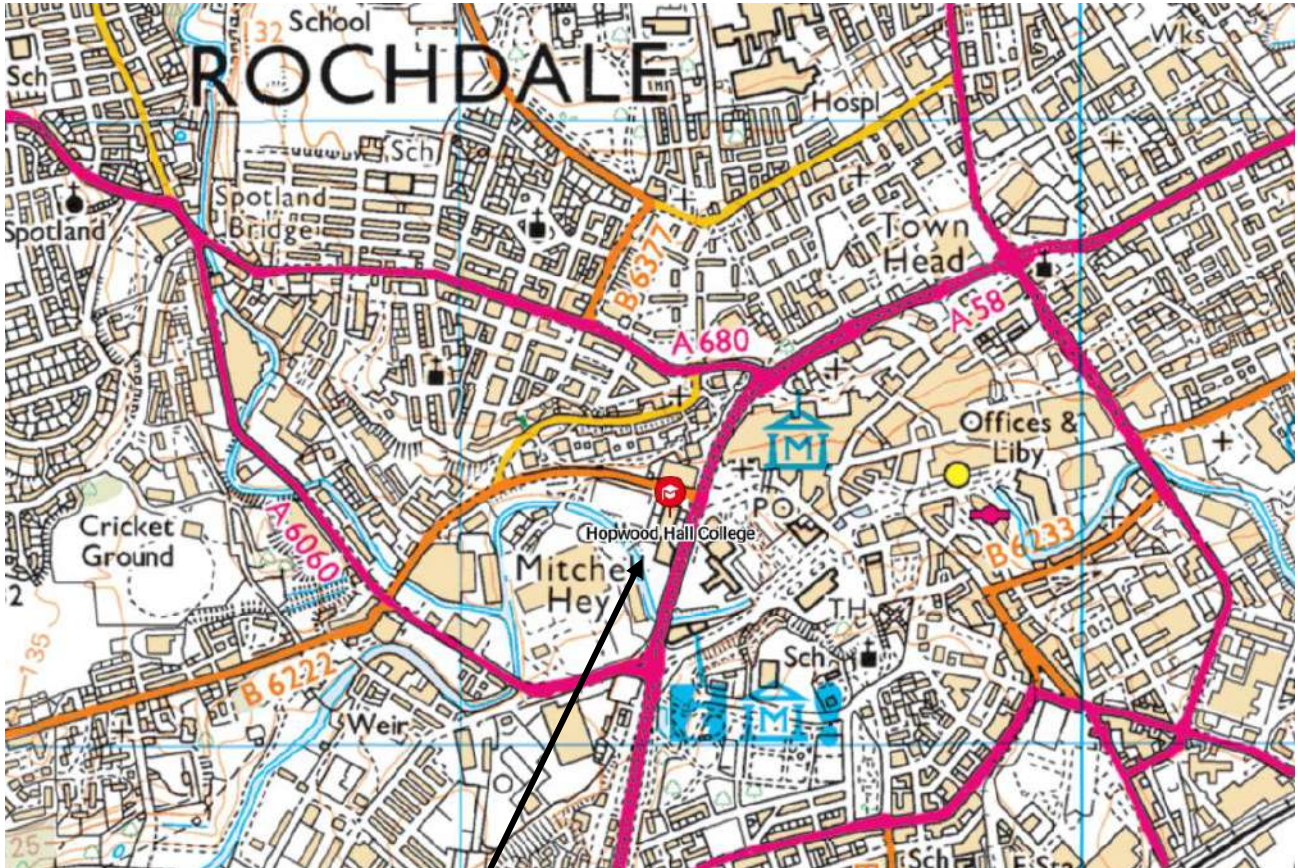
SPT	Standard Penetration Test
SPZ	Source Protection Zone
SSAC	Site-Specific Assessment Criterion
SSSI	Site of Special Scientific Interest
SVOC	Semi-Volatile Organic Compound
TEF	Toxicity Equivalent Factor
TPH	Total Petroleum Hydrocarbons
TWA	Time Weighted Average
US95	95 th percentile estimate of the true mean value of a data population (also known as 95%UCL).
VOC	Volatile Organic Compound

APPENDIX A - DRAWINGS



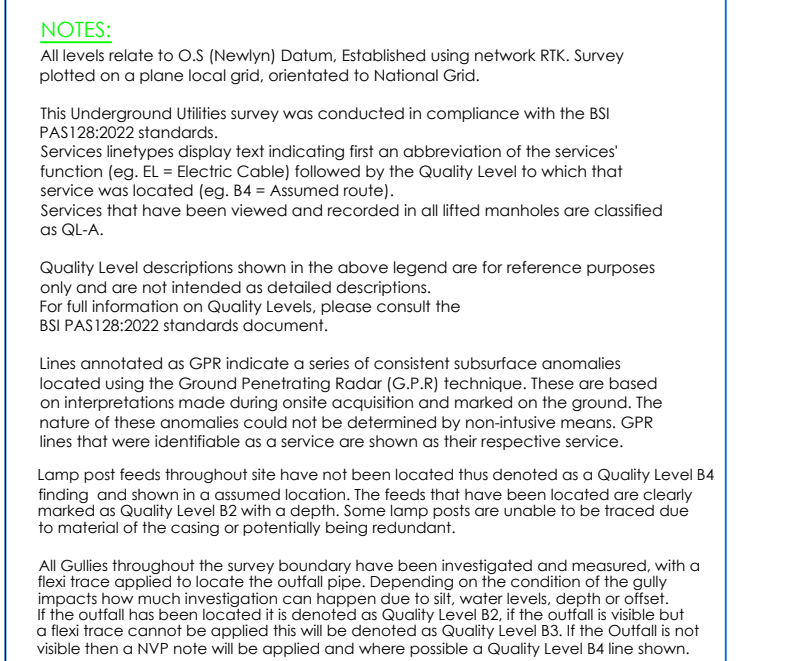
Contract Number:	TE1880
Contract:	Hopwood Hall College, Rochdale
Client:	Wilmott Dixon Construction

Site Location Plan



Site

Scale	NTS	
Drawn by	SE	Approved AR
Drawing Number	TE1880-TE-00-XX-DR-GE-001-V01	



REV	DATE	DESCRIPTION

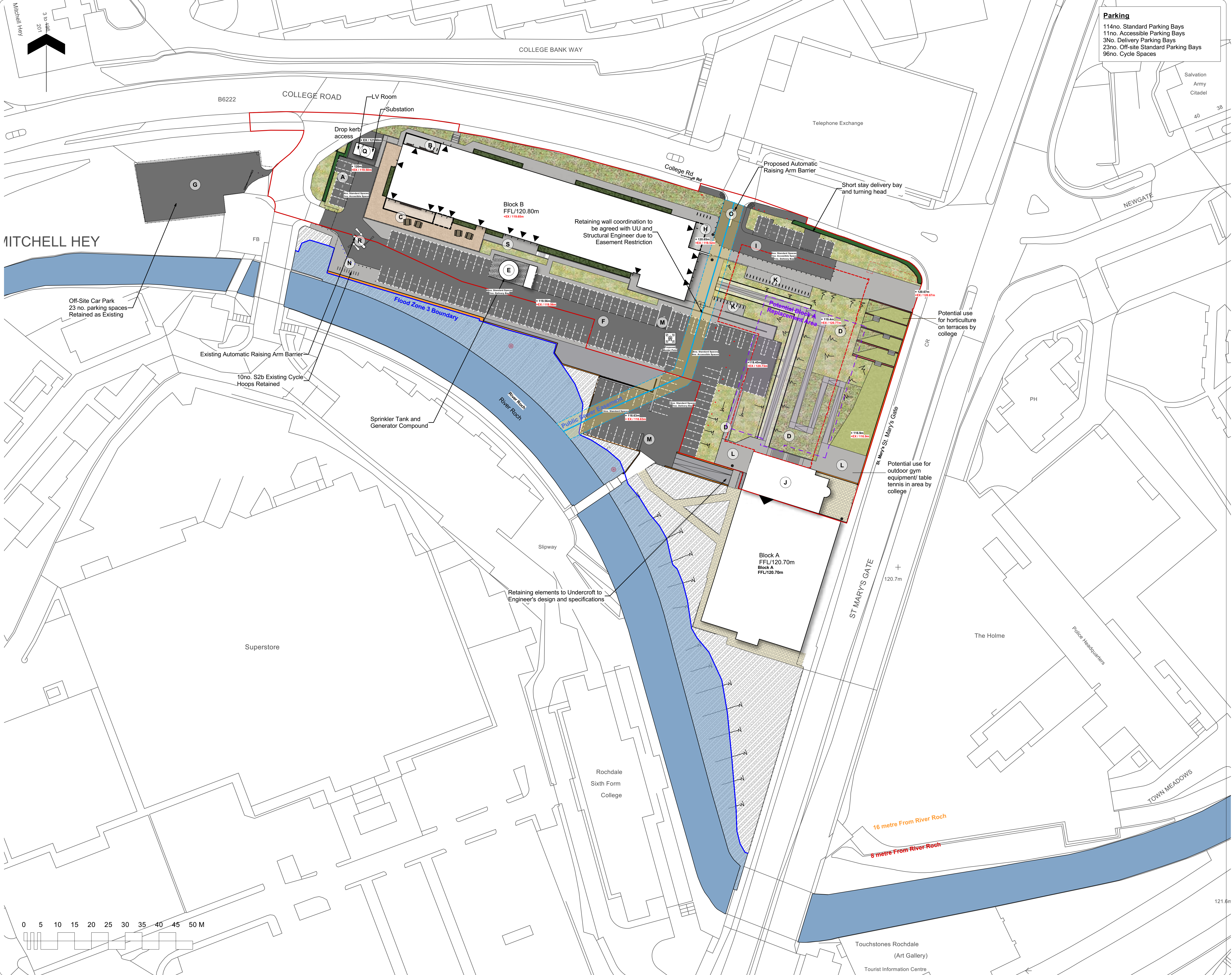


SURVEY & ENGINEERING PROJECTS

Client
 Wilmott Dixon Construction Ltd
 Hollywood Business Centre
 Albert Mill, Albert Street
 Hollywood
 Oldham
 OL8 3QL

Project Title
 Utility Survey of Land at:
 Town Mill Brow
 College Bank Way
 Seven Sisters
 Spottland Bridge, Rochdale
 OL12 4UF

Surveyed L.Biggar	Drawn C.Duffie	Checked L.Biggar
Issue 1/200	Date Sep 24	Drawing Ref. S25552-U
No. 01	Size A0	Rev --



Parking
114no. Standard Parking Bays
11no. Accessible Parking Bays
3no. Delivery Parking Bays
23no. Off-site Standard Parking Bays
96no. Cycle Spaces

- Note**
1. Do not scale from this drawing
 2. To be read in conjunction with Project Risk Register REF: FS0939-ALA-XX-XX-RR-L-0001
 3. To be read in conjunction with Landscape Outline Specifications REF: FE012-ALA-ZZ-XX-SP-L-0001
 4. To be read in conjunction with all submitted Landscape Architect's drawings.
 5. To be read in conjunction with all other consultants' drawings.

- KEY**
- Site Boundary
 - Canopy
 - Zone of Level to be Retained
 - Scheduled for Demolition
 - Invasive Species
To be confirmed in latest Ecology Report
 - Proposed Muster Point
TBC by Fire Engineer
 - Potential Location of PV panels
Within Landscape (263.7 sqm)
 - Nursery Parking
- 6no. Standard Bays
 - Nursery Cycle Parking
- 6no. Cycle Spaces
 - Nursery Outdoor Play
 - Proposed Meadow Planting
 - Sprinkler Tank and External Generator Compound
 - Main College Carpark
 - College Secondary Carpark (as Existing)
 - College Main Entrance
 - Visitor Parking
 - Block A New Entrance
Gullwing to Architect's Details
 - Proposed Cycle Parking
Cycle provision TBC by LPA
 - Campus Secured Outdoor Area
All seating shown are from existing college legacy TBC with College
 - Service Bay
 - Existing Cycle Parking Retained
 - New Controlled Vehicle Access
 - Fire Escape Route to Muster Point
 - Proposed Substation and Switch Room
 - Controlled Vehicle Access
Barrier Retained as Existing
 - Plant Room / switch Room

ID	RISK	MITIGATION	DATE MITIGATED
RESIDUAL PROJECT RISKS			

DATE	REV	DESCRIPTION OF REVISION	DRAWN BY	APPROVED BY
REVISIONS				

DEIR:
DEIR 197

STATUS
S5 - Suitable for DfE Review & Acceptance

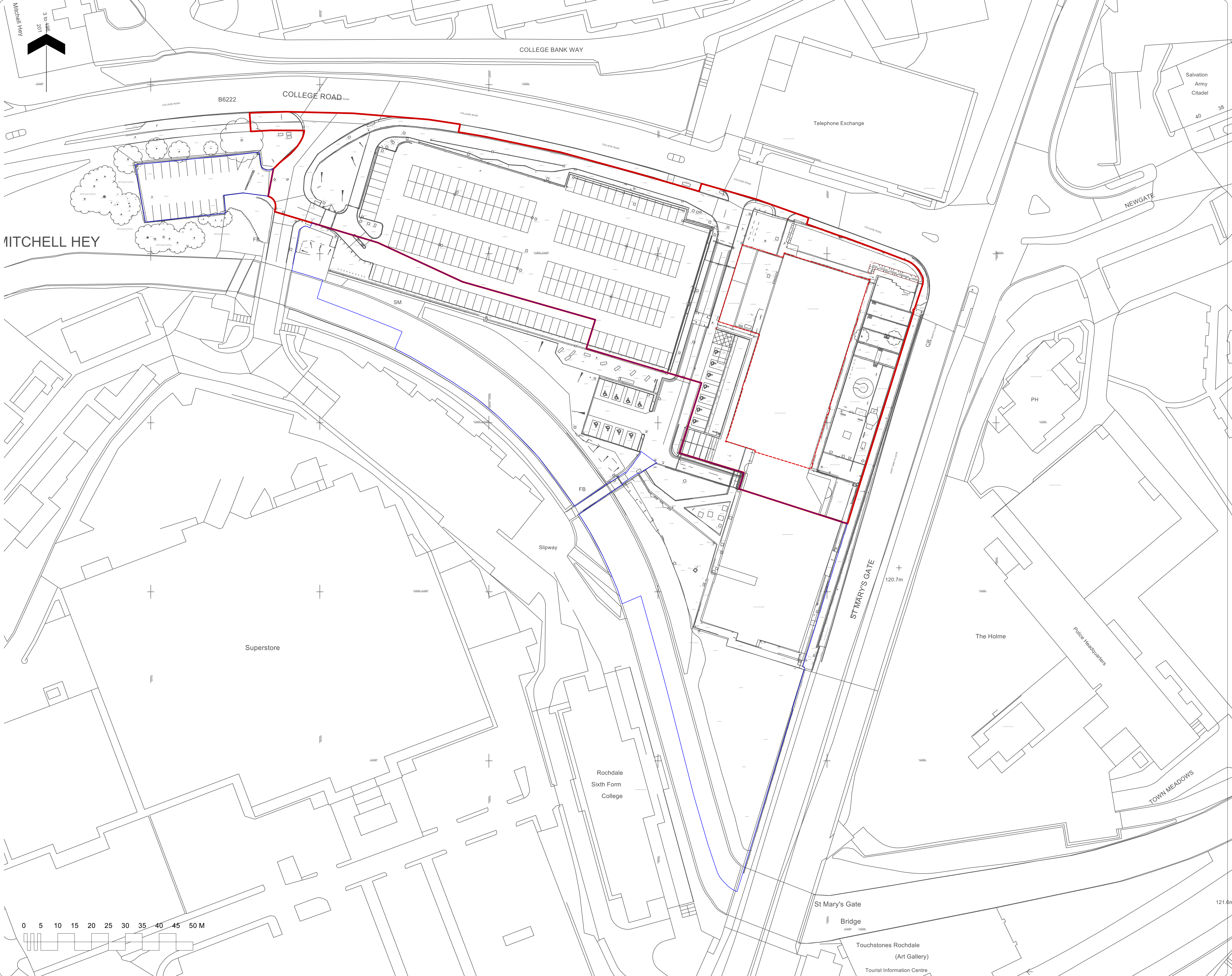
Ares Landscape Architects LTD
Gatecrasher,
51 Eyre Lane
Sheffield
S1 4SB
t: 0114 276 2000
e: hello@aresdesign.co.uk
w: ares.eu.com

CLIENT:
Hopwood Hall College

PROJECT TITLE:
Hopwood Hall College

DRAWING TITLE :		
Whole Site Plan		
DRAWING SCALE :	DRAWN BY :	DRAWN DATE :
1:500	LS	02/12/2024
PAPER SIZE :	APPROVED BY :	ALA PROJECT CODE :
A1	MM	ALA866

DRAWING NUMBER: FE0012-ALA-XX-XX-D-L-0018	STATUS: S5	REVISION: P03
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Note

1. Do not scale from this drawing
2. To be read in conjunction with Project Risk Register REF: FS0939-ALA-XX-XX-RR-L-0001
3. To be read in conjunction with Landscape Outline Specifications REF: FE012-ALA-ZZ-XX-SP-L-0001
4. To be read in conjunction with all submitted Landscape Architect's drawings.
5. To be read in conjunction with all other consultants' drawings.

KEY

- Planning Application Boundary (10,367.61m2)
- Site Ownership Boundary (6683.461m2)

ID	RISK	MITIGATION	DATE MITIGATED
RESIDUAL PROJECT RISKS			

01/12/2024	P03	Site ownership line amended. Issued for Stage 3 SS.	MM	
DATE	REV	DESCRIPTION OF REVISION	DRAWN BY	APPROVED BY
REVISIONS				

DEIR:
DEIR 197

STATUS
S5 - Suitable for DfE Review & Acceptance

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PROJECT TITLE:
Hopwood Hall College

DRAWING TITLE:
Demolition Plan

DRAWING SCALE:	DRAWN BY:	DRAWN DATE:
1:500	LS	02/12/2024
PAPER SIZE:	APPROVED BY:	ALA PROJECT CODE:
A1	MM	ALA866

DRAWING NUMBER:	STATUS:	REVISION:
FE0012-ALA-XX-XX-D-L-0019	S5	P03

APPENDIX B - EXPLORATORY HOLE LOGS



Borehole Log

Borehole No.

WC202

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389248.06 - 413432.10

Hole Type
WS

Location: Rochdale

Level: 119.75

Scale
1:15

Client: Willmott Dixon

Dates: 14/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.45	ES		0.12	119.63		MADE GROUND: Black high aggregate ASPHALT. Aggregate is fine to medium, angular to subangular of limestone.
								MADE GROUND
					0.42	119.33		MADE GROUND: Compacted grey sandy GRAVEL of fine to coarse, angular to subangular limestone with frequent subangular cobbles of limestone.
					0.50	119.25		MADE GROUND
					0.52	119.23		MADE GROUND: Blackish grey, slightly ashy, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick, limestone, sandstone, concrete and rare timber fragments.
								MADE GROUND
								MADE GROUND: Compacted grey SILT (possible PFA)
								MADE GROUND
								End of borehole at 0.52 m

1

2

3

Remarks

1) Concrete core hole and Hand dug pit to 0.52m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) Slightly ashy material between 0.42 - 0.50m bgl 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC203

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389256.05 - 413430.58

Hole Type
WS

Location: Rochdale

Level: 119.76

Scale
1:15

Client: Willmott Dixon

Dates: 14/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40	ES		0.15	119.60		MADE GROUND: Black high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	1
					0.35	119.40		MADE GROUND: Compacted grey, sandy GRAVEL of fine to coarse, angular to subangular limestone with frequent subangular cobbles of limestone.	
					0.47	119.28		MADE GROUND: Blackish grey, slightly ashy, slightly clayey GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, limestone, mudstone and coal.	
					0.48	119.28		MADE GROUND: Compacted grey, slightly sandy, slightly clayey SILT.	
								MADE GROUND End of borehole at 0.48 m	
									2
									3

Remarks

1) Concrete core hole and Hand dug pit to 0.48m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) Slightly ashy material between 0.35m and 0.47m bgl 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC204

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389266.68 - 413428.50

Hole Type
WS

Location: Rochdale

Level: 119.77

Scale
1:15

Client: Willmott Dixon

Dates: 14/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.45	ES		0.11	119.66		MADE GROUND: Black high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	1 2 3
					0.34	119.43		MADE GROUND: Compacted grey, fine to coarse, angular to subangular GRAVEL of limestone with frequent subangular cobbles of limestone.	
					0.50	119.27		MADE GROUND: Blackish grey, ashy, fine to coarse, angular to subrounded GRAVEL of mixed lithologies including brick and limestone.	
					0.52	119.25		MADE GROUND: Compacted grey, silty CLAY / Clayey SILT (possible PFA)	
								MADE GROUND	

Remarks

1) Concrete core hole and Hand dug pit to 0.52m bgl 2) No groundwater ingress encountered 3) Terminated at required depth 4) Ashy material 0.34m - 0.50m bgl 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC205

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389214.46 - 413432.82

Hole Type
WS

Location: Rochdale

Level: 119.81

Scale
1:15

Client: Willmott Dixon

Dates: 14/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40	ES		0.12	119.69		MADE GROUND: Black high aggregate ASPHLAT. Aggregate is fine to medium, angular to subangular of limestone.	1 2 3
					0.32	119.49		MADE GROUND: Compacted grey slightly clayey, slightly sandy GRAVEL of fine to coarse, angular to subangular limestone. Frequent subangular cobbles of limestone.	
					0.48	119.33		MADE GROUND: Dark grey, slightly ashy, slightly sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, concrete and sandstone.	
					0.57	119.24		MADE GROUND: Compacted grey, slightly sandy SILT (possible PFA)	
								MADE GROUND End of borehole at 0.57 m	

Remarks

1) Concrete core hole and Hand dug pit to 0.57m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) Slightly ashy material between 0.32m and 0.48m bgl 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC207

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389233.70 - 413425.75

Hole Type
WS

Location: Rochdale

Level: 119.87

Scale
1:15

Client: Willmott Dixon

Dates: 07/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40	ES		0.09	119.78		MADE GROUND: Black, medium to high aggregate of ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	1
					0.16	119.71		MADE GROUND	
					0.32	119.55		MADE GROUND: Strong, dark bluish grey, high aggregate CONCRETE. Aggregate is fine to medium, subangular of limestone.	
					0.37	119.50		MADE GROUND	
					0.48	119.39		MADE GROUND: Strong grey, medium aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone.	
					0.49	119.38		MADE GROUND	
								MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	
								MADE GROUND	
								MADE GROUND: Dark greyish brown, sandy GRAVEL of fine to coarse, angular to subangular of brick, occasional concrete and mudstone. Rare glass.	
								MADE GROUND	
								MADE GROUND: Red brick COBBLES possibly brick footing / wall.	2
								MADE GROUND	
								End of borehole at 0.49 m	
									3

Remarks

1) Concrete core hole and hand dug it 2) No groundwater ingress encountered 3) Terminated due to obstruction 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC208

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389244.34 - 413423.41

Hole Type
WS

Location: Rochdale

Level: 119.91

Scale
1:10

Client: Willmott Dixon

Dates: 07/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.40	ES		0.09	119.82		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone
					0.16	119.75		MADE GROUND: Strong, dark bluish grey, low aggregate CONCRETE. Aggregate is fine, angular to subangular of limestone. No rebar.
					0.33	119.58		MADE GROUND: Black, thin plastic / rubber layer (possibly DPM), strong, grey, medium to high aggregate CONCRETE. Aggregate is medium to coarse, angular to subangular of limestone. Black thin plastic / rubber (DPM) layer at base.
					0.44	119.47		MADE GROUND: Dark brownish grey, sandy GRAVEL of fine to coarse, angular to subangular of mixed lithologies including brick, sandstone and concrete.
					0.45	119.46		MADE GROUND: Obstruction - possibly brick
								MADE GROUND
								End of borehole at 0.45 m

1

2

Remarks

1) Concrete core hole and hand dug pit 2) No groundwater ingress encountered 3) Terminated due to obstruction 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC209

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389253.15 - 413419.53

Hole Type
WS

Location: Rochdale

Level: 119.90

Scale
1:10

Client: Willmott Dixon

Dates: 08/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.40	ES		0.09	119.81		MADE GROUND: Black high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.
					0.14	119.76		MADE GROUND: Strong bluish grey, low aggregate CONCRETE. Aggregate is fine to medium, subangular of limestone.
					0.30	119.60		MADE GROUND: Strong, grey, medium to high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx 5mmØ. Thin black plastic / rubber (DPM) at base.
					0.36	119.54		MADE GROUND: Strong, dark grey, high aggregate CONCRETE. Aggregate is fine to coarse, subangular to subrounded of limestone.
					0.43	119.47		MADE GROUND: Brownish grey, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional sandstone.
					0.44	119.46		MADE GROUND: Concrete Obstruction
								MADE GROUND
								MADE GROUND
End of borehole at 0.44 m								

1

2

Remarks

1) Concrete core hole and hand dug pit 2) No groundwater ingress encountered 3) Terminated due to obstruction 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC210

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389264.08 - 413419.13

Hole Type
WS

Location: Rochdale

Level: 119.87

Scale
1:10

Client: Willmott Dixon

Dates: 07/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.35	ES		0.08	119.79		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.
					0.25	119.62		MADE GROUND
					0.32	119.55		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Gravel is fine to coarse, angular to subangular of limestone. No rebar.
					0.41	119.46		MADE GROUND: Weak to medium, strong, grey, high aggregate CONCRETE. Aggregate is medium to coarse, angular to subangular of limestone. Plastic/rubber DPM layer at base.
					0.42	119.45		MADE GROUND
MADE GROUND: Dark brownish grey, slightly clayey, sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, sandstone, mudstone and concrete. MADE GROUND MADE GROUND: COBBLE of sandstone and concrete. End of borehole at 0.42 m								

1

2

Remarks

1) Concrete core hole and hand dug pit 2) No groundwater ingress encountered 3) Terminated due to obstruction 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC211

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389273.52 - 413413.30

Hole Type
WS

Location: Rochdale

Level: 119.90

Scale
1:15

Client: Willmott Dixon

Dates: 07/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description				
		Depth (m)	Type	Results								
			ES		0.08	119.82		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	1			
					0.13	119.77		MADE GROUND				
		0.40			0.36	119.54		MADE GROUND: Strong, dark bluish grey, medium aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone.				
								MADE GROUND				
		0.55			0.50	119.40		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar, approximately 5mm from 0.26m bgl. Thin black plastic / rubber layer (DPM) at base.				
					0.61	119.29		MADE GROUND				
					0.62	119.28		MADE GROUND: Dark blackish brown, ashy, sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, sandstone and occasional concrete.	2			
					MADE GROUND							
					MADE GROUND: Reddish brown, sandy GRAVEL of fine to medium, angular to subangular brick and concrete.							
					MADE GROUND							
								MADE GROUND: Compacted grey, slightly sandy SILT (possible PFA)	3			
								MADE GROUND				
End of borehole at 0.62 m												

Remarks

1) Concrete core hole and hand dug pit 2) No groundwater ingress encountered 3) Terminated due to obstruction 4) Ashy material encountered between 0.36m-0.50m and no other visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC212

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389277.86 - 413411.99

Hole Type
WS

Location: Rochdale

Level: 119.90

Scale
1:10

Client: Willmott Dixon

Dates: 07/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.40	ES		0.08	119.82		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.
					0.14	119.76		MADE GROUND
								MADE GROUND: Strong, dark bluish grey, low aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone.
								MADE GROUND
								MADE GROUND: Strong grey, medium aggregate content CONCRETE.. Aggregate is medium to coarse, angular to subangular of limestone. rare rebar approx Ø5mm. Thin black plastic / rubber layer (DPM?) at base.
								MADE GROUND
		0.55	ES		0.42	119.48		MADE GROUND: Strong, dark grey, high aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone.
					0.43	119.47		MADE GROUND
					0.51	119.39		MADE GROUND: Dark brownish grey, slightly ashy, sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies of brick, occasional concrete and sandstone.
					0.52	119.38		MADE GROUND
						MADE GROUND: Brown, sandy GRAVEL of fine to coarse, angular to subangular brick with occasional concrete.		
						MADE GROUND		
						MADE GROUND: Compacted grey slightly sandy SILT		
						MADE GROUND		
-----End of borehole at 0.52 m								

1

2

Remarks

1) Concrete core hole and hand dug pit 2) No groundwater ingress encountered 3) Made ground slightly ashy material at 0.42m-0.47m bgl, no other visual or olfactory evidence of contamination 4) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC214

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389220.87 - 413420.53

Hole Type
WS

Location: Rochdale

Level: 119.82

Scale
1:10

Client: Willmott Dixon

Dates: 10/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.30	ES		0.11	119.71		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.
					0.22	119.60		MADE GROUND: Dark brownish grey, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick, limestone and granite.
								MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone. Slight tar odour with shiny pockets between 0.22m - 0.39m.
								MADE GROUND: Compacted grey, gravelly COBBLES of granite.
					0.39	119.43		MADE GROUND: Compacted red, sandy GRAVEL of fine to coarse, angular to subangular brick with occasional cobbles of brick.
		0.50	ES		0.44	119.38		MADE GROUND: Compacted grey, slightly sandy SILT
					0.61	119.21		MADE GROUND
					0.64	119.18		MADE GROUND
								End of borehole at 0.64 m

1

2

Remarks

1) Concrete core hole and Hand dug pit to 0.64m bgl 2) No groundwater encountered 3) Terminated at target depth 4) Backfilled with arisings and concrete reinstated at surface. 5) Slight tar odour with shiny pockets at 0.22m to 0.39m within asphalt layer.





Borehole Log

Borehole No.

WC215

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389231.41 - 413417.72

Hole Type
WS

Location: Rochdale

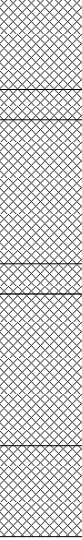
Level: 119.94

Scale
1:10

Client: Willmott Dixon

Dates: 10/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.40	ES		0.12	119.82		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to medium, angular to subangular of limestone. MADE GROUND
					0.16	119.78		MADE GROUND: Strong, bluish grey, high aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone. MADE GROUND
					0.35	119.59		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx Ø5mm at 0.23m bgl. Thin black plastic / rubber layer (DPM) at base. MADE GROUND
					0.39	119.55		MADE GROUND: Weak grey, high aggregate CONCRETE recovered as gravel and cobbles. Aggregate is fine to coarse, subangular to subrounded of limestone. MADE GROUND
					0.59	119.35		MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular brick with occasional sandstone. Occasional cobbles of brick. MADE GROUND
					0.71	119.23		MADE GROUND: Compacted grey SILT MADE GROUND
								End of borehole at 0.71 m

1

2

Remarks

1) Concrete core hole and Hand dug pit to 0.71m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC216

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389241.70 - 413414.63

Hole Type
WS

Location: Rochdale

Level: 119.92

Scale
1:10

Client: Willmott Dixon

Dates: 10/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.55	ES		0.06	119.86		MADE GROUND: Black, medium to high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	1
								MADE GROUND	
					0.16	119.76		MADE GROUND: Strong, dark grey, medium to high aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. No rebar.	
					0.21	119.71		MADE GROUND	
								MADE GROUND: Strong, bluish grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.	
					0.37	119.55		MADE GROUND	
					0.41	119.51		MADE GROUND; Strong, grey, medium to high aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. Rare rebar approx Ø5mm at 0.27m bgl. Thin black plastic/rubber layer (DPM?) at base.	
								MADE GROUND	
					0.58	119.34			
					0.64	119.28		MADE GROUND: Medium strong, grey high aggregate CONCRETE. Aggregate is fine to coarse, subangular to subrounded of limestone. No rebar.	
								MADE GROUND	
								MADE GROUND: Reddish brown and grey, sandy GRAVEL of fine to coarse, angular to subangular predominantly brick with occasional sandstone and rare ceramic and clinker. Frequent cobbles of brick at base.	
								MADE GROUND	
								MADE GROUND: Compacted grey SILT (Possible PFA)	
MADE GROUND									
End of borehole at 0.64 m									2

Remarks

1) Concrete core hole and Hand dug pit to 0.64m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC217

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389246.23 - 413413.20

Hole Type
WS

Location: Rochdale

Level: 119.97

Scale
1:10

Client: Willmott Dixon

Dates: 10/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.50	ES		0.06	119.91		MADE GROUND: Black medium aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	1
					0.19	119.78		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar	
					0.22	119.75		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar	
					0.36	119.61		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar	
					0.41	119.56		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar	
					0.47	119.50		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar	
					0.61	119.36		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar	
					0.64	119.33		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar	
								MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar	
								MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar	
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	2
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick and occasional concrete and sandstone.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular of predominantly brick with frequent cobbles of brick at the base.	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: Compacted grey SILT (possible PFA)	
								MADE GROUND: End of borehole at 0.64 m	
								MADE GROUND: End of borehole at 0.64 m	
								MADE GROUND: End of borehole at 0.64 m	
								MADE GROUND: End of borehole at 0.64 m	
								MADE GROUND: End of borehole at 0.64 m	
								MADE GROUND: End of borehole at 0.64 m	
								MADE GROUND: End of borehole at 0.64 m	
								MADE GROUND: End of borehole at 0.64 m	
								MADE GROUND: End of borehole at 0.64 m	
								MADE GROUND: End of borehole at 0.64 m	

Remarks

1) Concrete core hole and Hand dug pit to 0.64m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC218

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389256.18 - 413409.92

Hole Type
WS

Location: Rochdale

Level: 119.99

Scale
1:10

Client: Willmott Dixon

Dates: 08/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.50	ES		0.10	119.89		MADE GROUND: Black high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.
					0.19	119.80		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. No rebar.
					0.23	119.76		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. No rebar.
					0.41	119.58		MADE GROUND: Strong, blueish grey, high aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone. No rebar.
					0.46	119.53		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. Rare rebar approx Ø5mm
					0.55	119.44		MADE GROUND: Strong grey, medium to high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.
					0.56	119.43		MADE GROUND: Strong grey, medium to high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.
								MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subrounded mixed lithologies including brick, sandstone and concrete.
								MADE GROUND: Brick Obstruction
								MADE GROUND: Brick Obstruction

End of borehole at 0.56 m

1

2

Remarks

1) Concrete core hole and Hand dug pit to 0.56m bgl 2) No groundwater ingress encountered 3) Terminated on brick obstruction 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC220

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389270.97 - 413405.26

Hole Type
WS

Location: Rochdale

Level: 119.93

Scale
1:10

Client: Willmott Dixon

Dates: 08/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.55	ES		0.10	119.83		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.
					0.18	119.75		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, subangular of limestone. No rebar.
					0.21	119.72		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, subangular of limestone. No rebar.
								MADE GROUND: Strong, bluish grey, medium aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone. No rebar.
					0.39	119.54		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. Rare rebar approx Ø5mm. Thin black plastic / rubber layer at base (DPM?)
					0.44	119.49		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. Rare rebar approx Ø5mm. Thin black plastic / rubber layer at base (DPM?)
					0.50	119.43		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. Rare rebar approx Ø5mm. Thin black plastic / rubber layer at base (DPM?)
					0.59	119.34		MADE GROUND: Medium strong, dark grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. No rebar.
					0.60	119.33		MADE GROUND: Brownish grey, sandy GRAVEL of fine to coarse, angular to subrounded of mixed lithologies including brick, concrete, mudstone and rare coal.
								MADE GROUND: Reddish brown, sandy, fine to coarse, angular to subangular GRAVEL predominantly of brick with occasional sandstone and concrete.
								MADE GROUND: Brick Obstruction
								MADE GROUND: Brick Obstruction
								End of borehole at 0.60 m

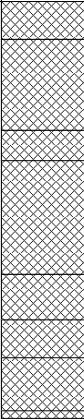
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2

Remarks

1) Concrete core hole and Hand dug pit to 0.60m bgl 2) No groundwater ingress encountered 3) No visual or olfactory evidence of contamination 4) Terminated on obstruction 5) Backfilled with arisings and concrete reinstated at surface.



