

STATION SOUTH LEVENSHULME

PHASE 2 GEO-ENVIRONMENTAL INVESTIGATION, RISK ASSESSMENT AND REMEDIATION STRATEGY

Job Number: LKC 22 1041
Date: 16th March 2022
Client: Station South CIC



INCREASING LAND VALUE

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LK Consult Document Verification			
Site Address	975-977 Stockport Road, Levenshulme, Manchester M19 3NP		
Report Title	Phase 2 Geo-Environmental Investigation, Risk Assessment and Remediation Strategy		
Job Number	LKC 22 1041	Document Ref.	CL-602-LKC 22 1041-01
Date Issued	16 th March 2022	Report Version	R1
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Revision Record			
Revision No.	Date	Nature of Revision	Approved By
R1	23.03.22	Update of proposed development schedule	MT

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EXECUTIVE SUMMARY

Site Details

Site Location:	Former station building and adjacent land to the north and south of the existing Fallowfield Loop track. Located to the south of Crayfield Road and to the east of Stockport Road, Levenshulme, Manchester. National Grid Reference 387658E, 393808N.
Site Area:	4,500m ²
Current Land Use:	Station building in the west of site. Embankments are present to the north and south of the Fallowfield Cycle Loop which runs approximately east-west and divides the site. Rough vegetation across the site, including numerous trees to the south of the site. Areas of dense vegetation (brambles) on the embankments.
Proposed Development:	Mixed-use development including conversion of former station building to leisure and retail space, café and offices with external seating, recreational areas, community allotment garden, ancillary outbuildings and structures, cycle storage, car parking, boundary fencing, gates, play and events space and a new cycle skills track.
Purpose of Report:	Contamination Assessment.

Preliminary Risk Assessment

PRA Details:	Undertaken by EnviroSmart in April 2020. Ref: 73038R1.
History:	Levenshulme station with associated railway line and outbuildings.
Geology / Hydrogeology:	Till (Undifferentiated Aquifer) over Chester Formation (Principal Aquifer).
Mining:	Site is not within a Development High Risk Area.
Relevant Environmental Setting:	Fallowfield Brook (culverted) 80m N.
Preliminary Conceptual Model:	PL1 Direct Contact (Human Health): Moderate Risk (ACMs, metals, PAHs, petroleum hydrocarbons, herbicides). PL2 Inhalation of Vapours: Low Risk (volatile contaminants).
PL=Pollutant Linkage	PL3 Gas: Moderate / Low Risk (hazardous gas). PL4 Controlled waters: Low Risk (mobile contaminants).
Recommendations:	Site Investigation was recommended to further assess the identified pollutant linkages.

Ground Investigation Work Undertaken

Date of Investigation:	11 th February 2022.
Intrusive Investigation Work Undertaken:	16no. hand dug pits (HD101-HD116).
Soil Sampling:	11no. samples tested for metals, speciated PAHs, pH, sulphate, asbestos and SOM. 5no. samples tested for metals, speciated PAHs, cyanide, pH, sulphate, asbestos, phenol, TPHCWG, BTEX, and SOM. 3no. samples tested for herbicides.

Ground Conditions

The made ground generally comprised a gravelly sandy silt and / or sandy clay with brick fragments, glass, plastic, pottery, ash and coal. 3no. locations identified tarmacadam fragments within the made ground.

Natural clay was identified HD101 at 0.5m.

Contamination Risk Assessment

The table below shows a summary of the risk assessments undertaken for each pollutant linkage, the revised conceptual model and recommendation for either remediation and / or further investigation.

Pollutant Linkage		Risk	Recommendations
1	Contaminants posing a risk to site users via dermal contact, ingestion and inhalation (of soil, dust, fibres and vegetables).	Moderate	-Elevated lead, PAHs and heavy end hydrocarbons identified. - Recommendations: Remediation required in garden and soft landscaped areas.
		Low	-No asbestos identified or herbicides. - Recommendations: No remediation required.
2	Volatile contaminants posing a risk to site users via the inhalation of vapours.	Low	-No volatile contamination identified. - Recommendations: No remediation required.
3	Gas posing a risk to buildings and site users via the migration of gas into building causing explosion and asphyxiation.	Moderate / Low	-Significant gas migration to site not anticipated given the distance from site of potentially infilled features and intervening clay deposits - Recommendations: No remediation required.
4	Mobile contamination posing a risk to controlled waters via the migration through permeable strata.	Low	-Significant risk to controlled waters not identified given site setting. - Recommendations: No remediation required.

Recommendations and Remedial Strategy

The table below shows the remediation and validation requirements for the site. This information should be documented in a Site Completion Report for submission to the Local Authority.

Phase	PL	Remediation Requirements	Validation Requirements
Build-Phase Construction	1	Allotment Gardens 600mm thick environmental cover system comprising: Either 100mm physical break layer (MOT type 1 material, 20-30mm, minimal fines) and at least 500mm comprising clean inert fill and sufficient topsoil for a growing medium. Or geotextile membrane and at least 600mm comprising clean inert fill and sufficient topsoil for a growing medium. Tree pits will need to be installed to 1mbgl. Public Open Space 300mm thick environmental cover system comprising: Either 100mm physical break layer (MOT type 1 material, 20-30mm, minimal fines) and at least 200mm comprising clean inert fill and sufficient topsoil for a growing medium. Or geotextile membrane and at least 300mm comprising clean inert fill and sufficient topsoil for a growing medium.	Measuring depth of environmental cover system using a staff and providing photographic evidence. Photographic evidence of the granular physical break or geotextile layer will also be collected. Chemical validation of imported soils

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1 Introduction

1.1 Background

LK Consult Ltd (LKC) has been commissioned by Station South CIC to carry out a Phase 2 Geo-Environmental Investigation, Risk Assessment and Remediation Strategy for Station South, Levenshulme. The investigation was undertaken in support of a planning application (reference number 125563/FO/2019) to re-develop the site for commercial and leisure end use.

The following work has previously been undertaken:

- » Phase 1 Contaminated Land Report, undertaken by EnviroSmart (73038R1, dated April 2020).

This investigation has been undertaken to confirm the ground conditions below the site and to allow a contamination assessment to be undertaken.

1.2 Site Details

A summary of the site details is presented in Table 1-1. Figure 1 indicates the site location and boundary. Figure 2 indicates the proposed development.

Location	Former station building and adjacent land to the north and south of the existing Fallowfield Loop track. Located to the south of Crayfield Road and to the east of Stockport Road, Levenshulme, Manchester. National Grid Reference 387658E, 393808N.
Area	4,500m ² .
Topography	Embankments present to the north and south of the existing Fallowfield Cycle Loop. There is a greater level difference and embankments are steeper in the western area of site. The northern area of site, adjacent to Crayfield Road, and the southern area of site, close to the southern site boundary, are relatively level.
Land Use	<u>Site</u> Station building in the west of site. Embankments are present to the north and south of the Fallowfield Cycle Loop which runs approximately east-west and divides the site. Rough vegetation across the site, including numerous trees to the south of the site. Areas of dense vegetation (brambles) on the embankments. <u>Surrounding Area</u> North: Crayfield Road and residential properties. East: Kersh Avenue and Fallowfield Cycle Loop and associated land. South: Residential and commercial properties. West: Stockport Road, residential and commercial properties beyond.
Proposed Development	Mixed-use development including conversion of former station building to leisure and retail space, café and offices with external seating, recreational areas, community allotment garden, ancillary outbuildings and structures, cycle storage, car parking, boundary fencing, gates, play and events space and a new cycle skills track. It is understood that the development is to be undertaken in phases with the station building, café terrace and allotment gardens being undertaken in the first phase.

Table 1-1. Summary of site details.

2 Previous Work

2.1 Summary of Existing Information

A Phase 1 Contaminated Land Report (Ref: 73038R1, dated April 2020) has previously been undertaken by EnviroSmart and should be read in conjunction with this report. A summary of pertinent information is provided in Table 2-1.

The conceptual model (Section 2.2) has been updated to be in line with LKC current risk assessment methodology.

Main Historical Features	Onsite: Levenshulme station with associated railway line and outbuildings. Surrounding Area: mills, brick works, corporation yard, electricity sub station.
Geology / Hydrogeology	Artificial: No BGS recorded artificial. Superficial: Till. Secondary Undifferentiated Aquifer. Bedrock: Chester Formation (sandstone). Principal Aquifer.
Surface Watercourses	Fallowfield Brook (culverted) 80m N.
Landfills / Infilled ground	Cringle Road Landfill 120m E. Deposited waste includes inert, industrial, commercial, household, special and liquid sludge waste. Deposited between 1974 and 1991. Historic landfill site 85m E (Highfield Country Park). Potentially infilled ground identified.
Coal Mining	Site is not within a Development High Risk Area. No further assessment required.
Additional Information	Anecdotal information indicates that infill material comprising inert building fill including sand subsoil has been placed on site to level the embankments.

Table 2-1: Summary of site setting.

2.2 LKC Preliminary Contamination Conceptual Model

The preliminary contamination conceptual model in the EnviroSmart report has been updated to be in line with LKC current risk assessment methodology (detailed below). The model is based on the contamination sources, pathways and receptors identified in the original report.

The preliminary contamination conceptual model using contaminant-pathway-receptor linkages based on guidance in LCRM¹ has been summarised in Table 2-2.

The aim of the conceptual model is to provide a preliminary assessment of the likelihood of a pollutant linkage for each potential combination of contaminant, pathway and receptor. A conceptual model can be used to make an informed decision on the contamination risks associated with the site and determine what site investigation work is required.

The preliminary contamination conceptual model has identified seven generic potential pollutant linkages. Each linkage is described along with an assessment of the risk based upon guidance on probabilities and consequences outlined in CIRIA C552².

¹ Land Contamination Risk Management (LCRM) <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

² CIRIA (2001). "Contaminated land risk assessment: A guide to good practice". C552.

In order to assess the potential risk for each pollutant linkage, an assessment of the magnitude of the potential consequence (severity) of the risk occurring and the magnitude of the probability (likelihood) of the risk occurring has been considered and classified. This is based on the guidance provided in CIRIA C552 and further details including a risk matrix is provided in Appendix A.

Where LKC identified a low to very low risk, limited intrusive investigation work, a watching brief (during construction work) or no investigation work will be recommended. This will be dependent on the nature of the site and the proposed development.