					Borehole Log			Borehole No. WC221 Sheet 1 of 1		
Project Name: Hopwood Hall College					Project No. TE1880		Co-ords: 389280.69 - 413403.12		Hole Type WS	
Location: Rochdale					Level: 119.88		Scale 1:10		Logged By SE	
Client: Willmott Dixon					Dates: 08/04/2025 -					
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		0.50	ES		0.05	119.83		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subrounded of limestone.	1	
					0.17	119.71		MADE GROUND		
					0.21	119.67		MADE GROUND: Strong grey, medium aggregate content CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.		
								MADE GROUND		
					0.36	119.52		MADE GROUND: Strong, bluish grey, low aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone. No rebar		
					0.42	119.46		MADE GROUND		
					0.47	119.41		MADE GROUND: Strong, grey, medium to high aggregate content CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. Rare rebar approx Ø5mm. Thin black plastic/rubber layer (DPM?) at base.		
					0.54	119.34		MADE GROUND		
					0.55	119.33		MADE GROUND: Moderately strong grey, high aggregate content CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone.		
							MADE GROUND: Grey, slightly clayey, sandy GRAVEL of fine to coarse, angular to subangular brick, concrete, rare clinker and coal.			
							MADE GROUND			
							MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular brick with occasional concrete and sandstone.			
							MADE GROUND			
							MADE GROUND: Compacted grey SILT (possible PFA)			
							MADE GROUND			
							End of borehole at 0.55 m			
Remarks										
1) Concrete core hole and Hand dug pit to 0.55m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) No visual or olfactory evidence of contamination 5)Backfilled with arisings and concrete instated at surface.										



Borehole Log

Borehole No.

WC222

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389209.89 - 413415.80

Hole Type
WS

Location: Rochdale

Level: 119.73

Scale
1:10

Client: Willmott Dixon

Dates: 14/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.45	ES		0.20	119.53		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone. MADE GROUND	1 2
					0.39	119.34		MADE GROUND: Grey, slightly sandy GRAVEL of fine to coarse, angular to subangular limestone with frequent cobbles of limestone. MADE GROUND	
					0.51	119.22		MADE GROUND: Brown, sandy GRAVEL of fine to coarse, angular to subangular of mixed lithologies including limestone, sandstone, occasional brick and concrete. MADE GROUND	
					0.53	119.20		MADE GROUND: Compacted grey SILT (possible PFA) MADE GROUND End of borehole at 0.53 m	

Remarks

1) Concrete core hole and Hand dug pit to 0.53m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at base.







Borehole Log

Borehole No.

WC223A

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389218.04 - 413411.54

Hole Type
WS

Location: Rochdale

Level: 119.80

Scale
1:10

Client: Willmott Dixon

Dates: 10/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		0.50	ES		0.11	119.69		MADE GROUND: Black high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.		
					0.15	119.65		MADE GROUND		
								MADE GROUND: Grey, fine to coarse, angular to subangular GRAVEL of limestone.		
								MADE GROUND		
					0.28	119.52		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, subangular to subrounded of limestone. Rare rebar approx Ø5mm. Plastic sheeting at base.		
								MADE GROUND		
								MADE GROUND: Brown, slightly sandy, fine to coarse subangular GRAVEL of limestone		
								MADE GROUND		
					0.60	119.20				MADE GROUND: Dark grey, slightly gravelly SAND. Gravel is fine to medium angular of mudstone and rare coal.
					0.61	119.19				MADE GROUND
0.67	119.13	MADE GROUND: Compacted grey SILT								
			MADE GROUND	End of borehole at 0.67 m						
</										

1

2

Remarks

1) Concrete core hole and Hand dug pit to 0.67m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC224

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389227.80 - 413407.43

Hole Type
WS

Location: Rochdale

Level: 119.89

Scale
1:10

Client: Willmott Dixon

Dates: 10/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.50	ES		0.11	119.78		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to medium, angular of limestone
					0.17	119.72		MADE GROUND: Strong, bluish grey, low to medium aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone. No rebar.
					0.32	119.57		MADE GROUND: Strong grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx 5mm at 0.22m bgl. Thin black plastic / rubber layer (DPM?) at base
					0.37	119.52		MADE GROUND: Weak to medium strong, grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone, recovered as gravel and cobbles.
					0.58	119.31		MADE GROUND: Grey, reddish brown, sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, sandstone, concrete, rare glass and metal wire. Frequent cobbles of brick, granite and concrete.
					0.64	119.25		MADE GROUND: Compacted grey SILT
								MADE GROUND End of borehole at 0.64 m

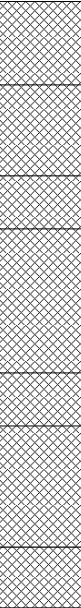
1

2

Remarks

1) Concrete core hole and Hand dug pit to 0.64m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.



					Borehole Log			Borehole No. WC225 Sheet 1 of 1	
Project Name: Hopwood Hall College					Project No. TE1880		Co-ords: 389239.13 - 413403.90		Hole Type WS
Location: Rochdale					Level: 120.03		Scale 1:10		
Client: Willmott Dixon					Dates: 10/04/2025 -		Logged By SE		
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.11	119.92		MADE GROUND: Black, medium to high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone. MADE GROUND MADE GROUND: Strong, grey, medium to high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar. MADE GROUND MADE GROUND: Strong, bluish grey, high aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone. No rebar. MADE GROUND MADE GROUND: Strong, grey, medium to high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx Ø5mm at 0.38m bgl. Thin black plastic / rubber at base (DPM layer?) - torn during coring action, with fibrous material in middle (possible ACM?) MADE GROUND MADE GROUND: Medium strong, grey, high aggregate CONCRETE. Aggregate is fine to coarse, subangular to subrounded of limestone. No rebar MADE GROUND MADE GROUND: Reddish brown/grey, silty, sandy GRAVEL of fine to coarse, angular to subangular brick. MADE GROUND MADE GROUND: Compacted grey SILT (possible PFA) MADE GROUND	1
		0.48 - 0.49	ES		0.49	119.54			
		0.60	ES		0.56	119.47			
					0.72	119.31			
					0.80	119.23			
Remarks 1) Concrete core hole and Hand dug pit to 0.80m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) DPM layer was torn during coring exposing fibrous possible ACM material between outer plastic / rubber layers. No other visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.									



Borehole Log

Borehole No.

WC226

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389248.91 - 413400.54

Hole Type
WS

Location: Rochdale

Level: 120.06

Scale
1:10

Client: Willmott Dixon

Dates: 11/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.14	119.92		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone. MADE GROUND
					0.27	119.79		MADE GROUND: Strong, dark grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.
					0.32	119.74		MADE GROUND: Strong, bluish grey, high aggregate CONCRETE. Aggregate is fine, subangular of limestone.
					0.39	119.67		MADE GROUND: Strong, grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx Ø5mm at 0.38m bgl.
					0.56	119.50		MADE GROUND: Strong, grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. No rebar. Thin black, plastic/rubber layer at base.
								MADE GROUND: Grey concrete. Hand drilled to 1.10m bgl with concrete extending beyond the base.
					1.10	118.96		End of borehole at 1.10 m

1

2

Remarks

1) Concrete core hole to 0.56m bgl hand drilled to 1.10m bgl 2) No groundwater ingress encountered 3) Terminated due to concrete extending beyond maximum reach of corer/hand drill. 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC227

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389257.47 - 413398.67

Hole Type
WS

Location: Rochdale

Level: 120.03

Scale
1:10

Client: Willmott Dixon

Dates: 11/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.60	ES		0.11	119.92		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.
					0.24	119.79		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.
								MADE GROUND: Strong, bluish grey, high aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone.
					0.48	119.55		MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx Ø5mm at 0.34m bgl. Thin, black plastic/rubber layer at base.
								MADE GROUND: Weak, grey, high aggregate CONCRETE. Aggregate recovered as gravel and cobbles. Aggregate is fine to coarse, subangular to subrounded of limestone.
					0.66	119.37		MADE GROUND: Reddish brown, sandy GRAVEL of fine to coarse, angular to subangular, predominantly brick with occasional sandstone.
					0.70	119.33		MADE GROUND: Compacted grey SILT. (possible PFA)
								MADE GROUND
								End of borehole at 0.70 m

1

2

Remarks

1) Concrete core hole and Hand dug pit to 0.70m bgl 2) No groundwater ingress encountered 3) Terminated at required depth 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC228

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389267.94 - 413395.42

Hole Type
WS

Location: Rochdale

Level: 120.06

Scale
1:10

Client: Willmott Dixon

Dates: 14/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.45	ES		0.14	119.92		MADE GROUND: Black high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone. MADE GROUND	1
					0.28	119.78		MADE GROUND: Strong dark grey, medium to high aggregate CONCRETE. Aggregate is fine to coarse, angular to subrounded of limestone. No rebar.	
					0.31	119.75		MADE GROUND	
					0.44	119.62		MADE GROUND: Very compacted brown, sandy GRAVEL of fine to coarse, angular to subangular mixed lithologies including brick, concrete, mudstone, rare glass, coal and timber fragments. MADE GROUND	
						119.57		MADE GROUND: Strong grey high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar. Core spans slab joint. MADE GROUND	
								MADE GROUND: Brownish grey, clayey GRAVEL of fine to coarse, angular to subangular mixed lithologies including limestone and sandstone. Surrounding thick black plastic / rubber (DPM) layer (degraded to large fibrous pieces - possible ACM) MADE GROUND	
					0.73	119.33		MADE GROUND: Strong grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar MADE GROUND	
					0.85	119.21		MADE GROUND: Compacted grey slightly clayey SILT (possible PFA) MADE GROUND	
								End of borehole at 0.85 m	

Remarks

1) Concrete core hole and Hand dug pit to 0.85m bgl 2) No groundwater ingress encountered 3) Terminated at target depth 4) Black plastic /rubber DPM layer observed to be degraded to large fibrous pieces (possible ACM) 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC229

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389276.42 - 413392.99

Hole Type
WS

Location: Rochdale

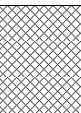
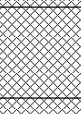
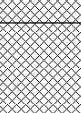
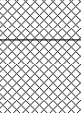
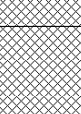
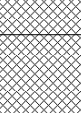
Level: 120.08

Scale
1:10

Client: Willmott Dixon

Dates: 14/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.65	ES		0.15	119.93		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone. MADE GROUND
					0.27	119.81		MADE GROUND: Strong, brownish grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar. MADE GROUND
					0.32	119.76		MADE GROUND: Strong, brownish grey, high aggregate CONCRETE. Aggregate is fine, angular to subangular of limestone and rare brick. MADE GROUND
					0.49	119.59		MADE GROUND: Strong, grey, medium to high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx Ø5mm at 0.38m bgl. Thin black plastic / rubber layer (DPM) at base. MADE GROUND
					0.62	119.46		MADE GROUND: Grey, sandy GRAVEL of fine to coarse, angular to subrounded mixed lithologies including concrete, limestone, occasional brick and sandstone. MADE GROUND
					0.78	119.30		MADE GROUND: Compacted, reddish brownish grey, slightly sandy, fine to coarse, angular to angular GRAVEL of brick with rare mudstone and clinker. MADE GROUND
					0.91	119.17		MADE GROUND: Compacted grey, slightly sandy SILT (possible PFA) MADE GROUND
								End of borehole at 0.91 m

1

2

Remarks

1) Concrete core hole and Hand dug pit to 0.91m bgl 2) No groundwater ingress encountered 3) Terminated at required depth 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at base.





Borehole Log

Borehole No.

WC230

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389225.21 - 413399.13

Hole Type
WS

Location: Rochdale

Level: 119.89

Scale
1:10

Client: Willmott Dixon

Dates: 11/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.45	ES		0.10	119.79		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.
					0.15	119.74		MADE GROUND
								MADE GROUND: Strong, bluish grey, high aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone. No rebar.
								MADE GROUND
					0.35	119.54		MADE GROUND: Strong, grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx Ø5mm at 0.20m bgl. Thin, black plastic/ rubber layer at base.
					0.40	119.49		MADE GROUND
								MADE GROUND: Medium strong, grey, high aggregate CONCRETE. Aggregate is fine to coarse, subangular to subrounded of limestone. No rebar.
					0.52	119.37		MADE GROUND
					0.55	119.34		MADE GROUND: Compacted grey SILT with occasional fine to medium angular to subangular gravel of brick.
								MADE GROUND
								MADE GROUND: Concrete obstruction in centre of pit, (dug down along southern side)
								MADE GROUND
End of borehole at 0.55 m								

1

2

Remarks

1) Concrete core hole and Hand dug pit to 0.55m bgl 2) No groundwater ingress encountered 3) Terminated at target depth and obstruction 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC231

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389236.62 - 413396.22

Hole Type
WS

Location: Rochdale

Level: 119.95

Scale
1:10

Client: Willmott Dixon

Dates: 14/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.11	119.84		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	
					0.19	119.76		MADE GROUND	
					0.31	119.64		MADE GROUND: Moderately strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.	
								MADE GROUND	
								MADE GROUND: Strong, grey, medium to high aggregate CONCRETE, stepped with brown grey cobbles of limestone and rare glass in Northern half of core to 0.22m bgl, underlain by concrete. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx 5mm Ø at 0.28m bgl. Base of concrete is diagonal (sloping down to South) with thin plastic/rubber layer diagonally at base.	
								MADE GROUND	
								<i>imprint of former floor tiles observed on surface of concrete at 0.19m bgl</i>	
								MADE GROUND: Grey concrete, sloping down to 0.46m bgl. Core not recoverable. Hand drilled to 0.90m bgl with concrete continuing beyond this depth.	
								MADE GROUND	
					0.90	119.05		End of borehole at 0.90 m	

1

2

Remarks

1) Concrete core hole to 0.46m bgl, hand drilled to 0.90m bgl 2) No groundwater ingress encountered 3) Terminated due to concrete obstruction 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC232

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389246.63 - 413392.39

Hole Type
WS

Location: Rochdale

Level: 119.94

Scale
1:10

Client: Willmott Dixon

Dates: 11/04/2025 -

Logged By
GF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.11	119.83		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	1
					0.17	119.77		MADE GROUND	
					0.19	119.75		MADE GROUND: Strong, bluish grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.	
					0.23	119.71		MADE GROUND	
								MADE GROUND: Brick floor tiles	
								MADE GROUND	
					0.40	119.54		MADE GROUND: Strong, brownish grey, low aggregate CONCRETE. Aggregate is fine, subangular of granite and limestone. No rebar	
					0.46	119.48		MADE GROUND	
								MADE GROUND: Strong, grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx 5mm Ø at 0.27m bgl. Thin black plastic/rubber layer at base.	
								MADE GROUND	
								MADE GROUND: Moderately strong, brownish grey, high aggregate CONCRETE. Aggregate is fine to coarse, subangular to subrounded of limestone.	
								MADE GROUND	
					1.00	118.94		MADE GROUND: Stepped concrete obstruction. Cored to 1.00m bgl but unable to break off / recover core due to further concrete beyond base.	
								MADE GROUND	
								End of borehole at 1.00 m	2

Remarks

1) Concrete core hole to 1.00m bgl 2) No groundwater ingress encountered 3) Terminated due to further concrete beyond base of core 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC233

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389251.66 - 413406.12

Hole Type
WS

Location: Rochdale

Level: 120.05

Scale
1:10

Client: Willmott Dixon

Dates: 11/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.65	ES		0.08	119.96		MADE GROUND: Black, high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone.	1
					0.28	119.76		MADE GROUND: Strong, dark grey, medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.	
					0.34	119.70		MADE GROUND: Strong, grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.	
					0.52	119.52		MADE GROUND: Moderately strong, brownish grey, high aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. No rebar.	
					0.60	119.44		MADE GROUND: Dark brownish grey, sandy GRAVEL of fine to coarse, angular to subangular predominantly brick with occasional concrete and sandstone. Concrete over north half of borehole - possible wall / footing.	
					0.77	119.28		MADE GROUND: Compacted grey, slightly clayey SILT (possible PFA)	
					0.86	119.18		MADE GROUND: End of borehole at 0.86 m	

Remarks

1) Concrete core hole and Hand dug pit to 0.86m bgl 2) No groundwater ingress encountered 3) Terminated at target depth with obstruction over northern half of borehole 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.





Borehole Log

Borehole No.

WC234

Sheet 1 of 1

Project Name: Hopwood Hall College

Project No.
TE1880

Co-ords: 389253.78 - 413414.67

Hole Type
WS

Location: Rochdale

Level: 119.89

Scale
1:10

Client: Willmott Dixon

Dates: 08/04/2025 -

Logged By
SE

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40	ES		0.13	119.76		MADE GROUND: Black high aggregate ASPHALT. Aggregate is fine to coarse, angular to subangular of limestone. MADE GROUND	
					0.17	119.72		MADE GROUND: Strong, dark grey, low to medium aggregate CONCRETE. Aggregate is fine to medium, angular to subangular of limestone. No rebar MADE GROUND	
					0.35	119.54		MADE GROUND: Strong, grey medium aggregate CONCRETE. Aggregate is fine to coarse, angular to subangular of limestone. Rare rebar approx Ø5mm. Thin black plastic/rubber layer (DPM?) at base. MADE GROUND	
					0.39	119.50		MADE GROUND: Grey, fine to coarse, subangular to subrounded GRAVEL of limestone and concrete. (loose fill concrete) MADE GROUND	
					0.42	119.47			
					0.49	119.40			
									MADE GROUND: Greyish brown, slightly clayey, sandy GRAVEL of fine to coarse, angular to subangular brick, occasional sandstone, mudstone and concrete. MADE GROUND
									MADE GROUND: Stepped concrete obstruction 0.42m bgl north of hole, 0.49m bgl south. MADE GROUND
									End of borehole at 0.49 m

1

2

Remarks

1) Concrete core hole and Hand dug pit to 0.49m bgl 2) No groundwater ingress encountered 3) Terminated due to stepped concrete obstruction at base 4) No visual or olfactory evidence of contamination 5) Backfilled with arisings and concrete reinstated at surface.



APPENDIX C - GEOENVIRONMENTAL SOIL LABORATORY RESULTS

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



4225



Attention : Adrian Read

Date : 12th May, 2025

Your reference : TE1880

Our reference : Test Report 25/6068 Batch 1

Location : Hopwood Hall College

Date samples received : 12th April, 2025

Status : Final Report

Issue : 202505121202

Twenty one samples were received for analysis on 12th April, 2025 of which twenty one were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

The greenhouse gas emissions generated (in Carbon – Co2e) to obtain the results in this report are estimated as:

Scope 1&2 emissions - 52.635 kg of CO2

Scope 1&2&3 emissions - 124.39 kg of CO2

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6068

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-4	5-8	9-12	13-16	17-20	21-24	25-28	29-32	33-36	37-40	Please see attached notes for all abbreviations and acronyms		
Sample ID	WC206	WC207	WC208	WC209	WC210	WC211	WC211	WC212	WC214	WC215			
Depth	0.60	0.40	0.40	0.40	0.35	0.40	0.55	0.48	0.50	0.40			
COC No / misc													
Containers	V J T	V J T	V J T	V J T B	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	07/04/2025	07/04/2025	07/04/2025	07/04/2025	07/04/2025	07/04/2025	07/04/2025	07/04/2025	10/04/2025	10/04/2025			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1	LOD/LOR	Units	Method No.
Date of Receipt	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025			
Arsenic #	7.7	-	-	-	-	-	-	-	-	10.2	<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #	40.4	-	-	-	-	-	-	-	-	22.7	<0.5	mg/kg	TM30/PM15
Copper #	48	-	-	-	-	-	-	-	-	24	<1	mg/kg	TM30/PM15
Lead #	80	-	-	-	-	-	-	-	-	92	<5	mg/kg	TM30/PM15
Mercury #	<0.1	-	-	-	-	-	-	-	-	0.1	<0.1	mg/kg	TM30/PM15
Nickel #	22.3	-	-	-	-	-	-	-	-	9.2	<0.7	mg/kg	TM30/PM15
Selenium #	<1	-	-	-	-	-	-	-	-	<1	<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	524	-	-	-	-	-	-	-	-	5417	<50	mg/kg	TM50/PM29
Zinc #	103	-	-	-	-	-	-	-	-	41	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	0.16	-	-	-	-	-	-	-	-	0.07	<0.04	mg/kg	TM4/PM8
Acenaphthylene	0.59	-	-	-	-	-	-	-	-	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.20	-	-	-	-	-	-	-	-	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	0.16	-	-	-	-	-	-	-	-	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	2.02	-	-	-	-	-	-	-	-	0.11	<0.03	mg/kg	TM4/PM8
Anthracene #	1.58	-	-	-	-	-	-	-	-	0.06	<0.04	mg/kg	TM4/PM8
Fluoranthene #	15.98	-	-	-	-	-	-	-	-	0.10	<0.03	mg/kg	TM4/PM8
Pyrene #	15.30	-	-	-	-	-	-	-	-	0.10	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	8.86	-	-	-	-	-	-	-	-	0.09	<0.06	mg/kg	TM4/PM8
Chrysene #	8.73	-	-	-	-	-	-	-	-	0.09	<0.02	mg/kg	TM4/PM8
Benzo(b)fluoranthene #	17.01	-	-	-	-	-	-	-	-	0.13	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	11.51	-	-	-	-	-	-	-	-	0.07	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	7.24	-	-	-	-	-	-	-	-	0.06	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	1.01	-	-	-	-	-	-	-	-	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	6.77	-	-	-	-	-	-	-	-	0.07	<0.04	mg/kg	TM4/PM8
Coronene	1.33	-	-	-	-	-	-	-	-	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	97.1	-	-	-	-	-	-	-	-	1.0	<0.6	mg/kg	TM4/PM8
PAH 17 Total	98.45	-	-	-	-	-	-	-	-	0.95	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	12.25	-	-	-	-	-	-	-	-	0.09	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	4.76	-	-	-	-	-	-	-	-	0.04	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	95	-	-	-	-	-	-	-	-	97	<0	%	TM4/PM8
Methyl Tertiary Butyl Ether #	<2	-	-	-	-	-	-	-	-	<2	<2	ug/kg	TM15/PM10
Benzene #	<3	-	-	-	-	-	-	-	-	<3	<3	ug/kg	TM15/PM10
Toluene #	<3	-	-	-	-	-	-	-	-	<3	<3	ug/kg	TM15/PM10
Ethylbenzene #	<3	-	-	-	-	-	-	-	-	<3	<3	ug/kg	TM15/PM10
m/p-Xylene #	<5	-	-	-	-	-	-	-	-	<5	<5	ug/kg	TM15/PM10
o-Xylene #	<3	-	-	-	-	-	-	-	-	<3	<3	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	61	-	-	-	-	-	-	-	-	72	<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	69	-	-	-	-	-	-	-	-	77	<0	%	TM15/PM10
Mineral Oil (C10-C40) (EH_CU_1D_AL)	153AA	-	-	-	-	-	-	-	-	<30	<30	mg/kg	TM5/PM8/PM16

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6068

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-4	5-8	9-12	13-16	17-20	21-24	25-28	29-32	33-36	37-40	Please see attached notes for all abbreviations and acronyms		
Sample ID	WC206	WC207	WC208	WC209	WC210	WC211	WC211	WC212	WC214	WC215			
Depth	0.60	0.40	0.40	0.40	0.35	0.40	0.55	0.48	0.50	0.40			
COC No / misc													
Containers	V J T	V J T	V J T	V J T B	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	07/04/2025	07/04/2025	07/04/2025	07/04/2025	07/04/2025	07/04/2025	07/04/2025	07/04/2025	10/04/2025	10/04/2025			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.8 ^{AA}	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<16 ^{AA}	<4	<4	<4	<4	<4	<4	7	<4	<4	<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<28 ^{AA}	<7	<7	12	<7	<7	<7	15	<7	<7	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	100 ^{AA}	<7	62	21	<7	19	<7	35	<7	12	<7	mg/kg	TM5/PM8/PM16
>C35-C40 (EH_CU_1D_AL)	53 ^{AA}	<7	23	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-40 (EH_CU+HS_1D_AL)	153 ^{AA}	<26	85	33	<26	<26	<26	57	<26	<26	<26	mg/kg	TM5/PM8/PM16/PM12/PM10
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.8 ^{AA}	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<16 ^{AA}	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	59 ^{AA}	<7	8	9	<7	<7	<7	<7	12	<7	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	371 ^{AA}	30	118	<7	54	49	13	29	28	<7	<7	mg/kg	TM5/PM8/PM16
>EC35-EC40 (EH_CU_1D_AR)	182 ^{AA}	<7	58	<7	16	18	<7	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-40 (EH_CU+HS_1D_AR)	612 ^{AA}	30	184	<26	70	67	<26	29	40	<26	<26	mg/kg	TM5/PM8/PM16/PM12/PM10
Total aliphatics and aromatics(C5-40) (EH_CU+HS_1D_Total)	765 ^{AA}	<52	269	<52	70	67	<52	86	<52	<52	<52	mg/kg	TM5/PM8/PM16/PM12/PM10
MTBE #	-	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	-	<5	ug/kg	TM36/PM12
Benzene #	-	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	-	<5	ug/kg	TM36/PM12
Toluene #	-	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	-	<5	ug/kg	TM36/PM12
Ethylbenzene #	-	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	-	<5	ug/kg	TM36/PM12
m/p-Xylene #	-	<5	<5	9	<5 ^{SV}	<5	<5	<5	<5	-	<5	ug/kg	TM36/PM12
o-Xylene #	-	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	-	<5	ug/kg	TM36/PM12
PCB 28 #	<50 ^{AB}	-	-	-	-	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 52 #	<50 ^{AB}	-	-	-	-	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 101 #	<50 ^{AB}	-	-	-	-	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 118 #	<50 ^{AB}	-	-	-	-	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 138 #	<50 ^{AB}	-	-	-	-	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 153 #	<50 ^{AB}	-	-	-	-	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 180 #	<50 ^{AB}	-	-	-	-	-	-	-	-	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<350 ^{AB}	-	-	-	-	-	-	-	-	<35	<35	ug/kg	TM17/PM8
Total Phenols HPLC	<0.15	-	-	-	-	-	-	-	-	<0.15	<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	10.8	25.9	19.9	30.8	25.5	21.4	17.8	21.4	15.8	11.7	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	-	-	-	-	-	-	-	-	<0.3	<0.3	mg/kg	TM38/PM20

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6068

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	41-44	45-48	49-52	53-56	57-60	61-64	65-68	69-72	73-76	77	Please see attached notes for all abbreviations and acronyms		
Sample ID	WC216	WC217	WC218	WC220	WC221	WC223A	WC224	WC225	WC234	WC214			
Depth	0.55	0.50	0.50	0.55	0.50	0.50	0.50	0.60	0.40	0.30			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	J			
Sample Date	10/04/2025	10/04/2025	10/04/2025	08/04/2025	08/04/2025	10/04/2025	10/04/2025	10/04/2025	08/04/2025	10/04/2025			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1	LOD/LOR	Units	Method No.
Date of Receipt	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025			
Arsenic #	-	-	-	-	-	1.8	-	10.9	-	-	<0.5	mg/kg	TM30/PM15
Cadmium #	-	-	-	-	-	<0.1	-	<0.1	-	-	<0.1	mg/kg	TM30/PM15
Chromium #	-	-	-	-	-	41.0	-	25.5	-	-	<0.5	mg/kg	TM30/PM15
Copper #	-	-	-	-	-	9	-	20	-	-	<1	mg/kg	TM30/PM15
Lead #	-	-	-	-	-	12	-	178	-	-	<5	mg/kg	TM30/PM15
Mercury #	-	-	-	-	-	<0.1	-	<0.1	-	-	<0.1	mg/kg	TM30/PM15
Nickel #	-	-	-	-	-	19.8	-	11.0	-	-	<0.7	mg/kg	TM30/PM15
Selenium #	-	-	-	-	-	<1	-	<1	-	-	<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	-	-	-	-	-	140	-	1139	-	-	<50	mg/kg	TM50/PM29
Zinc #	-	-	-	-	-	46	-	32	-	-	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	-	-	-	-	-	<0.04	-	<0.04	-	-	<0.04	mg/kg	TM4/PM8
Acenaphthylene	-	-	-	-	-	0.04	-	<0.03	-	-	<0.03	mg/kg	TM4/PM8
Acenaphthene #	-	-	-	-	-	<0.05	-	<0.05	-	-	<0.05	mg/kg	TM4/PM8
Fluorene #	-	-	-	-	-	<0.04	-	<0.04	-	-	<0.04	mg/kg	TM4/PM8
Phenanthrene #	-	-	-	-	-	0.29	-	<0.03	-	-	<0.03	mg/kg	TM4/PM8
Anthracene #	-	-	-	-	-	0.12	-	<0.04	-	-	<0.04	mg/kg	TM4/PM8
Fluoranthene #	-	-	-	-	-	1.25	-	0.07	-	-	<0.03	mg/kg	TM4/PM8
Pyrene #	-	-	-	-	-	2.18	-	0.06	-	-	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	-	-	-	-	-	1.07	-	<0.06	-	-	<0.06	mg/kg	TM4/PM8
Chrysene #	-	-	-	-	-	1.05	-	<0.02	-	-	<0.02	mg/kg	TM4/PM8
Benzo(b)fluoranthene #	-	-	-	-	-	1.79	-	<0.07	-	-	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	-	-	-	-	-	1.13	-	<0.04	-	-	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	-	-	-	-	-	0.66	-	<0.04	-	-	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	-	-	-	-	-	0.08	-	<0.04	-	-	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	-	-	-	-	-	0.55	-	<0.04	-	-	<0.04	mg/kg	TM4/PM8
Coronene	-	-	-	-	-	0.09	-	<0.04	-	-	<0.04	mg/kg	TM4/PM8
PAH 16 Total	-	-	-	-	-	10.2	-	<0.6	-	-	<0.6	mg/kg	TM4/PM8
PAH 17 Total	-	-	-	-	-	10.30	-	<0.64	-	-	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	-	-	-	-	-	1.29	-	<0.05	-	-	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	-	-	-	-	-	0.50	-	<0.02	-	-	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	-	-	-	-	-	98	-	92	-	-	<0	%	TM4/PM8
Methyl Tertiary Butyl Ether #	-	-	-	-	-	<2	-	<2	-	-	<2	ug/kg	TM15/PM10
Benzene #	-	-	-	-	-	<3	-	<3	-	-	<3	ug/kg	TM15/PM10
Toluene #	-	-	-	-	-	<3	-	<3	-	-	<3	ug/kg	TM15/PM10
Ethylbenzene #	-	-	-	-	-	<3	-	<3	-	-	<3	ug/kg	TM15/PM10
m/p-Xylene #	-	-	-	-	-	<5	-	<5	-	-	<5	ug/kg	TM15/PM10
o-Xylene #	-	-	-	-	-	<3	-	<3	-	-	<3	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	-	-	-	-	-	77	-	78	-	-	<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	-	-	-	-	-	100	-	84	-	-	<0	%	TM15/PM10
Mineral Oil (C10-C40) (EH_CU_1D_AL)	-	-	-	-	-	68	-	<30	-	-	<30	mg/kg	TM5/PM8/PM16

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6068

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	41-44	45-48	49-52	53-56	57-60	61-64	65-68	69-72	73-76	77	Please see attached notes for all abbreviations and acronyms		
Sample ID	WC216	WC217	WC218	WC220	WC221	WC223A	WC224	WC225	WC234	WC214			
Depth	0.55	0.50	0.50	0.55	0.50	0.50	0.50	0.60	0.40	0.30			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	J			
Sample Date	10/04/2025	10/04/2025	10/04/2025	08/04/2025	08/04/2025	10/04/2025	10/04/2025	10/04/2025	08/04/2025	10/04/2025			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	12/04/2025	LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	0.2	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	43.4	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	<4	<4	<4	<4	<4	<4	<4	<4	212	<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<7	<7	<7	<7	<7	9	<7	<7	<7	206	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	<7	<7	22	<7	<7	59	54	27	<7	211	<7	mg/kg	TM5/PM8/PM16
>C35-C40 (EH_CU_1D_AL)	<7	<7	<7	<7	<7	<7	<7	<7	<7	17	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-40 (EH_CU+HS_1D_AL)	<26	<26	<26	<26	<26	68	54	27	<26	689	<26	mg/kg	TM5/PM8/PM16/PM12/PM10
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	11.7	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<4	<4	<4	<4	<4	<4	<4	<4	<4	623	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	<7	<7	<7	<7	<7	18	<7	<7	<7	4879	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	<7	<7	36	<7	<7	92	18	18	39	7621	<7	mg/kg	TM5/PM8/PM16
>EC35-EC40 (EH_CU_1D_AR)	<7	<7	16	<7	<7	23	<7	<7	15	731	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-40 (EH_CU+HS_1D_AR)	<26	<26	52	<26	<26	133	<26	<26	54	13866	<26	mg/kg	TM5/PM8/PM16/PM12/PM10
Total aliphatics and aromatics(C5-40) (EH_CU+HS_1D_Total)	<52	<52	52	<52	<52	201	54	<52	54	14555	<52	mg/kg	TM5/PM8/PM16/PM12/PM10
MTBE #	<5	<5	<5 ^{SV}	<5 ^{SV}	<5	-	<5	-	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
Benzene #	<5	<5	<5 ^{SV}	<5 ^{SV}	<5	-	<5	-	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
Toluene #	<5	<5	<5 ^{SV}	<5 ^{SV}	<5	-	<5	-	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	<5	<5 ^{SV}	<5 ^{SV}	<5	-	<5	-	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
m/p-Xylene #	<5	15	<5 ^{SV}	<5 ^{SV}	<5	-	<5	-	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
o-Xylene #	<5	36	<5 ^{SV}	<5 ^{SV}	<5	-	<5	-	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
PCB 28 #	-	-	-	-	-	<5	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 52 #	-	-	-	-	-	<5	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 101 #	-	-	-	-	-	<5	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 118 #	-	-	-	-	-	<5	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 138 #	-	-	-	-	-	<5	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 153 #	-	-	-	-	-	<5	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 180 #	-	-	-	-	-	<5	-	<5	-	-	<5	ug/kg	TM17/PM8
Total 7 PCBs #	-	-	-	-	-	<35	-	<35	-	-	<35	ug/kg	TM17/PM8
Total Phenols HPLC	-	-	-	-	-	<0.15	-	<0.15	-	-	<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	21.4	16.9	31.5	20.3	19.6	8.0	14.2	18.0	18.5	3.5	<0.1	%	PM4/PM0
Hexavalent Chromium #	-	-	-	-	-	<0.3	-	<0.3	-	-	<0.3	mg/kg	TM38/PM20