Where the risk falls into the moderate/low risk, LKC will undertake an assessment to establish what category the pollutant linkage will fall into (i.e. moderate or low risk will be chosen).

Where LKC identifies a moderate or higher risk, intrusive work or precautionary remedial measures will be recommended.

The conceptual model is based on the future use of the site (post development), in line with proposed development scheme.

The risk to property associated with elevated sulphate should be considered by the project structural engineer will not be included in the contamination risk assessment.

A water pipeline risk assessment will be required for any new potable water supplies planned for the site. As this is a separate assessment agreed with the utility company it is not considered further within the contamination conceptual model.

It should be noted that there may be risk from short term exposure from contaminated soil to site workers during development work. The Preliminary Contamination Conceptual Model deals with long term exposure to key receptors associated with the future use of the site. Acute risks can be easily mitigated by good environmental management of the site during site works. Standard health and safety precautions (as per HSE guidance³) should be adopted by all workers involved with site enabling and construction works. Therefore, this receptor is not considered in the contamination conceptual model.

2.3 Recommendations

Based upon the Preliminary Contamination Conceptual Model a site investigation was recommended to assess the potential pollutant linkages further.

³ HSE (1991). "Protection of Workers and the General Public During Development of Contaminated Land" London HMSO.

Pollutant Linkage	Pathway	Receptor	Contaminant (source)	Probability	Consequence	Risk	Assessment and Recommendations
PL1	- Dermal contact. - Inhalation of soil, fibres and dust. - Ingestion of soils, dust, vegetables, soil attached to vegetables. - Windblown dust.	- Future site users. - Offsite receptors.	- ACM. - Heavy metals. - PAHs. - Petroleum hydrocarbons - Herbicides (made ground, railway land).	Likely	Medium	Moderate	- Likely probability given history of site and land uses. - Recommendation: Intrusive investigation required.
PL2	- Inhalation of vapours. - Migration through permeable strata and preferential pathways.	- Future site users. - Offsite receptors.	- Volatile Contaminants such as hydrocarbons, (railway land).	Unlikely	Medium	Low	- Unlikely probability given largely open site volatilisation of contaminants likely to have occurred. - Recommendation: Assessment of testing results for PL1.
PL3	- Inhalation of gas. - Migration through permeable strata and preferential pathways. - Explosion in confined spaces.	- Future site users. - Buildings. - Offsite land users.	- Methane, carbon dioxide. (potentially infilled features within 250m of the site).	Unlikely	Severe	Moderate / Low	- Unlikely probability of significant gas migration to site given the distance from site of potentially infilled features and intervening clay deposits. - Recommendation: No further assessment required.
PL4	- Surface Run-off. - Migration through permeable strata and preferential pathways - Perched waters migration.	- Groundwater (Principal Aquifer). - Surface water (Fallowfield Brook).	- Mobile contaminants such as metals, PAHs, hydrocarbons, mobile compounds (made ground, railway land).	Unlikely	Medium	Low	- Unlikely probability as underlying clay deposits will impede the migration of contamination to the underlying aquifer. The watercourse is at a higher elevation to the site therefore migration of contaminants considered unlikely. - Recommendation: No further assessment required.

Table 2-2. Preliminary Contamination Conceptual Model.

3 Ground Investigation

3.1 Site Investigation Design and Methodology

In order to assess the ground conditions at the site and to investigate the potential pollutant linkages identified in the preliminary contamination conceptual model an intrusive investigation was undertaken.

The investigation was carried out on 11th February 2022 and comprised the following:

- 16no. hand dug pits (using hand auger / spade) excavated to 0.6-1.0mbgl (ref. HD101 to HD116).

All site investigation locations are shown in Figure 3.

The locations were chosen to allow a good spread across the site. Table 3-1 details the targeted and general coverage (non-targeted) site investigation locations.

Site Investigation Locations	Rationale
HD101-HD103	Within area of proposed allotment and community garden area and for general site coverage. Hand dug pits excavated to 1.0mbgl in this area given the proposed use.
HD104-HD106	Within proposed soft landscaping associated with the café terrace close to the station building and for general site coverage.
HD107-HD109	Located across the embankment and for general site coverage.
HD110-HD113	Located in area of proposed skills track and associated soft landscaping and for general site coverage.
HD114-HD116	Within proposed open air theatre and for general site coverage.

Table 3-1: Summary of sampling locations.

The number of site investigation points corresponds to approximately one location per 22m square centres. This is considered to be a conservative sampling density and is in line with BS10175⁴ for a 'detailed investigation'.

All profile logs are provided in Appendix B and are in line with BS14688-1⁵ and BS5930⁶.

3.2 Sampling Protocol

3.2.1 Soil Sampling (Contamination)

Standard sampling protocol and preservation of samples was undertaken as described in the EA guidance on site investigation⁷.

Soil was collected for onsite testing. A plastic zip bag was half filled with soil allowing a suitably sized headspace. The bag was sealed and stored for at least 20 minutes before being tested for total volatile organic compounds (TVOCs) using a PhoCheck Tiger photoionisation detector (PID). Results of the PID readings are presented on the

⁴ British Standard (2017). "Investigation of Potentially Contaminated Sites – Code of Practice." BS10175:2017.

⁵ British Standards (2002) Geotechnical investigation and testing – Identification and Classification of Soil. Part 1: Identification and description. BS EN ISO 14688-1:2002.

⁶ British Standard (2015). "Code of Practice for Ground Investigations". BS5930:2015.

⁷ EA (2000). "Technical Aspects of Site Investigation. Volumes 1 & 2 Text Supplements Research and Development Technical Report." P5-065/Tr.

profile logs (Appendix B). The on-site monitoring was carried out in line CIRIA C665⁸ to aid in screening samples for volatile analysis.

Soil samples of approximately 500g were recovered in amber jars, amber vials for volatile analysis and plastic tubs. All the samples were labelled and stored in cool boxes prior to being collected by courier at the end of the day for delivery to the Chemtest laboratory in Newmarket for chemical testing. If collection was not possible the same day then samples were stored in the sample storage fridge at the LK Group offices below 4°C. Samples were tracked using appropriate Chain of Custody forms provided by Chemtest.

Many of the contamination tests are UKAS or MCERTS accredited and further details are given in the Certificate of Analysis presented in Appendix C. Table 3-2 shows the soil testing undertaken.

Contaminants	No. Samples	Location & Depth	Justification
Metals / metalloids, pH, water soluble sulphate, speciated PAHs, SOM and asbestos screen.	11	HD101 0-0.5m HD102 0.1-1m HD105 0.25-0.6m HD106 0-0.3m HD107 0-0.6m HD108 0-0.6m HD110 0-0.75m HD112 0.15-0.6m HD113 0-0.2m HD114 0-0.2m HD116 0-0.6m	A basic suite with a broad selection of contaminants tested on samples across the site where no significant evidence of contamination was identified and no TVOCs identified from the PID tests.
Metals / metalloids, pH, water soluble sulphate, cyanide suite, phenol, TPHCWG, BTEX, MTBE, speciated PAHs, SOM and asbestos screen.	5	HD103 0-0.4m HD104 0-0.6m HD109 0-0.3m HD111 0-0.6m HD115 0-0.6m	Detailed suite undertaken on a selection of samples located across the site to confirm the contamination risk, given the site history.
Herbicides	3	HD109 0-0.3m HD111 0-0.6m HD116 0-0.6m	A selection of samples tested for herbicides given location adjacent to former railway.

Table 3-2. Summary of soil sample testing undertaken.

Notes:

If asbestos present during screen identification and quantification will be undertaken.

Metal/metalloids=arsenic, cadmium, chromium, (total and hexavalent), copper, lead, mercury, nickel, selenium, vanadium, zinc and boron; TPHCWG=carbon banded and aromatic/aliphatic split petroleum hydrocarbons; PAH=polycyclic aromatic hydrocarbons, BTEX=benzene, toluene, ethylbenzene and xylenes; MTBE=Methyl tert-butyl ether, SOM=Soil Organic Matter.

3.2.2 Water Sampling / Leaching Testing

Groundwater sampling / leaching testing was not carried out as part of this investigation.

3.3 Gas Monitoring

Gas monitoring was not carried out as part of this investigation.

⁸ CIRIA (2007). "Assessing Risks Posed by Hazardous Ground Gases to Buildings." CIRIA C665.

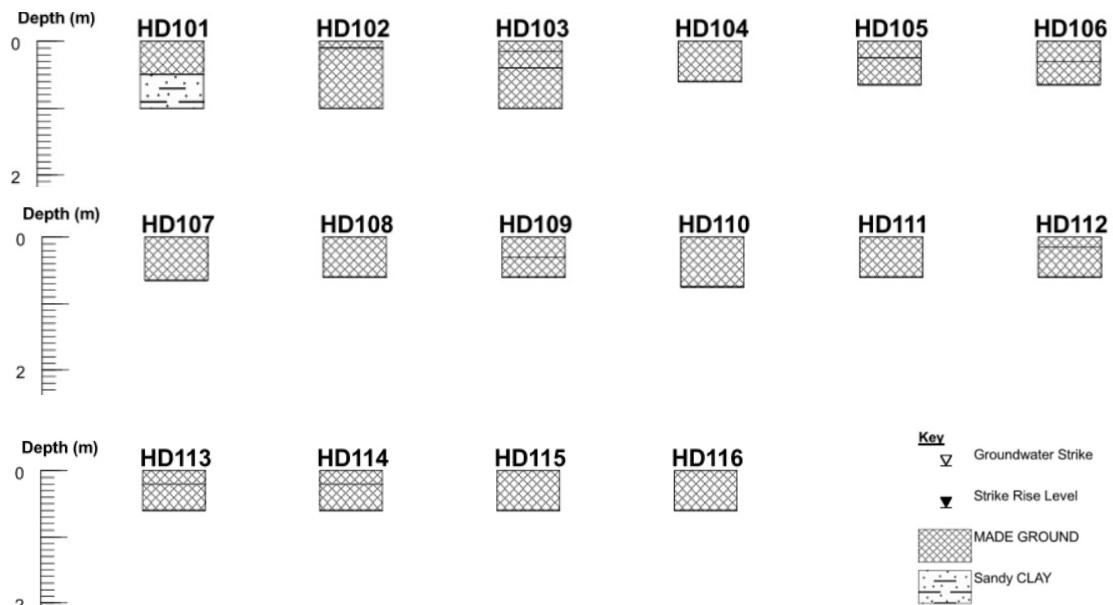
3.4 Site Investigation Scope

The scope of the contaminated land investigation was agreed with the Local Authority prior to undertaking the work (email dated 7th February 2022). This investigation was generally in line with the agreed scope.

4 Ground Conditions

4.1 Geology – Generalised Sequence

The ground conditions beneath the site comprised made ground. A summary section of the logs is provided in Plate 4-1, with additional comments below.



The made ground generally comprised a gravelly sandy silt and / or sandy clay with brick fragments, glass, plastic, pottery, ash and coal. 3no. locations identified tarmacadam fragments within the made ground.

Natural clay was identified in HD101 at 0.5m.

4.2 Groundwater

Water was noted to be slowly seeping into the base of HD107. All other pits were noted to be dry.

5 Generic Risk Assessment

5.1 Introduction

Current good practice requires that the findings from a site investigation should be evaluated on a site-specific basis, using a risk-based approach. Risk assessment involves identification and evaluation of the hazards presented by the concentrations of contaminants measured followed by an evaluation of the risks which are associated with these hazards (LCRM⁹). Information gathered from the risk assessment has been collated in the revised contamination conceptual model in Section 5.3.

5.2 Soil Risk Assessment

5.2.1 Methodology

With regards to the soil risk assessment LKC will use the following hierarchy:

- Category 4 Screening Levels (C4SLs).
- LQM Suitable 4 Use Levels (S4ULs).
- ATRISK Soil Screening Values (SSVs) and CL:AIRE Generic Assessment Criteria (GACs).

C4SLs were published in 2013^{10,11}. The recent change to the contaminated land guidance has changed the evaluation of risk from 'minimal' (referred to as Health Criteria values (HCVs))¹² used to generate Soil Guideline Values (SGVs) to 'low' (referred to as Lowest Level of Toxicological Concern (LLTCs)). The policy companion document and supporting letter by Defra, dated 3rd September 2014, states that C4SLs *'could be used under the planning regime, as well as within Part 2A'*. Based on these comments LKC considers the justifications and assumptions used to generate 'low' risk are suitable for the planning regime.

Where no C4SLs have been generated LKC will use the LQM S4ULs¹³. Similar assumptions and land uses to C4SLs have been used. However, toxicological information has been based on 'minimal risk' as per previous guidelines and assumptions^{14,15,16,17}.

If contaminants are not present as C4SLs and S4ULs then LKC will use ATRISK SSVs or CL:AIRE GACs¹⁸. These follow the 'minimal' risk principle and more stringent exposure parameters and will be conservative.

LKC consider the main risk drivers for PAHs are benzo(a)pyrene (B(a)P) and naphthalene. This is due to B(a)P possibly being a carcinogen and most toxic of the

⁹ Land Contamination Risk Management (LCRM) <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

¹⁰ Defra (2014). "SP1010: Development of Category 4 Screening Levels and Assessment of Land Affected by Contamination – Policy Companion Document."

¹¹ CL:AIRE (2013). "SP1010: Development of Category 4 Screening Levels and Assessment of Land Affected by Contamination – Final project Report."

¹² EA (2008). "Human Health Toxicological Assessment of Contaminants in Soils." Science Report – SC050021/SR2.

¹³ LQM (2014). "The LQM/CIEH S4ULs for Human Health Risk Assessment."

¹⁴ EA (2008). "Updated Technical Background to the CLEA Model." Science Report – SC050021/SR3.

¹⁵ EA (2008). "Human Health Toxicological Assessment of Contaminants in Soils." Science Report – SC050021/SR2.

¹⁶ EA (2008). "A Review of Body Weight and Height Data used within the Contaminated Land Exposure Assessment Model (CLEA)." Project SC050021/Technical Review 1.

¹⁷ EA (2009). "Compilation of Data for Priority Organic Pollutants for Derivation of Soil Guideline Values." Science report SC050021/SR7.

¹⁸ CL:AIRE (2009). "The Soil Generic Assessment Criteria for Human Health Risk Assessment."

PAHs^{19,20} and naphthalene the most volatile and soluble²¹. The new C4SLs indicate B(a)P as a surrogate marker for carcinogenic PAHs, if it falls within appropriate limits, since the risk from other non-carcinogenic PAHs are considered negligible²². For B(a)P to be used as a surrogate marker it should follow the profile described by the HPA (2008)²³ and CL:AIRE (2013). Naphthalene will be treated separately using the LQM S4ULs.

The results of the soil analysis will be assessed against 'Public Open Space Park' (POS_{PARK}) generic assessment criteria, with the exception of the allotment and community garden which will be assessed against 'Allotment' generic assessment criteria.

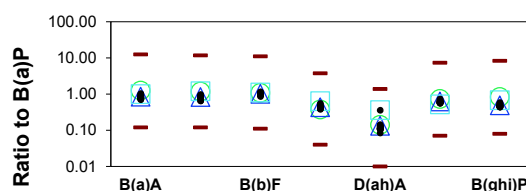
All criteria have been generated using the CLEA V1.06 model²⁴ based either on 1%, 2.5% and 6% Soil Organic matter (SOM). Results will be compared to the nearest appropriate SOM.

A summary of the generic assessment criteria is provided in Appendix D. ATRISK SSVs and CL:AIRE GACs were not required for this dataset and have not been included.

B(a)P as Surrogate Marker

Based on the above assumption for PAHs, LKC undertook an assessment of the data for the site with regards to using B(a)P as a surrogate marker for carcinogenic PAHs as per HPA and CL:AIRE guidelines. The primary toxicological study related to Culp *et al.*²⁵, which was based on coal tar mixtures (>80,000mg/kg of total PAHs) fed in food to mice over a two-year carcinogenicity study.

Graph 5-1 summarises the study site data with respect to how the ratios of carcinogenic PAHs relate to B(a)P, within the confidence limits provided in the HPA document.



Graph 5-1: The ratio of PAH to B(a)P in soil for all available data at the site based on 16 samples (where values were >LOD to allow the calculation of a ratio).

Notes:

B(a)P = Benzo(a)pyrene; D(ah)A = Dibenzo(ah)anthracene; B(a)A = Benzo(a)anthracene; B(b)F = Benzo(b)fluoranthene; B(k)F = benzo(k)fluoranthene; I(123cd)P = Indeno(123cd)pyrene; B(ghi)P = Benzo(ghi)perylene

● = Ratio to B(a)P for all data ○ = Mean ratio to B(a)P for Culp data △ = Mean ratio to B(a)P from all data at the site; □ = Mean ratio to B(a)P for UK data presented by HPA ■ = Upper and Lower limits (order of magnitude from Culp data)

¹⁹ EA (2002). "Contaminants in Soils: Collation of Toxicological Data and Intake Values for Humans. Benzo[a]pyrene." R&D Publication TOX2.

²⁰ USEPA (1984). "Health Effects Assessment of Polycyclic Aromatic Hydrocarbons (PAHs). EPA 540/1-86-013."

²¹ EA (2003). "Review of the Fate and Transport of Selected Contaminants in the Soil Environment." Draft technical report P5- 079/TR1.

²² CL:AIRE (2013). "SP1010: Development of Category 4 Screening Levels and Assessment of Land Affected by Contamination – Final project Report."

²³ HPA (2010). "HPA Contaminated Land Information Sheet: Risk Assessment Approaches for Polycyclic Aromatic Hydrocarbons (PAHs)." Version 3.

²⁴ EA (2008). "CLEA Software (Version 1.05) Handbook." Science Report – SC050021/SR4.

²⁵ Culp, S; Gaylor, D; Sheldon, W; Goldstein, L and Beland, F (1998). "A Comparison of Tumours Induced by Coal Tar and Benzo-a-pyrene in a 2-Year Bioassay." Carcinogenesis. Vol 19, no. 1, pp. 117-124.

All the data points that could be used to calculate ratios fall inside the upper or lower limits.

Based on this distribution of data LKC considers B(a)P can be used as a surrogate marker for carcinogenic PAHs and the C4SL criteria is suitable for this dataset.

5.2.2 Soil Results Comparison against Assessment Criteria

All analysis sheets are presented in Appendix C. Elevated and pertinent results are presented in Table 5-1.

Contaminant	Units	No. of samples	Elevated Results	Sample Location	Criteria (1%/2.5%/6%)	Source of Criteria
Metals						
Lead	mg/kg	13	4,400	HD106 (0.0-0.3m)	1,300	C4SL (POS)
Lead	mg/kg	3	89	HD101 (0.0-0.5m)	80	C4SL (Allotment)
			180	HD102 (0.1-1.0m)		
			230	HD103 (0.0-0.4m)		
PAHs						
Benzo(a)pyrene	mg/kg	13	69	HD106 (0.0-0.3m)	21	C4SL (POS)
			32	HD108 (0.0-0.6m)		
			140	HD109 (0.0-0.3m)		
			31	HD111 (0.0-0.6m)		
			81	HD112 (0.15-0.6m)		
			29	HD114 (0.0-0.2)		
Benzo(a)pyrene	mg/kg	3	27	HD102 (0.1-1.0m)	5.7	C4SL (Allotment)
			50	HD103 (0.0-0.4m)		
TPHs						
Aromatic C16-C21	mg/kg	3	490	HD103 (0.0-0.4m)	46 / 110 / 260	S4UL (Allotment)
Aromatic C21-C35	mg/kg	3	2,100	HD103 (0.0-0.4m)	370 / 820 / 1,600	S4UL (Allotment)
Aromatic C21-C35	mg/kg	13	11,000	HD109 (0.0-0.3m)	7,800 / 7,800 / 7,900	S4UL (POS)
GENERAL						
pH	pH	16	Range 7.5 to 9.8			
SOM	%	16	Range 3.5 to 14			
Asbestos	N/A	16	None detected.			

Table 5-1: Summary of elevated and pertinent analytical results.

Notes:

Only results that exceeded assessment criteria have been shown and results from **all depths** are noted. Results have been compared to the nearest appropriate SOM.