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6068

Report : Solid

Solids: V=60g VOC jar. J=250g glass jar. T=plastic tub

[illegible]

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6068

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

[illegible]

Please see attached notes for all abbreviations and acronyms

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6068

VOC Report : Solid

EMT Sample No.	1-4	37-40	61-64	69-72							Please see attached notes for all abbreviations and acronyms		
Sample ID	WC206	WC215	WC223A	WC225									
Depth	0.60	0.40	0.50	0.60									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	07/04/2025	10/04/2025	10/04/2025	10/04/2025									
Sample Type	Soil	Soil	Soil	Soil									
Batch Number	1	1	1	1							LOD/LOR	Units	Method No.
Date of Receipt	12/04/2025	12/04/2025	12/04/2025	12/04/2025									
VOC MS													
Dichlorodifluoromethane	<2	<2	<2	<2							<2	ug/kg	TM15/PM10
Methyl Tertiary Butyl Ether #	<2	<2	<2	<2							<2	ug/kg	TM15/PM10
Chloromethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Vinyl Chloride	<2	<2	<2	<2							<2	ug/kg	TM15_A/PM10
Bromomethane	<1	<1	<1	<1							<1	ug/kg	TM15/PM10
Chloroethane #	<2	<2	<2	<2							<2	ug/kg	TM15/PM10
Trichlorofluoromethane #	<2	<2	<2	<2							<2	ug/kg	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
Dichloromethane (DCM) #	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
trans-1-2-Dichloroethene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1-Dichloroethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
cis-1-2-Dichloroethene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
2,2-Dichloropropane	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Bromochloromethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Chloroform #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1,1-Trichloroethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1-Dichloropropene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Carbon tetrachloride #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2-Dichloroethane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Benzene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Trichloroethene (TCE) #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,2-Dichloropropane #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
Dibromomethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Bromodichloromethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
cis-1-3-Dichloropropene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Toluene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
trans-1-3-Dichloropropene	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1,2-Trichloroethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,3-Dichloropropane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Dibromochloromethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,2-Dibromoethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Chlorobenzene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1,1,2-Tetrachloroethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Ethylbenzene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
m/p-Xylene #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
o-Xylene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Styrene	<3	<3	<3	<3							<3	ug/kg	TM15_A/PM10
Bromoform	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Isopropylbenzene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1,2,2-Tetrachloroethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Bromobenzene	<2	<2	<2	<2							<2	ug/kg	TM15/PM10
1,2,3-Trichloropropane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Propylbenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
2-Chlorotoluene	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,3,5-Trimethylbenzene #	<3	21	<3	13							<3	ug/kg	TM15/PM10
4-Chlorotoluene	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
tert-Butylbenzene #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,2,4-Trimethylbenzene #	<6	71	<6	41							<6	ug/kg	TM15/PM10
sec-Butylbenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
4-Isopropyltoluene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,3-Dichlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,4-Dichlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
n-Butylbenzene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2-Dichlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2-Dibromo-3-chloropropane	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2,4-Trichlorobenzene	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
Hexachlorobutadiene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Naphthalene	<27	<27	<27	<27							<27	ug/kg	TM15/PM10
1,2,3-Trichlorobenzene	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	61	72	77	78							<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	69	77	100	84							<0	%	TM15/PM10

Mass of sample taken (kg)	0.1025	Moisture Content Ratio (%) =	14.4
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	87.4
Particle Size <4mm =	>95%		
EMT Job No	25/6068	Landfill Waste Acceptance Criteria Limits Inert Waste Landfill Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill Hazardous Waste Landfill	
Sample No	3		
Client Sample No	WC206		
Depth/Other	0.60		
Sample Date	07/04/2025		
Batch No	1		
Solid Waste Analysis			
Total Organic Carbon (%)	3.31	3	5
Loss on Ignition (%)	4.3	-	10
Sum of BTEX (mg/kg)	<0.017	6	-
Sum of 7 PCBs (mg/kg)	<0.350	1	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	153	500	-
PAH Sum of 17(mg/kg)	98.45	100	-
pH (pH Units)	9.30	-	>6
ANC to pH 7 (mol/kg)	0.06	-	to be evaluated
ANC to pH 4 (mol/kg)	1.47	-	to be evaluated
Eluate Analysis	10:1 concⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg mg/kg
	C₁₀ mg/l	A₁₀ mg/kg	
Arsenic	0.0052	0.052	0.5
Barium	0.020	0.20	20
Cadmium	<0.0005	<0.005	0.04
Chromium	0.0098	0.098	0.5
Copper	<0.007	<0.07	2
Mercury	<0.001	<0.01	0.01
Molybdenum	<0.002	<0.02	0.5
Nickel	<0.002	<0.02	0.4
Lead	<0.005	<0.05	0.5
Antimony	<0.002	<0.02	0.06
Selenium	<0.003	<0.03	0.1
Zinc	<0.003	<0.03	4
Chloride	0.8	8	800
Fluoride	<0.3	<3	10
Sulphate as SO ₄	4.6	46	1000
Total Dissolved Solids	57	570	4000
Phenol	<0.01	<0.1	1
Dissolved Organic Carbon	<2	<20	500

Mass of sample taken (kg)	0.1021	Moisture Content Ratio (%) =	13.4
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	88.2
Particle Size <4mm =	>95%		
EMT Job No	25/6068	Landfill Waste Acceptance Criteria Limits Inert Waste Landfill Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill Hazardous Waste Landfill	
Sample No	39		
Client Sample No	WC215		
Depth/Other	0.40		
Sample Date	10/04/2025		
Batch No	1		
Solid Waste Analysis			
Total Organic Carbon (%)	1.15	3	5
Loss on Ignition (%)	2.1	-	10
Sum of BTEX (mg/kg)	<0.017	6	-
Sum of 7 PCBs (mg/kg)	<0.035	1	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	<30	500	-
PAH Sum of 17(mg/kg)	0.95	100	-
pH (pH Units)	10.28	-	>6
ANC to pH 7 (mol/kg)	0.11	-	to be evaluated
ANC to pH 4 (mol/kg)	1.53	-	to be evaluated
Eluate Analysis	10:1 concⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg mg/kg
	C₁₀ mg/l	A₁₀ mg/kg	
Arsenic	0.0046	0.046	0.5
Barium	0.027	0.27	20
Cadmium	<0.0005	<0.005	0.04
Chromium	0.0035	0.035	0.5
Copper	<0.007	<0.07	2
Mercury	<0.001	<0.01	0.01
Molybdenum	0.015	0.15	0.5
Nickel	<0.002	<0.02	0.4
Lead	<0.005	<0.05	0.5
Antimony	0.003	0.03	0.06
Selenium	<0.003	<0.03	0.1
Zinc	<0.003	<0.03	4
Chloride	2.3	23	800
Fluoride	0.4	4	10
Sulphate as SO ₄	646.4	6464	1000
Total Dissolved Solids	1099	10991	4000
Phenol	<0.01	<0.1	1
Dissolved Organic Carbon	2	20	500

Mass of sample taken (kg)	0.1017	Moisture Content Ratio (%) =	13.1
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	88.4
Particle Size <4mm =	>95%		
EMT Job No	25/6068	Landfill Waste Acceptance Criteria Limits	
Sample No	63		
Client Sample No	WC223A		
Depth/Other	0.50		
Sample Date	10/04/2025		
Batch No	1		
Solid Waste Analysis		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non- Hazardous Landfill
Total Organic Carbon (%)	0.08	3	5
Loss on Ignition (%)	1.9	-	10
Sum of BTEX (mg/kg)	<0.017	6	-
Sum of 7 PCBs (mg/kg)	<0.035	1	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	68	500	-
PAH Sum of 17(mg/kg)	10.30	100	-
pH (pH Units)	9.58	-	>6
ANC to pH 7 (mol/kg)	0.10	-	to be evaluated
ANC to pH 4 (mol/kg)	0.44	-	to be evaluated
Eluate Analysis	10:1 conc ⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg
	C ₁₀ mg/l	A ₁₀ mg/kg	
Arsenic	<0.0025	<0.025	0.5
Barium	0.006	0.06	20
Cadmium	<0.0005	<0.005	0.04
Chromium	<0.0015	<0.015	0.5
Copper	<0.007	<0.07	2
Mercury	<0.001	<0.01	0.01
Molybdenum	<0.002	<0.02	0.5
Nickel	<0.002	<0.02	0.4
Lead	<0.005	<0.05	0.5
Antimony	<0.002	<0.02	0.06
Selenium	<0.003	<0.03	0.1
Zinc	<0.003	<0.03	4
Chloride	4.4	44	800
Fluoride	0.3	<3	10
Sulphate as SO ₄	10.1	101	1000
Total Dissolved Solids	88	880	4000
Phenol	<0.01	<0.1	1
Dissolved Organic Carbon	3	30	500

Mass of sample taken (kg)	0.1116	Moisture Content Ratio (%) =	24.5
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	80.3
Particle Size <4mm =	>95%		
EMT Job No	25/6068	Landfill Waste Acceptance Criteria Limits Inert Waste Landfill Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill Hazardous Waste Landfill	
Sample No	71		
Client Sample No	WC225		
Depth/Other	0.60		
Sample Date	10/04/2025		
Batch No	1		
Solid Waste Analysis			
Total Organic Carbon (%)	0.82	3	5
Loss on Ignition (%)	2.4	-	10
Sum of BTEX (mg/kg)	<0.017	6	-
Sum of 7 PCBs (mg/kg)	<0.035	1	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	<30	500	-
PAH Sum of 17(mg/kg)	<0.64	100	-
pH (pH Units)	11.67	-	>6
ANC to pH 7 (mol/kg)	0.14	-	to be evaluated
ANC to pH 4 (mol/kg)	1.19	-	to be evaluated
Eluate Analysis	10:1 concⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg mg/kg
	C₁₀	A₁₀	
	mg/l	mg/kg	
Arsenic	0.0042	0.042	0.5
Barium	0.046	0.46	20
Cadmium	<0.0005	<0.005	0.04
Chromium	0.0037	0.037	0.5
Copper	<0.007	<0.07	2
Mercury	<0.001	<0.01	0.01
Molybdenum	<0.002	<0.02	0.5
Nickel	<0.002	<0.02	0.4
Lead	<0.005	<0.05	0.5
Antimony	<0.002	<0.02	0.06
Selenium	<0.003	<0.03	0.1
Zinc	<0.003	<0.03	4
Chloride	9.8	98	800
Fluoride	0.3	3	10
Sulphate as SO ₄	9.3	93	1000
Total Dissolved Solids	223	2230	4000
Phenol	<0.01	<0.1	1
Dissolved Organic Carbon	<2	<20	500

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
25/6068	1	WC206	0.60	4	Mathew Day	24/04/2025	General Description (Bulk Analysis)	soil, stones and bitumen
					Mathew Day	24/04/2025	Asbestos Fibres	Free Fibres
					Mathew Day	24/04/2025	Asbestos ACM	NAD
					Mathew Day	24/04/2025	Asbestos Type	Chrysotile
					Anthony Carman	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Anthony Carman	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Anthony Carman	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos Gravimetric & PCOM Total	<0.001 (mass %)
25/6068	1	WC207	0.40	8	Catherine Coles	24/04/2025	General Description (Bulk Analysis)	brown soil, stone
					Catherine Coles	24/04/2025	Asbestos Fibres	Fibre Bundles
					Catherine Coles	24/04/2025	Asbestos Fibres (2)	Fibre Bundles
					Catherine Coles	24/04/2025	Asbestos ACM	NAD
					Catherine Coles	24/04/2025	Asbestos ACM (2)	NAD
					Catherine Coles	24/04/2025	Asbestos Type	Chrysotile
					Catherine Coles	24/04/2025	Asbestos Type (2)	Amosite
					Catherine Coles	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Catherine Coles	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	0.001 (mass %)
					Catherine Coles	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos Gravimetric & PCOM Total	0.001 (mass %)
25/6068	1	WC208	0.40	12	Tomasz Pawlikowski	24/04/2025	General Description (Bulk Analysis)	gray soil, rocks
					Tomasz Pawlikowski	24/04/2025	Asbestos Fibres	Fibre Bundles
					Tomasz Pawlikowski	24/04/2025	Asbestos Fibres (2)	Free Fibres
					Tomasz Pawlikowski	24/04/2025	Asbestos ACM	NAD
					Tomasz Pawlikowski	24/04/2025	Asbestos ACM (2)	NAD
					Tomasz Pawlikowski	24/04/2025	Asbestos Type	Chrysotile
					Tomasz Pawlikowski	24/04/2025	Asbestos Type (2)	Amosite
					Anthony Carman	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Anthony Carman	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Anthony Carman	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos Gravimetric & PCOM Total	<0.001 (mass %)
25/6068	1	WC209	0.40	16	Mathew Day	23/04/2025	General Description (Bulk Analysis)	Soil, stones and cement debris
					Mathew Day	23/04/2025	Asbestos Fibres	Free Fibres
					Mathew Day	23/04/2025	Asbestos ACM	Bitumen Products

Client Name: Tier Environmental
Reference: TE1880
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EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
25/6068	1	WC209	0.40	16	Mathew Day	23/04/2025	Asbestos Type	Chrysotile
					Anthony Carman	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Anthony Carman	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	0.075 (mass %)
					Anthony Carman	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	0.075 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos Gravimetric & PCOM Total	0.075 (mass %)
25/6068	1	WC210	0.35	20	Charlotte Taylor	24/04/2025	General Description (Bulk Analysis)	brown soil/stones
					Charlotte Taylor	24/04/2025	Asbestos Fibres	NAD
					Charlotte Taylor	24/04/2025	Asbestos ACM	NAD
					Charlotte Taylor	24/04/2025	Asbestos Type	NAD
25/6068	1	WC211	0.40	24	Miriam Silverlock	24/04/2025	General Description (Bulk Analysis)	Brown soil, stones
					Miriam Silverlock	24/04/2025	Asbestos Fibres	NAD
					Miriam Silverlock	24/04/2025	Asbestos ACM	NAD
					Miriam Silverlock	24/04/2025	Asbestos Type	NAD
25/6068	1	WC211	0.55	28	Mathew Day	24/04/2025	General Description (Bulk Analysis)	soil, brick/cement debris
					Mathew Day	24/04/2025	Asbestos Fibres	NAD
					Mathew Day	24/04/2025	Asbestos ACM	NAD
					Mathew Day	24/04/2025	Asbestos Type	NAD
25/6068	1	WC212	0.48	32	Catherine Coles	24/04/2025	General Description (Bulk Analysis)	brown soil,stone, brick
					Catherine Coles	24/04/2025	Asbestos Fibres	Fibre Bundles
					Catherine Coles	24/04/2025	Asbestos ACM	NAD
					Catherine Coles	24/04/2025	Asbestos Type	Chrysotile
					Catherine Coles	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Catherine Coles	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Catherine Coles	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski	12/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Remigiusz Blichowski	12/05/2025	Asbestos Gravimetric & PCOM Total	<0.001 (mass %)
25/6068	1	WC214	0.50	36	Charlotte Taylor	24/04/2025	General Description (Bulk Analysis)	brown soil/stones
					Charlotte Taylor	24/04/2025	Asbestos Fibres	Fibre Bundles
					Charlotte Taylor	24/04/2025	Asbestos ACM	NAD
					Charlotte Taylor	24/04/2025	Asbestos Type	Chrysotile
					Charlotte Taylor	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Charlotte Taylor	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Charlotte Taylor	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos Gravimetric & PCOM Total	<0.001 (mass %)
25/6068	1	WC215	0.40	40	Mathew Day	24/04/2025	General Description (Bulk Analysis)	soil, brick/cement debris
					Mathew Day	24/04/2025	Asbestos Fibres	NAD
					Mathew Day	24/04/2025	Asbestos ACM	NAD
					Mathew Day	24/04/2025	Asbestos Type	NAD
25/6068	1	WC216	0.55	44	Catherine Coles	24/04/2025	General Description (Bulk Analysis)	brown soil,stone
					Catherine Coles	24/04/2025	Asbestos Fibres	Fibre Bundles
					Catherine Coles	24/04/2025	Asbestos ACM	NAD
					Catherine Coles	24/04/2025	Asbestos Type	Chrysotile
					Catherine Coles	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Catherine Coles	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	<0.001 (mass %)

Client Name: Tier Environmental
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EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
25/6068	1	WC216	0.55	44	Catherine Coles	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos Gravimetric & PCOM Total	<0.001 (mass %)
25/6068	1	WC217	0.50	48	Mathew Day	24/04/2025	General Description (Bulk Analysis)	soil, brick/cement debris
					Mathew Day	24/04/2025	Asbestos Fibres	NAD
					Mathew Day	24/04/2025	Asbestos ACM	NAD
					Mathew Day	24/04/2025	Asbestos Type	NAD
25/6068	1	WC218	0.50	52	Simon Postlewhite	24/04/2025	General Description (Bulk Analysis)	Brown soil/stones
					Simon Postlewhite	24/04/2025	Asbestos Fibres	NAD
					Simon Postlewhite	24/04/2025	Asbestos ACM	NAD
					Simon Postlewhite	24/04/2025	Asbestos Type	NAD
25/6068	1	WC220	0.55	56	Tomasz Pawlikowski	24/04/2025	General Description (Bulk Analysis)	brown soil, soil, construction material debris
					Tomasz Pawlikowski	24/04/2025	Asbestos Fibres	Free Fibres
					Tomasz Pawlikowski	24/04/2025	Asbestos ACM	NAD
					Tomasz Pawlikowski	24/04/2025	Asbestos Type	Chrysotile
					Anthony Carman	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Anthony Carman	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Anthony Carman	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
25/6068	1	WC221	0.50	60	Remigiusz Blichowski	02/05/2025	Asbestos Gravimetric & PCOM Total	<0.001 (mass %)
					Simon Postlewhite	24/04/2025	General Description (Bulk Analysis)	Brown soil/stones
					Simon Postlewhite	24/04/2025	Asbestos Fibres	NAD
					Simon Postlewhite	24/04/2025	Asbestos ACM	NAD
25/6068	1	WC223A	0.50	64	Simon Postlewhite	24/04/2025	Asbestos Type	NAD
					Mathew Day	24/04/2025	General Description (Bulk Analysis)	stones and sand
					Mathew Day	24/04/2025	Asbestos Fibres	NAD
					Mathew Day	24/04/2025	Asbestos ACM	NAD
25/6068	1	WC224	0.50	68	Mathew Day	24/04/2025	Asbestos Type	NAD
					Miriam Silverlock	24/04/2025	General Description (Bulk Analysis)	Brown soil, stones
					Miriam Silverlock	24/04/2025	Asbestos Fibres	NAD
					Miriam Silverlock	24/04/2025	Asbestos ACM	NAD
25/6068	1	WC225	0.60	72	Miriam Silverlock	24/04/2025	Asbestos Type	NAD
					Miriam Silverlock	24/04/2025	General Description (Bulk Analysis)	Brown soil, stones
					Miriam Silverlock	24/04/2025	Asbestos Fibres	NAD
					Miriam Silverlock	24/04/2025	Asbestos ACM	NAD
25/6068	1	WC234	0.40	76	Miriam Silverlock	24/04/2025	Asbestos Type	NAD
					Miriam Silverlock	24/04/2025	General Description (Bulk Analysis)	Brown soil/stones
					Simon Postlewhite	24/04/2025	Asbestos Fibres	NAD
					Simon Postlewhite	24/04/2025	Asbestos ACM	NAD
25/6068	1	WC214	0.30	77	Simon Postlewhite	24/04/2025	Asbestos Type	NAD
					Miriam Silverlock	22/04/2025	General Description (Bulk Analysis)	Stones/tar
					Miriam Silverlock	22/04/2025	Asbestos Fibres	NAD
					Miriam Silverlock	22/04/2025	Asbestos ACM	NAD
					Miriam Silverlock	22/04/2025	Asbestos Type	NAD

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read

[illegible]

Matrix : Solid

[illegible]

Client Name:	Tier Environmental
Reference:	TE1880
Location:	Hopwood Hall College
Contact:	Adrian Read

Matrix : Solid

[illegible]

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating. Only analyses which are accredited are recorded as deviating if set criteria are not met.

It is a requirement under ISO 17025 that we inform clients if samples are deviating i.e. outside what is expected. A deviating sample indicates that the sample 'may' be compromised but not necessarily will be compromised. The result is still accredited and our analytical reports will still show accreditation on the relevant analytes.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 25/6068

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 35°C ±5°C.

Where Mineral Oil is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

Age of Diesel

The age of release estimation is based on the nC17/pristane ratio only as prescribed by Christensen and Larsen (1993) and Kaplan, Galperin, Alimi et al., (1996).

Age estimation should be treated with caution as it can be influenced by site specific factors of which the laboratory are not aware.

Tentatively Identified Compounds (TICs)

Where Tentatively Identified Compounds (TICs) are reported, up to 10 Tentatively Identified Compounds will be listed where there is found to be a greater than 80% match with the NIST library. The reported concentration is determined semi-quantitatively, with a matrix specific limit of detection.

Note, other compounds may be present but are not reported.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x4 Dilution
AB	x10 Dilution

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_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
MS	Mass Spectrometry.

EMT Job No: 25/6068

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35 degrees Celsius or 105 degrees Celsius. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes

EMT Job No: 25/6068

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM17	Modified US EPA method 8270D v5:2014. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3:1990/USEPA 160.1/3 (TDS/TS: 1971) Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes
TM22	Modified BS1377-3:1990 Gravimetric determination of Loss on Ignition by temperature controlled Muffle Furnace (35C-440C). On request modified ASTM D2974-00 LOI (105C-440C)	PM0	No preparation is required.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma-Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 degrees Celsius. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) - All anions comparable to BS ISO 15923-1: 2013	PM0	No preparation is required.	Yes		AR	Yes

EMT Job No: 25/6068

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) - All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) - All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM77	Modified DDCE/TN method 15364:2006. Determination of Acid Neutralization Capacity by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	No
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.	Yes		AR	Yes
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	Yes

EMT Job No: 25/6068

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM170	Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma-Mass Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method 6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified	Yes		AR	Yes
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 9214 - 340.2 (EPA 1998)	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35 degrees Celsius or 105 degrees Celsius. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.			AR	
TM15_A	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

Tier Environmental
Suite 414, Chadwick House
Warrington Rd
Birchwood
Warrington
United Kingdom
WA3 6AE



4225



Attention : Adrian Read

Date : 12th May, 2025

Your reference : TE1880

Our reference : Test Report 25/6168 Batch 1

Location : Hopwood Hall College

Date samples received : 15th April, 2025

Status : Final Report

Issue : 202505121115

Twelve samples were received for analysis on 15th April, 2025 of which twelve were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

The greenhouse gas emissions generated (in Carbon – Co2e) to obtain the results in this report are estimated as:

Scope 1&2 emissions - 25.268 kg of CO2

Scope 1&2&3 emissions - 59.714 kg of CO2

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6168

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-4	5-8	9-12	13-16	17-20	21-24	25-28	29-32	33-36	37-40	Please see attached notes for all abbreviations and acronyms		
Sample ID	WC 201	WC 202	WC 203	WC 204	WC 205	WC 213	WC 222	WC 227	WC 228	WC 229			
Depth	0.40	0.45	0.40	0.45	0.40	0.35	0.45	0.60	0.45	0.65			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	J T	J T	V J T	V J T	V J T			
Sample Date	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1	LOD/LOR	Units	Method No.
Date of Receipt	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025			
Arsenic #	-	13.0	-	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM15
Cadmium #	-	<0.1	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Chromium #	-	18.5	-	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM15
Copper #	-	57	-	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Lead #	-	108	-	-	-	-	-	-	-	-	<5	mg/kg	TM30/PM15
Mercury #	-	<0.1	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Nickel #	-	21.0	-	-	-	-	-	-	-	-	<0.7	mg/kg	TM30/PM15
Selenium #	-	<1	-	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	-	603	-	-	-	-	-	-	-	-	<50	mg/kg	TM50/PM29
Zinc #	-	98	-	-	-	-	-	-	-	-	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	-	0.60	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Acenaphthylene	-	0.04	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Acenaphthene #	-	0.09	-	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM8
Fluorene #	-	0.04	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Phenanthrene #	-	0.87	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Anthracene #	-	0.16	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Fluoranthene #	-	1.64	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Pyrene #	-	1.53	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	-	0.92	-	-	-	-	-	-	-	-	<0.06	mg/kg	TM4/PM8
Chrysene #	-	1.26	-	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM8
Benzo(b)fluoranthene #	-	1.57	-	-	-	-	-	-	-	-	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	-	0.99	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	-	0.62	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	-	0.14	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	-	0.55	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Coronene	-	0.11	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
PAH 16 Total	-	11.0	-	-	-	-	-	-	-	-	<0.6	mg/kg	TM4/PM8
PAH 17 Total	-	11.13	-	-	-	-	-	-	-	-	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	-	1.13	-	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	-	0.44	-	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	-	92	-	-	-	-	-	-	-	-	<0	%	TM4/PM8
Methyl Tertiary Butyl Ether #	-	<2	-	-	-	-	-	-	-	-	<2	ug/kg	TM15/PM10
Benzene #	-	4	-	-	-	-	-	-	-	-	<3	ug/kg	TM15/PM10
Toluene #	-	16	-	-	-	-	-	-	-	-	<3	ug/kg	TM15/PM10
Ethylbenzene #	-	<3	-	-	-	-	-	-	-	-	<3	ug/kg	TM15/PM10
m/p-Xylene #	-	11	-	-	-	-	-	-	-	-	<5	ug/kg	TM15/PM10
o-Xylene #	-	4	-	-	-	-	-	-	-	-	<3	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	-	71	-	-	-	-	-	-	-	-	<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	-	64	-	-	-	-	-	-	-	-	<0	%	TM15/PM10
Mineral Oil (C10-C40) (EH_CU_1D_AL)	-	37	-	-	-	-	-	-	-	-	<30	mg/kg	TM5/PM8/PM16

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6168

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-4	5-8	9-12	13-16	17-20	21-24	25-28	29-32	33-36	37-40	Please see attached notes for all abbreviations and acronyms		
Sample ID	WC 201	WC 202	WC 203	WC 204	WC 205	WC 213	WC 222	WC 227	WC 228	WC 229			
Depth	0.40	0.45	0.40	0.45	0.40	0.35	0.45	0.60	0.45	0.65			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	J T	J T	V J T	V J T	V J T			
Sample Date	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	15/04/2025	LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2	3.6	2.2	<0.2	1.8	61.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	4	11	9	<4	45	730	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	11	<7	13	13	19	116	931	<7	18	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	56	33	33	47	54	189	274	82	331	<7	<7	mg/kg	TMS/PM8/PM16
>C35-C40 (EH_CU_1D_AL)	<7	<7	<7	10	25	68	<7	25	191	<7	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40 (EH_CU+HS_1D_AL)	67	37	61	81	98	420	1996	107	540	<26	<26	mg/kg	TMS/PM8/PM16/PM12/PM10
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2	0.4	0.3	<0.2	1.6	9.9	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	6	<4	7	10	11	30	217	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	36	19	51	61	55	212	438	<7	23	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	165	93	249	232	230	944	341	8	628	<7	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40 (EH_CU_1D_AR)	31	20	52	66	87	302	85	<7	498	<7	<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40 (EH_CU+HS_1D_AR)	238	132	359	369	383	1490	1091	<26	1149	<26	<26	mg/kg	TMS/PM8/PM16/PM12/PM10
Total aliphatics and aromatics(C5-40) (EH_CU+HS_1D_Total)	305	169	420	450	481	1910	3087	107	1689	<52	<52	mg/kg	TMS/PM8/PM16/PM12/PM10
MTBE #	<5	-	<5 ^{SV}	<5 ^{SV}	<5	<5 ^{SV}	<5 ^{SV}	<5	<5	<5	<5	ug/kg	TM36/PM12
Benzene #	7	-	<5 ^{SV}	5 ^{SV}	<5	<5 ^{SV}	<5 ^{SV}	<5	<5	<5	<5	ug/kg	TM36/PM12
Toluene #	21	-	7 ^{SV}	16 ^{SV}	12	18 ^{SV}	<5 ^{SV}	<5	<5	6	<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	-	<5 ^{SV}	<5 ^{SV}	<5	<5 ^{SV}	<5 ^{SV}	<5	<5	<5	<5	ug/kg	TM36/PM12
m/p-Xylene #	9	-	<5 ^{SV}	8 ^{SV}	7	<5 ^{SV}	<5 ^{SV}	<5	<5	<5	<5	ug/kg	TM36/PM12
o-Xylene #	<5	-	<5 ^{SV}	<5 ^{SV}	<5	<5 ^{SV}	<5 ^{SV}	<5	<5	<5	<5	ug/kg	TM36/PM12
PCB 28 #	-	<5	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 52 #	-	<5	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 101 #	-	<5	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 118 #	-	<5	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 138 #	-	<5	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 153 #	-	<5	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 180 #	-	<5	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
Total 7 PCBs #	-	<35	-	-	-	-	-	-	-	-	<35	ug/kg	TM17/PM8
Total Phenols HPLC	-	<0.15	-	-	-	-	-	-	-	-	<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	18.4	6.5	18.8	9.3	19.7	25.7	18.0	20.2	26.3	21.3	<0.1	%	PM4/PM0
Hexavalent Chromium #	-	<0.3	-	-	-	-	-	-	-	-	<0.3	mg/kg	TM38/PM20

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6168

Solids: V=60g VOC jar. J=250g glass jar. T=plastic tub

Please see attached notes for all abbreviations and acronyms

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6168

Solids: V=60g VOC jar. J=250g glass jar. T=plastic tub

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6168

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	41-44	45-48									Please see attached notes for all abbreviations and acronyms				
Sample ID	WC 230	WC 233													
Depth	0.45	0.65													
COC No / misc															
Containers	V J T	V J T													
Sample Date	11/04/2025	11/04/2025													
Sample Type	Soil	Soil													
Batch Number	1	1													
Date of Receipt	15/04/2025	15/04/2025										LOD/LOR	Units	Method No.	
TPH CWG															
Aliphatics															
>C5-C6 (HS_1D_AL) #	<0.1 ^{SV}	<0.1									<0.1	mg/kg	TM36/PM12		
>C6-C8 (HS_1D_AL) #	<0.1 ^{SV}	<0.1									<0.1	mg/kg	TM36/PM12		
>C8-C10 (HS_1D_AL)	<0.1 ^{SV}	<0.1									<0.1	mg/kg	TM36/PM12		
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16		
>C12-C16 (EH_CU_1D_AL) #	<4	<4									<4	mg/kg	TM5/PM8/PM16		
>C16-C21 (EH_CU_1D_AL) #	<7	<7									<7	mg/kg	TM5/PM8/PM16		
>C21-C35 (EH_CU_1D_AL) #	<7	<7									<7	mg/kg	TM5/PM8/PM16		
>C35-C40 (EH_CU_1D_AL)	<7	<7									<7	mg/kg	TM5/PM8/PM16		
Total aliphatics C5-40 (EH_CU+HS_1D_AL)	<26	<26									<26	mg/kg	TM5/PM8/PM16/PM12/PM10		
Aromatics															
>C5-EC7 (HS_1D_AR) #	<0.1 ^{SV}	<0.1									<0.1	mg/kg	TM36/PM12		
>EC7-EC8 (HS_1D_AR) #	<0.1 ^{SV}	<0.1									<0.1	mg/kg	TM36/PM12		
>EC8-EC10 (HS_1D_AR) #	<0.1 ^{SV}	<0.1									<0.1	mg/kg	TM36/PM12		
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16		
>EC12-EC16 (EH_CU_1D_AR) #	<4	<4									<4	mg/kg	TM5/PM8/PM16		
>EC16-EC21 (EH_CU_1D_AR) #	<7	<7									<7	mg/kg	TM5/PM8/PM16		
>EC21-EC35 (EH_CU_1D_AR) #	<7	<7									<7	mg/kg	TM5/PM8/PM16		
>EC35-EC40 (EH_CU_1D_AR)	<7	<7									<7	mg/kg	TM5/PM8/PM16		
Total aromatics C5-40 (EH_CU+HS_1D_AR)	<26	<26									<26	mg/kg	TM5/PM8/PM16/PM12/PM10		
Total aliphatics and aromatics(C5-40) (EH_CU+HS_1D_Total)	<52	<52									<52	mg/kg	TM5/PM8/PM16/PM12/PM10		
MTBE #	<5 ^{SV}	<5									<5	ug/kg	TM36/PM12		
Benzene #	<5 ^{SV}	<5									<5	ug/kg	TM36/PM12		
Toluene #	<5 ^{SV}	69									<5	ug/kg	TM36/PM12		
Ethylbenzene #	<5 ^{SV}	<5									<5	ug/kg	TM36/PM12		
m/p-Xylene #	<5 ^{SV}	14									<5	ug/kg	TM36/PM12		
o-Xylene #	<5 ^{SV}	<5									<5	ug/kg	TM36/PM12		
PCB 28 #	-	-									<5	ug/kg	TM17/PM8		
PCB 52 #	-	-									<5	ug/kg	TM17/PM8		
PCB 101 #	-	-									<5	ug/kg	TM17/PM8		
PCB 118 #	-	-									<5	ug/kg	TM17/PM8		
PCB 138 #	-	-									<5	ug/kg	TM17/PM8		
PCB 153 #	-	-									<5	ug/kg	TM17/PM8		
PCB 180 #	-	-									<5	ug/kg	TM17/PM8		
Total 7 PCBs #	-	-									<35	ug/kg	TM17/PM8		
Total Phenols HPLC	-	-									<0.15	mg/kg	TM26/PM21E		
Natural Moisture Content	27.6	27.6									<0.1	%	PM4/PM0		
Hexavalent Chromium #	-	-									<0.3	mg/kg	TM38/PM20		