5.2.3 Hazard Quotient

To examine the potential additivity of toxicological effects between the petroleum hydrocarbon fractions, a Hazard Index (HI) as described by the Environment Agency²⁶ technical report was calculated for the samples. This should be undertaken when there are no elevated petroleum hydrocarbons, when compared to assessment criteria of individual fractions. A HI was calculated for HD104, HD111 and HD115 (See Appendix E) and are summarised in Table 5-2.

²⁶ EA (2005). "The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils." Science report P5-080/TR3.

Sample Location	Hazard Index	Further consideration required?
HD104 (0.0-0.6m)	0.05	N
HD111 (0.0-0.6m)	0.26	N
HD115 (0.0-0.6m)	0.37	N

Table 5-2: Details of hazard index.

5.2.4 Direct Contact Risk – Pollutant Linkage 1

Elevated PAHs and lead have been identified on site, given the number and location of elevated samples, the contamination is considered to be site wide.

The source of the contamination is expected to be the ash and coal noted in the made ground.

At the concentrations identified, the contaminants are considered to pose a potential risk to future site users in allotment garden and soft landscaped areas, where made ground may be exposed and in contact with vegetables. The principal pathways are the ingestion pathways (soil, dust and vegetables) and dermal contact.

The probability of PAH and metal contamination affecting site users is likely. With a medium consequence, the risk is considered to be moderate and remediation is recommended.

Heavy end hydrocarbon contamination was also identified in two locations (HD103 and HD109). The principal pathways are the ingestion pathways (soil, dust and vegetables) and dermal contact. The probability of hydrocarbon contamination affecting site users is likely. With a medium consequence, the risk is considered to be moderate and remediation is recommended.

No asbestos was identified in any of the samples, therefore the probability of asbestos affected site users is considered to be unlikely. With a medium consequence, the risk is low. At this stage, a low risk is assumed (as no asbestos identified) and remediation is not required. However, as a precaution, construction workers should be vigilant for any suspected ACM during groundworks (discussed further in Section 8.1).

No pesticides were identified, therefore the probability of these contaminants posing a risk to site users is considered unlikely. With a medium consequence, the risk is considered to be moderate and no remediation is recommended.

5.2.5 Risk from Inhalation of Vapours – Pollutant Linkage 2

No visual / olfactory evidence of volatile contaminants was identified during the investigation. The PID did not detect any TVOCs. Confirmatory soil analysis did not detect any elevated volatile contaminants.

LKC therefore consider the probability of volatile contaminants affecting site users as unlikely. The consequence is expected to be medium, giving a low risk and no remediation is required with respect to pollutant linkage 2.

5.3 Revised Contamination Conceptual Model

The preliminary contamination conceptual model (Table 2-2) has been revised following the risk assessments undertaken in Sections 5.1-5.2. The revised contamination conceptual model follows the same methodology and guidance used in the preliminary contamination conceptual model. The risk matrix is provided in Appendix A.

The revised contamination conceptual model is presented in Table 5-3.

Where a very low risk is identified no specific remediation is required.

Where a low risk is identified, some form of remediation may be required depending on the pollutant linkage, the type and concentration of contaminants present and the proposed development.

Where there is a moderate/low risk is identified, an assessment will be undertaken to establish what category the pollutant linkage will fall into.

Where LKC identifies a moderate or higher risk, remediation or further investigation work is recommended.

Further details of the remedial proposals are given in Section 8.

Pollutant Linkage	Pathway	Receptor	Contaminant	Probability	Consequence	Risk	Assessment
PL1	-Dermal contact. -Inhalation of soil, fibres and dust. -Ingestion of soils, dust, vegetables, soil attached to vegetables. -Windblown dust.	-Future site users. -Offsite receptors.	Heavy metals: -Lead PAHs: -BaP -Heavy end petroleum hydrocarbons	Likely	Medium	Moderate	-Likely probability as elevated lead, PAHs and heavy end hydrocarbons identified in the made ground across the site which could come into contact with site users in gardens / soft landscaping areas. -Recommendation*1: Remediation required. Likely to include an environmental cover system in gardens / soft landscaping areas.
			-ACM -Herbicides	Unlikely	Medium	Low	-No asbestos or herbicides identified on site. -Recommendation: No remediation required.
PL2	-Inhalation of vapours. -Migration through permeable strata and preferential pathways.	-Future site users. -Offsite receptors.	Volatile contaminants: -None identified.	Unlikely	Medium	Low	-No elevated volatile contaminants identified. -Recommendation: No remediation required.
PL3	-Inhalation of gas. -Migration through permeable strata and preferential pathways. -Explosion in confined spaces (methane only).	-Future site users. -Buildings. -Offsite land users.	-Carbon dioxide and methane	Unlikely	Severe	Moderate / Low	-Unlikely probability of significant gas migration to site given the distance from site and intervening clay deposits. -Recommendation: No further assessment required.
PL4	-Surface Run-off. -Migration through permeable strata and preferential pathways -Perched waters migration.	-Groundwater (Principal Aquifer). -Surface water (Fallowfield Brook).	Mobile contaminants	Unlikely	Medium	Low	-Unlikely probability as underlying clay deposits will impede the migration of contamination to the underlying aquifer. The watercourse is at a higher elevation to the site therefore migration of contaminants considered unlikely. No significant mobile contamination identified within the soils on site. -Recommendation: No further assessment required.

Table 5-3: Revised Contamination Conceptual Model.

Notes

*1 Although no ACM identified, contractors should be vigilant during earthworks of any potential ACM.

6 Waste Disposal Assessment

The soil contamination results as presented in Appendix C have been used to help determine the waste classification of material for off-site disposal.

As an initial screen the soil results were inputted into HazwasteOnline™. This is a web-based facility that allows an assessment waste as either hazardous or non-hazardous waste based on relevant guidance and legislation^{27, 28, 29, 30, 31, 32, 33, 34, 35}.

HazwasteOnline™. has been designed to cover, amongst other waste types, the European Waste List of Waste (LoW) code number 17 "Construction and Demolition Waste (Including Excavated Soil from Contaminated Sites)".

Where less than limits of detection (LOD) were recorded, the value of the LOD was inputted. Where applicable, appropriate metal species based on hazard statements/ molecular weight, site history, ground conditions and likely species present in soils were used (e.g. metal oxides relating to an ash based source).

The output sheet is presented in Appendix F and summarised in Table 6-1.

Sampling Location	Hazardous Waste - Y/N	LoW Code	Hazard (Risk Phrase)	Contaminants
HD101	Y	17 05 03	N/A	N/A
HD102	N	17-05-04	N/A	N/A
HD103	Y	17-05-04	HP7 (carcinogenic) HP11 (mutagenic)	TPH
HD104	N	17-05-04	N/A	N/A
HD105	N	17 05 03	N/A	N/A
HD106	Y	17 05 03	HP7 (carcinogenic) HP10 (toxic for reproduction) HP14 (ecotoxic)	Lead, zinc
HD107	N	17-05-04	N/A	N/A
HD108	N	17 05 03	N/A	N/A
HD109	Y	17 05 03	HP7 (carcinogenic) HP11 (mutagenic)	TPH
HD110	N	17-05-04	N/A	N/A
HD111	Y	17-05-04	HP7 (carcinogenic) HP11 (mutagenic)	TPH
HD112	N	17-05-04	N/A	N/A
HD113	N	17 05 03	N/A	N/A
HD114	N	17 05 03	N/A	N/A
HD115	Y	17 05 03	HP7 (carcinogenic) HP11 (mutagenic)	TPH
HD116	N	17 05 03	N/A	N/A

Table 6-1: Summary of Hazwaste Online™ findings.

Based on individual locations hazardous waste has been identified. The soil onsite should be classified as **HAZARDOUS WASTE**.

²⁷ EA (2018). "Guidance on the Classification and Assessment of Waste (1st Edition v1.1)". Technical Guidance WM3.

²⁸ CLP Regulation - Regulation 1272/2008/EC of 16 December 2008.

²⁹ 1st ATP - Regulation 790/2009/EC of 10 August 2009

³⁰ Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

³¹ WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

³² Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014

³³ 13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

³⁴ POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004

³⁵ 2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010

7 Conclusions

A revised contamination conceptual model has been produced by LKC which is summarised in Table 7-1 below (more detailed model provided in Section 5).

Pollutant Linkage		Risk	Recommendations
1	Contaminants posing a risk to site users via dermal contact, ingestion and inhalation (of soil, dust, fibres and vegetables).	Moderate	- Elevated lead, PAHs and heavy end hydrocarbons identified. - Recommendations: Remediation required in garden and soft landscaped areas.
		Low	- No asbestos identified or herbicides. - Recommendations: No remediation required.
2	Volatile contaminants posing a risk to site users via the inhalation of vapours.	Low	- No volatile contamination identified. - Recommendations: No remediation required.
3	Gas posing a risk to buildings and site users via the migration of gas into building causing explosion and asphyxiation.	Moderate / Low	- Significant gas migration to site not anticipated given the distance from site of potentially infilled features and intervening clay deposits - Recommendations: No remediation required.
4	Mobile contamination posing a risk to controlled waters via the migration through permeable strata.	Low	- Significant risk to controlled waters not identified given site setting. - Recommendations: No remediation required.

Table 7-1: Summary Risk Table.

Remedial recommendations are presented in Section 8.

8 Recommendations and Remedial Strategy

The recommendations provided below are considered appropriate for the site based on the site investigation work undertaken. LKC should stress that no remediation, enabling works or designing works should take place until Regulatory approval has been obtained.

8.1 Remediation and Validation Recommendations

Table 8-1 details the further works and remedial recommendations / requirements.

Phase	PL	Remediation Requirements	Validation Requirements
Development phase of each area	1	<u>Allotment Gardens</u> 600mm thick environmental cover system comprising: <u>Either</u> 100mm physical break layer (MOT type 1 material, 20-30mm, minimal fines) and at least 500mm comprising clean inert fill and sufficient topsoil for a growing medium. <u>Or</u> geotextile membrane and at least 600mm comprising clean inert fill and sufficient topsoil for a growing medium. Tree pits will need to be installed to 1mbgl. <u>Public Open Space</u> 300mm thick environmental cover system comprising: <u>Either</u> 100mm physical break layer (MOT type 1 material, 20-30mm, minimal fines) and at least 200mm comprising clean inert fill and sufficient topsoil for a growing medium. <u>Or</u> geotextile membrane and at least 300mm comprising clean inert fill and sufficient topsoil for a growing medium. The subsoil layer can be replaced by additional topsoil. A diagram of a typical environmental cover system is shown in Appendix G.	Measuring depth of environmental cover system using a staff and providing photographic evidence. Photographic evidence of the granular physical break or geotextile layer will also be collected. Chemical validation of imported soils: See Table 8-2.
Other Considerations		<u>Earthworks Inspections / Unexpected Contamination</u> The relevant contractors should be briefed that during development works at the site should any unusual ground conditions and / or visual or olfactory evidence of contamination (including asbestos containing material) be encountered at the site, LKC and the Local Authority should be informed, and further assessment of the material may be required. Should asbestos be identified during groundworks, precautions should be taken to ensure the safety of the construction workers and nearby land users. It would be advisable to introduce an asbestos management strategy in line with CIRIA C733³⁶.	

Table 8-1: Remediation and validation requirements

Notes: See Table 5-3 for pollutant linkage (PL) details.

³⁶ CIRIA (2014). "Asbestos in Soil and Made Ground: A Guide to Understanding and Managing Risks". C733.

Other Considerations	Health and Safety Considerations In working with, removing or treating any contaminating material it is important that any potential risks associated with the actual site works are mitigated by good environmental management of the site during the remedial phases. Standard health and safety precautions (as per HSE guidance ³⁷) should be adopted by all workers involved with site enabling and construction works.
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Table 8-1 (continued): Remediation and validation requirements

Notes: See Table 5-3 for pollutant linkage (PL) details.

8.2 Validation of Subsoil / Topsoil

Chemical validation of all imported soils to be used on site in allotment gardens and soft landscaping areas should be undertaken. Imported soils should be accompanied by a certificate of analysis and source details.

A summary of the required imported material sampling requirements is presented in Table 8-2. Ideally, the material should be sampled at source to prevent double handling if soil fails, with confirmatory sampling undertaken on importation to site. However, where this is not possible then material imported should be segregated based on source and soil type. Validation samples should be taken prior to placement in gardens to ensure suitability for use.

Material Type	Source	Suite of Analysis	Sampling Rate*
Topsoil	Greenfield	Suite A	1 sample per 50m³
	Brownfield / Unknown	Suite B	
Subsoil	Brownfield / Unknown	Suite B	1 sample per 50m³
	Site won natural material / greenfield	Suite A	
	First Generation i.e. quarried sand (subsoil) or stone (break layer)	No testing is required. Certification of material provenance is required.	
Physical Stone Break Layer	Recycled Stone (6F2 / screened)	Suite B	1 sample per 500m³

Table 8-2: Sampling requirements for imported soils.

Notes:

Suite A - Heavy metals, pH, water soluble sulphate, speciated PAH, soil organic matter and asbestos screen.

Suite B - Heavy metals, pH, water soluble sulphate, speciated PAH, phenol, total and free cyanide, soil organic matter, asbestos screen, banded petroleum hydrocarbons (TPH CWG), BTEX, MTBE.

*Minimum sampling rate of 3 samples per source.

Any soil with visual or olfactory evidence of hydrocarbons should be rejected.

In addition, it should be ensured that the matrix of the topsoil is suitable as a growing medium and no undesirable material is present (in line with BS3882³⁸). LKC advise this information is provided by the supplier before material is imported onto site.

Imported material to be used in gardens will be compared against Allotment and Public Open Space criteria (as used in the contamination risk assessment (Section 5-1)). Appropriate remedial target criteria are presented in Appendix D.

³⁷ HSE (1991). "Protection of Workers and the General Public During Development of Contaminated Land" London HMSO.

³⁸ BS (2015). "Specifications for Topsoil and Requirements for use." BS3882:2015.

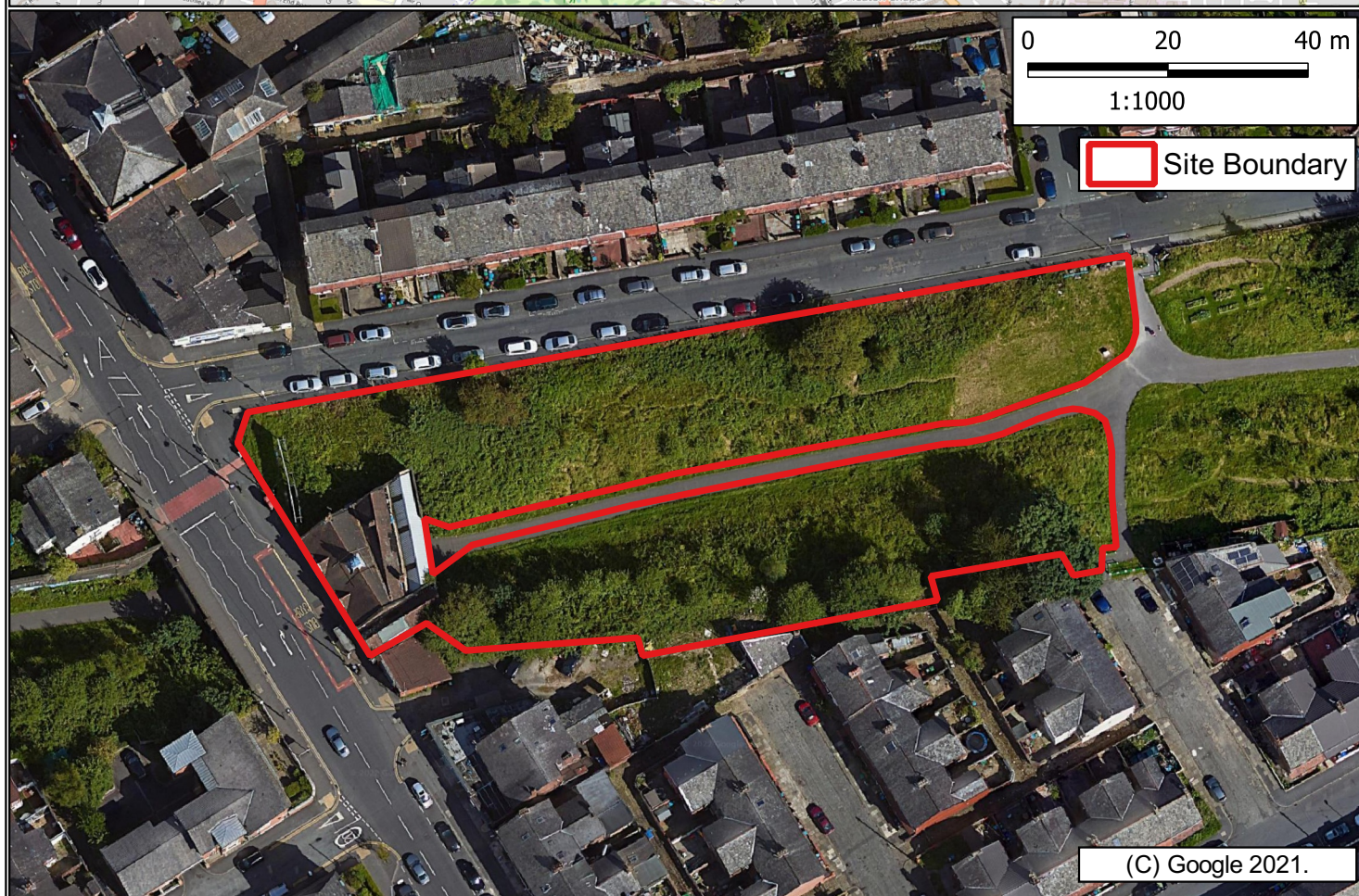
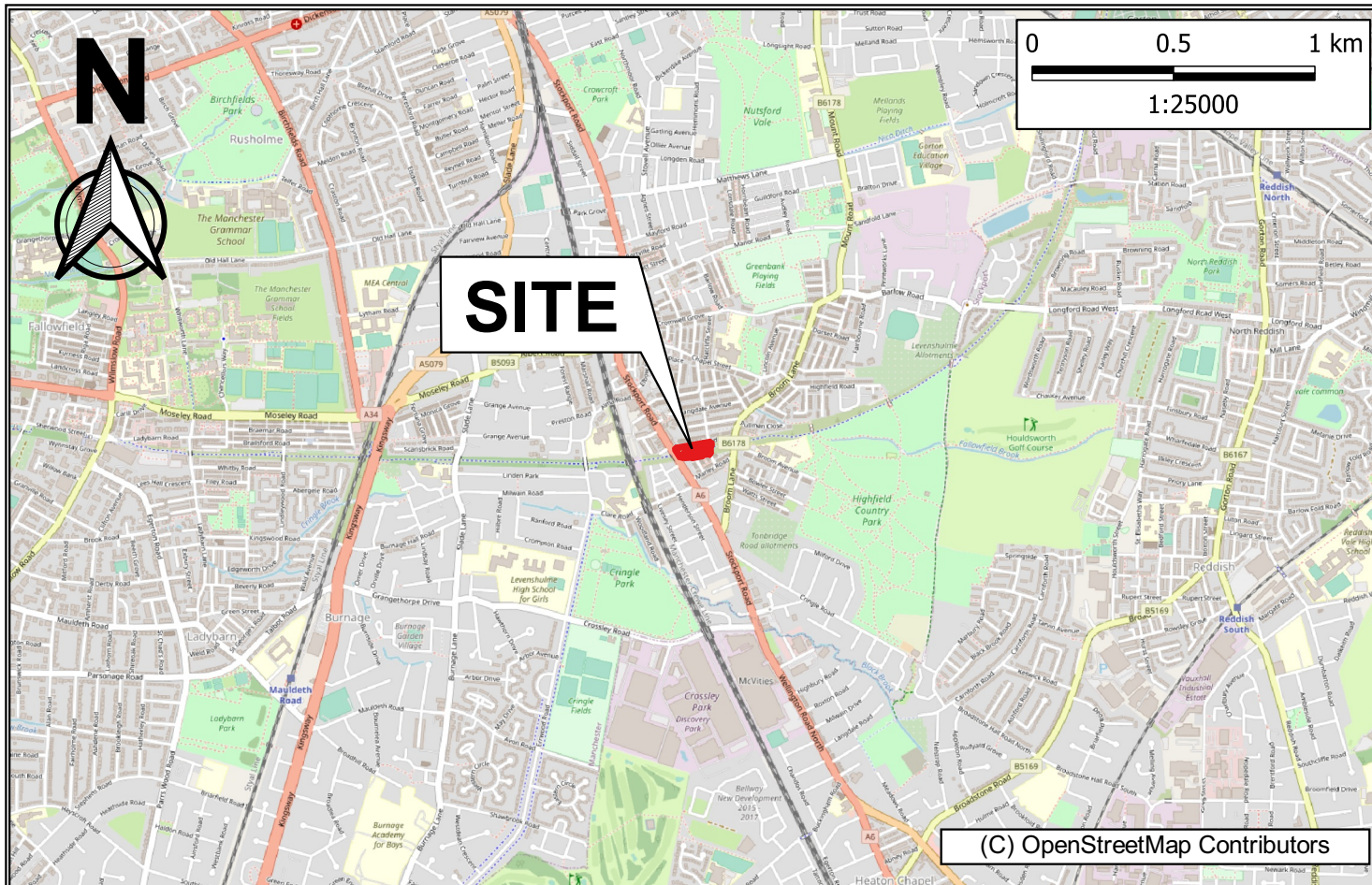
8.3 Site Completion Report