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6168

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	41-44	45-48
Sample ID	WC 230	WC 233
Depth	0.45	0.65
COC No / misc		
Containers	V J T	V J T
Sample Date	11/04/2025	11/04/2025
Sample Type	Soil	Soil
Batch Number	1	1
Date of Receipt	15/04/2025	15/04/2025
Sulphate as SO ₄ (2:1 Ext) #	-	-
Free Cyanide	-	-
Total Cyanide *	-	-
Complex Cyanide	-	-
Total Organic Carbon #	-	-
ANC at pH4	-	-
ANC at pH7	-	-
Loss on Ignition #	-	-
pH #	-	-

Element Materials Technology

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6168

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

[illegible]

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6168

SVOC Report : Solid

EMT Sample No.	5-8										Please see attached notes for all abbreviations and acronyms		
Sample ID	WC 202												
Depth	0.45												
COC No / misc													
Containers	V J T												
Sample Date	14/04/2025												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	15/04/2025												
											LOD/LOR	Units	Method No.
SVOC MS													
Phenols													
2-Chlorophenol #	<10										<10	ug/kg	TM16/PM8
2-Methylphenol	<10										<10	ug/kg	TM16/PM8
2-Nitrophenol	<10										<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10										<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10										<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10										<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10										<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10										<10	ug/kg	TM16/PM8
4-Methylphenol	<10										<10	ug/kg	TM16/PM8
4-Nitrophenol	<10										<10	ug/kg	TM16/PM8
Pentachlorophenol	<10										<10	ug/kg	TM16/PM8
Phenol #	<10										<10	ug/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #	<10										<10	ug/kg	TM16/PM8
2-Methylnaphthalene #	197										<10	ug/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	<100										<100	ug/kg	TM16/PM8
Butylbenzyl phthalate	<100										<100	ug/kg	TM16/PM8
Di-n-butyl phthalate	<100										<100	ug/kg	TM16/PM8
Di-n-Octyl phthalate	<100										<100	ug/kg	TM16/PM8
Diethyl phthalate	<100										<100	ug/kg	TM16/PM8
Dimethyl phthalate #	<100										<100	ug/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<10										<10	ug/kg	TM16/PM8
1,2,4-Trichlorobenzene #	<10										<10	ug/kg	TM16/PM8
1,3-Dichlorobenzene	<10										<10	ug/kg	TM16/PM8
1,4-Dichlorobenzene	<10										<10	ug/kg	TM16/PM8
2-Nitroaniline	<10										<10	ug/kg	TM16/PM8
2,4-Dinitrotoluene	<10										<10	ug/kg	TM16/PM8
2,6-Dinitrotoluene	<10										<10	ug/kg	TM16/PM8
3-Nitroaniline	<10										<10	ug/kg	TM16/PM8
4-Bromophenylphenylether #	<10										<10	ug/kg	TM16/PM8
4-Chloroaniline	<10										<10	ug/kg	TM16/PM8
4-Chlorophenylphenylether	<10										<10	ug/kg	TM16/PM8
4-Nitroaniline	<10										<10	ug/kg	TM16/PM8
Azobenzene	<10										<10	ug/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<10										<10	ug/kg	TM16/PM8
Bis(2-chloroethyl)ether	<10										<10	ug/kg	TM16/PM8
Carbazole	31										<10	ug/kg	TM16/PM8
Dibenzofuran #	71										<10	ug/kg	TM16/PM8
Hexachlorobenzene	<10										<10	ug/kg	TM16/PM8
Hexachlorobutadiene #	<10										<10	ug/kg	TM16/PM8
Hexachlorocyclopentadiene	<10										<10	ug/kg	TM16/PM8
Hexachloroethane	<10										<10	ug/kg	TM16/PM8
Isophorone #	<10										<10	ug/kg	TM16/PM8
N-nitrosodi-n-propylamine #	<10										<10	ug/kg	TM16/PM8
Nitrobenzene #	<10										<10	ug/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	124										<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	123										<0	%	TM16/PM8

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read
EMT Job No: 25/6168

VOC Report : Solid

EMT Sample No.	5-8												
Sample ID	WC 202												
Depth	0.45												
COC No / misc													
Containers	V J T												
Sample Date	14/04/2025												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	15/04/2025												
											Please see attached notes for all abbreviations and acronyms		
											LOD/LOR	Units	Method No.
VOC MS													
Dichlorodifluoromethane	<2										<2	ug/kg	TM15/PM10
Methyl Tertiary Butyl Ether #	<2										<2	ug/kg	TM15/PM10
Chloromethane #	<3										<3	ug/kg	TM15/PM10
Vinyl Chloride	<2										<2	ug/kg	TM15_A/PM10
Bromomethane	<1										<1	ug/kg	TM15/PM10
Chloroethane #	<2										<2	ug/kg	TM15/PM10
Trichlorofluoromethane #	<2										<2	ug/kg	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<6										<6	ug/kg	TM15/PM10
Dichloromethane (DCM) #	<7										<7	ug/kg	TM15/PM10
trans-1-2-Dichloroethene #	<3										<3	ug/kg	TM15/PM10
1,1-Dichloroethane #	<3										<3	ug/kg	TM15/PM10
cis-1-2-Dichloroethene #	<3										<3	ug/kg	TM15/PM10
2,2-Dichloropropane	<4										<4	ug/kg	TM15/PM10
Bromochloromethane #	<3										<3	ug/kg	TM15/PM10
Chloroform #	<3										<3	ug/kg	TM15/PM10
1,1,1-Trichloroethane #	<3										<3	ug/kg	TM15/PM10
1,1-Dichloropropene #	<3										<3	ug/kg	TM15/PM10
Carbon tetrachloride #	<4										<4	ug/kg	TM15/PM10
1,2-Dichloroethane #	<4										<4	ug/kg	TM15/PM10
Benzene #	4										<3	ug/kg	TM15/PM10
Trichloroethene (TCE) #	<3										<3	ug/kg	TM15/PM10
1,2-Dichloropropane #	<6										<6	ug/kg	TM15/PM10
Dibromomethane #	<3										<3	ug/kg	TM15/PM10
Bromodichloromethane #	<3										<3	ug/kg	TM15/PM10
cis-1-3-Dichloropropene	<4										<4	ug/kg	TM15/PM10
Toluene #	16										<3	ug/kg	TM15/PM10
trans-1-3-Dichloropropene	<3										<3	ug/kg	TM15/PM10
1,1,2-Trichloroethane #	<3										<3	ug/kg	TM15/PM10
Tetrachloroethene (PCE) #	<3										<3	ug/kg	TM15/PM10
1,3-Dichloropropane #	<3										<3	ug/kg	TM15/PM10
Dibromochloromethane #	<3										<3	ug/kg	TM15/PM10
1,2-Dibromoethane #	<3										<3	ug/kg	TM15/PM10
Chlorobenzene #	<3										<3	ug/kg	TM15/PM10
1,1,1,2-Tetrachloroethane #	<3										<3	ug/kg	TM15/PM10
Ethylbenzene #	<3										<3	ug/kg	TM15/PM10
m/p-Xylene #	11										<5	ug/kg	TM15/PM10
o-Xylene #	4										<3	ug/kg	TM15/PM10
Styrene	<3										<3	ug/kg	TM15_A/PM10
Bromoform	<3										<3	ug/kg	TM15/PM10
Isopropylbenzene #	<3										<3	ug/kg	TM15/PM10
1,1,2,2-Tetrachloroethane #	<3										<3	ug/kg	TM15/PM10
Bromobenzene	<2										<2	ug/kg	TM15/PM10
1,2,3-Trichloropropane #	<4										<4	ug/kg	TM15/PM10
Propylbenzene #	<4										<4	ug/kg	TM15/PM10
2-Chlorotoluene	<3										<3	ug/kg	TM15/PM10
1,3,5-Trimethylbenzene #	<3										<3	ug/kg	TM15/PM10
4-Chlorotoluene	<3										<3	ug/kg	TM15/PM10
tert-Butylbenzene #	<5										<5	ug/kg	TM15/PM10
1,2,4-Trimethylbenzene #	<6										<6	ug/kg	TM15/PM10
sec-Butylbenzene #	<4										<4	ug/kg	TM15/PM10
4-Isopropyltoluene	<4										<4	ug/kg	TM15/PM10
1,3-Dichlorobenzene #	<4										<4	ug/kg	TM15/PM10
1,4-Dichlorobenzene #	<4										<4	ug/kg	TM15/PM10
n-Butylbenzene	<4										<4	ug/kg	TM15/PM10
1,2-Dichlorobenzene #	<4										<4	ug/kg	TM15/PM10
1,2-Dibromo-3-chloropropane	<4										<4	ug/kg	TM15/PM10
1,2,4-Trichlorobenzene	<7										<7	ug/kg	TM15/PM10
Hexachlorobutadiene	<4										<4	ug/kg	TM15/PM10
Naphthalene	<27										<27	ug/kg	TM15/PM10
1,2,3-Trichlorobenzene	<7										<7	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	71										<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	64										<0	%	TM15/PM10

Mass of sample taken (kg)	0.1027	Moisture Content Ratio (%) =	14.5		
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	87.3		
Particle Size <4mm =	>95%				
EMT Job No	25/6168		Landfill Waste Acceptance Criteria Limits		
Sample No	7				
Client Sample No	WC 202		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Depth/Other	0.45				
Sample Date	14/04/2025				
Batch No	1				
Solid Waste Analysis					
Total Organic Carbon (%)	8.74				
Loss on Ignition (%)	4.2		-	-	10
Sum of BTEX (mg/kg)	0.035		6	-	-
Sum of 7 PCBs (mg/kg)	<0.035		1	-	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	37		500	-	-
PAH Sum of 17(mg/kg)	11.13		100	-	-
pH (pH Units)	8.54		-	>6	-
ANC to pH 7 (mol/kg)	0.06		-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	0.91		-	to be evaluated	to be evaluated
Eluate Analysis	10:1 conc ⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
	C ₁₀	A ₁₀			
	mg/l	mg/kg	mg/kg		
	Arsenic	0.0065	0.065	0.5	2
Barium	0.021	0.21	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.003	0.03	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	<0.002	<0.02	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	<0.003	<0.03	4	50	200
Chloride	3.1	31	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	3.7	37	1000	20000	50000
Total Dissolved Solids	64	640	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	<2	<20	500	800	1000

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
25/6168	1	WC 201	0.40	4	Miriam Silverlock	23/04/2025	General Description (Bulk Analysis)	Brown soil, stones
					Miriam Silverlock	23/04/2025	Asbestos Fibres	NAD
					Miriam Silverlock	23/04/2025	Asbestos ACM	NAD
					Miriam Silverlock	23/04/2025	Asbestos Type	NAD
25/6168	1	WC 202	0.45	8	Catherine Coles	23/04/2025	General Description (Bulk Analysis)	brown soils,stone
					Catherine Coles	23/04/2025	Asbestos Fibres	NAD
					Catherine Coles	23/04/2025	Asbestos ACM	NAD
					Catherine Coles	23/04/2025	Asbestos Type	NAD
25/6168	1	WC 203	0.40	12	Charlotte Taylor	23/04/2025	General Description (Bulk Analysis)	brown soil/stones
					Charlotte Taylor	23/04/2025	Asbestos Fibres	NAD
					Charlotte Taylor	23/04/2025	Asbestos ACM	NAD
					Charlotte Taylor	23/04/2025	Asbestos Type	NAD
25/6168	1	WC 204	0.45	16	Charlotte Taylor	23/04/2025	General Description (Bulk Analysis)	brown soil/stones
					Charlotte Taylor	23/04/2025	Asbestos Fibres	Fibre Bundles
					Charlotte Taylor	23/04/2025	Asbestos Fibres (2)	Fibre Bundles
					Charlotte Taylor	23/04/2025	Asbestos ACM	NAD
					Charlotte Taylor	23/04/2025	Asbestos ACM (2)	NAD
					Charlotte Taylor	23/04/2025	Asbestos Type	Chrysotile
					Charlotte Taylor	23/04/2025	Asbestos Type (2)	Amosite
					Charlotte Taylor	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Charlotte Taylor	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Charlotte Taylor	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	<0.001 (mass %)
					Emily Smith	01/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Emily Smith	01/05/2025	Asbestos Gravimetric & PCOM Total	<0.001 (mass %)
25/6168	1	WC 205	0.40	20	Miriam Silverlock	23/04/2025	General Description (Bulk Analysis)	Brown soil, stones
					Miriam Silverlock	23/04/2025	Asbestos Fibres	NAD
					Miriam Silverlock	23/04/2025	Asbestos ACM	NAD
					Miriam Silverlock	23/04/2025	Asbestos Type	NAD
25/6168	1	WC 213	0.35	24	Charlotte Taylor	23/04/2025	General Description (Bulk Analysis)	brown soil/stones
					Charlotte Taylor	23/04/2025	Asbestos Fibres	Fibre Bundles
					Charlotte Taylor	23/04/2025	Asbestos Fibres (2)	Fibre Bundles
					Charlotte Taylor	23/04/2025	Asbestos ACM	NAD
					Charlotte Taylor	23/04/2025	Asbestos ACM (2)	NAD
					Charlotte Taylor	23/04/2025	Asbestos Type	Chrysotile

Client Name: Tier Environmental
Reference: TE1880
Location: Hopwood Hall College
Contact: Adrian Read

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
25/6168	1	WC 213	0.35	24	Charlotte Taylor	23/04/2025	Asbestos Type (2)	Amosite
					Charlotte Taylor	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Charlotte Taylor	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	0.002 (mass %)
					Charlotte Taylor	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	0.002 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos PCOM Quantification (Fibres)	0.002 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos Gravimetric & PCOM Total	0.004 (mass %)
25/6168	1	WC 222	0.45	28	Miriam Silverlock	24/04/2025	General Description (Bulk Analysis)	Brown soil, stones
					Miriam Silverlock	24/04/2025	Asbestos Fibres	Fibre Bundles
					Miriam Silverlock	24/04/2025	Asbestos ACM	NAD
					Miriam Silverlock	24/04/2025	Asbestos Type	Amosite
					Remigiusz Blichowski	02/05/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Total Detailed Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski	12/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
25/6168	1	WC 227	0.60	32	Remigiusz Blichowski	12/05/2025	Asbestos Gravimetric & PCOM Total	<0.001 (mass %)
					Catherine Coles	24/04/2025	General Description (Bulk Analysis)	brown soil,stone
					Catherine Coles	24/04/2025	Asbestos Fibres	Fibre Bundles
					Catherine Coles	24/04/2025	Asbestos Fibres (2)	Fibre Bundles
					Catherine Coles	24/04/2025	Asbestos ACM	Bitumen Products
					Catherine Coles	24/04/2025	Asbestos ACM (2)	NAD
					Catherine Coles	24/04/2025	Asbestos Type	Chrysotile
					Catherine Coles	24/04/2025	Asbestos Type (2)	Amosite
25/6168	1	WC 228	0.45	36	Catherine Coles	30/04/2025	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Catherine Coles	30/04/2025	Total Detailed Gravimetric Quantification (% Asb)	0.023 (mass %)
					Catherine Coles	30/04/2025	Total Gravimetric Quantification (ACM + Detailed) (% Asb)	0.023 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Remigiusz Blichowski	02/05/2025	Asbestos Gravimetric & PCOM Total	0.023 (mass %)
					Miriam Silverlock	24/04/2025	General Description (Bulk Analysis)	Brown soil, stones
					Miriam Silverlock	24/04/2025	Asbestos Fibres	NAD
					Miriam Silverlock	24/04/2025	Asbestos ACM	NAD
25/6168	1	WC 229	0.65	40	Miriam Silverlock	24/04/2025	Asbestos Type	NAD
					Simon Postlewhite	24/04/2025	General Description (Bulk Analysis)	Brown soil/stones
					Simon Postlewhite	24/04/2025	Asbestos Fibres	NAD
					Simon Postlewhite	24/04/2025	Asbestos ACM	NAD
25/6168	1	WC 230	0.45	44	Simon Postlewhite	24/04/2025	Asbestos Type	NAD
					Mathew Day	24/04/2025	General Description (Bulk Analysis)	Powdery soil/ash
					Mathew Day	24/04/2025	Asbestos Fibres	NAD
					Mathew Day	24/04/2025	Asbestos ACM	NAD
25/6168	1	WC 233	0.65	48	Mathew Day	24/04/2025	Asbestos Type	NAD
					Catherine Coles	24/04/2025	General Description (Bulk Analysis)	brown soils,tone
					Catherine Coles	24/04/2025	Asbestos Fibres	NAD
					Catherine Coles	24/04/2025	Asbestos ACM	NAD
25/6168	1	WC 233	0.65	48	Catherine Coles	24/04/2025	Asbestos Type	NAD

Client Name:	Tier Environmental
Reference:	TE1880
Location:	Hopwood Hall College
Contact:	Adrian Read

[illegible]

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating. Only analyses which are accredited are recorded as deviating if set criteria are not met.

It is a requirement under ISO 17025 that we inform clients if samples are deviating i.e. outside what is expected. A deviating sample indicates that the sample 'may' be compromised but not necessarily will be compromised. The result is still accredited and our analytical reports will still show accreditation on the relevant analytes.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 25/6168

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 35°C ±5°C.

Where Mineral Oil is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

Age of Diesel

The age of release estimation is based on the nC17/pristane ratio only as prescribed by Christensen and Larsen (1993) and Kaplan, Galperin, Alimi et al., (1996).

Age estimation should be treated with caution as it can be influenced by site specific factors of which the laboratory are not aware.

Tentatively Identified Compounds (TICs)

Where Tentatively Identified Compounds (TICs) are reported, up to 10 Tentatively Identified Compounds will be listed where there is found to be a greater than 80% match with the NIST library. The reported concentration is determined semi-quantitatively, with a matrix specific limit of detection.

Note, other compounds may be present but are not reported.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_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
MS	Mass Spectrometry.

EMT Job No: 25/6168

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35 degrees Celsius or 105 degrees Celsius. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes

EMT Job No: 25/6168

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM17	Modified US EPA method 8270D v5:2014. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3:1990/USEPA 160.1/3 (TDS/TS: 1971) Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes
TM22	Modified BS1377-3:1990 Gravimetric determination of Loss on Ignition by temperature controlled Muffle Furnace (35C-440C). On request modified ASTM D2974-00 LOI (105C-440C)	PM0	No preparation is required.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma-Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 degrees Celsius. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) - All anions comparable to BS ISO 15923-1: 2013	PM0	No preparation is required.	Yes		AR	Yes

EMT Job No: 25/6168

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) - All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) - All anions comparable to BS ISO 15923-1: 2013	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM77	Modified DDCE/TN method 15364:2006. Determination of Acid Neutralization Capacity by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	No
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.	Yes		AR	Yes
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	Yes

EMT Job No: 25/6168

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM170	Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma-Mass Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method 6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified	Yes		AR	Yes
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 9214 - 340.2 (EPA 1998)	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35 degrees Celsius or 105 degrees Celsius. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.			AR	
TM15_A	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes



Waste Classification Report

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

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



SGI6A-U3TWB-ITARC

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

Report is invalid if pages are removed.

Job name

EMT-25-6068-Batch-1-202505121202

Description/Comments

Project

TE1880

Site

Hopwood Hall College, Rochdale

Classified by

Name: **Adrian Read**
Date: **13 May 2025 13:15 GMT**
Telephone: **01925 818388**
Company: **Tier Environmental**
Suite 414
Chadwick House
Warrington
WA3 6AE

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

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification
Most recent 3 year Refresher

Date

03 Dec 2020
05 Dec 2023

Next 3 year Refresher due by Dec 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

Hopwood Hall College

Post Code **OL12 6RY**

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Proposed redevelopment of land

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

Waste created during excavation of soils during development

Description of the waste

Made ground and/or natural soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WC206-07/04/2025-0.60m		Potentially Hazardous	HP 3(i)	3
2	WC207-07/04/2025-0.40m		Non Hazardous		9
3	WC208-07/04/2025-0.40m		Potentially Hazardous	HP 3(i)	10
4	WC209-07/04/2025-0.40m		Potentially Hazardous	HP 3(i)	12
5	WC210-07/04/2025-0.35m		Potentially Hazardous	HP 3(i)	14
6	WC211-07/04/2025-0.40m		Potentially Hazardous	HP 3(i)	15
7	WC211-07/04/2025-0.55m		Non Hazardous		16
8	WC212-07/04/2025-0.48m		Potentially Hazardous	HP 3(i)	17
9	WC214-10/04/2025-0.50m		Non Hazardous		19
10	WC215-10/04/2025-0.40m		Potentially Hazardous	HP 3(i)	20
11	WC216-10/04/2025-0.55m		Non Hazardous		26
12	WC217-10/04/2025-0.50m		Potentially Hazardous	HP 3(i)	27
13	WC218-10/04/2025-0.50m		Potentially Hazardous	HP 3(i)	28
14	WC220-08/04/2025-0.55m		Non Hazardous		29
15	WC221-08/04/2025-0.50m		Non Hazardous		30
16	WC223A-10/04/2025-0.50m		Potentially Hazardous	HP 3(i)	31
17	WC224-10/04/2025-0.50m		Potentially Hazardous	HP 3(i)	37
18	WC225-10/04/2025-0.60m		Hazardous	HP 3(i), HP 8	38
19	WC234-08/04/2025-0.40m		Potentially Hazardous	HP 3(i)	44
20	WC214-10/04/2025-0.30m		Hazardous	HP 3(i), HP 7, HP 11	45

Related documents

#	Name	Description
1	EMT-25-6068-Batch-1-202505121202.HWOL	Element .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Adrian Read

Created date: 13 May 2025 13:15 GMT

Appendices

	Page
Appendix A: Classifier defined and non GB MCL determinands	47
Appendix B: Rationale for selection of metal species	51
Appendix C: Version	51

Classification of sample: WC206-07/04/2025-0.60m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC206-07/04/2025-0.60m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
10.8%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.069%)

Determinands

Moisture content: 10.8% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				7.7	mg/kg	1.32	9.176	mg/kg	0.000918 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				40.4	mg/kg	2.27	82.769	mg/kg	0.00828 %	✓	
	024-017-00-8											
4	copper { dicopper oxide; copper (I) oxide }				48	mg/kg	1.126	48.775	mg/kg	0.00488 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead chromate }			1	80	mg/kg	1.56	112.622	mg/kg	0.00722 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
6	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
7	nickel { nickel chromate }				22.3	mg/kg	2.976	59.901	mg/kg	0.00599 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
8	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									
9	zinc { zinc chromate }				103	mg/kg	2.774	257.885	mg/kg	0.0258 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
10	TPH (C6 to C40) petroleum group		TPH		765	mg/kg		690.433	mg/kg	0.069 %	✓	
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
12	benzene				<0.003	mg/kg		<0.003	mg/kg	<0.0000003 %		<LOD
	601-020-00-8	200-753-7	71-43-2									

#	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							
13	toluene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
14	ethylbenzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
15	xylene				<0.011 mg/kg		<0.011 mg/kg	<0.0000011 %		<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]							
16	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 }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
17	pH		PH		9.3 pH		9.3 pH	9.3 pH		
18	naphthalene				0.16 mg/kg		0.144 mg/kg	0.0000144 %	✓	
	601-052-00-2	202-049-5	91-20-3							
19	acenaphthylene				0.59 mg/kg		0.532 mg/kg	0.0000532 %	✓	
		205-917-1	208-96-8							
20	acenaphthene				0.2 mg/kg		0.181 mg/kg	0.0000181 %	✓	
		201-469-6	83-32-9							
21	fluorene				0.16 mg/kg		0.144 mg/kg	0.0000144 %	✓	
		201-695-5	86-73-7							
22	phenanthrene				2.02 mg/kg		1.823 mg/kg	0.000182 %	✓	
		201-581-5	85-01-8							
23	anthracene				1.58 mg/kg		1.426 mg/kg	0.000143 %	✓	
		204-371-1	120-12-7							
24	fluoranthene				15.98 mg/kg		14.422 mg/kg	0.00144 %	✓	
		205-912-4	206-44-0							
25	pyrene				15.3 mg/kg		13.809 mg/kg	0.00138 %	✓	
		204-927-3	129-00-0							
26	benzo[a]anthracene				8.86 mg/kg		7.996 mg/kg	0.0008 %	✓	
	601-033-00-9	200-280-6	56-55-3							
27	chrysene				8.73 mg/kg		7.879 mg/kg	0.000788 %	✓	
	601-048-00-0	205-923-4	218-01-9							
28	benzo[b]fluoranthene				12.25 mg/kg		11.056 mg/kg	0.00111 %	✓	
	601-034-00-4	205-911-9	205-99-2							
29	benzo[k]fluoranthene				4.76 mg/kg		4.296 mg/kg	0.00043 %	✓	
	601-036-00-5	205-916-6	207-08-9							
30	benzo[a]pyrene; benzo[def]chrysene				11.51 mg/kg		10.388 mg/kg	0.00104 %	✓	
	601-032-00-3	200-028-5	50-32-8							
31	indeno[123-cd]pyrene				7.24 mg/kg		6.534 mg/kg	0.000653 %	✓	
		205-893-2	193-39-5							
32	dibenz[a,h]anthracene				1.01 mg/kg		0.912 mg/kg	0.0000912 %	✓	
	601-041-00-2	200-181-8	53-70-3							
33	benzo[ghi]perylene				6.77 mg/kg		6.11 mg/kg	0.000611 %	✓	
		205-883-8	191-24-2							
34	phenol				0.733 mg/kg		0.662 mg/kg	0.0000662 %	✓	
	604-001-00-2	203-632-7	108-95-2							
35	1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		203-458-1, 200-863-5	107-06-2, 75-34-3							
36	tetrachloroethylene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-028-00-4	204-825-9	127-18-4							
37	carbon tetrachloride; tetrachloromethane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-008-00-5	200-262-8	56-23-5							
38	trichloroethylene; trichloroethene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-027-00-9	201-167-4	79-01-6							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
39	vinyl chloride; chloroethylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-023-00-7	200-831-0	75-01-4							
40	hexachlorobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.0000001 %		<LOD
	602-065-00-6	204-273-9	118-74-1							
41	polychlorobiphenyls; PCB				<0.35 mg/kg		<0.35 mg/kg	<0.000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
42	dichlorodifluoromethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		200-893-9	75-71-8							
43	chloromethane; methyl chloride				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-001-00-7	200-817-4	74-87-3							
44	bromomethane; methylbromide				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-002-00-2	200-813-2	74-83-9							
45	chloroethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-009-00-0	200-830-5	75-00-3							
46	trichlorofluoromethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		200-892-3	75-69-4							
47	1,1-dichloroethylene; vinylidene chloride				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-025-00-8	200-864-0	75-35-4							
48	dichloromethane; methylene chloride				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
	602-004-00-3	200-838-9	75-09-2							
49	2,2-dichloropropane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		209-832-0	594-20-7							
50	bromochloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		200-826-3	74-97-5							
51	chloroform; trichloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-006-00-4	200-663-8	67-66-3							
52	1,1,1-trichloroethane; methyl chloroform				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-013-00-2	200-756-3	71-55-6							
53	1,1-dichloropropene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-031-00-0	209-253-3	563-58-6							
54	1,2-dichloropropane; propylene dichloride				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-020-00-0	201-152-2	78-87-5							
55	dibromomethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-003-00-8	200-824-2	74-95-3							
56	bromodichloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		200-856-7	75-27-4							
57	1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]							
58	trans-1,3-dichloropropene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		431-460-4	10061-02-6							
59	1,1,2-trichloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-014-00-8	201-166-9	79-00-5							
60	1,3-dichloropropane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		205-531-3	142-28-9							
61	dibromochloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		204-704-0	124-48-1							
62	1,2-dibromoethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-010-00-6	203-444-5	106-93-4							
63	chlorobenzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-033-00-1	203-628-5	108-90-7							
64	1,1,1,2-tetrachloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		211-135-1	630-20-6							
65	bromoform; tribromomethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-007-00-X	200-854-6	75-25-2							
66	cumene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-024-00-X	202-704-5	98-82-8							
67	1,1,2,2-tetrachloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-015-00-3	201-197-8	79-34-5							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
68	bromobenzene 602-060-00-9	203-623-8	108-86-1		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
69	1,2,3-trichloropropane 602-062-00-X	202-486-1	96-18-4		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
70	propylbenzene 601-097-00-8	203-132-9	103-65-1		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
71	mesitylene; 1,3,5-trimethylbenzene 601-025-00-5	203-604-4	108-67-8		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
72	tert-butylbenzene 202-632-4	98-06-6			<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
73	1,2,4-trimethylbenzene 601-043-00-3	202-436-9	95-63-6		<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
74	sec-butylbenzene 205-227-0	135-98-8			<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
75	1-isopropyl-4-methylbenzene; p-cymene 601-094-00-1	202-796-7	99-87-6		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
76	1,3-dichlorobenzene 602-067-00-7	208-792-1	541-73-1		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
77	1,4-dichlorobenzene; p-dichlorobenzene 602-035-00-2	203-400-5	106-46-7		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
78	n-butylbenzene 203-209-7	104-51-8			<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
79	1,2-dichlorobenzene; o-dichlorobenzene 602-034-00-7	202-425-9	95-50-1		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
80	1,2-dibromo-3-chloropropane 602-021-00-6	202-479-3	96-12-8		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
81	1,2,4-trichlorobenzene 602-087-00-6	204-428-0	120-82-1		<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
82	hexachlorobutadiene 201-765-5	87-68-3			<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
83	1,2,3-trichlorobenzene 201-757-1	87-61-6			<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
84	styrene 601-026-00-0	202-851-5	100-42-5		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
85	2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4] 604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
86	2-nitrophenol 201-857-5	88-75-5			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
87	2,4-dichlorophenol 604-011-00-7	204-429-6	120-83-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
88	3,4-xylene; [1] 2,5-xylene; [2] 2,4-xylene; [3] 2,3-xylene; [4] 2,6-xylene; [5] xylene; [6] 2,4(or 2,5)-xylene [7] 604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]		0.024 mg/kg		0.0217 mg/kg	0.00000217 %	✓	
89	2,4,5-trichlorophenol 604-017-00-X	202-467-8	95-95-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
90	2,4,6-trichlorophenol 604-018-00-5	201-795-9	88-06-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
91	chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol 604-014-00-3	200-431-6	59-50-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<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							
92	4-nitrophenol; p-nitrophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-015-00-2	202-811-7	100-02-7							
93	pentachlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-002-00-8	201-778-6	87-86-5							
94	2-chloronaphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-079-9	91-58-7							
95	2-methyl naphthalene				0.113 mg/kg		0.102 mg/kg	0.0000102 %	✓	
		202-078-3	91-57-6							
96	bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				0.439 mg/kg		0.396 mg/kg	0.0000396 %	✓	
	607-317-00-9	204-211-0	117-81-7							
97	BBP; benzyl butyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.000001 %		<LOD
	607-430-00-3	201-622-7	85-68-7							
98	dibutyl phthalate; DBP				0.299 mg/kg		0.27 mg/kg	0.000027 %	✓	
	607-318-00-4	201-557-4	84-74-2							
99	di-n-octyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.000001 %		<LOD
		204-214-7	117-84-0							
100	diethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.000001 %		<LOD
		201-550-6	84-66-2							
101	dimethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.000001 %		<LOD
		205-011-6	131-11-3							
102	2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]							
103	2,6-dinitrotoluene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-049-00-8	210-106-0	606-20-2							
104	4-bromophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-952-4	101-55-3							
105	4-chloroaniline				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-137-00-9	203-401-0	106-47-8							
106	4-chlorophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		230-281-7	7005-72-3							
107	azobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	611-001-00-6	203-102-5	103-33-3							
108	bis(2-chloroethoxy)methane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		203-920-2	111-91-1							
109	bis(2-chloroethyl) ether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	603-029-00-2	203-870-1	111-44-4							
110	carbazole				0.194 mg/kg		0.175 mg/kg	0.0000175 %	✓	
		201-696-0	86-74-8							
111	dibenzofuran				0.121 mg/kg		0.109 mg/kg	0.0000109 %	✓	
		205-071-3	132-64-9							
112	hexachlorocyclopentadiene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	602-078-00-7	201-029-3	77-47-4							
113	hexachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		200-666-4	67-72-1							
114	3,5,5-trimethylcyclohex-2-enone; isophorone				0.16 mg/kg		0.144 mg/kg	0.0000144 %	✓	
	606-012-00-8	201-126-0	78-59-1							
115	nitrosodipropylamine				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-098-00-8	210-698-0	621-64-7							
116	nitrobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-003-00-7	202-716-0	98-95-3							
117	coronene				1.33 mg/kg		1.2 mg/kg	0.00012 %	✓	
		205-881-7	191-07-1							
118	asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	650-013-00-6	-----	12001-28-4							
			132207-32-0							
			12172-73-5							
			77536-66-4							
			77536-68-6							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
119	1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3] 602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]		<0.006 mg/kg		<0.006 mg/kg	<0.000006 %		<LOD
120	2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4] 602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]		<0.006 mg/kg		<0.006 mg/kg	<0.000006 %		<LOD
121	m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4] 604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]		0.062 mg/kg		0.056 mg/kg	0.0000056 %	✓	
122	o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3] 612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
Total:								0.131 %		

Key

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

Classification of sample: WC207-07/04/2025-0.40m

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

Sample details

Sample name:	LoW Code:
WC207-07/04/2025-0.40m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
25.9% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 25.9% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
7	asbestos				10 mg/kg		7.943 mg/kg	0.000794 %	✓	
	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							
Total:								0.00079 %		

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)
<LOD	Below limit of detection



Classification of sample: WC208-07/04/2025-0.40m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC208-07/04/2025-0.40m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)
19.9% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0224%)

Determinands

Moisture content: 19.9% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				269 mg/kg		224.354 mg/kg	0.0224 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
7	asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
Total:								0.0224 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC209-07/04/2025-0.40m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC209-07/04/2025-0.40m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)
30.8% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

xylene (conc.: 6.88e-07%)

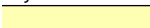
Determinands

Moisture content: 30.8% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				0.009 mg/kg		0.0068 mg/kg	0.000000688 %	✓	
	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]							
7	asbestos				750 mg/kg		573.394 mg/kg	0.0573 %	✓	
	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							
Total:								0.0573 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC210-07/04/2025-0.35m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC210-07/04/2025-0.35m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)
25.5% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00558%)

Determinands

Moisture content: 25.5% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				70 mg/kg		55.777 mg/kg	0.00558 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								0.00558 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
■	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WC211-07/04/2025-0.40m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC211-07/04/2025-0.40m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
21.4%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00552%)

Determinands

Moisture content: 21.4% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				67 mg/kg		55.189 mg/kg	0.00552 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								0.00552 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC211-07/04/2025-0.55m



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

Sample details

Sample name: **WC211-07/04/2025-0.55m** LoW Code: Chapter: **17: Construction and Demolition Wastes (including excavated soil from contaminated sites)**
Moisture content: **17.8%** Entry: **17 05 04 (Soil and stones other than those mentioned in 17 05 03)**
(dry weight correction)