It is recommended that any remediation carried out on the site is validated by a third party and suitable documentary evidence provided in a Site Completion Report, such as photographs, consignment documents and analytical results. This should include as a minimum:

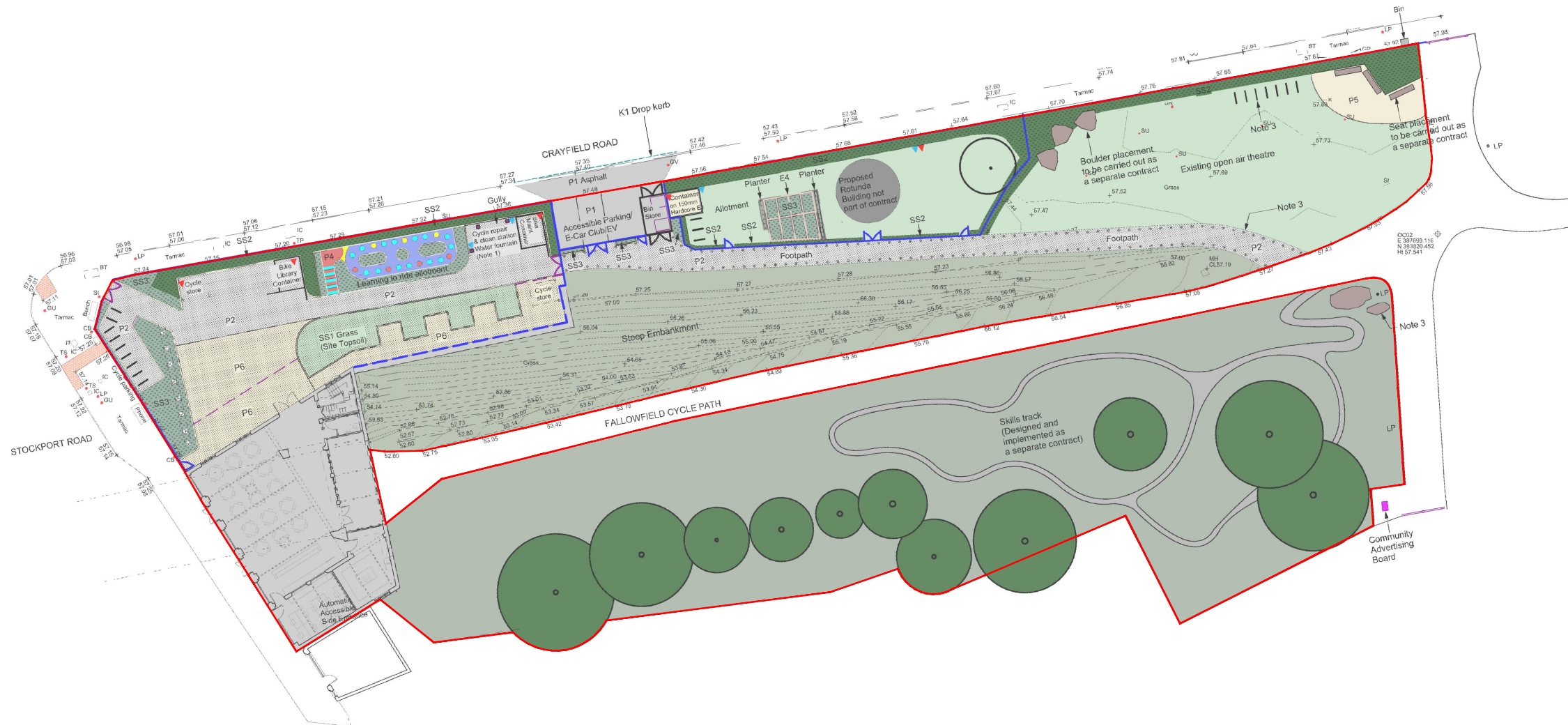
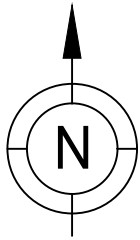
- » Provision of waste transfer documents.
- » Environmental capping layer: Validation of environmental cover system.
- » Verification testing of all imported soil for allotment garden and soft landscaping areas.
- » Details of any unexpected contamination identified onsite, suitably risk assessed and / or validated.

The Site Completion Report will assist the Local Authority in the discharge of any future relevant planning condition and will also be of use to solicitors acting on behalf of any prospective conveyancer who may have concerns over the former use of the site.

Figures



Client: Station South				Title: Site Location & Boundary Plan			
Site: Station South, Levenshulme				Scale (see scale bar): 1:25,000 & 1:1,000 @ A4			
Job No.: LKC 22 1041	Drawn By: HF	Checked By: MT	Drawn: Feb 2022	Figure: 1	Revision:		



KEY



Site Boundary

LEGEND

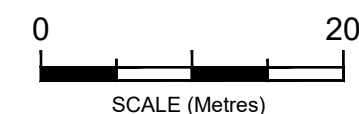
- Existing trees retained and protected
- Existing grass area retained and protected / Reinstated if damaged
- Existing embankment retained / reinstated if damaged
- SS1: Grass and soil system 1 (SS1) (Note 2)
- SS2: Hedge and soil system 2 (SS2) (Note 2)
- SS3: Ornamental planting and soil system 3 (SS3) (Note 2)
- P1: Tarmac footpath with E1 kerb
- P2: Flexipave with E2 edging
- P4: Rubbercrumb with E2 edging and soil system 3 (SS3)
- P5: Self binding gravel /hoggins with E2 edging
- P6: Reclaimed Sandstone Paving with E2 edging (Cleaned up by SS)
- Gabion wall
- F2: 1.2m Balustrade
- F3: 1.4m Weldmesh fence
- F5: 1.8m Timber fence
- G1: 1.4m Weldmesh gate
- G2: 1.4m FLOOP gate (See MCC design)
- G3: 1.8m Bin Store timber gate
- Sheffield cycle stands
- Light Discs
- Accessible bench (Backrest and Arms)
- LP: Column Mounted Light
- Community Advertising Board
- Electrical Connection
- Water Connection

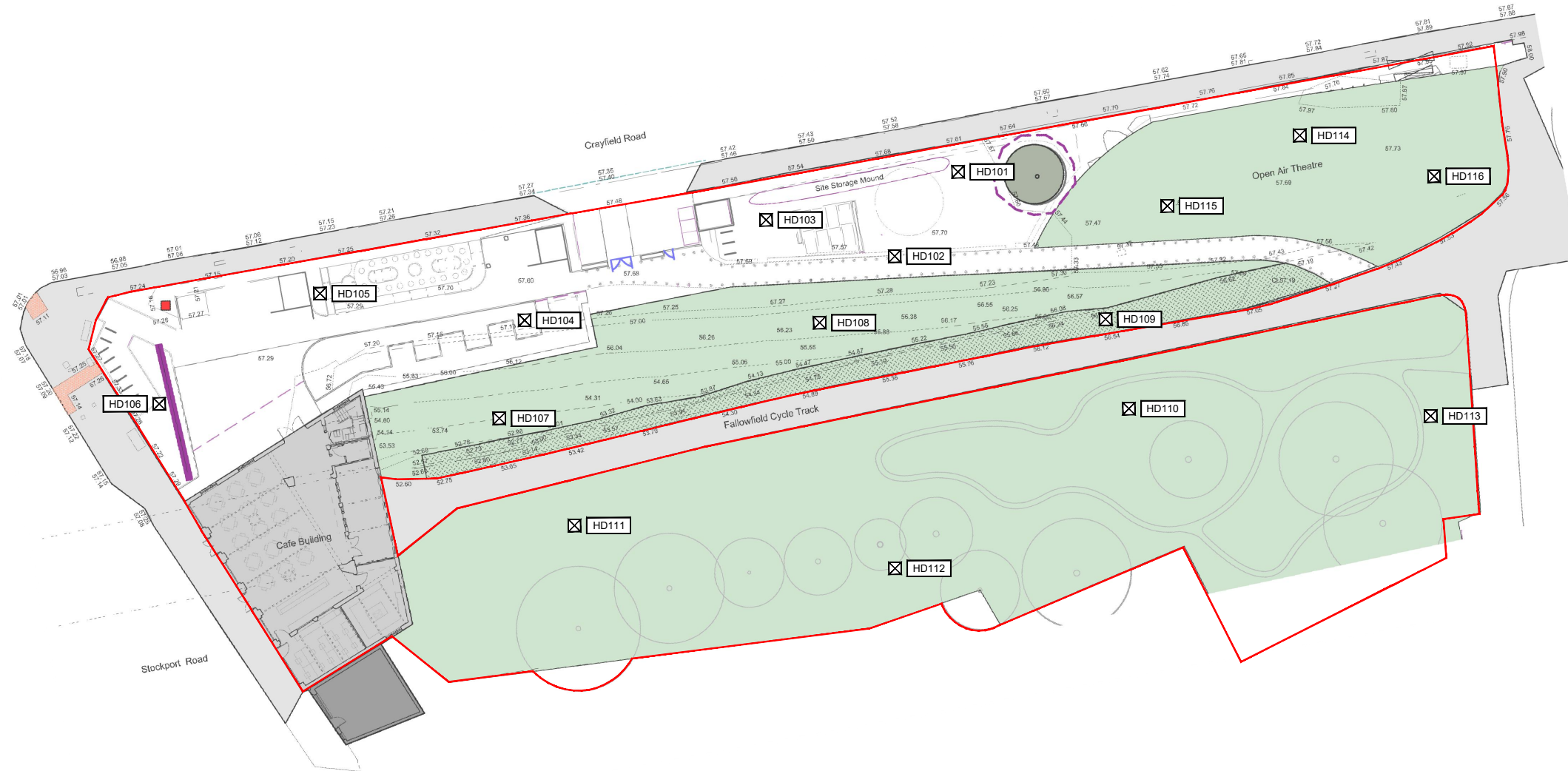
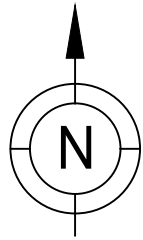
Sampling Locations and features annotated by LK Consult Ltd are approximate and are based upon observed measurements unless otherwise stated. Do not scale from this drawing and work from marked dimensions only. All dimensions and features should be confirmed on site by the Contractor. Where this drawing includes information provided to LK Consult Ltd by others, LK Consult Ltd gives no warranty, representation or assurance as to the accuracy of such information.