Hazard properties

None identified

Determinands

Moisture content: 17.8% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								0%		

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)
<LOD	Below limit of detection

Classification of sample: WC212-07/04/2025-0.48m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC212-07/04/2025-0.48m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
21.4%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00708%)

Determinands

Moisture content: 21.4% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				86 mg/kg		70.84 mg/kg	0.00708 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
7	asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
Total:								0.00708 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WC214-10/04/2025-0.50m

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

Sample details

Sample name:	LoW Code:
WC214-10/04/2025-0.50m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
15.8% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 15.8% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	●	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
				TPH							
2		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							
3		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2							
4		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3							
5	●	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4							
6		xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
7		asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
Total:									0%		

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)
<LOD	Below limit of detection

Classification of sample: WC215-10/04/2025-0.40m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC215-10/04/2025-0.40m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
11.7%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

mesitylene; 1,3,5-trimethylbenzene (conc.: 1.88e-06%)
1,2,4-trimethylbenzene (conc.: 6.36e-06%)

Determinands

Moisture content: 11.7% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1		arsenic { arsenic trioxide }				10.2 mg/kg	1.32	12.057 mg/kg	0.00121 %	✓	
		033-003-00-0	215-481-4	1327-53-3							
2		cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
		048-002-00-0	215-146-2	1306-19-0							
3		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				22.7 mg/kg	2.27	46.132 mg/kg	0.00461 %	✓	
		024-017-00-8									
4		copper { dicopper oxide; copper (I) oxide }				24 mg/kg	1.126	24.191 mg/kg	0.00242 %	✓	
		029-002-00-X	215-270-7	1317-39-1							
5		lead { lead chromate }			1	92 mg/kg	1.56	128.472 mg/kg	0.00824 %	✓	
		082-004-00-2	231-846-0	7758-97-6							
6		mercury { mercury dichloride }				0.1 mg/kg	1.353	0.121 mg/kg	0.0000121 %	✓	
		080-010-00-X	231-299-8	7487-94-7							
7		nickel { nickel chromate }				9.2 mg/kg	2.976	24.514 mg/kg	0.00245 %	✓	
		028-035-00-7	238-766-5	14721-18-7							
8		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							
9		zinc { zinc chromate }				41 mg/kg	2.774	101.826 mg/kg	0.0102 %	✓	
		024-007-00-3	236-878-9	13530-65-9							
10		TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
				TPH							
11		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		603-181-00-X	216-653-1	1634-04-4							
12		benzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		601-020-00-8	200-753-7	71-43-2							

#	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							
13	toluene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
14	ethylbenzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
15	xylene				<0.011 mg/kg		<0.011 mg/kg	<0.0000011 %		<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]							
16	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 }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
17	pH				10.28 pH		10.28 pH	10.28 pH		
			PH							
18	naphthalene				0.07 mg/kg		0.0627 mg/kg	0.00000627 %	✓	
	601-052-00-2	202-049-5	91-20-3							
19	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
20	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
21	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
22	phenanthrene				0.11 mg/kg		0.0985 mg/kg	0.00000985 %	✓	
		201-581-5	85-01-8							
23	anthracene				0.06 mg/kg		0.0537 mg/kg	0.00000537 %	✓	
		204-371-1	120-12-7							
24	fluoranthene				0.1 mg/kg		0.0895 mg/kg	0.00000895 %	✓	
		205-912-4	206-44-0							
25	pyrene				0.1 mg/kg		0.0895 mg/kg	0.00000895 %	✓	
		204-927-3	129-00-0							
26	benzo[a]anthracene				0.09 mg/kg		0.0806 mg/kg	0.00000806 %	✓	
	601-033-00-9	200-280-6	56-55-3							
27	chrysene				0.09 mg/kg		0.0806 mg/kg	0.00000806 %	✓	
	601-048-00-0	205-923-4	218-01-9							
28	benzo[b]fluoranthene				0.09 mg/kg		0.0806 mg/kg	0.00000806 %	✓	
	601-034-00-4	205-911-9	205-99-2							
29	benzo[k]fluoranthene				0.04 mg/kg		0.0358 mg/kg	0.00000358 %	✓	
	601-036-00-5	205-916-6	207-08-9							
30	benzo[a]pyrene; benzo[def]chrysene				0.07 mg/kg		0.0627 mg/kg	0.00000627 %	✓	
	601-032-00-3	200-028-5	50-32-8							
31	indeno[123-cd]pyrene				0.06 mg/kg		0.0537 mg/kg	0.00000537 %	✓	
		205-893-2	193-39-5							
32	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
33	benzo[ghi]perylene				0.07 mg/kg		0.0627 mg/kg	0.00000627 %	✓	
		205-883-8	191-24-2							
34	phenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
35	1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		203-458-1, 200-863-5	107-06-2, 75-34-3							
36	tetrachloroethylene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-028-00-4	204-825-9	127-18-4							
37	carbon tetrachloride; tetrachloromethane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-008-00-5	200-262-8	56-23-5							
38	trichloroethylene; trichloroethene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-027-00-9	201-167-4	79-01-6							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
39	vinyl chloride; chloroethylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-023-00-7	200-831-0	75-01-4							
40	hexachlorobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	602-065-00-6	204-273-9	118-74-1							
41	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
42	dichlorodifluoromethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		200-893-9	75-71-8							
43	chloromethane; methyl chloride				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-001-00-7	200-817-4	74-87-3							
44	bromomethane; methylbromide				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-002-00-2	200-813-2	74-83-9							
45	chloroethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-009-00-0	200-830-5	75-00-3							
46	trichlorofluoromethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		200-892-3	75-69-4							
47	1,1-dichloroethylene; vinylidene chloride				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-025-00-8	200-864-0	75-35-4							
48	dichloromethane; methylene chloride				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
	602-004-00-3	200-838-9	75-09-2							
49	2,2-dichloropropane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		209-832-0	594-20-7							
50	bromochloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		200-826-3	74-97-5							
51	chloroform; trichloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-006-00-4	200-663-8	67-66-3							
52	1,1,1-trichloroethane; methyl chloroform				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-013-00-2	200-756-3	71-55-6							
53	1,1-dichloropropene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-031-00-0	209-253-3	563-58-6							
54	1,2-dichloropropane; propylene dichloride				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-020-00-0	201-152-2	78-87-5							
55	dibromomethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-003-00-8	200-824-2	74-95-3							
56	bromodichloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		200-856-7	75-27-4							
57	1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]							
58	trans-1,3-dichloropropene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		431-460-4	10061-02-6							
59	1,1,2-trichloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-014-00-8	201-166-9	79-00-5							
60	1,3-dichloropropane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		205-531-3	142-28-9							
61	dibromochloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		204-704-0	124-48-1							
62	1,2-dibromoethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-010-00-6	203-444-5	106-93-4							
63	chlorobenzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-033-00-1	203-628-5	108-90-7							
64	1,1,1,2-tetrachloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		211-135-1	630-20-6							
65	bromoform; tribromomethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-007-00-X	200-854-6	75-25-2							
66	cumene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-024-00-X	202-704-5	98-82-8							
67	1,1,2,2-tetrachloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-015-00-3	201-197-8	79-34-5							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
68	bromobenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-060-00-9	203-623-8	108-86-1							
69	1,2,3-trichloropropane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-062-00-X	202-486-1	96-18-4							
70	propylbenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	601-097-00-8	203-132-9	103-65-1							
71	mesitylene; 1,3,5-trimethylbenzene				0.021 mg/kg		0.0188 mg/kg	0.00000188 %	✓	
	601-025-00-5	203-604-4	108-67-8							
72	tert-butylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		202-632-4	98-06-6							
73	1,2,4-trimethylbenzene				0.071 mg/kg		0.0636 mg/kg	0.00000636 %	✓	
	601-043-00-3	202-436-9	95-63-6							
74	sec-butylbenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		205-227-0	135-98-8							
75	1-isopropyl-4-methylbenzene; p-cymene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	601-094-00-1	202-796-7	99-87-6							
76	1,3-dichlorobenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-067-00-7	208-792-1	541-73-1							
77	1,4-dichlorobenzene; p-dichlorobenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-035-00-2	203-400-5	106-46-7							
78	n-butylbenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		203-209-7	104-51-8							
79	1,2-dichlorobenzene; o-dichlorobenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-034-00-7	202-425-9	95-50-1							
80	1,2-dibromo-3-chloropropane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-021-00-6	202-479-3	96-12-8							
81	1,2,4-trichlorobenzene				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
	602-087-00-6	204-428-0	120-82-1							
82	hexachlorobutadiene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		201-765-5	87-68-3							
83	1,2,3-trichlorobenzene				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		201-757-1	87-61-6							
84	styrene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-026-00-0	202-851-5	100-42-5							
85	2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.01 mg/kg		<0.01 mg/kg	<0.0000001 %		<LOD
	604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]							
86	2-nitrophenol				<0.01 mg/kg		<0.01 mg/kg	<0.0000001 %		<LOD
		201-857-5	88-75-5							
87	2,4-dichlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.0000001 %		<LOD
	604-011-00-7	204-429-6	120-83-2							
88	3,4-xlenol; [1] 2,5-xlenol; [2] 2,4-xlenol; [3] 2,3-xlenol; [4] 2,6-xlenol; [5] xlenol; [6] 2,4(or 2,5)-xlenol [7]				<0.01 mg/kg		<0.01 mg/kg	<0.0000001 %		<LOD
	604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]							
89	2,4,5-trichlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.0000001 %		<LOD
	604-017-00-X	202-467-8	95-95-4							
90	2,4,6-trichlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.0000001 %		<LOD
	604-018-00-5	201-795-9	88-06-2							
91	chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.01 mg/kg		<0.01 mg/kg	<0.0000001 %		<LOD
	604-014-00-3	200-431-6	59-50-7							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
92	4-nitrophenol; p-nitrophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-015-00-2	202-811-7	100-02-7							
93	pentachlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-002-00-8	201-778-6	87-86-5							
94	2-chloronaphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-079-9	91-58-7							
95	2-methyl naphthalene				0.022 mg/kg		0.0197 mg/kg	0.00000197 %	✓	
		202-078-3	91-57-6							
96	bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-317-00-9	204-211-0	117-81-7							
97	BBP; benzyl butyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-430-00-3	201-622-7	85-68-7							
98	dibutyl phthalate; DBP				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-318-00-4	201-557-4	84-74-2							
99	di-n-octyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-214-7	117-84-0							
100	diethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-550-6	84-66-2							
101	dimethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-011-6	131-11-3							
102	2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]							
103	2,6-dinitrotoluene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-049-00-8	210-106-0	606-20-2							
104	4-bromophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-952-4	101-55-3							
105	4-chloroaniline				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-137-00-9	203-401-0	106-47-8							
106	4-chlorophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		230-281-7	7005-72-3							
107	azobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	611-001-00-6	203-102-5	103-33-3							
108	bis(2-chloroethoxy)methane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		203-920-2	111-91-1							
109	bis(2-chloroethyl) ether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	603-029-00-2	203-870-1	111-44-4							
110	carbazole				0.015 mg/kg		0.0134 mg/kg	0.00000134 %	✓	
		201-696-0	86-74-8							
111	dibenzofuran				0.011 mg/kg		0.0098 mg/kg	0.000000985 %	✓	
		205-071-3	132-64-9							
112	hexachlorocyclopentadiene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	602-078-00-7	201-029-3	77-47-4							
113	hexachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		200-666-4	67-72-1							
114	3,5,5-trimethylcyclohex-2-enone; isophorone				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	606-012-00-8	201-126-0	78-59-1							
115	nitrosodipropylamine				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-098-00-8	210-698-0	621-64-7							
116	nitrobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-003-00-7	202-716-0	98-95-3							
117	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
118	1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]							



#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
119		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]			<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD	
	602-040-00-X	202-424-3 [1]	95-49-8 [1]								
		203-580-5 [2]	108-41-8 [2]								
		203-397-0 [3]	106-43-4 [3]								
		246-698-2 [4]	25168-05-2 [4]								
120		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]			<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD	
	604-004-00-9	203-577-9 [1]	108-39-4 [1]								
		202-423-8 [2]	95-48-7 [2]								
		203-398-6 [3]	106-44-5 [3]								
		215-293-2 [4]	1319-77-3 [4]								
121		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]			<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD	
	612-012-00-9	201-855-4 [1]	88-74-4 [1]								
		202-729-1 [2]	99-09-2 [2]								
		202-810-1 [3]	100-01-6 [3]								
Total:								0.0292 %			

Key

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



Classification of sample: WC216-10/04/2025-0.55m

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

Sample details

Sample name: **WC216-10/04/2025-0.55m** LoW Code: **17: Construction and Demolition Wastes (including excavated soil from contaminated sites)**
Moisture content: **21.4%** Chapter: **17 05 04 (Soil and stones other than those mentioned in 17 05 03)**
(dry weight correction) Entry:

Hazard properties

None identified

Determinands

Moisture content: 21.4% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
7	asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
Total:								0%		

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)
<LOD	Below limit of detection

Classification of sample: WC217-10/04/2025-0.50m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC217-10/04/2025-0.50m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
16.9%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

xylene (conc.: 4.36e-06%)

Determinands

Moisture content: 16.9% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	■	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
				TPH							
2		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							
3		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2							
4		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3							
5	■	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4							
6		xylene				0.051 mg/kg		0.0436 mg/kg	0.00000436 %	✓	
		601-022-00-9	202-422-2 [1]	95-47-6 [1]							
			203-396-5 [2]	106-42-3 [2]							
			203-576-3 [3]	108-38-3 [3]							
			215-535-7 [4]	1330-20-7 [4]							
Total:									4.36e-06 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC218-10/04/2025-0.50m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC218-10/04/2025-0.50m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)
31.5% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00395%)

Determinands

Moisture content: 31.5% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				52 mg/kg		39.544 mg/kg	0.00395 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								0.00395 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
■	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC220-08/04/2025-0.55m

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

Sample details

Sample name: **WC220-08/04/2025-0.55m** LoW Code: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: **20.3%** Chapter: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(dry weight correction) Entry:

Hazard properties

None identified

Determinands

Moisture content: 20.3% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	●	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
				TPH							
2		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							
3		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2							
4		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3							
5	●	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4							
6		xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
7		asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
Total:									0%		

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)
<LOD	Below limit of detection



Classification of sample: WC221-08/04/2025-0.50m



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

Sample details

Sample name:	LoW Code:
WC221-08/04/2025-0.50m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
19.6% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 19.6% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								0%		

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)
<LOD	Below limit of detection

Classification of sample: WC223A-10/04/2025-0.50m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC223A-10/04/2025-0.50m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
8%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0186%)

Determinands

Moisture content: 8% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				1.8	mg/kg	1.32	2.201	mg/kg	0.00022 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				41	mg/kg	2.27	86.176	mg/kg	0.00862 %	✓	
	024-017-00-8											
4	copper { dicopper oxide; copper (I) oxide }				9	mg/kg	1.126	9.382	mg/kg	0.000938 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	lead { lead chromate }			1	12	mg/kg	1.56	17.331	mg/kg	0.00111 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
6	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
7	nickel { nickel chromate }				19.8	mg/kg	2.976	54.565	mg/kg	0.00546 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
8	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									
9	zinc { zinc chromate }				46	mg/kg	2.774	118.158	mg/kg	0.0118 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
10	TPH (C6 to C40) petroleum group		TPH		201	mg/kg		186.111	mg/kg	0.0186 %	✓	
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
12	benzene				<0.003	mg/kg		<0.003	mg/kg	<0.0000003 %		<LOD
	601-020-00-8	200-753-7	71-43-2									

#	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							
13	toluene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
14	ethylbenzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
15	xylene				<0.011 mg/kg		<0.011 mg/kg	<0.0000011 %		<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]							
16	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 }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
17	pH		PH		9.58 pH		9.58 pH	9.58 pH		
18	naphthalene				<0.027 mg/kg		<0.027 mg/kg	<0.0000027 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
19	acenaphthylene				0.04 mg/kg		0.037 mg/kg	0.0000037 %	✓	
		205-917-1	208-96-8							
20	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
21	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
22	phenanthrene				0.29 mg/kg		0.269 mg/kg	0.0000269 %	✓	
		201-581-5	85-01-8							
23	anthracene				0.12 mg/kg		0.111 mg/kg	0.0000111 %	✓	
		204-371-1	120-12-7							
24	fluoranthene				1.25 mg/kg		1.157 mg/kg	0.000116 %	✓	
		205-912-4	206-44-0							
25	pyrene				2.18 mg/kg		2.019 mg/kg	0.000202 %	✓	
		204-927-3	129-00-0							
26	benzo[a]anthracene				1.07 mg/kg		0.991 mg/kg	0.0000991 %	✓	
	601-033-00-9	200-280-6	56-55-3							
27	chrysene				1.05 mg/kg		0.972 mg/kg	0.0000972 %	✓	
	601-048-00-0	205-923-4	218-01-9							
28	benzo[b]fluoranthene				1.29 mg/kg		1.194 mg/kg	0.000119 %	✓	
	601-034-00-4	205-911-9	205-99-2							
29	benzo[k]fluoranthene				0.5 mg/kg		0.463 mg/kg	0.0000463 %	✓	
	601-036-00-5	205-916-6	207-08-9							
30	benzo[a]pyrene; benzo[def]chrysene				1.13 mg/kg		1.046 mg/kg	0.000105 %	✓	
	601-032-00-3	200-028-5	50-32-8							
31	indeno[123-cd]pyrene				0.66 mg/kg		0.611 mg/kg	0.0000611 %	✓	
		205-893-2	193-39-5							
32	dibenz[a,h]anthracene				0.08 mg/kg		0.0741 mg/kg	0.00000741 %	✓	
	601-041-00-2	200-181-8	53-70-3							
33	benzo[ghi]perylene				0.55 mg/kg		0.509 mg/kg	0.0000509 %	✓	
		205-883-8	191-24-2							
34	phenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
35	1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		203-458-1, 200-863-5	107-06-2, 75-34-3							
36	tetrachloroethylene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-028-00-4	204-825-9	127-18-4							
37	carbon tetrachloride; tetrachloromethane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-008-00-5	200-262-8	56-23-5							
38	trichloroethylene; trichloroethene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-027-00-9	201-167-4	79-01-6							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
39	vinyl chloride; chloroethylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-023-00-7	200-831-0	75-01-4							
40	hexachlorobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	602-065-00-6	204-273-9	118-74-1							
41	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
42	dichlorodifluoromethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		200-893-9	75-71-8							
43	chloromethane; methyl chloride				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-001-00-7	200-817-4	74-87-3							
44	bromomethane; methylbromide				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-002-00-2	200-813-2	74-83-9							
45	chloroethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-009-00-0	200-830-5	75-00-3							
46	trichlorofluoromethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		200-892-3	75-69-4							
47	1,1-dichloroethylene; vinylidene chloride				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-025-00-8	200-864-0	75-35-4							
48	dichloromethane; methylene chloride				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
	602-004-00-3	200-838-9	75-09-2							
49	2,2-dichloropropane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		209-832-0	594-20-7							
50	bromochloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		200-826-3	74-97-5							
51	chloroform; trichloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-006-00-4	200-663-8	67-66-3							
52	1,1,1-trichloroethane; methyl chloroform				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-013-00-2	200-756-3	71-55-6							
53	1,1-dichloropropene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-031-00-0	209-253-3	563-58-6							
54	1,2-dichloropropane; propylene dichloride				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-020-00-0	201-152-2	78-87-5							
55	dibromomethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-003-00-8	200-824-2	74-95-3							
56	bromodichloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		200-856-7	75-27-4							
57	1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]							
58	trans-1,3-dichloropropene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		431-460-4	10061-02-6							
59	1,1,2-trichloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-014-00-8	201-166-9	79-00-5							
60	1,3-dichloropropane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		205-531-3	142-28-9							
61	dibromochloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		204-704-0	124-48-1							
62	1,2-dibromoethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-010-00-6	203-444-5	106-93-4							
63	chlorobenzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-033-00-1	203-628-5	108-90-7							
64	1,1,1,2-tetrachloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		211-135-1	630-20-6							
65	bromoform; tribromomethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-007-00-X	200-854-6	75-25-2							
66	cumene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-024-00-X	202-704-5	98-82-8							
67	1,1,2,2-tetrachloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-015-00-3	201-197-8	79-34-5							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
68	bromobenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-060-00-9	203-623-8	108-86-1							
69	1,2,3-trichloropropane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-062-00-X	202-486-1	96-18-4							
70	propylbenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	601-097-00-8	203-132-9	103-65-1							
71	mesitylene; 1,3,5-trimethylbenzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-025-00-5	203-604-4	108-67-8							
72	tert-butylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		202-632-4	98-06-6							
73	1,2,4-trimethylbenzene				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	601-043-00-3	202-436-9	95-63-6							
74	sec-butylbenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		205-227-0	135-98-8							
75	1-isopropyl-4-methylbenzene; p-cymene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	601-094-00-1	202-796-7	99-87-6							
76	1,3-dichlorobenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-067-00-7	208-792-1	541-73-1							
77	1,4-dichlorobenzene; p-dichlorobenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-035-00-2	203-400-5	106-46-7							
78	n-butylbenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		203-209-7	104-51-8							
79	1,2-dichlorobenzene; o-dichlorobenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-034-00-7	202-425-9	95-50-1							
80	1,2-dibromo-3-chloropropane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-021-00-6	202-479-3	96-12-8							
81	1,2,4-trichlorobenzene				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
	602-087-00-6	204-428-0	120-82-1							
82	hexachlorobutadiene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		201-765-5	87-68-3							
83	1,2,3-trichlorobenzene				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		201-757-1	87-61-6							
84	styrene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	601-026-00-0	202-851-5	100-42-5							
85	2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-008-00-0	202-433-2 [1]	95-57-8 [1]							
		203-402-6 [2]	106-48-9 [2]							
		203-582-6 [3]	108-43-0 [3]							
		246-691-4 [4]	25167-80-0 [4]							
86	2-nitrophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-857-5	88-75-5							
87	2,4-dichlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-011-00-7	204-429-6	120-83-2							
88	3,4-xyleneol; [1] 2,5-xyleneol; [2] 2,4-xyleneol; [3] 2,3-xyleneol; [4] 2,6-xyleneol; [5] xyleneol; [6] 2,4(or 2,5)-xyleneol [7]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-006-00-X	202-439-5 [1]	95-65-8 [1]							
		202-461-5 [2]	95-87-4 [2]							
		203-321-6 [3]	105-67-9 [3]							
		208-395-3 [4]	526-75-0 [4]							
		209-400-1 [5]	576-26-1 [5]							
		215-089-3 [6]	1300-71-6 [6]							
		276-245-4 [7]	71975-58-1 [7]							
89	2,4,5-trichlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-017-00-X	202-467-8	95-95-4							
90	2,4,6-trichlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-018-00-5	201-795-9	88-06-2							
91	chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-014-00-3	200-431-6	59-50-7							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
92	4-nitrophenol; p-nitrophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-015-00-2	202-811-7	100-02-7							
93	pentachlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-002-00-8	201-778-6	87-86-5							
94	2-chloronaphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-079-9	91-58-7							
95	2-methyl naphthalene				0.026 mg/kg		0.0241 mg/kg	0.00000241 %	✓	
		202-078-3	91-57-6							
96	bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-317-00-9	204-211-0	117-81-7							
97	BBP; benzyl butyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-430-00-3	201-622-7	85-68-7							
98	dibutyl phthalate; DBP				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-318-00-4	201-557-4	84-74-2							
99	di-n-octyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-214-7	117-84-0							
100	diethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-550-6	84-66-2							
101	dimethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-011-6	131-11-3							
102	2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]							
103	2,6-dinitrotoluene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-049-00-8	210-106-0	606-20-2							
104	4-bromophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-952-4	101-55-3							
105	4-chloroaniline				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-137-00-9	203-401-0	106-47-8							
106	4-chlorophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		230-281-7	7005-72-3							
107	azobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	611-001-00-6	203-102-5	103-33-3							
108	bis(2-chloroethoxy)methane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		203-920-2	111-91-1							
109	bis(2-chloroethyl) ether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	603-029-00-2	203-870-1	111-44-4							
110	carbazole				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-696-0	86-74-8							
111	dibenzofuran				0.021 mg/kg		0.0194 mg/kg	0.00000194 %	✓	
		205-071-3	132-64-9							
112	hexachlorocyclopentadiene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	602-078-00-7	201-029-3	77-47-4							
113	hexachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		200-666-4	67-72-1							
114	3,5,5-trimethylcyclohex-2-enone; isophorone				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	606-012-00-8	201-126-0	78-59-1							
115	nitrosodipropylamine				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-098-00-8	210-698-0	621-64-7							
116	nitrobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-003-00-7	202-716-0	98-95-3							
117	coronene				0.09 mg/kg		0.0833 mg/kg	0.00000833 %	✓	
		205-881-7	191-07-1							
118	1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]							



#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
119		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]								
120		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]								
121		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
	612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]								
Total:											

Key

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

Classification of sample: WC224-10/04/2025-0.50m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC224-10/04/2025-0.50m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
14.2%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00473%)

Determinands

Moisture content: 14.2% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				54 mg/kg		47.285 mg/kg	0.00473 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								0.00473 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WC225-10/04/2025-0.60m

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

Sample details

Sample name:	LoW Code:	
WC225-10/04/2025-0.60m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
18% (dry weight correction)		

Hazard properties

HP 8: Corrosive "waste which on application can cause skin corrosion"

pH; pH "Assumed to be irritant/corrosive because of pH value"

Because of determinand:

pH (conc.: 11.67 pH)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

mesitylene; 1,3,5-trimethylbenzene (conc.: 1.1e-06%)

1,2,4-trimethylbenzene (conc.: 3.47e-06%)

Determinands

Moisture content: 18% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
1		arsenic { arsenic trioxide }				10.9	mg/kg	1.32	12.196	mg/kg	0.00122 %	✓	
		033-003-00-0	215-481-4	1327-53-3									
2		cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
		048-002-00-0	215-146-2	1306-19-0									
3		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				25.5	mg/kg	2.27	49.055	mg/kg	0.00491 %	✓	
		024-017-00-8											
4		copper { dicopper oxide; copper (I) oxide }				20	mg/kg	1.126	19.083	mg/kg	0.00191 %	✓	
		029-002-00-X	215-270-7	1317-39-1									
5		lead { lead chromate }			1	178	mg/kg	1.56	235.294	mg/kg	0.0151 %	✓	
		082-004-00-2	231-846-0	7758-97-6									
6		mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
		080-010-00-X	231-299-8	7487-94-7									
7		nickel { nickel chromate }				11	mg/kg	2.976	27.745	mg/kg	0.00277 %	✓	
		028-035-00-7	238-766-5	14721-18-7									
8		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									

#		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									
9		zinc { zinc chromate }				32	mg/kg	2.774	75.231	mg/kg	0.00752 %	✓	
		024-007-00-3	236-878-9	13530-65-9									
10		TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
				TPH									
11		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
12		benzene				<0.003	mg/kg		<0.003	mg/kg	<0.0000003 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
13		toluene				<0.003	mg/kg		<0.003	mg/kg	<0.0000003 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
14		ethylbenzene				<0.003	mg/kg		<0.003	mg/kg	<0.0000003 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
15		xylene				<0.011	mg/kg		<0.011	mg/kg	<0.0000011 %		<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]									
16		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 }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
		006-007-00-5											
17		pH				11.67	pH		11.67	pH	11.67 pH		
				PH									
18		naphthalene				<0.027	mg/kg		<0.027	mg/kg	<0.0000027 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
19		acenaphthylene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-917-1	208-96-8									
20		acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9									
21		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
22		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
23		anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			204-371-1	120-12-7									
24		fluoranthene				0.07	mg/kg		0.0593	mg/kg	0.00000593 %	✓	
			205-912-4	206-44-0									
25		pyrene				0.06	mg/kg		0.0508	mg/kg	0.00000508 %	✓	
			204-927-3	129-00-0									
26		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
27		chrysene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
28		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
29		benzo[k]fluoranthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
30		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
31		indeno[123-cd]pyrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-893-2	193-39-5									
32		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
33		benzo[ghi]perylene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-883-8	191-24-2									
34		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									



#	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							
35	1,1-dichloroethane and 1,2-dichloroethane (combined)	203-458-1, 200-863-5	107-06-2, 75-34-3		<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
36	tetrachloroethylene	602-028-00-4 204-825-9	127-18-4		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
37	carbon tetrachloride; tetrachloromethane	602-008-00-5 200-262-8	56-23-5		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
38	trichloroethylene; trichloroethene	602-027-00-9 201-167-4	79-01-6		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
39	vinyl chloride; chloroethylene	602-023-00-7 200-831-0	75-01-4		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
40	hexachlorobenzene	602-065-00-6 204-273-9	118-74-1		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
41	polychlorobiphenyls; PCB	602-039-00-4 215-648-1	1336-36-3		<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
42	dichlorodifluoromethane	200-893-9	75-71-8		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
43	chloromethane; methyl chloride	602-001-00-7 200-817-4	74-87-3		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
44	bromomethane; methylbromide	602-002-00-2 200-813-2	74-83-9		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
45	chloroethane	602-009-00-0 200-830-5	75-00-3		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
46	trichlorofluoromethane	200-892-3	75-69-4		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
47	1,1-dichloroethylene; vinylidene chloride	602-025-00-8 200-864-0	75-35-4		<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
48	dichloromethane; methylene chloride	602-004-00-3 200-838-9	75-09-2		<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
49	2,2-dichloropropane	209-832-0	594-20-7		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
50	bromochloromethane	200-826-3	74-97-5		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
51	chloroform; trichloromethane	602-006-00-4 200-663-8	67-66-3		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
52	1,1,1-trichloroethane; methyl chloroform	602-013-00-2 200-756-3	71-55-6		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
53	1,1-dichloropropene	602-031-00-0 209-253-3	563-58-6		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
54	1,2-dichloropropane; propylene dichloride	602-020-00-0 201-152-2	78-87-5		<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
55	dibromomethane	602-003-00-8 200-824-2	74-95-3		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
56	bromodichloromethane	200-856-7	75-27-4		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
57	1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]	602-030-00-5 208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
58	trans-1,3-dichloropropene	431-460-4	10061-02-6		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
59	1,1,2-trichloroethane	602-014-00-8 201-166-9	79-00-5		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
60	1,3-dichloropropane	205-531-3	142-28-9		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
61	dibromochloromethane	204-704-0	124-48-1		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
62	1,2-dibromoethane	602-010-00-6 203-444-5	106-93-4		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
63	chlorobenzene	602-033-00-1 203-628-5	108-90-7		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
64	1,1,1,2-tetrachloroethane	211-135-1	630-20-6		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
65	bromoform; tribromomethane	602-007-00-X	200-854-6	75-25-2	<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
66	cumene	601-024-00-X	202-704-5	98-82-8	<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
67	1,1,2,2-tetrachloroethane	602-015-00-3	201-197-8	79-34-5	<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
68	bromobenzene	602-060-00-9	203-623-8	108-86-1	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
69	1,2,3-trichloropropane	602-062-00-X	202-486-1	96-18-4	<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
70	propylbenzene	601-097-00-8	203-132-9	103-65-1	<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
71	mesitylene; 1,3,5-trimethylbenzene	601-025-00-5	203-604-4	108-67-8	0.013 mg/kg		0.011 mg/kg	0.0000011 %	✓	
72	tert-butylbenzene	202-632-4	98-06-6		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
73	1,2,4-trimethylbenzene	601-043-00-3	202-436-9	95-63-6	0.041 mg/kg		0.0347 mg/kg	0.00000347 %	✓	
74	sec-butylbenzene	205-227-0	135-98-8		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
75	1-isopropyl-4-methylbenzene; p-cymene	601-094-00-1	202-796-7	99-87-6	<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
76	1,3-dichlorobenzene	602-067-00-7	208-792-1	541-73-1	<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
77	1,4-dichlorobenzene; p-dichlorobenzene	602-035-00-2	203-400-5	106-46-7	<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
78	n-butylbenzene	203-209-7	104-51-8		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
79	1,2-dichlorobenzene; o-dichlorobenzene	602-034-00-7	202-425-9	95-50-1	<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
80	1,2-dibromo-3-chloropropane	602-021-00-6	202-479-3	96-12-8	<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
81	1,2,4-trichlorobenzene	602-087-00-6	204-428-0	120-82-1	<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
82	hexachlorobutadiene	201-765-5	87-68-3		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
83	1,2,3-trichlorobenzene	201-757-1	87-61-6		<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
84	styrene	601-026-00-0	202-851-5	100-42-5	<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
85	2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]	604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
86	2-nitrophenol	201-857-5	88-75-5		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
87	2,4-dichlorophenol	604-011-00-7	204-429-6	120-83-2	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
88	3,4-xylene; [1] 2,5-xylene; [2] 2,4-xylene; [3] 2,3-xylene; [4] 2,6-xylene; [5] xylene; [6] 2,4(or 2,5)-xylene [7]	604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<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							
89	2,4,5-trichlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-017-00-X	202-467-8	95-95-4							
90	2,4,6-trichlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-018-00-5	201-795-9	88-06-2							
91	chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-014-00-3	200-431-6	59-50-7							
92	4-nitrophenol; p-nitrophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-015-00-2	202-811-7	100-02-7							
93	pentachlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-002-00-8	201-778-6	87-86-5							
94	2-chloronaphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-079-9	91-58-7							
95	2-methyl naphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-078-3	91-57-6							
96	bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-317-00-9	204-211-0	117-81-7							
97	BBP; benzyl butyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-430-00-3	201-622-7	85-68-7							
98	dibutyl phthalate; DBP				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-318-00-4	201-557-4	84-74-2							
99	di-n-octyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-214-7	117-84-0							
100	diethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-550-6	84-66-2							
101	dimethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-011-6	131-11-3							
102	2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]							
103	2,6-dinitrotoluene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-049-00-8	210-106-0	606-20-2							
104	4-bromophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-952-4	101-55-3							
105	4-chloroaniline				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-137-00-9	203-401-0	106-47-8							
106	4-chlorophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		230-281-7	7005-72-3							
107	azobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	611-001-00-6	203-102-5	103-33-3							
108	bis(2-chloroethoxy)methane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		203-920-2	111-91-1							
109	bis(2-chloroethyl) ether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	603-029-00-2	203-870-1	111-44-4							
110	carbazole				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-696-0	86-74-8							
111	dibenzofuran				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-071-3	132-64-9							
112	hexachlorocyclopentadiene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	602-078-00-7	201-029-3	77-47-4							
113	hexachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		200-666-4	67-72-1							
114	3,5,5-trimethylcyclohex-2-enone; isophorone				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	606-012-00-8	201-126-0	78-59-1							
115	nitrosodipropylamine				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-098-00-8	210-698-0	621-64-7							
116	nitrobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-003-00-7	202-716-0	98-95-3							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
117	coronene	205-881-7	191-07-1		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
118	1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]	602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]		<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
119	2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]	602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]		<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
120	m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]	604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
121	o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]	612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
Total:								0.0334 %		

Key

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



Classification of sample: WC234-08/04/2025-0.40m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC234-08/04/2025-0.40m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)
18.5% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00456%)

Determinands

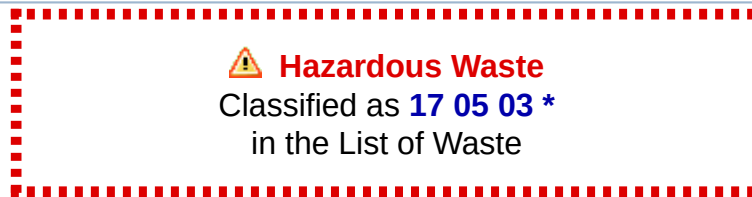
Moisture content: 18.5% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				54 mg/kg		45.57 mg/kg	0.00456 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								0.00456 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
■	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WC214-10/04/2025-0.30m



Sample details

Sample name:	LoW Code:	
WC214-10/04/2025-0.30m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
3.5% (dry weight correction)		

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 1.406%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 1.406%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 1.406%)

Determinands

Moisture content: 3.5% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	TPH (C6 to C40) petroleum group				14555 mg/kg		14062.802	mg/kg	1.406 %	✓	
			TPH								
2	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								
3	benzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
4	toluene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								



#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
5	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	xylene	601-022-00-9	202-422-2 [1]	95-47-6 [1]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		203-396-5 [2]	106-42-3 [2]								
		203-576-3 [3]	108-38-3 [3]								
		215-535-7 [4]	1330-20-7 [4]								
Total:									1.406 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Appendix A: Classifier defined and non GB MCL determinands

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

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

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

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

■ **1,1-dichloroethane and 1,2-dichloroethane (combined)** (EC Number: 203-458-1, 200-863-5, CAS Number: 107-06-2, 75-34-3)

Description/Comments: Combines the hazard statements and risk phrases for 1,1-dichloroethane and 1,2-dichloroethane

Data source: N/A

Data source date: 14 Oct 2016

Hazard Statements: Flam. Liq. 2; H225 , Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 1B; H350 , Aquatic Chronic 3; H412

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

GB MCL index number: 602-039-00-4

Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.

Additional Hazard Statement(s): Carc. 1A; H350

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

■ **dichlorodifluoromethane** (EC Number: 200-893-9, CAS Number: 75-71-8)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Aquatic Chronic 3; H412 , Ozone 1; H420 , Press. Gas; H280

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H312 , Ozone 1; H420

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Acute Tox. 4; H302 , Acute Tox. 4; H312 , Eye Irrit. 2; H319

■ **bromochloromethane** (EC Number: 200-826-3, CAS Number: 74-97-5)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H312 , Skin Corr. 1B; H314 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Ozone 1; H420

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Dam. 1; H318 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 1A; H360

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3; H226 , Acute Tox. 3; H301 , Asp. Tox. 1; H304 , Acute Tox. 3; H311 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , Aquatic Chronic 1; H410

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , STOT SE 3; H336 , Muta. 2; H341 , Aquatic Chronic 2; H411

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , Carc. 2; H351 , Acute Tox. 4; H312 , Aquatic Chronic 3; H412 , Skin Irrit. 2; H315

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Acute Tox. 4; H332 , STOT SE 3; H335 , Asp. Tox. 1; H304 , Aquatic Chronic 2; H411

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Chronic 2; H411

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 3; H301 , Acute Tox. 2; H310 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 2; H330 , Carc. 2; H351 , Repr. 2; H361 , STOT SE 2; H371 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , STOT SE 3; H336 , Aquatic Acute 1; H400 , Aquatic Chronic 3; H410

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , STOT RE 2; H373 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

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

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

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

■ **di-n-octyl phthalate** (EC Number: 204-214-7, CAS Number: 117-84-0)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 02 Mar 2017
Hazard Statements: Repr. 2; H361 , Skin Sens. 1; H317 , Resp. Sens. 1; H334 , Eye Irrit. 2; H319 , Aquatic Chronic 4; H413

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, STOT RE 2; H373

▪ **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

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

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. (edit as required) 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 (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

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. (edit as required) Worst case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

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] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2025.127.6614.12023 (07 May 2025)

HazWasteOnline Database: 2025.127.6614.12023 (07 May 2025)



This classification utilises the following guidance and legislation:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

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

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

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

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

GB MCL List v6.0 - version 6.0 of 15th February 2025



Waste Classification Report

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

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

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



T3K62-XQJJ6-CTHZO

Report is invalid if pages are removed.

Job name

EMT-25-6168-Batch-1-202505121115

Description/Comments

Project

TE1880

Site

Hopwood Hall College, Rochdale

Classified by

Name: **Adrian Read**
Date: **13 May 2025 13:13 GMT**
Telephone: **01925 818388**
Company: **Tier Environmental**
Suite 414
Chadwick House
Warrington
WA3 6AE

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

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification
Most recent 3 year Refresher

Date

03 Dec 2020
05 Dec 2023

Next 3 year Refresher due by Dec 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

Hopwood Hall College

Post Code **OL12 6RY**

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Proposed redevelopment of land

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

Waste created during excavation of soils during development

Description of the waste

Made ground and/or natural soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WC 201-14/04/2025-0.40m		Potentially Hazardous	HP 3(i)	3
2	WC 202-14/04/2025-0.45m		Potentially Hazardous	HP 3(i)	5
3	WC 203-14/04/2025-0.40m		Potentially Hazardous	HP 3(i)	11
4	WC 204-14/04/2025-0.45m		Potentially Hazardous	HP 3(i)	12
5	WC 205-14/04/2025-0.40m		Potentially Hazardous	HP 3(i)	14
6	WC 213-14/04/2025-0.35m		Hazardous	HP 3(i), HP 7, HP 11	16
7	WC 222-14/04/2025-0.45m		Hazardous	HP 3(i), HP 7, HP 11	18
8	WC 227-14/04/2025-0.60m		Potentially Hazardous	HP 3(i)	20
9	WC 228-14/04/2025-0.45m		Hazardous	HP 3(i), HP 7, HP 11	22
10	WC 229-14/04/2025-0.65m		Potentially Hazardous	HP 3(i)	24
11	WC 230-11/04/2025-0.45m		Non Hazardous		25
12	WC 233-11/04/2025-0.65m		Potentially Hazardous	HP 3(i)	26

Related documents

#	Name	Description
1	EMT-25-6168-Batch-1-202505121115.HWOL	Element .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Adrian Read

Created date: 13 May 2025 13:13 GMT

Appendices

	Page
Appendix A: Classifier defined and non GB MCL determinands	27
Appendix B: Rationale for selection of metal species	31
Appendix C: Version	31

Classification of sample: WC 201-14/04/2025-0.40m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC 201-14/04/2025-0.40m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
18.4%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

benzene (conc.: 5.91e-07%)

toluene (conc.: 1.77e-06%)

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

Because of determinands:

TPH (C6 to C40) petroleum group (conc.: 0.0258%)

xylene (conc.: 7.6e-07%)

Determinands

Moisture content: 18.4% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				305 mg/kg		257.601 mg/kg	0.0258 %	✓	
			TPH							
2	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							
3	benzene				0.007 mg/kg		0.0059 mg/kg	0.000000591 %	✓	
	601-020-00-8	200-753-7	71-43-2							
4	toluene				0.021 mg/kg		0.0177 mg/kg	0.00000177 %	✓	
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				0.009 mg/kg		0.0076 mg/kg	0.00000076 %	✓	
	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:								0.0258 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WC 202-14/04/2025-0.45m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC 202-14/04/2025-0.45m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)
6.5% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

benzene (conc.: 3.76e-07%)
toluene (conc.: 1.5e-06%)

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

Because of determinands:

TPH (C6 to C40) petroleum group (conc.: 0.0159%)
xylene (conc.: 1.78e-06%)

Determinands

Moisture content: 6.5% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				13 mg/kg	1.32	16.117 mg/kg	0.00161 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				18.5 mg/kg	2.27	39.432 mg/kg	0.00394 %	✓	
	024-017-00-8									
4	copper { dicopper oxide; copper (I) oxide }				57 mg/kg	1.126	60.259 mg/kg	0.00603 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
5	lead { lead chromate }			1	108 mg/kg	1.56	158.178 mg/kg	0.0101 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
6	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
7	nickel { nickel chromate }				21 mg/kg	2.976	58.687 mg/kg	0.00587 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
8	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							
9	zinc { zinc chromate }				98 mg/kg	2.774	255.274 mg/kg	0.0255 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
10	TPH (C6 to C40) petroleum group				169 mg/kg		158.685 mg/kg	0.0159 %	✓	
			TPH							



#	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								
11	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								
12	benzene				0.004 mg/kg		0.0037 mg/kg	0.000000376 %	✓		
	601-020-00-8	200-753-7	71-43-2								
13	toluene				0.016 mg/kg		0.015 mg/kg	0.00000015 %	✓		
	601-021-00-3	203-625-9	108-88-3								
14	ethylbenzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
15	xylene				0.019 mg/kg		0.0178 mg/kg	0.000000178 %	✓		
	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]								
16	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				1.2 mg/kg	1.884	2.123 mg/kg	0.000212 %	✓		
	006-007-00-5										
17	pH				8.54 pH		8.54 pH	8.54 pH			
			PH								
18	naphthalene				0.6 mg/kg		0.563 mg/kg	0.0000563 %	✓		
	601-052-00-2	202-049-5	91-20-3								
19	acenaphthylene				0.04 mg/kg		0.0376 mg/kg	0.00000376 %	✓		
		205-917-1	208-96-8								
20	acenaphthene				0.09 mg/kg		0.0845 mg/kg	0.00000845 %	✓		
		201-469-6	83-32-9								
21	fluorene				0.04 mg/kg		0.0376 mg/kg	0.00000376 %	✓		
		201-695-5	86-73-7								
22	phenanthrene				0.87 mg/kg		0.817 mg/kg	0.0000817 %	✓		
		201-581-5	85-01-8								
23	anthracene				0.16 mg/kg		0.15 mg/kg	0.0000015 %	✓		
		204-371-1	120-12-7								
24	fluoranthene				1.64 mg/kg		1.54 mg/kg	0.000154 %	✓		
		205-912-4	206-44-0								
25	pyrene				1.53 mg/kg		1.437 mg/kg	0.000144 %	✓		
		204-927-3	129-00-0								
26	benzo[a]anthracene				0.92 mg/kg		0.864 mg/kg	0.0000864 %	✓		
	601-033-00-9	200-280-6	56-55-3								
27	chrysene				1.26 mg/kg		1.183 mg/kg	0.000118 %	✓		
	601-048-00-0	205-923-4	218-01-9								
28	benzo[b]fluoranthene				1.13 mg/kg		1.061 mg/kg	0.000106 %	✓		
	601-034-00-4	205-911-9	205-99-2								
29	benzo[k]fluoranthene				0.44 mg/kg		0.413 mg/kg	0.0000413 %	✓		
	601-036-00-5	205-916-6	207-08-9								
30	benzo[a]pyrene; benzo[def]chrysene				0.99 mg/kg		0.93 mg/kg	0.000093 %	✓		
	601-032-00-3	200-028-5	50-32-8								
31	indeno[123-cd]pyrene				0.62 mg/kg		0.582 mg/kg	0.0000582 %	✓		
		205-893-2	193-39-5								
32	dibenz[a,h]anthracene				0.14 mg/kg		0.131 mg/kg	0.0000131 %	✓		
	601-041-00-2	200-181-8	53-70-3								
33	benzo[ghi]perylene				0.55 mg/kg		0.516 mg/kg	0.0000516 %	✓		
		205-883-8	191-24-2								
34	phenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
	604-001-00-2	203-632-7	108-95-2								
35	1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %			<LOD
		203-458-1, 200-863-5	107-06-2, 75-34-3								
36	tetrachloroethylene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %			<LOD
	602-028-00-4	204-825-9	127-18-4								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
37	carbon tetrachloride; tetrachloromethane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-008-00-5	200-262-8	56-23-5							
38	trichloroethylene; trichloroethene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-027-00-9	201-167-4	79-01-6							
39	vinyl chloride; chloroethylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-023-00-7	200-831-0	75-01-4							
40	hexachlorobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	602-065-00-6	204-273-9	118-74-1							
41	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
42	dichlorodifluoromethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		200-893-9	75-71-8							
43	chloromethane; methyl chloride				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-001-00-7	200-817-4	74-87-3							
44	bromomethane; methylbromide				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-002-00-2	200-813-2	74-83-9							
45	chloroethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	602-009-00-0	200-830-5	75-00-3							
46	trichlorofluoromethane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		200-892-3	75-69-4							
47	1,1-dichloroethylene; vinylidene chloride				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-025-00-8	200-864-0	75-35-4							
48	dichloromethane; methylene chloride				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
	602-004-00-3	200-838-9	75-09-2							
49	2,2-dichloropropane				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		209-832-0	594-20-7							
50	bromochloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		200-826-3	74-97-5							
51	chloroform; trichloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-006-00-4	200-663-8	67-66-3							
52	1,1,1-trichloroethane; methyl chloroform				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-013-00-2	200-756-3	71-55-6							
53	1,1-dichloropropene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-031-00-0	209-253-3	563-58-6							
54	1,2-dichloropropane; propylene dichloride				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-020-00-0	201-152-2	78-87-5							
55	dibromomethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-003-00-8	200-824-2	74-95-3							
56	bromodichloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		200-856-7	75-27-4							
57	1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]							
58	trans-1,3-dichloropropene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		431-460-4	10061-02-6							
59	1,1,2-trichloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-014-00-8	201-166-9	79-00-5							
60	1,3-dichloropropane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		205-531-3	142-28-9							
61	dibromochloromethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		204-704-0	124-48-1							
62	1,2-dibromoethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-010-00-6	203-444-5	106-93-4							
63	chlorobenzene				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-033-00-1	203-628-5	108-90-7							
64	1,1,1,2-tetrachloroethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
		211-135-1	630-20-6							
65	bromoform; tribromomethane				<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
	602-007-00-X	200-854-6	75-25-2							



#	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							
66	cumene 601-024-00-X	202-704-5	98-82-8		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
67	1,1,2,2-tetrachloroethane 602-015-00-3	201-197-8	79-34-5		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
68	bromobenzene 602-060-00-9	203-623-8	108-86-1		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
69	1,2,3-trichloropropane 602-062-00-X	202-486-1	96-18-4		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
70	propylbenzene 601-097-00-8	203-132-9	103-65-1		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
71	mesitylene; 1,3,5-trimethylbenzene 601-025-00-5	203-604-4	108-67-8		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
72	tert-butylbenzene 202-632-4	98-06-6			<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
73	1,2,4-trimethylbenzene 601-043-00-3	202-436-9	95-63-6		<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
74	sec-butylbenzene 205-227-0	135-98-8			<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
75	1-isopropyl-4-methylbenzene; p-cymene 601-094-00-1	202-796-7	99-87-6		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
76	1,3-dichlorobenzene 602-067-00-7	208-792-1	541-73-1		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
77	1,4-dichlorobenzene; p-dichlorobenzene 602-035-00-2	203-400-5	106-46-7		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
78	n-butylbenzene 203-209-7	104-51-8			<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
79	1,2-dichlorobenzene; o-dichlorobenzene 602-034-00-7	202-425-9	95-50-1		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
80	1,2-dibromo-3-chloropropane 602-021-00-6	202-479-3	96-12-8		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
81	1,2,4-trichlorobenzene 602-087-00-6	204-428-0	120-82-1		<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
82	hexachlorobutadiene 201-765-5	87-68-3			<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
83	1,2,3-trichlorobenzene 201-757-1	87-61-6			<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
84	styrene 601-026-00-0	202-851-5	100-42-5		<0.003 mg/kg		<0.003 mg/kg	<0.0000003 %		<LOD
85	2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4] 604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
86	2-nitrophenol 201-857-5	88-75-5			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
87	2,4-dichlorophenol 604-011-00-7	204-429-6	120-83-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
88	3,4-xyleneol; [1] 2,5-xyleneol; [2] 2,4-xyleneol; [3] 2,3-xyleneol; [4] 2,6-xyleneol; [5] xyleneol; [6] 2,4(or 2,5)-xyleneol [7] 604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
89	2,4,5-trichlorophenol 604-017-00-X	202-467-8	95-95-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
90	2,4,6-trichlorophenol 604-018-00-5	201-795-9	88-06-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<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							
91	chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-014-00-3	200-431-6	59-50-7							
92	4-nitrophenol; p-nitrophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-015-00-2	202-811-7	100-02-7							
93	pentachlorophenol				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	604-002-00-8	201-778-6	87-86-5							
94	2-chloronaphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-079-9	91-58-7							
95	2-methyl naphthalene				0.197 mg/kg		0.185 mg/kg	0.0000185 %	✓	
		202-078-3	91-57-6							
96	bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-317-00-9	204-211-0	117-81-7							
97	BBP; benzyl butyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-430-00-3	201-622-7	85-68-7							
98	dibutyl phthalate; DBP				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	607-318-00-4	201-557-4	84-74-2							
99	di-n-octyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-214-7	117-84-0							
100	diethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-550-6	84-66-2							
101	dimethyl phthalate				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-011-6	131-11-3							
102	2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-007-00-9	204-450-0 [1]	121-14-2 [1]							
		246-836-1 [2]	25321-14-6 [2]							
103	2,6-dinitrotoluene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-049-00-8	210-106-0	606-20-2							
104	4-bromophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		202-952-4	101-55-3							
105	4-chloroaniline				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-137-00-9	203-401-0	106-47-8							
106	4-chlorophenylphenylether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		230-281-7	7005-72-3							
107	azobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	611-001-00-6	203-102-5	103-33-3							
108	bis(2-chloroethoxy)methane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		203-920-2	111-91-1							
109	bis(2-chloroethyl) ether				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	603-029-00-2	203-870-1	111-44-4							
110	carbazole				0.031 mg/kg		0.0291 mg/kg	0.00000291 %	✓	
		201-696-0	86-74-8							
111	dibenzofuran				0.071 mg/kg		0.0667 mg/kg	0.00000667 %	✓	
		205-071-3	132-64-9							
112	hexachlorocyclopentadiene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	602-078-00-7	201-029-3	77-47-4							
113	hexachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		200-666-4	67-72-1							
114	3,5,5-trimethylcyclohex-2-enone; isophorone				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	606-012-00-8	201-126-0	78-59-1							
115	nitrosodipropylamine				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	612-098-00-8	210-698-0	621-64-7							
116	nitrobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	609-003-00-7	202-716-0	98-95-3							
117	coronene				0.11 mg/kg		0.103 mg/kg	0.0000103 %	✓	
		205-881-7	191-07-1							



#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
118		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]								
119		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.006 mg/kg		<0.006 mg/kg	<0.0000006 %		<LOD
	602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]								
120		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]								
121		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
	612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]								
Total:											

Key

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

Classification of sample: WC 203-14/04/2025-0.40m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC 203-14/04/2025-0.40m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
18.8%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

toluene (conc.: 5.89e-07%)

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0354%)

Determinands

Moisture content: 18.8% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				420 mg/kg		353.535 mg/kg	0.0354 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				0.007 mg/kg		0.0058 mg/kg	0.000000589 %	✓	
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								0.0354 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC 204-14/04/2025-0.45m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC 204-14/04/2025-0.45m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)
9.3% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

benzene (conc.: 4.57e-07%)
toluene (conc.: 1.46e-06%)

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

Because of determinands:

TPH (C6 to C40) petroleum group (conc.: 0.0412%)
xylene (conc.: 7.32e-07%)

Determinands

Moisture content: 9.3% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				450 mg/kg		411.711 mg/kg	0.0412 %	✓	
			TPH							
2	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							
3	benzene				0.005 mg/kg		0.0045 mg/kg	0.000000457 %	✓	
	601-020-00-8	200-753-7	71-43-2							
4	toluene				0.016 mg/kg		0.0146 mg/kg	0.00000146 %	✓	
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				0.008 mg/kg		0.0073 mg/kg	0.000000732 %	✓	
	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]							
7	asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							



#		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							
Total:									0.0412 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WC 205-14/04/2025-0.40m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC 205-14/04/2025-0.40m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
19.7%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

toluene (conc.: 1.0e-06%)

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

Because of determinands:

TPH (C6 to C40) petroleum group (conc.: 0.0402%)

xylene (conc.: 5.85e-07%)

Determinands

Moisture content: 19.7% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				481 mg/kg		401.838 mg/kg	0.0402 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				0.012 mg/kg		0.01 mg/kg	0.000001 %	✓	
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				0.007 mg/kg		0.0058 mg/kg	0.000000585 %	✓	
	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:								0.0402 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC 213-14/04/2025-0.35m

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

Sample details

Sample name:	LoW Code:
WC 213-14/04/2025-0.35m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
25.7%	Entry:
(dry weight correction)	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.152%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.152%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

toluene (conc.: 1.43e-06%)

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.152%)

Determinands

Moisture content: 25.7% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	TPH (C6 to C40) petroleum group				1910 mg/kg		1519.491	mg/kg	0.152 %	✓	
			TPH								
2	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								



#		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							
3		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
4		toluene				0.018 mg/kg		0.0143 mg/kg	0.00000143 %	✓	
	601-021-00-3	203-625-9	108-88-3								
5	■	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
6		xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1]	95-47-6 [1]								
		203-396-5 [2]	106-42-3 [2]								
		203-576-3 [3]	108-38-3 [3]								
		215-535-7 [4]	1330-20-7 [4]								
7		asbestos				20 mg/kg		15.911 mg/kg	0.00159 %	✓	
	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									
Total:									0.154 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Potentially Hazardous result
■	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC 222-14/04/2025-0.45m

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

Sample details

Sample name:	LoW Code:
WC 222-14/04/2025-0.45m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 03 * (Soil and stones containing hazardous substances)
18% (dry weight correction)	

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.262%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.262%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.262%)

Determinands

Moisture content: 18% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	TPH (C6 to C40) petroleum group				3087 mg/kg		2616.102	mg/kg	0.262 %	✓	
			TPH								
2	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								
3	benzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
4	toluene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								



#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
5	■	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4							
6		xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1]	95-47-6 [1]							
			203-396-5 [2]	106-42-3 [2]							
			203-576-3 [3]	108-38-3 [3]							
			215-535-7 [4]	1330-20-7 [4]							
7		asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
		650-013-00-6	-----	12001-28-4							
				132207-32-0							
				12172-73-5							
				77536-66-4							
				77536-68-6							
				77536-67-5							
				12001-29-5							
Total:									0.262 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC 227-14/04/2025-0.60m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC 227-14/04/2025-0.60m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)
20.2% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0089%)

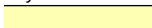
Determinands

Moisture content: 20.2% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				107 mg/kg		89.018 mg/kg	0.0089 %	✓	
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
7	asbestos				230 mg/kg		191.348 mg/kg	0.0191 %	✓	
	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							
Total:								0.028 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC 228-14/04/2025-0.45m

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

Sample details

Sample name:	LoW Code:
WC 228-14/04/2025-0.45m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
26.3%	Entry:
(dry weight correction)	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.134%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.134%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.134%)

Determinands

Moisture content: 26.3% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	TPH (C6 to C40) petroleum group				1689 mg/kg		1337.292 mg/kg		0.134 %	✓	
			TPH								
2	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								
3	benzene				<0.005 mg/kg		<0.005 mg/kg		<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
4	toluene				<0.005 mg/kg		<0.005 mg/kg		<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								0.134 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection



Classification of sample: WC 229-14/04/2025-0.65m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC 229-14/04/2025-0.65m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)
21.3% (dry weight correction)	

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

toluene (conc.: 4.95e-07%)

Determinands

Moisture content: 21.3% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				0.006 mg/kg		0.0049 mg/kg	0.000000495 %	✓	
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:								4.95e-07 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
■	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WC 230-11/04/2025-0.45m

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

Sample details

Sample name:	LoW Code:
WC 230-11/04/2025-0.45m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
27.6% (dry weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 27.6% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	●	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
				TPH							
2		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							
3		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2							
4		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3							
5	●	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4							
6		xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
Total:									0%		

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)
<LOD	Below limit of detection

Classification of sample: WC 233-11/04/2025-0.65m

*** Potentially Hazardous Waste**
Classified as **17 05 04** or **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
WC 233-11/04/2025-0.65m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
27.6%	Entry:
(dry weight correction)	17 05 04 or 17 05 03 * (Soil and stones other than those mentioned in 17 05 03 or Soil and stones containing hazardous substances)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

toluene (conc.: 5.41e-06%)

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

Because of determinand:

xylene (conc.: 1.1e-06%)

Determinands

Moisture content: 27.6% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				0.069 mg/kg		0.0541 mg/kg	0.00000541 %	✓	
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				0.014 mg/kg		0.011 mg/kg	0.0000011 %	✓	
	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:								6.5e-06 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Potentially Hazardous result
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Appendix A: Classifier defined and non GB MCL determinands

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

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

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

• **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

• **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

• **pH** (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

• **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

■ **1,1-dichloroethane and 1,2-dichloroethane (combined)** (EC Number: 203-458-1, 200-863-5, CAS Number: 107-06-2, 75-34-3)

Description/Comments: Combines the hazard statements and risk phrases for 1,1-dichloroethane and 1,2-dichloroethane

Data source: N/A

Data source date: 14 Oct 2016

Hazard Statements: Flam. Liq. 2; H225 , Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 1B; H350 , Aquatic Chronic 3; H412

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

GB MCL index number: 602-039-00-4

Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.

Additional Hazard Statement(s): Carc. 1A; H350

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

■ **dichlorodifluoromethane** (EC Number: 200-893-9, CAS Number: 75-71-8)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Aquatic Chronic 3; H412 , Ozone 1; H420 , Press. Gas; H280

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H312 , Ozone 1; H420

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Acute Tox. 4; H302 , Acute Tox. 4; H312 , Eye Irrit. 2; H319

■ **bromochloromethane** (EC Number: 200-826-3, CAS Number: 74-97-5)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H312 , Skin Corr. 1B; H314 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Ozone 1; H420

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Dam. 1; H318 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 1A; H360

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3; H226 , Acute Tox. 3; H301 , Asp. Tox. 1; H304 , Acute Tox. 3; H311 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , Aquatic Chronic 1; H410

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , STOT SE 3; H336 , Muta. 2; H341 , Aquatic Chronic 2; H411

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , Carc. 2; H351 , Acute Tox. 4; H312 , Aquatic Chronic 3; H412 , Skin Irrit. 2; H315

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Acute Tox. 4; H332 , STOT SE 3; H335 , Asp. Tox. 1; H304 , Aquatic Chronic 2; H411

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Chronic 2; H411

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 3; H301 , Acute Tox. 2; H310 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 2; H330 , Carc. 2; H351 , Repr. 2; H361 , STOT SE 2; H371 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , STOT SE 3; H336 , Aquatic Acute 1; H400 , Aquatic Chronic 3; H410

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

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , STOT RE 2; H373 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

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

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

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

• **di-n-octyl phthalate** (EC Number: 204-214-7, CAS Number: 117-84-0)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 02 Mar 2017
Hazard Statements: Repr. 2; H361 , Skin Sens. 1; H317 , Resp. Sens. 1; H334 , Eye Irrit. 2; H319 , Aquatic Chronic 4; H413

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, STOT RE 2; H373

▪ **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

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

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. (edit as required) 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 (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

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. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

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] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2025.127.6614.12023 (07 May 2025)

HazWasteOnline Database: 2025.127.6614.12023 (07 May 2025)



This classification utilises the following guidance and legislation:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

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

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

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

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

GB MCL List v6.0 - version 6.0 of 15th February 2025

APPENDIX D - PHOTOGRAPHS

Project Name Project No. Engineer Client		Photographic Record	Borehole ID WC201
HOPWOOD HALL TE1880 STEF ELLIS			Plate No.
			From:
			To:
			From:
			To:
Photographed By		Date	

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS		Photographic Record		Borehole ID WC202 Plate No.	
				From:			
				To:			
				From:			
				To:			
Photographed By				Date			

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC203
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			
		From:	
		To:	
		From:	
		To:	
Photographed By		Date	

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC204
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			
		From:	
		To:	
		From:	
		To:	
Photographed By		Date	

Project Name Project No. Engineer Client		Photographic Record	Borehole ID WC205
HOPWOOD HALL TE1880 STEF ELLIS			Plate No.
			From:
			To:
			From:
			To:
Photographed By		Date	

Project Name	HOPWOOD HALL	Photographic Record	Borehole ID
Project No.	TE1880		WC209
Engineer	STEF ELLIS		Plate No.
Client			



From:

To:

From:

To:

Photographed By



Date

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC213
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
		From:	
		To:	
			From:
			To:
Photographed By		Date	

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC214
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			
		From:	
		To:	
		From:	
		To:	
Photographed By		Date	

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS		Photographic Record		Borehole ID WC215 Plate No.	
				From:			
				To:			
				From:			
				To:			
Photographed By				Date			

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS		Photographic Record		Borehole ID WC216 Plate No.	
						From:	
						To:	
						From:	
						To:	
Photographed By				Date			

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS		Photographic Record		Borehole ID WC217 Plate No.	
						From:	
						To:	
						From:	
						To:	
Photographed By				Date			

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC218
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			
			From:
			To:
			From:
			To:
Photographed By		Date	

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS Client		Photographic Record		Borehole ID WC219 Plate No.	
				From:			
				To:			
				From:			
				To:			
Photographed By				Date			

Project Name	HOPWOOD HALL	Photographic Record	Borehole ID
Project No.	TE1880		WC220
Engineer	STEFF ELLIS		Plate No.
Client			



Photographed By		Date	
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Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC221
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
		From:	
		To:	
		From:	
		To:	
Photographed By		Date	

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC222
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			From:
			To:
			From:
			To:
Photographed By		Date	

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC223A
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			From:
			To:
			From:
			To:
Photographed By		Date	

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS		Photographic Record		Borehole ID WC224 Plate No.	
						From:	
						To:	
						From:	
						To:	
Photographed By				Date			

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS		Photographic Record		Borehole ID WC225 Plate No.	
				From:			
				To:			
				From:			
				To:			
Photographed By				Date			

Project Name HOPWOOD HALL		Photographic Record	Borehole ID
Project No. TE1880			WC226
Engineer STEF ELLIS			Plate No.
Client			
	From:		
	To:		
			From:
			To:
Photographed By		Date	

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS		Photographic Record		Borehole ID WC227 Plate No.	
						From:	
						To:	
						From:	
						To:	
Photographed By				Date			

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC228
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			From:
			To:
			From:
			To:
Photographed By		Date	

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC229
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			
			From:
			To:
			From:
			To:
Photographed By		Date	

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC230
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			From:
			To:
			From:
			To:
Photographed By		Date	

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC231
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
			
		From:	
		To:	
		From:	
		To:	
Photographed By		Date	

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS		Photographic Record		Borehole ID WC232 Plate No.	
						From:	
						To:	
						From:	
						To:	
Photographed By				Date			

Project Name HOPWOOD HALL		Photographic Record	Borehole ID WC233
Project No. TE1880			Plate No.
Engineer STEF ELLIS			
Client			
 From: To:			
From: To:			
Photographed By		Date	

Project Name Project No. Engineer Client		HOPWOOD HALL TE1880 STEF ELLIS		Photographic Record		Borehole ID WC234 Plate No.	
						From:	
						To:	
						From:	
						To:	
Photographed By				Date			

APPENDIX E – CORRESPONDENCE WITH CONTAMINATED LAND OFFICER



Tier Environmental Ltd
7 9 New Wakefield Street,
Manchester, M1 5NP
0161 876 2900

TE1880-TE-00-XX-CO-GE-001-V01

FAO Jonathon Parr

Rochdale Borough Council
Floor 3
Number One Riverside
Smith Street
Rochdale
OL16 1XU

17 April 2025

ENVIRONMENTAL HEALTH SENIOR OFFICER COMMENTS RESPONSE LETTER – HOPWOOD HALL COLLEGE, ROCHDALE PREAPP-00012-25

Dear Jonathon,

Tier Environmental wish to thank you for your email comments received on 16th April 2025 following your review of the following documents produced by Tier Environmental for the above site, including the positive comments provided – this is very much appreciated:

- TE1880-TE-00-XX-RP-GE-001-V03 PRA - Preliminary Risk Assessment (report reference: TE1880-TE-00-XX-RP-GE-001-V03, dated: 12th March 2025);
- TE1880-TE-00-XX-RP-GE-002-V02 GIR - Ground Investigation Report (report reference: TE1880-TE-00-XX-RP-GE-002-V02, dated 3rd March 2025); and,
- TE1880-TE-00-XX-RP-GE-004-V01 DQRA - Asbestos Quantitative Risk Assessment (report reference: TE1880-TE-00-XX-RP-GE-004-V01, dated 28th February 2025)

It is understood that the Coal Mining Risk Assessment (report reference: TE1880-TE-00-XX-RP-GE-003-V01, dated 6th February 2025) has been receipted but not reviewed at the time of writing.

For ease, we have reproduced your comments and provided responses in red below:

TE1880-TE-00-XX-RP-GE-002-V02 GIR Conclusions:

Tier Environmental concluded the following in relation to onsite contamination:

1. It is recommended that further soil sampling and human health risk assessment is conducted post-demolition in the vicinity of the proposed contoured landscaped area in the east of the site
2. It is recommended that an asbestos Detailed Quantitative Risk Assessment is carried out for the asbestos concentrations reported at the site. If this is not carried out or if a potential risk is identified following any future risk assessment, then a remediation strategy will be

required for a clean cover system at the site I assume this is why TE1880-TE-00-XX-RP-GE-004-V01 - DQRA was written? Yes, this is correct. The DQRA was conducted to further assess whether the concentrations reported in the soils presented a potential risk to end-users that warranted remedial action.

3. It is recommended that an Asbestos Management Plan is prepared for the site.
4. It is recommended that further detailed consideration of asphalt is conducted to determine potential re-use opportunities and further refine the waste classification.
5. No ground gas protection measures are considered necessary for the site (subject to identification during earthworks of any unrecorded mine shaft, adit or associated coal mining features that may present preferential pathways).
6. I HAVE LEFT COMMENTS RE THE CONTROLLED WATERS RISK ASSESSMENT TO THE EA (except for one note on the SOBRA groundwater vapour guidance). Thank you for the confirmation.

I am in agreement with these conclusions, and this work needs to be undertaken. Thank you for the confirmation. However, please see below for further comments I feel need further consideration.