Client: Station South CIC			
Site: Station South, Levenshulme			
Title: Proposed Development Plan			
Job No.: LKC 22 1041	Scale (See Scale Bar): 1:500 @ A3	Figure: 2	Revision:
Drawn By: AC	Checked By: EM	Drawn: Feb 2022	

Extract from: reShaped Landscape Architecture
Drawing Ref: Station Green GA Preferred Design, No.180-100, Rev:S (19/04/2019)





KEY

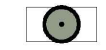


Site Boundary



Hand Dug Pit (HD)

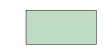
Existing Features Retained and Protected



Existing trees retained



Tree protection fence



Existing soft landscape embankment and open air theatre



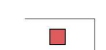
Existing drainage ditch



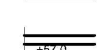
Existing pavement, lighting, Street furniture outside site



Signboard



Manhole cover (Raise /lower as required to meet levels)



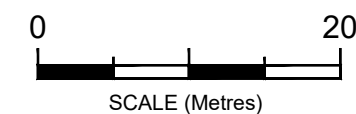
Existing levels

Sampling Locations and features annotated by LK Consult Ltd are approximate and are based upon observed measurements unless otherwise stated. Do not scale from this drawing and work from marked dimensions only. All dimensions and features should be confirmed on site by the Contractor. Where this drawing includes information provided to LK Consult Ltd by others, LK Consult Ltd gives no warranty, representation or assurance as to the accuracy of such information.



Client:			
Station South			
Site:			
Station South, Levenshulme			
Title:			
Site Investigation Location Plan			
Job No.:	LKC 22 1041	Scale (See Scale Bar):	1:500 @ A3
Drawn By:	AC	Checked By:	EM
		Drawn:	Feb 2022
Figure:			3
Revision:			

Extract from: reShaped Landscape Architecture
Drawing Ref: Station Green Site Retention, No.180-114, Rev:E (10/10/2020)



Appendix A

Risk Matrix

Risk Evaluation

The method for risk evaluation is a qualitative method of interpreting the output from the risk estimation stage of the assessment, based on CIRIA 552³⁹. It involves the classification of the:

- » Magnitude of the potential consequence (severity) of the risk occurring (Table A).
- » Magnitude of the probability (likelihood) of the risk occurring (Table B).

Consequence (Severity)		
Classification	Definition	Example
Severe	- Short term (acute) risk to human health likely to results in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. - Short term risk of pollution (note: water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. - Catastrophic damage to buildings/properties. - A short-term risk to a particular ecosystem, or organism forming part of such ecosystem (note: the definition of ecological systems within the Draft Circular on Contaminated Land, DETR, 2000).	- High Concentrations of cyanide on the surface of an informal recreation area. - Major spillage of contaminants from site into controlled waters. - Explosion, causing building collapse (can also equate to short term human health risk if buildings are occupied).
Medium	- Chronic damage to Human Health ('significant harm' as defined in DETR, 2000). - Pollution of sensitive water resources (note Water Resources Act contains no scope for considering significance of pollution). - A significant change in a particular ecosystem, or organism forming part of such ecosystem.	- Concentrations of a contaminant from site exceed generic, or site-specific assessment criteria. - Leaching of contaminants from a site to a major or minor aquifer (Principal and Secondary). - Death of a species within a designated nature reserve.
Mild	- Pollution of non-sensitive water resources. - Significant damage to crops, buildings, structures and services ('significant harm' as defined in DETR, 2000). - Damage to sensitive buildings/structures/services or the environment.	- Pollution of non-classified groundwater. - Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	- Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. - Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc). - Easily repairable damage to buildings, structures and services.	- The presence of contaminants at such concentrations that protective equipment is required during site works. - The loss of plants in a landscaping scheme. - Discoloration of concrete.

Table A. Classification of Consequence

Probability (Likelihood)	
Classification	Definition
High Likelihood	- There is a pollutant linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.
Likely	- There is a pollutant linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. - Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low Likelihood	- There is a pollutant linkage and circumstances are possible under which an event could occur. - However, it is by no means certain that even over a longer period such event would take place and is less likely in the shorter term.
Unlikely	- There is a pollutant linkage, but circumstances are such that it is improbable that an event would occur in the very long term.

Table B. Classification of Probability.

³⁹ CIRIA C552 (2001) Contaminated Land Risk Assessment - A Guide to Good Practice.

These classifications are then compared to indicate the risk presented by each pollutant linkage (Table C). It is important that this classification is only applied where there is a possibility (which can range from high likelihood to unlikely) of a pollutant linkage existing.

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate / Low Risk
	Likely	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate / Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate / Low Risk	Low Risk	Very Low Risk	Very Low Risk

Table C. Comparison of Consequence against Probability

Once the risk has been determined the corresponding action can be assessed (Table D).

Risk	Action Required
Very High Risk	- There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. - This risk, if realised, is likely to result in a substantial liability. - Urgent investigation (if not already undertaken) and remediation are likely to be required.
High Risk	- Harm is likely to arise to a designated receptor from an identified hazard. - Realisation of the risk is likely to present a substantial liability. - Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate Risk	- It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. - Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low Risk	- It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low Risk	- There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

Table D. Description of the Classification and Likely Action Required.

Where a very low risk is identified no specific remediation is required.

Where a low risk is identified, some form of remediation may be required depending on the pollutant linkage, the type and concentration of contaminants present and the proposed development.

Where there is a moderate/low risk identified, an assessment will be undertaken to establish what category the pollutant linkage will fall into.

Where LKC identifies a moderate or higher risk, remediation or further investigation work is recommended.

Appendix B

Profile Logs

Excavation Method

Hand dug pit to 1.00mbgl.

Dimensions

0.20m x 0.20m x 1.00m

Ground Level (mOD)

58.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387653 E 393831 N

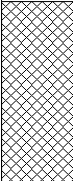
Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.50	ES1 PID<0.1ppm				(0.50)	MADE GROUND: Dark brown sandy clayey SILT with occasional rootlets brick fragments, rare roots and sub-angular sandstone cobbles. Sand is fine to medium.		
0.50-1.00	ES2			57.50	0.50 (0.50)	Firm consistency brownish orange and light grey mottled slightly sandy CLAY. Sand is fine to medium.		
				57.00	1.00	Complete at 1.00m		


Remarks

Hand dug pit dry and stable.
Location estimated from handheld GPS, accurate to 3.00m.
Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD101

Excavation Method

Hand dug pit to 1.00mbgl.

Dimensions

0.20m x 0.20m x 1.00m

Ground Level (mOD)

58.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387646 E 393821 N

Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.10	ES1 PID<0.1ppm				(0.10)	MADE GROUND: Dark brown sandy clayey SILT with frequent rootlets, occasional brick fragments and rare plastic (wrappers). Sand is fine to medium.		
0.10-1.00	ES2 PID<0.1ppm			57.90	0.10	MADE GROUND: Brown very sandy silty CLAY with frequent brick fragments, occasional coal, ash, glass, pottery and concrete fragments and rare metal. Sand is fine to medium.		
					(0.90)			
				57.00	1.00	Complete at 1.00m		


Remarks

Hand dug pit dry and stable.
Location estimated from handheld GPS, accurate to 3.00m.
Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD102

Excavation Method

Hand dig pit to 1.00mbgl.

Dimensions

0.20m x 0.20m x 1.00m

Ground Level (mOD)

58.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387639 E 393828 N

Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.40	ES1 PID<0.1ppm			57.85	(0.15) 0.15	MADE GROUND: Dark brown very sandy SILT with frequent rootlets, occasional brick fragments and rare roots. Sand is fine to medium.		
0.40-1.00	ES2			57.60	(0.25) 0.40	MADE GROUND: Dark brown slightly gravelly very sandy clayey SILT with occasional brick fragments, glass, plastic, rare roots, coal and sub-angular sandstone cobbles. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies.		
					(0.60)	MADE GROUND: Orangish brown and brown very sandy CLAY with occasional whole bricks and rare fabric. Sand is fine to medium.		
				57.00	1.00	Complete at 1.00m		


Remarks

Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.
Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD103

Excavation Method

Hand dug pit to 0.60mbgl.

Dimensions

0.20m x 0.20m x 0.60m

Ground Level (mOD)

58.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387618 E 393818 N

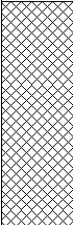
Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.60	ES1 PID=0.1ppm			57.40	(0.60) 0.60	MADE GROUND: Brown clayey very gravelly SAND with frequent brick fragments, occasional coal, ash, concrete, clay lenses and rare tarmacadam fragments. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies. Complete at 0.60m		


Remarks

Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.
Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD104

Excavation Method

Hand dug pit to 0.65mbgl.

Dimensions

0.20m x 0.20m x 0.65m

Ground Level (mOD)

58.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387596 E 393820 N

Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.25	ES1 PID<0.1ppm				(0.25)	MADE GROUND: Dark brown very sandy SILT with frequent ash, occasional brick fragments, pottery, glass, coal and rootlets. Increasing ash content with depth. Sand is fine to medium.		
0.25-0.60	ES2 PID<0.1ppm			57.75	0.25 (0.40)	MADE GROUND: Brown slightly gravelly very sandy silty CLAY with frequent ash, occasional brick fragments and glass. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies.		
				57.35	0.65	Complete at 0.65m		


Remarks

Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.
Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD105

Excavation Method

Hand dug pit to 0.65mbgl.