Comments:

1. The white stained soils identified within CP101 and CP104 at shallow depth (CP101 at 0.21-0.5mBGL and CP104/RH102 at 0.35-0.8mBGL) have not been tested. Nor is there any discussion of what these soils are. A review of CLR2 would indicate white staining/colouration could be indicative of: salts of Al, As, Cd, Pb, or Mg, mercurous chloride, mercurous sulphate, some Ag salts or Zn salts. CP101 has historically been adjacent to dye works, and CP104 was historically within the old course of the Roch before it was diverted. Tier Environmental has recently conducted some additional works for the purposes of delineating an area around WS105 for soil waste classification purposes. This has included a series of core holes and shallow hand pits inclusive of locations in locale of CP101 and CP104 and it can be confirmed that no further evidence of 'white coating' on silt pockets has been identified. It is considered on balance, and in the absence of any evidence of widespread similar descriptions within these areas that the observations may have been a result from the concrete coring / limestone and the white slurry formed as water is added during the process. This is supported by the shallow nature of these observations.
2. I believe testing of the possible PFA has not taken into account metals which are generally enriched within PFA. BRE 509 provides a list of the usual constituents of PFA which includes As, B, Ba, Cd, Chloride, Co, Cr, Cu, Fl, Hg, Mn, Mo, Ni, P, Pb, Sb, Se, Tn, V and Zn, as well as noting their average concentrations. I also believe that PFA can be radioactive, which does not appear to have been considered. I understand that you don't always know what you are testing when you schedule testing or that something like this might be present and so it is not always possible to react to it, but I believe this needs to be at least considered. We use Element materials Technology who use a Geiger counter to check any concerns with samples entering the laboratory with regards to radioactivity. Whilst the results aren't

reported, there is an opportunity for them to raise any concerns regarding the radioactivity of any samples submitted for chemical analysis. In the absence of any such alerts, it is considered unlikely that the PFA on site represents a risk from radioactivity.

We acknowledge the list of metals identified above and can confirm that arsenic, cadmium, chloride, chromium, copper, mercury, nickel, lead, selenium and zinc have been analysed in such a manner that this would be sufficient to assess any general enrichment within these materials. While it is recognised that other metals and inorganic parameters may also be present in soils, the pathways and mechanisms of exposure for these substances are broadly commensurate with those of the metals listed above. Their risk can therefore be considered indirectly assessed through the same exposure routes and receptor scenarios.

In the context of this assessment of the metals analysed for and in line with the principle of proportionate risk assessment, the selected determinand list is considered appropriate and sufficient to characterise risks to human health under the current conceptual site model.

3. I believe testing of the soils has not taken into account those substances used within bleaching/dyeing mills. The relevant DoE Industry profile provides a list of substances used within dyeing processes. I believe other substances not mentioned within the DoE IP could have included tannic acid, oxalic acid, alum, chrome alum, iodine, potassium, sodium, and tungsten. Animal dung was also used to remove excess mordants (although I see no presence of this within the logs). I understand given the age of the mills that a lot of the organic compounds mentioned within the IP won't have been used. (Sources "DoE Industry profile Textile Works and Dye works", "Colouring textiles; A history of natural dyestuffs in Industrial Europe" and "Manual of chemical technology").

While direct laboratory analysis for individual acids (e.g., tannic acid, oxalic acid) was not conducted, soil pH testing was undertaken as part of the geotechnical analysis (see Table 7.3 of the GIR). The results indicate that soil pH values were generally near neutral, with no indication of significant acidification across the site.

As acidic substances typically degrade or neutralize over time and in the presence of alkaline Made Ground materials (e.g., concrete, brick, slag), we consider pH testing a reasonable proxy to indicate the absence of persistent acidic contamination. If historic acidic discharges had occurred, we would expect a legacy of lowered pH, which was not observed.

The DoE Industry Profile for Textile Works and Dye Works and literature such as "Colouring Textiles" and the "Manual of Chemical Technology" do reference a broad range of historical dyeing chemicals, including tannic acid, alum, oxalic acid, iodine, chromium compounds (e.g., chrome alum), and various mordants.

While not all of these were directly analysed, the site was tested for a wide range of relevant chemical groups, including:

- Metals, including Chromium inclusive of hexavalent and trivalent forms (chrome alum is a chromium salt) and indeed separate analysis for hexavalent chromium as well.
- Cyanides, which may result from dye processes involving azo or vat dyes.
- PCBs, PAHs, VOCs/SVOCs, which cover many potential organic compounds historically used in dye and bleaching processes.
- Asbestos was also screened, given the age and former industrial uses of the site.
- Speciated TPH, BTEX, glycols, and phenols were included to assess petroleum and solvent-based contamination pathways.

Given the age of the mills and understanding of industrial practices at the time, it is recognised that many organic compounds noted in historical records are likely to have degraded over time or were never used in significant quantities.

While specific tannin or biological breakdown products (e.g., from animal dung used in pre-mordant processes) were not tested, these are considered unlikely to persist in the environment over the decades since the operational use of the mills. Such compounds are also highly biodegradable and would not typically represent a long-term contamination concern. No visual or olfactory indicators (e.g., manure odours or high organic content deposits) were identified during logging, nor were organic-rich strata (other than expected in the alluvium) recorded.

Based on the pH data, absence of low-pH values, and the broad analytical suite selected, we believe that reasonable lines of evidence exist to demonstrate that acid-related and dye-process contaminants are unlikely to pose a significant residual risk at the site.

4. Whilst some testing relevant to these land-uses for some contaminants has been undertaken, I am happy to be persuaded that further testing is not required, but at the moment I feel that the “further soil sampling and human health risk assessment” should be reflected across the whole site, not just the landscaped areas, and should be expanded to include those substance omitted. I also feel that this would aid in updating the waste classification.

Please see our response above with regards to the former land uses and so I hope that this provides confidence in our conclusion regarding focussing additional soil sampling and human health risk assessment to the proposed landscaped areas.

Additional shallow testing has been recently conducted targeting primarily TPH and asbestos. TPH because this was the primary driver for the hazardous waste classification at WS105 (although consideration of TPH within the human health risk assessment is sufficient

to demonstrate that the concentrations at WS105 and elsewhere across the site do not present a significant risk to human health).

5. It is noted that a geophysics report is stated to be included within Appendix A, but this does not seem to be the case in the copy I have. Can a copy please be forwarded to me.

Apologies for this omission, please find a copy attached.

6. I support the re-use of materials on site, as long as the relevant mechanism is in place and they are suitable for use both geochemically and geotechnically. As it is a waste issue, I would expect the EA to lead but if an MMP is produced, this would also need to be submitted to the LPA.

Thank you. Yes, our normal approach for MMPs would be to provide a supporting document to you and the EA.

7. RH101A, RH103 and RH103A: the possible metal/cast iron found within these locations. These were noted at varied depths, between 2.2 and 6.5mBGL, but there doesn't seem to be any mention of it beyond its discovery. Has any consideration been given as to what this could be? It seems too deep to be a redundant service; could they be related to the foundations of old buildings?

This is considered further within section 8.2 of our Coal Mining Risk Assessment report and we believe that it coincides with the suspected mineworkings beneath the site:

*'As detailed in Table 7.2 above, there have been multiple observations within RH101, RH102, RH103, RH103A and RH103C indicate it is likely/possible, that there are shallow mineworkings present underlying the site. Due to the high risk associated with shallow mineworkings from crown hole collapse and large differential settlements, a precautionary approach must be undertaken if the presence of shallow mineworkings cannot be categorically ruled out. Taking into account the similar depth that the features were observed in the boreholes, the varying thickness and depth that coal was encountered in each borehole, **the suspected metal obstruction within the bedrock**, the void/drop in drill rods, the loss of flush, the areas of no recovery and very poor recovery, the similarity with assumed coal depths and evidence of workings, the highly fractured nature of this rock horizon and the shallow recorded coal seams, it is considered more likely than not that there are shallow unrecorded mineworkings present underlying the site.'*

8. Within the report, it is stated that Geotechnics exploratory location (CP02) in the NE section of the site demonstrated a HC odour at 5.3m BGL. Is there any suggestion as to what this HC could be caused by within Geotechnics GI report (assuming it wasn't just factual?) Where is CP02 in relation to historical land uses? Which exploratory locations from the Tier Environmental GI were in close proximity to this location? How far away from Geotechnics CP02 were they? Did they all get down to a similar depth (in MAOD?). Reliance on other

reports can be purchased, usually at small cost (through experience, everything from £20 to £500).

The Geotechnics report describes “During drilling, hydrocarbon odours were detected in CP02 and not in CP04. However, VOC compounds typically associated with petrol were detected in soils samples from CP02. The TPH range detected in the water sample from CP04 suggests a heavier TPH source than petrol. Although the concentrations exceed the EQS, TPH impact is localised and not site wide. In addition, the hydrocarbon chain lengths are likely to mean that the compounds have low mobility and relate to localised impact in Made Ground and there is assessed to be no significant risks.”.

CP02 was located within the former infilled watercourse and so Tier Environmental exploratory hole locations CP103, CP104/RH102 and CP102 were advanced within the former infilled watercourse area to further investigate the potential for hydrocarbon impacts at depth. As stated in Section 6.3 of our report: “The previous Geotechnics ground investigation recorded black stained material with a strong hydrocarbon odour at 5.30 m bgl within CP02. Tier have undertaken several boreholes have been undertaken surrounding this area, with no further evidence of hydrocarbon contamination observed”.

9. With regards to the use of commercial GACs; has any consideration been given to running the commercial land-use in CLEA but changing the receptor age class to better model students, which would be the critical receptor here? Students are generally smaller than adults and would therefore be at greater risk from contamination, although their exposure time would be less (two years). I feel this would be more protective of students with the GAC commercial being appropriate for adults. However, I am open to being convinced that screening against adults is appropriate for students, too. I note the use of POSPARK for a sensitivity analysis for areas of landscaping.

Thank you for the comment. The current human health risk assessment applied GACs derived for a commercial land use scenario, which is a standard approach in line with Environment Agency guidance (Updated Technical Background to the CLEA Model, 2009). While this guidance defines three default scenarios (residential, allotment, and commercial), it does not explicitly identify educational settings such as colleges. However, the commercial scenario is often used in practice for colleges, universities, and similar sites, particularly where:

- The majority of time spent on-site is indoors (e.g. classrooms, workshops),
- Site access is controlled or limited,
- Daily time spent on site is reduced compared to full-time workers,
- Exposure duration is limited to a few years (e.g. 2-3 years of study).

In this context, we consider the use of commercial land use GACs to be a reasonable and appropriately conservative default scenario, especially when the actual exposure frequency

and duration for students is typically less than that assumed for the default commercial worker.

While students (particularly under 18s) may be smaller than a typical adult worker, their total exposure duration and frequency are significantly lower, especially as the likely worst-case scenario is attendance for approximately 2 No. academic years (as noted).

Modelling a student-specific receptor within CLEA is certainly feasible in theory (e.g. custom exposure settings for a 16–18-year-old receptor over 2 years); however, the standard commercial GACs are already derived using conservative exposure assumptions. The default commercial worker is assumed to spend 230 days/year on site for 49 years, with frequent exposure pathways (inhalation, ingestion, dermal).

This far exceeds the likely exposure frequency, duration, and routes for students, who would typically be on-site 190 days/year for less than 2 No. years, and for limited daily hours.

Therefore, although younger receptors have potentially higher intake rates per unit bodyweight, this is offset by the much shorter exposure duration and reduced contact hours, which makes use of commercial GACs sufficiently protective.

Despite the above, you are correct to point out that we have taken an additional step of conducting sensitivity analysis by comparing the reported concentrations against Public Open Space (POS) Park GACs. We recognise that areas of soft landscaping present a slightly higher potential for soil contact, particularly if students or staff spend time outdoors during breaks or activities. To account for this, a sensitivity analysis was carried out using POS Park GACs, which are based on young children playing daily in parks – a highly conservative scenario.

The comparison against these more stringent criteria identified only a single exceedance for benzo(a)pyrene in one Made Ground sample in the northeast. This has been flagged for further assessment in line with LCRM and may inform future remediation design for soft landscaping areas, if required.

10. I assume from the 2001 date provided in the main text in relation to RIVM Maximum Permissible Risk levels is for Re-evaluation of human-toxicological maximum permissible risk levels 711701025; no reference is provided. MPRLs were updated at least in 2009. A USEPA PPRTV is available for dibenzofuran which gives a subchronic oral p-RFD. The Canadian toxicity values (which is what I assume “CCME (2014). Soil Quality Guidelines” refers to were updated in 2023. I would also check out the Californian and Texan EPAs as they also have good toxicity data. WHO EHCs and CICADs, as well as ORNL RAIS also provides robust tox data for many hundreds of chemicals.

Thank you for this commentary. Please see further consideration below.

11. I personally do not have an issue with the use of foreign GACs where they are appropriate to use. Preference would be to USEPA RSLs. Dutch intervention values, for instance, model pathways we do not which would require removing to align them to the UK. Values are also available for use from Germany, Sweden, Australia and Japan (though it is questionable how UK appropriate the Australian and Japanese values are in the UK).

Comparison of reported measured concentrations of chloromethane, dichloromethane (dcm), chlorobenzene, 4-methylphenol (p-cresol), 2-methylnaphthalene, bis(2-ethylhexyl) phthalate (dehp), 4-nitroaniline, dibenzofuran and nitrobenzene are all below residential and industrial RSL and/or appropriate Dutch Intervention values.

Preliminary research has indicated that for carbazole, Texas PCLs are the only up-to-date numerical soil criteria published for carbazole as a discrete analyte. No other national scheme now carries carbazole values.

Most agencies streamlined their tables to the 16-PAH set or rely on indicator compounds (BaP), and heterocyclic PAHs such as carbazole were removed.

The maximum reported carbazole concentration of 0.427mg/kg is below the Texas residential PCL value of 230 mg/kg.

On the basis of the above and the discussion included within our report, it is not considered that the measured concentrations of potential contaminants of concern reported (for which there are no UK-based publicly available GACs) represent a potential risk to the proposed end-users.

12. I am amenable to the use H2S and CO HSE Workplace Exposure Limits. The risk can be better clarified for the layman with a discussion on concentration dilution utilising flow rates, volumes, etc., in lieu of any other more formal UK risk assessment approach. I.e.; once production rate of ground gas is taken into account (very low), and flow accounted for (very low), it is unlikely that concentrations of these gases would accumulate in sufficient quantity to pose a risk.

Thank you for the comment. As you point out, in addition to the reported steady hydrogen sulphide and carbon monoxide concentrations being reported below the workplace long term and short term exposure limits (published by the Health and Safety Executive) once the production rate of ground gas is taken into account, and flow accounted for, it is unlikely that concentrations of these gases would accumulate in sufficient quantity to pose a risk.

13. LQM Ternary plot results; the text is missing from the red axis. I assume this should be CH₄, can you please confirm.

Apologies for this omission – yes, we can confirm it is methane:



14. Confined Spaces Regulations should be mentioned in relation to construction workers risks to ground gas; it is a legal requirement to assess the risks before entry to a confined space. Whilst I am not suggesting Tier Environmental should dictate what any contractor should do, it is a timely reminder of what is legally required (especially as I have been confined spaces trained and had to enter confined spaces several times, complete with rescue equipment).

Thank you for your comment regarding confined space entry and the associated risks from ground gases. We agree it is important that these risks are properly considered under the Confined Spaces Regulations, particularly during construction works.

We are mindful of our role to characterise ground conditions and assess potential environmental risks, including ground gases. Our report provides gas monitoring data, risk classification (CS1 – Very Low Risk), and relevant conceptual modelling to inform future site activities. However, we do not determine construction methodologies or access requirements during works.

Whether confined space entry will be relevant to this project depends on the contractor's final construction approach. It is the responsibility of the Principal Contractor and site health and safety team to assess confined space risks, should they arise, and to implement appropriate controls in line with legal duties under the Confined Spaces and CDM Regulations.

We consider that the information provided within the report is sufficient to support such assessments.

15. Are topsoils and subsoils on site uncontaminated and naturally occurring? If so, they would fall outside the Waste Framework Directive. However, I very much doubt they would be naturally occurring given the site has been constantly developed since the late 1800s, and therefore they would be subject to the Waste Framework Directive and therefore require assessment should they be reused on site or taken off-site as suggested.

On balance, we would regard the topsoil encountered as Made Ground for the purposes of consideration under the waste Framework Directive, given the presence of Made Ground beneath the topsoil and some evidence in areas of brick and wood within the topsoil in some locations.

16. What are potential impacts (if any) on the generation of mine gas from grouting (I have not checked the coal mining risk assessment yet; this discussion may be in there). I believe this should be briefly discussed to show it has been considered.

Mine gas considerations during grouting are included separately within a Specification For The Stabilisation Of Shallow Mineworkings (report reference: TE1880-TE-00-XX-RP-GE-005-V02, dated 11th April 2025). I have attached the document for your reference (see Section 4.5).

17. Re-use of asphalt acceptable as long as EA guidance RPS157 is followed in its re-use.

Thank you for confirming.

18. The nickel S4UL was updated in 2015 in response to EFSA withdrawing their opinion (https://cdn.shopify.com/s/files/1/0606/9809/9928/files/Nickel_S4UL_Update_Aug_2015_Final.pdf?v=1637256541)

Thank you. We will update our appendix reference from the 2014 reference. Nevertheless, the GAC values applied and referenced in our report are consistent with the updated Nickel S4ULs. As such, there are no amendments required to our risk assessment.

19. The phenol S4UL was subject to errata (https://cdn.shopify.com/s/files/1/0606/9809/9928/files/Errata_S4UL_version1.1.pdf?v=1637256541). Any assessment would need to include these updated values.

Thank you. We can confirm that the maximum reported phenol concentrations on the site do not exceed the updated Phenol GAC values.

20. BRE 211 was updated in 2023; this version needs to be used. The 2015 version is referenced within the report.

Apologies, we acknowledge the latest version and can confirm that it is indeed this which has been considered within the report and the assessment. This represents an error in our reference list.

21. BS 8485 was updated in 2019; this version needs to be used. The 2015 version is referenced within the report.

We acknowledge the latest version and can confirm that it is indeed this which has been considered within the report and the assessment. This represents an error in our reference list.

22. SOBRA groundwater vapour guidance suggests that where groundwater is particularly shallow (less than 0.65 m below ground level) the GAC_{gw} may not be suitably protective. Conversely, where groundwater is present at a depth greater than 0.65 m and the GAC is exceeded, practitioners may seek to undertake further data collection and/or site-specific assessment, to better represent the actual depth of groundwater/perched water at the site. Fluctuation of groundwater elevations should also be considered in any further assessment and the applicability of the GAC_{gw}. This is not discussed within the relevant section of the report and should be considered (even though the concentrations are significantly below the GAC_{gw}) to show it has been considered.

Thank you for the comment. We acknowledge the above. Please note; however, that whilst shallow groundwater has been observed at the site (as shallow at 0.10m bgl), the average groundwater depth associated with the shallow groundwater body lies at 2.02m bgl (calculated by looking conservatively at averaging the shallowest groundwater encountered at all wells where shallow groundwater was detected). In addition, the proposed finished floor level for the building lies at 120.80m bgl and current levels in the car park area are Circa 119.60m meaning that shallow groundwater level will lie beyond the 0.65m threshold below the FFL and indeed when compared with the current average groundwater depth will lie typically 3.22m below the FFL.

In addition, when considering that the concentrations are significantly below the criteria it is considered there are sufficient lines of evidence to demonstrate that there is no potential risk to the end users from VOCs in the groundwater.

TE1880-TE-00-XX-RP-GE-004-V01 - DQRA Conclusions:

“On this basis, it is considered that the reported concentrations of chrysotile and amosite asbestos within the Made Ground materials will present a minimal risk for the proposed commercial land use, including soft landscaped areas.” There is no discussion as to what this means. Is a clean cover system required still? It is not explicitly stated within the document what the assessment concludes beyond providing results of calculations in regard to asbestos exposure. I believe I understand what is being said, but it needs to be said. These are ultimately documents which anyone can download and read, and so we should be clear in what we are saying, and what our conclusions are, and how we have reached them.

We can confirm that the results of the asbestos Detailed Quantitative Risk Assessment (DQRA) effectively indicate that there is no current requirement for a clean cover system based on asbestos risk. However, we have consciously not definitively concluded that a clean cover system is not required within this report, as we remain mindful of our recommendation to undertake further ground investigation and risk assessment within the proposed landscaped areas to the east, which are intended for future development. These additional investigations may, in theory, identify contamination—potentially including asbestos—that could necessitate the implementation of a clean cover system. As such, the final determination regarding the need for a clean cover system cannot be made until the recommended additional works have been completed.

Comments:

1. In 4.4, the text of the report says “Landscape maintenance workers are assumed, very conservatively, to conduct activities in landscaped areas under dry and dusty conditions for an average of 1 hour per day for 68 days per year (FiTi) consistent with the approach in example 13.3 in CIRIA C733.” There is no “example 13.3 within CIRIA C733. There is a box 13.3. Can it please be clarified what is being referred to here?

We were referring to Box 13.3 'Example calculation based on predictive modelling (after Addison et al, 1988)'. In this example, we see an assumption being made with regards to residents: 'Residents were assumed to conduct activities in gardens under dry and dust conditions for an average of 90 hours per year'. Box 13.2 describes in the example how exposure during direct interaction with the ground (such as gardening) would only need to be considered on dry and dusty days. Box 13.3 demonstrates an assumption for a residential scenario of 1 hour per day for 90 days a year. Whilst it is not directly applicable to a commercial setting, it is the **principle** of applying the reasonable assumption of a length of time that landscape / maintenance works involving digging into the soils would be carried out during **dry and dusty conditions**. We have assumed one hour a day based on discussions with Hopwood Hall staff (Project Officer) with respect to landscape maintenance workers average length of time within soft landscaped areas.

2. Were the colleges landscaping manager/contractor spoken to understand hours worked? To my mind, most digging work would be done during spring, with general maintenance (mowing, pruning, etc.) done during summer and preparation for winter done in autumn, which would therefore likely decrease the number of dry days where soil was worked/turned over.

Yes, we have assumed one hour a day based on discussions with Hopwood Hall staff (Project Officer) with respect to landscape maintenance workers average length of time within soft landscaped areas and have used local weather data publicly available on the Met Office website in order to ascertain the number of dry and dusty days per year.

3. What is the source of the "Rochdale weather station" ?
The link to the publicly available rainfall data is here:

<https://www.metoffice.gov.uk/research/climate/maps-and-data/location-specific-long-term-averages/gcw2ymd6s>

This refers to 'Station: Rochdale'

4. With regards to 68 days per year, have the effects of climate change been taken into account? Or is it taken into account with the following sentence "The rainfall data from 1991 - 2020 has been used as it accounts for more dry days per year and is taken from a large data set therefore is the more conservative value to use" . I am interpreting this as you have used this data as it demonstrates drying as opposed to more historical data re climate change, say 1960-2020, but it is not abundantly clear what is actually being said.

Yes, we have specifically used the latest available rainfall data which considers a long term average during a period of global warming, as opposed to using older data sets (such as 1961-1990).

5. BaP, although mentioned within the report, is not covered, and I assume will be subject to the further works set out within the recommended “additional, post-demolition, soil sampling and risk assessment” to be undertaken in the vicinity of the proposed contoured landscaped area in the east of the site.

That is correct. Further consideration of this will be made during the additional, post-demolition, soil sampling and risk assessment.

Sorry for all the points, I think it is important to get these things ironed out. Whilst I generally agree that the information provided demonstrates the site will pose little risk, I do believe that some further assessment/clarification is required. Thank you again for your comments, we sincerely hope that the above addresses your queries.

For and on behalf of

TIER ENVIRONMENTAL LTD

A handwritten signature in black ink, appearing to read "Adrian Read".

Adrian Read MEng (Hons)

Technical Director

Tier Environmental Ltd

APPENDIX F - HUMAN HEALTH ASSESSMENT CRITERIA

HUMAN HEALTH ASSESSMENT CRITERIA

Context

Contaminated Land is defined under law through Part IIA of the Environmental Protection Act 1990, implemented through Section 57 of the Environment Act 1995 and associated guidance ("Part IIA"). These specify that a "suitable for use" approach is to be applied in the assessment of potentially contaminated land, implemented through a phased programme of site investigation and risk assessment appropriate to the site under consideration.

The assessment of potential risks posed by contaminated land is based upon the assessment of plausible contaminant source - pathway - receptor linkages ("pollutant linkages") for the current and/or proposed future use of the site. The process for the assessment of contaminated land adopted in this report is in line with guidance issued by the [Environment Agency Land contamination risk management \(LCRM\)](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/281222/Environment_Agency_Land_contamination_risk_management_LCRM.pdf) - GOV.UK (www.gov.uk)

Land contamination can harm:

- human health
- drinking water supplies, groundwater and surface water
- soils
- ecosystems including wildlife, animals and wetlands.
- property

It can also affect the current and future land use. Dealing with land contamination helps make the environment clean and safe. Through regeneration it can:

- enhance the health and wellbeing of all.
- add to the economic, ecological and amenity value of the area.

Use land contamination risk management (LCRM) to:

- identify and assess if there is an unacceptable risk.
- assess what remediation options are suitable to manage the risk.
- plan and carry out remediation.
- verify that remediation has worked.

You can use LCRM in a range of regulatory and management contexts. For example, voluntary remediation, planning, assessing liabilities or under the Part 2A contaminated land regime. The Environment Agency expects you to follow LCRM if you are managing the risks from land contamination.

We support the use of the National Quality Mark Scheme (NQMS). You can use it for any type of land contamination report.

Using the NQMS:

- will make sure all legislative requirements and necessary standards related to managing land contamination are met.
- can provide increased confidence by submitting reports of the quality we expect.
- can result in cost and time savings by 'getting it right first time'.

LCRM is made up of 4 guides.

1. LCRM: Before you start.
2. LCRM: Risk assessment.
3. LCRM: Options appraisal.
4. LCRM: Remediation and verification.

We use a staged risk based approach. There are 3 stages, and each stage is broken down into tiers or steps.

Stage 1: Risk assessment

You will use a tiered approach to risk assessment. The 3 tiers are:

1. Preliminary risk assessment.
2. Generic quantitative risk assessment.
3. Detailed quantitative risk assessment.

Stage 1 includes information for intrusive site investigations.

Stage 2: Options appraisal

There are 3 steps to follow.

1. Identify feasible remediation options.
2. Do a detailed evaluation of options.
3. Select the final remediation option.

Stage 3: Remediation and verification

There are 4 steps to follow.

1. Develop a remediation strategy.
2. Remediate.
3. Produce a verification report.
4. Do long term monitoring and maintenance, if required

You must always start with a preliminary risk assessment.

The risk assessment stage is an iterative process. You can do the 3 tiers in order or progress from a preliminary risk assessment to a detailed quantitative risk assessment. As part of a generic or detailed quantitative risk assessment you will need to collect detailed information about the site. This is usually through an intrusive site investigation.

Depending on the level of risk or regulatory requirements, you can proceed from a preliminary risk assessment to the options appraisal stage. If you proceed direct to the options appraisal stage, you still need to collect the detailed site investigation information required by the generic and detailed quantitative risk assessments. This is to confirm that your approach is viable and acceptable.

Following the risk assessment stage, if you conclude that the risks are acceptable, with agreement from the relevant regulator, you can end the process.

If there are unacceptable risks, then remediation or mitigation is required. Follow stages 2 and 3 in order.

In stage 2 options appraisal, you will:

- look at the most feasible options.
- produce a shortlist of options.
- use evaluation criteria to assess them.
- select which ones are the most suitable to take forward to stage 3.

In stage 3 remediation and verification, you will produce a remediation strategy, do the remediation and then produce a verification report.

You will decide at the options appraisal stage if long term monitoring and maintenance is the remediation option. You may need to do post-remediation monitoring for further verification.

The risk assessment and subsequent investigation, remediation and verification must address all potential sources of pollutants that may be present on the site (the "hazards"), all receptors that may be harmed by these (e.g., human health, controlled waters, ecological receptors) and the pathways by which the contamination may be transported from the contaminant source(s) to the receptor(s). This is defined within the conceptual model for the site, which represents the characteristics of the site in a form that shows the possible pollutant linkages. As further information becomes available (for example, through site investigation), so the conceptual model will be refined.

Remedial action can be specified at any phase within this assessment process to break the identified pollutant linkage in determining whether or not to undertake further assessment or to undertake remediation, the potential cost-savings arising from a more thorough assessment of the pollutant linkages and more tightly defined remedial strategy must be considered against the direct costs involved in the work and the time that this will take to execute and gain regulatory approval.

A different approach to the statistical appraisal of data is required depending on whether the assessment is being undertaken to assess land as Contaminated Land in accordance with the regulations or whether the assessment is to assess whether the site is suitable for new development in accordance with the Planning regime. The statistical approach to assessment is discussed further in CL:AIRE:2020 "Professional Guidance: Comparing Soil Contamination Data with a Critical Concentration".

Some form of Detailed Quantitative Risk Assessment (DQRA) will be essential for those cases where appropriate GAC values cannot be established for the contaminant linkages under consideration.

It should be noted that the CLEA model does not include an exhaustive list of potential exposure pathways, e.g. certain compounds can pass through plastic water pipes into drinking water supply.

The potential significance of each of the exposure pathways is dependent upon the type of land use and the nature of the contaminant being considered. The CLEA model considers principal 'default' land use scenarios and makes a series of assumptions with regards to building type (where applicable), identification of the critical human receptor group, exposure frequency and duration. The definitions of the principal land use types given in SR3 (EA, 2009) are:

Residential land use;

- A typical residential property consisting of a two-storey terraced house built on a ground-bearing slab of 0.15m thickness with a private garden consisting of lawn, flowerbeds, and a small fruit and vegetable patch. The occupants are assumed to be parents with young children, who make regular use of the garden. The critical receptor is a 0 – 6-year-old female.
- Active exposure pathways are ingestion of outdoor soil, ingestion of indoor dust, ingestion of home grown produce and soil adhering to home grown produce; direct dermal contact with outdoor soil and indoor dust; inhalation of outdoor dust and vapour and indoor dust and vapour.

Allotments

- A plot of open space commonly made available by the Local Authority to tenants to grow fruit and vegetables for their own consumption. There are usually several plots to a site and the overall site area may cover more than one hectare. The tenants are assumed to be the parents or grandparents and that young children make occasional accompanied visits to the plots. The critical receptor is a 0 – 6-year-old female and there is no building present on site.
- Active exposure pathways are ingestion of outdoor soil, ingestion of home grown produce and soil adhering to home grown produce; direct dermal contact with outdoor soil; inhalation of outdoor vapour.

Commercial and industrial land use.

- A typical commercial or light industrial property consisting of a three-story office building (pre-1970) with a ground bearing floor slab at which employees spend most time indoors and are involved in office based or related light physical work. The critical receptor is a working female adult aged 16 – 65 years.
- Active exposure pathway is ingestion of outdoor soil, ingestion of indoor dust; direct dermal contact with outdoor soil and indoor dust; inhalation of outdoor dust and vapour and inhalation of indoor dust and vapour.

Soil Guideline Values

Based on the assumption of each land use type, the EA and DEFRA developed and published Soil Guideline Value (SGV) using the CLEA model for a number of principal contaminants and 'default' end-use scenarios of residential, allotments and commercial/industrial use. The primary purpose of the SGVs is as trigger value for the tolerable daily intake (TDI), below which it can be assumed that the soil does not pose an unacceptable risk to the identified receptor. Where soils contamination is present above this level further assessment may be required. SGVs were developed for the following contaminants:

- Heavy metals and other inorganic compounds: arsenic, cadmium, chromium, cyanide, lead (now withdrawn), mercury, nickel and selenium.
- Benzene, ethylbenzene, toluene and xylenes.
- Phenol.
- Dioxins and dioxin-like polychlorinated biphenyls (PCBs)
- Polycyclic aromatic hydrocarbons (PAHs) – 11 substances

LQM/CIEH Generic Assessment Criteria for Human Health Risk Assessment

In addition, in 2009 CIEH through LQM and EIC published generic assessment criteria (GACs) for 82 substances including metals, petroleum hydrocarbons, PAHs and explosive substances for a variety of soil types and the three 'default' land uses – (residential, allotments and commercial end-uses) as described in SR3 (EA, 2009). These have been superseded as described below.

Category 4 Screening Values

In 2013 "SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination" (CL:AIRE 2013) was issued which detailed findings of a research project undertaken by CL:AIRE to set out the framework by which potential Category 4 Screening Levels (pC4SL) may be derived for 6 contaminants of concern, Arsenic, Benzene, Benzo(a)pyrene, Cadmium, Chromium VI and Lead.

This was supplemented in 2014 by "SP1010: Development of Category 4 Screening Levels for the Assessment of Land Affected by Contamination – Policy Companion Document" (DEFRA, 2014). SP1010 proposed several updated toxicology information relating to contaminant behaviour updated assumptions relating to the modelling of human exposure to soil contaminants, derivation of separate C4SLs for residential with the consumption of home grown produce, residential without the consumption of home grown produce, and two new land uses: public open spaces near residential housing (POS resi) and public parks (POS park).

Public Open Space: Residential

- For public open space in close proximity to residential housing and the central green area around which houses are located, as on many housing estates from the 1930s to 1970s. It is also applicable for smaller areas commonly incorporated in newer developments as informal grassed areas or more formal landscaped areas with a mixture of open space and covered soil with planting. It is considered to be a generally grassed area up to 0.5ha with up to 50% bare soil. The land use is an important resource

for children and the area is near the homes. The critical receptor is a female child age >3 - <9 years old (CLEA age class 4 – 9) as younger children are unlikely to play outdoors unsupervised.

- Active exposure pathways are ingestion of outdoor soil, ingestion of indoor dust; direct dermal contact with outdoor soil and indoor soil derived dust; inhalation of outdoor and indoor dust and inhalation of outdoor vapour.

Public Open Space: Park

- A public park is defined as an area of open space provided for recreational use and usually owned and maintained by the Local Authority. It is anticipated the park could be used for a wide range of activities, including the following:
 - Family visits and picnics;
 - Children's play area;
 - Sporting activities such as football on an informal basis (i.e. not a dedicated sports pitch); and
 - Dog walking.
- The park is modelled as an area >0.5 ha of predominantly grasses open space with no more than 25% of exposed soil.
- The critical receptor is a female child with CLEA age classes 1 – 6.
- Active exposure pathways are: ingestion of outdoor soil; direct dermal contact with outdoor soil; inhalation of outdoor dust and inhalation of outdoor vapour.

Furthermore, the C4SLs are based on a different toxicological benchmark, the 'low level of toxicological concern' (LLTC). This difference in approach was adopted because the C4SLs were primarily intended for use under Part 2A of the EPA 1990 to quickly screen out Category 4 sites where there is "*no risk or that the level of risk posed is low*". SGVs and LQM GACs are based on the more conservative 'minimal or tolerable level of risk' as defined in SR2 (EA, 2009) and were derived for assessment of contamination for the Planning process.

LQM/CIEH Suitable 4 Use Levels (S4ULs)

The publication of the C4SLs resulted in considerable and inconclusive debate about the applicability of the lower level of protection of the C4SL, which are underlain by the LLTC, outside of the Part 2A context for which they were derived. In 2014 LQM/CIEH presented a Suitable 4 Use Levels (S4ULs), which incorporate the updated assumption exposure derived for the production of the C4SLs but within the context of deriving screening criteria above which further assessment of the risks or remedial action may be needed. The S4ULs replace the 82 substances, species and fractions and congeners contained in the previous LQM/CIEH GACs issued in 2009. Additionally, following changes and new land uses proposed in the C4SL research project, S4ULs have also been derived for the majority of substances for which the EA derived SGVs in 2009 with the exception of lead (see below).

Lead

The C4SL for lead provides a technically robust and conservative assessment tool using significantly updated toxicological modelling than the withdrawn SGV and derived in line with current science of lead toxicology.

EIC/AGS/CL:AIRE Soil Generic Assessment Criteria (2010)

In some instances, EIC/AGS/CL:AIRE GACs for certain VOC / SVOC potential contaminants of concern have been used *in lieu* of available LQM / CIEH S4UL values.

Parameter	Residential with homegrown produce			Residential without homegrown produce			Allotment			Commercial / Industrial			Public Open Space near Residential			Public Open Space - Park			Source
	(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			
SOM	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	
Metals/metalloids																			
Arsenic	37			40			43			640			79			170			LQM (2014)
Beryllium	1.7			1.7			35			12			2.2			63			LQM (2014)
Boron	290			11000			45			240000			21000			46000			LQM (2014)
Cadmium	11			85			1.9			190			120			560			LQM (2014 errata)
Chromium III	910			910			18000			8600			1500			33000			LQM (2014)
Chromium VI	6			6			1.8			33			7.7			220			LQM (2014)
Copper	2400			7100			520			68000			12000			44000			LQM (2014)
Lead	200			310			80			2330			630			1300			C4SL
Mercury (elemental)	1.2			1.2			21			58 (25.8)			16			30 (25.8)			LQM (2014)
Mercury (Inorganic)	40			56			19			1100			120			240			LQM (2014)
Methylmercury	11			15			6			320			40			68			LQM (2014)
Nickel	130			180			53			980			230			800			LQM (Revised 2015)
Selenium	250			430			88			12000			1100			1800			LQM (2014)
Vanadium	410			1200			91			9000			2000			5000			LQM (2014)

Parameter	Residential with homegrown produce			Residential without homegrown produce			Allotment			Commercial / Industrial			Public Open Space near Residential			Public Open Space - Park			Source
	(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			
SOM	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	
Zinc	3700			40000			620			730000			81000			170000			LQM (2014)
Other																			
Total Sulphate	2,400			2,400			2,400			2,400			2,400			2,400			BRE (2005)
Water Soluble Sulphate (g/l)	0.5			0.5			0.5			0.5			0.5			0.5			BRE (2005)
PAHs																			
Acenaphthene	210	510	1100	3000 (57)	4700(141)	6000 (336)	34	85	200	84000 (57)	97000 (141)	100000	15000	15000	15000	29000	30000	30000	LQM (2014)
Acenaphthylene	170	420	920	2900 (86.1)	4600 (212)	6000 (506)	28	69	160	8300 (86.1)	97000 (212)	100000	15000	15000	15000	29000	30000	30000	LQM (2014)
Anthracene	2400	5400	11000	31000 (1.17)	35000	37000	380	950	2200	520000	540000	540000	74000	74000	74000	150000	150000	150000	LQM (2014)
Benzo(a)anthracene	7.2	11	13	11	14	15	2.9	6.5	13	170	170	180	29	29	29	49	56	62	LQM (2014)
Benzo(a)pyrene	2.2	2.7	3	3.2	3.2	3.2	0.97	2	3.5	35	35	36	5.7	5.7	5.7	11	12	13	LQM (2014)
Benzo(b)fluoranthene	2.6	3.3	3.7	3.9	4	4	0.99	2.1	3.9	44	44	45	7.1	7.1	7.1	13	15	16	LQM (2014)
Benzo(g,h,i)perylene	320	340	350	360	360	360	290	470	640	3900	4000	4000	640	640	640	1400	1500	1600	LQM (2014)
Benzo(k)fluoranthene	77	93	100	110	110	110	37	75	130	1200	1200	1200	190	190	190	370	410	440	LQM (2014)
Chrysene	15	22	27	30	31	32	4.1	9.4	19	350	350	350	57	57	57	93	110	120	LQM (2014)

Parameter	Residential with homegrown produce			Residential without homegrown produce			Allotment			Commercial / Industrial			Public Open Space near Residential			Public Open Space - Park			Source
	(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			
SOM	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	
Dibenz(a,h)anthracene	0.24	0.28	0.3	0.31	0.32	0.32	0.14	0.27	0.61	3.5	3.6	3.6	0.57	0.57	0.58	1.1	1.3	1.4	LQM (2014)
Fluoranthene	280	560	890	1500	1600	1600	52	130	290	23000	23000	23000	3100	3100	3100	63	6300	6400	LQM (2014)
Fluorene	170	400	860	2800 (30.9)	3800 (76.5)	4500 (183)	27	67	160	63000 (30.9)	68000	71000	9900	9900	9900	20000	20000	20000	LQM (2014)
Indeno(1,2,3-cd)pyrene	27	36	41	45	46	46	9.5	21	39	500	510	510	82	82	82	150	170	180	LQM (2014)
Naphthalene	2.3	5.6	13	2.3	5.6	13	4.1	10	24	190 (76.4)	460 (183)	1100 (432)	4900	4900	4900	1200 (76.4)	1900 (183)	3000	LQM (2014)
Phenanthrene	95	220	440	1300 (36)	1500	1500	15	38	90	22000	22000	23000	3100	3100	3100	6200	6200	6300	LQM (2014)
Pyrene	620	1200	2000	3700	3800	3800	110	270	620	54000	54000	54000	7400	7400	7400	15000	15000	15000	LQM (2014)
Coal Tar (BaP as surrogate marker)	0.79	0.98	1.1	1.2	1.2	1.2	0.32	0.67	1.2	15	15	15	2.2	2.2	2.2	4.4	4.7	4.8	LQM (2014)
BTEX and TPH																			
Benzene	0.087	0.17	0.37	0.38	0.7	1.4	0.017	0.034	0.075	27	47	90	72	72	73	90	100	110	LQM (2014)
Toluene	130	290	660	880 vap (869)	1900	3900	22	51	120	56000 vap (869)	110000 vap (1920)	180000 vap (4360)	56000	56000	56000	87000 vap (869)	95000 vap (1920)	100000 vap (4360)	LQM (2014)
Ethylbenzene	47	110	260	83	190	440	16	39	91	5700 vap (518)	13000 vap (1220)	27000 vap (2840)	24000	24000	25000	17000 vap (518)	22000 vap (1220)	27000 vap (2840)	LQM (2014)
Xylene - o	60	140	330	88	210	480	28	67	160	6600 (478)	15000 (1120)	33000 (2620)	41000	42000	43000	17000 (478)	24000 (1120)	33000 (2620)	LQM (2014)

Parameter	Residential with homegrown produce			Residential without homegrown produce			Allotment			Commercial / Industrial			Public Open Space near Residential			Public Open Space - Park			Source
	(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			
SOM	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	
Xylene - m	59	140	320	82	190	450	31	74	170	6200 (625)	14000 (1470)	31000 (3460)	41000	42000	43000	17000 (625)	24000 (1470)	32000 (3460)	LQM (2014)
Xylene - p	56	130	310	79	180	430	29	69	160	5900 (576)	14000 (1350)	30000 (3170)	41000	42000	43000	17000 (576)	23000 (1350)	31000 (3170)	LQM (2014)
Aliphatic EC 5-6	42	78	160	42	78	160	730	1700	3900	3200 (304)	5900 (558)	12000 (1150)	570000 (304)	590000	60000 0	95000 (304)	130000 (558)	180000 (1150)	LQM (2014)
Aliphatic EC >6-8	100	230	530	100	230	530	2300	5600	13000	7800 (144)	17000 (322)	40000 (736)	600000	610000	62000 0	150000 (144)	220000 (322)	320000 (736)	LQM (2014)
Aliphatic EC >8-10	27	65	150	27	65	150	320	770	1700	2000 (78)	4800 (190)	11000 (451)	13000	13000	13000	14000 (78)	18000 (190)	21000 (451)	LQM (2014)
Aliphatic EC >10-12	130 (48)	330 (118)	760 (283)	130 (48)	330 (118)	760 (283)	2200	4400	7300	9700 (48)	23000 (118)	47000 (283)	13000	13000	13000	21000 (48)	23000 (118)	24000(283)	LQM (2014)
Aliphatic EC >12-16	1100 (24)	2400 (59)	4300 (142)	1100 (24)	2400 (59)	4300 (142)	11000	13000	13000	59000 (24)	82000 (59)	90000 (142)	13000	13000	13000	25000 (24)	25000 (59)	26000 (142)	LQM (2014)
Aliphatic EC >16-35	65000 (8.48)	92000 (21)	11000 0	65000 (8.48)	92000 (21)	110000	26000 0	270000	27000 0	160000 0	1700000	180000 0	250000	250000	25000 0	450000	480000	490000	LQM (2014)
Aliphatic EC >35-44	65000 (8.48)	92000 (21)	11000 0	65000 (8.48)	92000 (21)	110000	26000 0	270000	27000 0	160000 0	1700000	180000 0	250000	250000	25000 0	450000	480000	490000	LQM (2014)
Aromatic EC 5-7	70	140	300	370	690	1400	13	27	57	26000 (1220)	46000 (2260)	86000 (4710)	56000	56000	56000	76000 (1220)	84000 (2260)	92000 (4710)	LQM (2014)
Aromatic EC >7-8	130	290	660	860	1800	3900	22	51	120	56000 (869)	110000 (1920)	180000 (4360)	56000	56000	56000	87000 (869)	95000 (1920)	100000 (4360)	LQM (2014)
Aromatic EC >8-10	34	83	190	47	110	270	8.6	21	51	3500 (613)	8100 (1500)	17000 (3580)	5000	5000	5000	7200 (613)	8500 (1500)	9300 (3580)	LQM (2014)
Aromatic EC >10-12	74	180	380	250	590	1200	13	31	74	16000 (364)	28000 (899)	34000 (2150)	5000	5000	5000	9200 (364)	9700 (899)	10000	LQM (2014)

Parameter	Residential with homegrown produce			Residential without homegrown produce			Allotment			Commercial / Industrial			Public Open Space near Residential			Public Open Space - Park			Source
	(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			
SOM	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	
Aromatic EC >12-16	140	330	660	1800	2300 (419)	2500	23	27	130	36000 (169)	37000	38000	5100	5100	5000	10000	10000	10000	LQM (2014)
Aromatic EC >16-21	260	540	930	1900	1900	1900	46	110	260	28000	28000	28000	3800	3800	3800	7600	7700	7800	LQM (2014)
Aromatic EC >21-35	1100	1500	1700	1900	1900	1900	370	820	1600	28000	28000	28000	3800	3800	3800	7800	7800	7900	LQM (2014)
Aromatic EC >35-44	1100	1500	1700	1900	1900	1900	370	820	1600	28000	28000	28000	3800	3800	3800	7800	7800	7900	LQM (2014)
Aromatic EC >44-75	1600	1800	1900	1900	1900	1900	1200	2100	3000	28000	28000	28000	3800	3800	3800	7800	7800	7900	LQM (2014)
VOCs																			
1,2-dichloroethane (1,2-DCA)	0.0071	0.011	0.019	0.0092	0.013	0.023	0.0046	0.0083	0.016	0.67	0.97	1.7	29	29	29	21	24	28	LQM (2014)
1,1,1-trichloroethane	8.8	18	39	9	18	40	48	110	240	660	1300	3000	140000	140000	140000	57000 (1425)	76000 (2915)	100000 (6392)	LQM (2014)
1,1,2,2,tetrachloroethane	1.6	3.4	7.5	3.9	8	17	0.41	0.89	2	270	550	1100	1400	1400	1400	1800	2100	2300	LQM (2014)
tetrachloroethene	0.18	0.39	0.9	0.18	0.4	0.92	0.65	1.5	3.6	19	45	95	1400	1400	1400	810 (424)	1100 (951)	1500	LQM (2014)
tetrachloromethane (Carbon tetrachloride)	0.026	0.056	0.13	0.026	0.056	0.13	0.45	1	2.4	2.9	6.3	14	890	920	950	190	270	400	LQM (2014)
Trichloroethene	0.016	0.034	0.075	0.017	0.036	0.08	0.041	0.091	0.21	1.2	2.6	5.7	120	120	120	70	91	120	LQM (2014)
Trichloromethane (chloroform)	0.91	1.7	3.4	1.2	2.1	4.2	0.42	0.83	1.7	99	170	350	2500	2500	2500	2600	2800	3100	LQM (2014)

Parameter	Residential with homegrown produce			Residential without homegrown produce			Allotment			Commercial / Industrial			Public Open Space near Residential			Public Open Space - Park			Source
	(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			
SOM	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	
Chloroethene (Vinyl chloride)	0.00064	0.00087	0.0014	0.00077	0.001	0.0015	0.00055	0.001	0.0018	0.059	0.077	0.12	3.5	3.5	3.5	4.8	5	5.4	LQM (2014)
2,4,6 Trinitrotoluene (TNT)	1.6	3.7	8.1	65	66	66	0.24	0.58	1.4	1000	1000	1000	130	130	130	260	270	270	LQM (2014)
RDX	120	250	540	13000	13000	13000	17	38	85	210000	210000	210000	26000	26000	27000	49000 (18.7)	51000	53000	LQM (2014)
HMX	5.7	13	26	6700	6700	6700	0.86	1.9	3.9	110000	110000	110000	13000	13000	13000	23000 (0.35)	23000 (0.39)	24000 (0.48)	LQM (2014)
Aldrin	5.7	6.6	7.1	7.3	7.4	7.5	3.2	6.1	9.6	170	170	170	18	18	18	30	31	31	LQM (2014)
Dieldrin	0.97	2	3.5	7	7.3	7.4	0.17	0.41	0.96	170	170	170	18	18	18	30	30	31	LQM (2014)
Atrazine	3.3	7.6	17.4	610	620	620	0.5	1.2	2.7	9300	9400	9400	1200	1200	1200	2300	2400	2400	LQM (2014)
Dichlovos	0.032	0.066	0.014	6.4	6.5	6.6	0.0049	0.01	0.022	140	140	140	16	16	16	26	26	27	LQM (2014)
Alpha-Endosulfan	7.4	18	41	160 (0.003)	280 (0.007)	410 (0.016)	1.2	2.9	6.8	5600 (0.003)	7400 (0.007)	8400 (0.016)	1200	1200	1200	2400	2400	2500	LQM (2014)
alpha-Hexachlorocyclohexane	0.23	0.55	1.2	6.9	9.2	11	0.035	0.087	0.21	170	180	180	24	24	24	47	48	48	LQM (2014)
beta-hexachlorocyclohexanes	0.085	0.2	0.46	3.7	3.8	3.8	0.013	0.032	0.077	65	65	65	8.1	8.1	8.1	15	15	16	LQM (2014)
gamma-hexachlorocyclohexanes	0.06	0.14	0.33	2.9	3.3	3.5	0.0092	0.023	0.054	67	69	70	8.2	8.2	8.2	14	15	15	LQM (2014)

Parameter	Residential with homegrown produce			Residential without homegrown produce			Allotment			Commercial / Industrial			Public Open Space near Residential			Public Open Space - Park			Source
	(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			
SOM	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	
Chlorobenzene	0.46	1	2.4	0.46	1	2.4	5.9	14	32	56	130	290	11000	13000	14000	1300 (675)	2000 (1520)	2900	LQM (2014)
1,2-Dichlorobenzene	23	55	130	24	57	130	94	230	540	2000 (571)	4800 (1370)	11000 (3240)	90000	95000	98000	24000 (571)	36000 (1370)	51000 (3240)	LQM (2014)
1,3-Dichlorobenzene	0.4	1	2.3	0.44	1.1	2.5	0.25	0.6	1.5	30	73	170	300	300	300	390	440	470	LQM (2014)
1,4-Dichlorobenzene	61	150	350	61	150	350	15	37	88	4400 (224)	10000 (540)	25000 (1280)	17000	17000	17000	36000 (224)	36000 (540)	36000 (1280)	LQM (2014)
VOCs Continued																			
1,2,3-Trichlorobenzene	1.5	3.6	8.6	1.5	3.7	8.8	4.7	12	28	102	250	590	1800	1800	1800	770 (134)	1100 (330)	1600 (789)	LQM (2014)
1,2,4-Trichlorobenzene	2.6	6.4	15	2.6	6.4	15	55	140	320	220	530	1300	15000	17000	19000	1700 (318)	2600 (786)	4000 (1880)	LQM (2014)
1,3,5-Trichlorobenzene	0.33	0.81	1.9	0.33	0.81	1.9	4.7	12	28	23	55	130	1700	1700	1800	380 (36.7)	580 (90.8)	860 (217)	LQM (2014)
1,2,3,4-Tetrachlorobenzene	15	36	78	24	56	120	4.4	11	26	1700 (122)	3080 (304)	4400 (728)	830	830	830	1500 (122)	1600	1600	LQM (2014)
1,2,3,5-Tetrachlorobenzene	0.66	1.6	3.7	0.75	1.9	4.3	0.38	0.9	2.2	49 (39.4)	120 (98.1)	240 (235)	78	79	79	110 (39)	120	130	LQM (2014)
1,2,4,5-Tetrachlorobenzene	0.33	0.77	1.6	0.73	1.7	3.5	0.06	0.16	0.37	42 (19.7)	72 (49.1)	96	13	13	13	25	26	26	LQM (2014)
Pentachlorobenzene	5.8	12	22	19	30	38	1.2	3.1	7	640 (43)	770 (107)	830	100	100	100	190	190	190	LQM (2014)

Parameter	Residential with homegrown produce			Residential without homegrown produce			Allotment			Commercial / Industrial			Public Open Space near Residential			Public Open Space - Park			Source
	(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			(mg/kg, unless otherwise stated)			
SOM	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	1%	2.50%	6%	
Hexachlorobenze ne	1.8 (0.2)	3.3 (0.5)	4.9	4.1 (0.2)	5.7 (0.5)	6.7 (1.2)	0.47	1.1	2.5	110 (0.2)	120	120	16	16	16	30	30	30	LQM (2014)
Phenol	120	200	380	440 ^{dir} (460)	690	1200	23	42	83	440 ^{dir} (26000 ^f)	690 ^{dir} (30000)	1300 ^{dir} (34000)	440 ^{dir} (10000)	690 ^{dir} (10000)	1300 ^{dir} (10000)	440 ^{dir} (7600)	690 ^{dir} (8300)	1300 ^{dir} (9300)	LQM (2014 errata)
Chlorophenols (excluding pentachlorophen ol)	0.87 (g)	2	4.5	94	150	210	0.13 (g)	0.3	0.7	3500	4000	4300	620	620	620	1100	1100	1100	LQM (2014)
Pentachlorophen ol	0.22	0.52	1.2	27 (16.4)	29	31	0.03	0.08	0.19	400	400	400	60	60	60	110	120	120	LQM (2014)
Carbon Disulphide	0.14	0.29	0.62	0.14	0.29	0.62	4.8	10	23	11	22	47	11000	11000	12000	1300	1900	2700	LQM (2014)
Hexachlorobutadi ene	0.29	0.7	1.6	0.32	0.78	1.8	0.25	0.61	1.4	31	66	120	25	25	25	48	50	51	LQM (2014)

(g) derived based on 2,3,4,6-tetrachlorophenol; dir - based on a threshold protective of direct skin contact with phenol (guideline in brackets based on health effects following long term exposure provided for illustration only); (vap) calculated for vapour phase only. SOM – Soil Organic Matter; (4.5) solubility. (f) This value also exceeds the vapour saturation limit of 24,200 mg/kg.

APPENDIX G - CHEMICAL AND GEOTECHNICAL TEST SAMPLING

Samples were selected by a representative of Tier Environmental during the site investigation works in accordance with the sampling approach described elsewhere in this report.

Samples for geotechnical and related testing

Bulk samples were placed within robust heavy duty plastic bags and sealed, together with small-disturbed samples, within airtight 1 litre plastic containers.

100mm diameter ‘undisturbed’ samples (“U100 samples”) were obtained where possible from cable percussive and large diameter window sample boreholes within cohesive materials.

Samples for chemical analysis

All samples for chemical analysis were placed into clean new containers as summarised in Table 1. Unless explicitly stated elsewhere in this report, no preservatives were used to eliminate the risk that preservatives cause contaminant dissolution or analytical interference. Containers for VOC analysis were fully filled to exclude headspace.

Soil samples were dispensed as soon as possible after collection using reusable stainless steel spatulas, trowels or similar implements.

Ground water samples were collected from boreholes using single-use Teflon bailers or dedicated Waterra tubing with foot valves, except as otherwise noted within this report. Caution was taken to avoid excessive agitation during collection.

New disposable gloves were used by the engineer for the collection of each sample.

Reusable equipment was washed down with distilled or deionised water between samples, except where tarry or similarly sticky materials were present. In such cases specific cleaning procedures were adopted as specifically described elsewhere in this report.

All sub-samples taken for chemical analysis were placed into refrigerators or cool boxes containing frozen ice packs immediately after aliquoting. All samples were transferred in cool boxes containing frozen ice packs to the relevant UKAS/MCERTS accredited laboratory as soon as possible. Recommended maximum holding times before analysis are summarised in Table 1.

Table 1. Sample containers and holding times.

Analysis	Container/special requirements	Max. holding time at 4°C before analysis
Soil and sediment samples		
VOCs	30-60 g brown or green glass jar with VOC-resistant cap and inert cap liner. Must be fully filled.	14 days
TPHCWG	30-60 g brown or green glass jar with VOC-resistant cap and inert cap liner PLUS 250-500 g brown or green glass jar with unwaxed cap liner. ¹ The former must be fully filled.	14 days
All other organics	250-500 g brown or green glass jar with unwaxed cap liner.	7 days
Inorganics	Air-tight 0.5-2.0 kg plastic container (250-500 g brown or green glass jar may also be used).	14 days ²
Water samples		
VOCs	40-50ml glass vial with VOC resistant screw cap and inert liner. Must be fully filled.	14 days
TPHCWG	40-50ml glass vial with VOC resistant screw cap and inert liner PLUS 500-1000ml brown or green glass bottle with screw cap and unwaxed liner. ¹ The former must be fully filled, the latter should be filled if possible.	14 days
All other organics	500-1000ml brown or green glass bottle with screw cap. Fill if possible.	7 days
Inorganics	500-1000ml translucent or opaque screw cap plastic <i>or</i> brown or green glass bottles. Fill if possible.	14 days ³

¹ The smaller vessel is used for analysis of the volatile components within the TPH mixture and the larger one is for the non-volatile components.

² 14 days is set as a reasonable limit for all routine analyses of soil for those inorganic components vulnerable to chemical and/or biological breakdown. Samples for sulphate analysis are vulnerable to biological sulphate-reduction but can be held for up to 28 days. For total metals, a holding period of up to 6 months is acceptable.

³ 14 days applies for all routine analyses of most inorganic components that may be vulnerable to chemical and/or biological reactions. In the specific cases of sulphide, nitrite, nitrate and phosphate analyses, storage time must not exceed 48 hours. For total metals, a holding time of up to 6 months is acceptable.

Tier Environmental standard analytical suites

The analyses included with Tier Environmental's standard analytical suites for soil, soil leachate and water samples are presented in Table 2. Other individual analyses were specified as described within this report.

Table 2. Tier Environmental Standard Analytical Suites.

Parameter	Sample type					
	Soil		Leachate ¹		Water	
		LoD ² (mg/kg or as stated)		LoD (µg/l or as stated)		LoD (µg/l or as stated)
Metals and metalloids						
Arsenic	✓	1	✓	10	✓	10
Cadmium	✓	1	✓	5	✓	5
Chromium	✓	1	✓	5	✓	5
Mercury	✓	1	✓	1	✓	1
Lead	✓	1	✓	4	✓	4
Selenium	✓	2	✓	10	✓	10
Copper	✓	1	✓	1	✓	1
Nickel	✓	1	✓	50	✓	50
Zinc	✓	1	✓	8	✓	8
Other inorganics						
Ammonia (as NH ₄ -N)					✓	15
Total sulphate	✓	100			✓	50 mg/l
Water-soluble sulphate	✓	0.1 g/l				
Hardness (as CaCO ₃)					✓	1 mg/l
Organics						
Monohydric phenol	✓	1	✓	0.5	✓	0.5
Speciated PAHs (USEPA 16)	✓	0.1	✓	0.01	✓	0.01
Total Organic Carbon	✓	0.1 wt%				
Others						
Electrical conductivity					✓	NA
pH	✓	NA	✓	NA	✓	NA

NA - Not applicable

¹ Leachate preparation according to NRA (1994), 10:1 liquid to solid ratio.

² The table presents the desired limit of detection for the analysis. Higher LoDs may be reported on analytical data sheets due to interference between analytes within specific samples or if the laboratory needed to dilute samples to achieve results within the calibrated range for that instrument.

Analytical QA procedures

Introduction

Quality Assurance (QA) is a system of review and audit that assesses the effectiveness of that product and assures the producer and user that defined standards of quality have been met. If we consider site investigation and chemical analysis, QA is the management system that ensures these measures are in place and working as intended.

QA within the laboratory form part of relevant certification programmes (such as UKAS and MCERTS) and, indeed, will be undertaken in some form by any reputable analyst, whether for a certified technique or not. Laboratory QA/QC is beyond the control of Tier Environmental and will not be considered further in this document, although the relevant laboratory documentation can be obtained upon request. QA must also form part of the design and execution of a site investigation.

Two parameters often used to assess measurement quality objectives are bias and precision. Bias is a systematic deviation in the data. For example, a positive bias (concentrations higher than in reality) would be introduced if sampling bottles were a source of the analyte and this fact was unknown. Precision is the variation in the measurements around a central 'expected' value. This could be due both to real variability in the environmental medium being measured and random errors in the analytical process. Both precision and bias can be assessed by the use of appropriate blanks and replicates within the site investigation programme.

The objectives of the QA activities undertaken in this present site investigation were to recognise and quantify systematic bias within the analytical dataset and to obtain an indication of precision. In environmental samples, much of the observed variability is likely to result from heterogeneity in the sampled medium, particularly for soil and sediment samples.

Such QA practice within the sampling programme is required by current guidance (e.g., Environment Agency report P5-065/TR (2000); Environment Agency LFTGN02 (2002); BS 10175:2001).

Alternative QA procedures to the generic approach presented in this appendix may be specified for a project, provided case-specific justification is given.

QA checking procedure (data validation)

The responsible Engineer and Project Reviewer are required to undertake data validation and provide comment on data quality within the main body of the report(s) issued, when noteworthy matters arise. This QA checking should involve:

Confirming that data reported by the laboratory have achieved the standards specified by the certification scheme (MCERTS or UKAS). This will be indicated on the analytical certificates issued by the laboratory.

Checking that the limit of detection (LoD) and limit of quantification (LoQ) achieved by the laboratory for an individual analyte is appropriate for the purposes of the report. LoD and LoQ will vary dependent upon analyte concentrations, sample matrix properties and interference from co-contaminants.

A check that the reported range of concentrations are reasonable for the analyte. For example, the dissolved concentration of an analyte in a water sample should not exceed saturation. If it does, then this merits further consideration (e.g., was colloidal organic matter or other solid-phase material present or could there have been unobserved free-phase organic liquid?) and explicit comment. At its simplest, there may be a unit error.

Where analysis involves reporting of Tentatively Identified Compounds (TICs; normally by mass spectrometry), the reviewers should check that these might reasonably be expected at the site under consideration. The uncertainties in identification by MS mean that it is not uncommon that TICs are incorrectly assigned. In cases of doubt, the analytical laboratory can re-check the raw data and confirm.

A review of the analytical precision by comparing data obtained for duplicate samples. There is no absolute threshold - variability is entirely dependent upon the sample matrix and manner in which the contaminant has entered the sample. Variability that cannot reasonably be assigned to such factors (for example a very high apparent variability in data for sediment-free water samples) should be reviewed with the laboratory. Variability that is attributable to the sample matrix can nevertheless provide important pointers to improve understanding of contaminant transport pathways and the risks posed by pollutant linkages (e.g., soil heterogeneity, the association of contamination with particular soil fractions, the presence of residual NAPL within soil pores or the role of suspended sediments in contaminant transport).

Confirmation that no errors have been introduced by data transcription, unit conversion or corrections between preliminary and certificates issued by the laboratory. The reviewer should audit a proportion (typically 5-10%) of all data from the original (final) certificates of analysis through to the equivalent values in the report for those specific samples.

It is important to consult the analytical laboratory if apparent QA issues arise. Many apparent concerns can be adequately resolved on the basis of revisiting the raw analytical data or by obtaining a better understanding of the inherent limitations of the analysis for a particular matrix or sample type.

APPENDIX H - COMPLYING WITH CONTROL OF ASBESTOS REGULATIONS 2012

Complying with Control of Asbestos Regulations (CAR): Risk Assessments, Licensing and Training

This appendix outlines CAR risk assessments and where they should be applied in relation to assessing and remediating brownfield sites. The information below details the different classifications of work with asbestos under CAR, summarises the legal requirements for asbestos awareness training for all involved in the investigation and management of asbestos containing soil (ACS), and details the potential requirements for suitable proficiency training relating specifically to ACS.

CAR RISK ASSESSMENTS

A CAR Risk Assessment is required for any work which may expose employees to asbestos. It is recommended that a precautionary approach is adopted if there is any doubt about risks associated with asbestos.

There are three main activities for potential asbestos exposure during work on brownfield sites:

- Site reconnaissance visits;
- Site investigation works; and
- Site remediation.

CAR risk assessments are needed at each stage but may be incorporated during the site investigation stage into the overarching health and safety risk assessments.

The CAR risk assessment must:

- Identify the type of asbestos to which employees are liable to be exposed, where possible, or assume it is present in different forms;
- Determine the type and extent of exposures to asbestos that may occur during the work.
- Identify the steps to be taken to prevent exposure or reduce it to the lowest level reasonably practicable; and,
- Consider the effects of control measures that have been or will be taken.

The CAR risk assessment should include any information used to inform the risk assessment such as asbestos reports or desk study information. In the event that this information is not available, the assessor should be assumed that all forms of asbestos may be present on site.

For all investigation and remediation of ACSs, a detailed written work plan should be produced and followed as detailed on the HSE website and in the CAR.

The CAR risk assessments for specific investigations or remediation projects, will determine whether or not work is 'licensable work' (LW), notifiable non-licensable work' (NNLW) or 'non-licensed work' (NLW). In addition, training requirements are also defined by the CAR risk assessment.

Some examples of control measures that apply during site reconnaissance, site investigation works, and site remediation are given below and should be applied depending on the asbestos risks identified for the site at each stage of investigation:

- Avoiding stirring up dust;
- Cleaning footwear after site works;
- Removing and bagging any overalls for disposal/laundry;
- Respirators and hygiene facilities for high risk sites;
- Segregated welfare units;
- Wetting ground
- Minimising soil disturbances;
- Implementation or retention of capping/break layers;
- Implementation of awareness training;
- Air monitoring;
- Managing stockpiles;
- Area segregation;
- Wheel washing
- Road washing/cleaning

It is important to note that during site reconnaissance visits, site investigation works and site remediation that asbestos should not be considered in isolation and control measures are likely to form part of a wider health and safety precautions.

Respiratory protective equipment (RPE)

RPE is the last line of defence and its requirement would be defined by the CAR risk assessment. HSE (2013b) advises that RPE should have an assigned protection factor of 20 or more for all work with asbestos. In certain instances, full face-piece, positive pressure respirators with a protection factor of 40 are necessary (to EN 12942:1998, TM3).

Suitable types of RPE for most **short** duration non-licensed asbestos work:

- Disposable respirator to standards EN149 (type FFP3) or EN1827 (type FMP3)
- Half mask respirator (to standard EN140) with P3 filter
- Semi-disposable respirator (to EN405) with P3 filter

These filters are not suitable for people with beards/stubble or for long or continuous use.

LICENSING

CAR defined certain types of activities involving asbestos as 'licensable work' (LW) or as 'notifiable non-licensable work' (NNLW). All other work would be 'non-licensable work' (NLW).

LW is defined as:

- work where exposure is not 'sporadic and low intensity'.
- work where the risk assessment cannot demonstrate that the control limits (four hour and 10 minute limits) will not be exceeded.
- work on asbestos coating
- work on AIB or insulation where risk assessment is either of first two points above or not of short duration (where short duration is defined for any work liable to disturb asbestos as taking less than two hours per week (including ancillary work) and no one person carries out that work for more than one hour').

NNLW includes work with:

- AIB or asbestos insulation of short duration that is not licensable.
- fire-damaged asbestos cement or asbestos cement damaged so as to create significant dust and debris.
- asbestos ropes, yarns, woven cloths in poor condition or handling cutting or breaking up the materials.
- asbestos papers, felts and cardboard in poor condition, unencapsulated or not bound into another material.

Work with weathered asbestos cement, air monitoring and collecting samples of ACM in buildings would not normally be notifiable.

It is impossible to specify definitively what activities will and will not be licensable. This decision should be made as part of the CAR risk assessment. CAR is not primarily aimed at work with ACSs and there is little published information on airborne asbestos concentrations during work with ACSs. Nevertheless, CAR will require some remediation projects, and occasionally site investigations, to be LW. Investigations on other sites may involve NNLW. The decision as to whether work is LW or NNLW should be made during the CAR risk assessment by those in charge of the brownfield site investigations and remediation projects.

TRAINING REQUIREMENTS

Asbestos health and safety courses are offered by a number of providers in the UK. Training courses that include the problem of identifying ACMs in soil should be undertaken at regular intervals by those involved in the investigation, assessment and management of sites where ACs are known or suspected. It is the role of the employer to identify the level of training required for an employee based on their role, experience and duties. Reference to Regulation 10 of CAR should be referred to for more information on training requirements.

Recognising asbestos within soils is challenging due to the heterogeneity of such soils and the discolouration of asbestos by smeared soil. Specific training for ground workers should include understanding fibre release potential, potential control measures in the field, how to take representative ACSs safely, sample labelling and what analytical tests are available and when they should be implemented.

Health and safety training required under CAR includes asbestos awareness, non-licensable work (including notifiable non-licensable work) and licensable work with asbestos.

In addition to health and safety training, some staff involved in the technical identification on site of ACMs, sampling and analysis may require technical proficiency training (competency training).

Training vs. Competence

HSE (2005) identifies that 'training alone does not make people competent. Training must be consolidated by practical experience so that the person becomes confident, skilful and knowledgeable in practice on the job'. It is critical that ACS surveyors demonstrate competency with details of relevant field experience alongside training and examples of previous works/references.