Dimensions

0.20m x 0.20m x 0.65m

Ground Level (mOD)

58.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387579 E 393813 N

Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.30	ES1 PID<0.1ppm				(0.30)	MADE GROUND: Dark brown very sandy SILT with occasional rootlets, glass, ash, brick fragments, rare plastic, coal and sub-angular sandstone cobbles. Sand is fine to medium. Frequent rootlets in upper 0.10m.		
0.30-0.65	ES2 PID<0.1ppm			57.70	0.30 (0.35)	MADE GROUND: Brown slightly gravelly very sandy silty CLAY with occasional brick fragments and ash. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies.		
				57.35	0.65	Complete at 0.65m		


Remarks

Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.
Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD106

Excavation Method

0.20m x 0.20m x 0.65m

Dimensions

0.20m x 0.20m x 0.65m

Ground Level (mOD)

54.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387607 E 393812 N

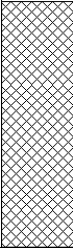
Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.60	ES1 PID<0.1ppm			53.35	(0.65) 0.65	MADE GROUND: Brown very sandy CLAY with frequent brick fragments, coal, occasional ash, rare pottery, slate, glass and plastic. Sand is fine to medium. Complete at 0.65m		


Remarks

Hand dug pit stable. Water slowly seeping into base of pit.
Location estimated from handheld GPS, accurate to 3.00m.
Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>

Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD107

Excavation Method

Hand dug pit to 0.60mbgl.

Dimensions

0.20m x 0.20m x 0.60m

Ground Level (mOD)

54.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387633 E 393817 N

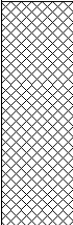
Dates

11/02/2022

Engineer

LKC

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1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.60	ES1 PID<0.1ppm			53.40	(0.60) 0.60	MADE GROUND: Brown very sandy silty CLAY with frequent brick fragments, occasional ash, coal, rare concrete, whole bricks and pottery. Sand is fine to medium. Complete at 0.60m		


Remarks

Hand dug pit dry and stable.
Location estimated from handheld GPS, accurate to 3.00m.
Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD108

Excavation Method

Hand dug pit to 0.60mbgl.

Dimensions

0.20m x 0.20m x 0.60m

Ground Level (mOD)

57.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387665 E 393818 N

Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.30	ES1 PID<0.1ppm				(0.30)	MADE GROUND: Dark brown gravelly very clayey SAND with occasional brick fragments, tarmacadam fragments, coal, rootlets and rare metal. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies.		
0.30-0.60	ES2 PID<0.1ppm			56.70	0.30	Frequent rootlets in upper 0.10m.		
				56.40	(0.30)	MADE GROUND: Brown very sandy clayey SILT with occasional brick fragments, ash, rare tarmacadam fragments and concrete. Sand is fine to medium.		
					0.60	Complete at 0.60m		


Remarks

Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.

Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD109

Excavation Method

Hand dug pit to 0.75mbgl.

Dimensions

0.20m x 0.20m x 0.75m

Ground Level (mOD)

58.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387672 E 393810 N

Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.75	ES1 PID=0.1ppm					MADE GROUND: Brown gravelly very sandy clayey SILT with frequent brick fragments, occasional ash, rootlets, rare glass, pottery and whole bricks. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies.		
				57.25	0.75	Complete at 0.75m		


Remarks

Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.

Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD110

Excavation Method

Hand dug pit to 0.60mbgl.

Dimensions

0.20m x 0.20m x 0.60m

Ground Level (mOD)

58.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387620 E 393801 N

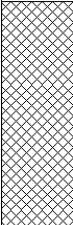
Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.60	ES1 PID<0.1ppm			57.40	(0.60) 0.60	MADE GROUND: Brown slightly gravelly very sandy silty CLAY with frequent brick fragments, occasional ash, coal, glass, rare plastic, concrete, tarmacadam, clinker and sub-angular sandstone cobbles. Complete at 0.60m		


Remarks

Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.

Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD111

Excavation Method

Hand dug pit to 0.60mbgl.

Dimensions

0.20m x 0.20m x 0.60m

Ground Level (mOD)

58.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387651 E 393792 N

Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.15	ES1 PID=0.1ppm				(0.15)	MADE GROUND: Brown very silty SAND with frequent rootlets, occasional brick fragments and coal. Sand is fine to medium.		
0.15-0.60	ES2 PID<0.1ppm			57.85	0.15			
					(0.45)	MADE GROUND: Brown gravelly very clayey SAND with frequent brick fragments, occasional slate, ash, coal, glass and rare pottery. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies.		
				57.40	0.60	Complete at 0.60m		


Remarks

Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.

Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD112

Excavation Method

Hand dug pit to 0.60mbgl.

Dimensions

0.20m x 0.20m x 0.60m

Ground Level (mOD)

59.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387694 E 393813 N

Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.20	ES1 PID<0.1ppm				(0.20)	MADE GROUND: Dark brown sandy clayey SILT with frequent rootlets and occasional brick fragments. Sand is fine to medium.		
0.20-0.60	ES2 PID=0.1ppm			58.80	0.20	MADE GROUND: Brown gravelly very clayey SAND with frequent brick fragments, occasional whole bricks, slate, coal and ash. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies.		
				58.40	0.60	Complete at 0.60m		


Remarks

Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.

Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD113

Excavation Method

Hand dug pit to 0.60mbgl.

Dimensions

0.20m x 0.20m x 0.60m

Ground Level (mOD)

59.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387681 E 393837 N

Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.20	ES1 PID<0.1ppm				(0.20)	MADE GROUND: Dark brown slightly gravelly very sandy clayey SILT with frequent brick fragments, occasional coal, rare ash, pottery, rootlets, plastic (wrapper), concrete and sub-angular sandstone cobbles. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies.		
0.20-0.60	ES2 PID<0.1ppm			58.80	0.20			
					(0.40)	MADE GROUND: Brown very sandy CLAY with occasional coal and rare brick fragments. Sand is fine to medium.		
				58.40	0.60	Complete at 0.60m		


Remarks

Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.

Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD114

Excavation Method

Hand dug pit to 0.60mbgl.

Dimensions

0.20m x 0.20m x 0.60m

Ground Level (mOD)

59.00

Client

Station South CIC

**Job
Number**

LKC 22 1041

Location (Handheld GPS)

387668 E 393824 N

Dates

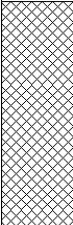
11/02/2022

Engineer

LKC

Sheet

1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.60	ES1 PID=0.1ppm			58.40	(0.60) 0.60	MADE GROUND: Brown slightly gravelly very sandy silty CLAY with frequent brick fragments, occasional coal, ash, slate, rootlets, sub-angular sandstone cobbles, rare glass and concrete. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies. Complete at 0.60m		


Remarks

Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.

Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD115

Excavation Method

Hand dug pit to 0.60mbgl.

Dimensions

0.20m x 0.20m x 0.60m

Ground Level (mOD)

59.00

Client

Station South CIC

**Job
Number**
LKC 22 1041

Location (Handheld GPS)

387693 E 393826 N

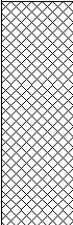
Dates

11/02/2022

Engineer

LKC

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.60	ES1 PID=0.1ppm			58.40	(0.60) 0.60	MADE GROUND: Dark brown gravelly very sandy clayey SILT with frequent brick fragments, occasional pottery, coal, ash, glass and sub-angular sandstone cobbles. Sand is fine to medium. Gravel is fine to coarse, sub-angular to sub-rounded comprising mixed lithologies. Complete at 0.60m		


Remarks

Elevation estimated from
<https://www.freemaptools.com/elevation-finder.htm>
Location estimated from handheld GPS, accurate to 3.00m.
Hand dug pit dry and stable.

Scale (approx)

1:20

Logged By

EM

Figure No.

LKC 22 1041.HD116

Appendix C

Certificates of Analysis – Soil



Amended Report

Report No.:	22-05532-2		
Initial Date of Issue:	07-Mar-2022	Date of Re-Issue:	07-Mar-2022
Client	LK Consult		
Client Address:	Unit 29 Eton Business Park Eton Hill Road Radcliffe Manchester Lancashire M26 2ZS		
Contact(s):	Michelle Thorniley Contaminated Land		
Project	LKC 22 1041 Station South, Levenshulme		
Quotation No.:		Date Received:	15-Feb-2022
Order No.:		Date Instructed:	18-Feb-2022
No. of Samples:	15		
Turnaround (Wkdays):	5	Results Due:	24-Feb-2022
Date Approved:	04-Mar-2022	Subcon Results Due:	11-Mar-2022
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: LKC 22 1041 Station South, Levenshulme

Client: LK Consult	Chemtest Job No.:				22-05532	22-05532	22-05532	22-05532	22-05532	22-05532	22-05532	22-05532
Quotation No.:	Chemtest Sample ID.:				1372307	1372310	1372311	1372314	1372316	1372317	1372319	1372320
	Client Sample ID.:				HD101	HD102	HD103	HD104	HD105	HD106	HD107	HD108
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.0	0.1	0.0	0.0	0.25	0.0	0.0	0.0
	Bottom Depth (m):				0.5	1.0	0.4	0.6	0.6	0.3	0.6	0.6
	Date Sampled:				11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD								
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	23	17	19	16	21	28	23	20
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Clay	Sand
Chromatogram (TPH)	N			N/A			See Attached	See Attached				
pH	M	2010		4.0	7.5	8.4	8.1	8.5	7.9	8.2	8.4	8.3
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40			0.65	< 0.40				
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.035	0.041	0.032	0.046	0.14	0.10	0.045	0.022
Cyanide (Free)	M	2300	mg/kg	0.50			< 0.50	< 0.50				
Cyanide (Total)	M	2300	mg/kg	0.50			< 0.50	< 0.50				
Arsenic	M	2450	mg/kg	1.0	14	21	19	12	11	20	18	15
Cadmium	M	2450	mg/kg	0.10	0.16	0.43	0.46	0.53	0.26	0.97	0.46	0.32
Chromium	M	2450	mg/kg	1.0	14	21	16	23	16	22	29	21
Copper	M	2450	mg/kg	0.50	44	55	62	48	72	140	69	52
Mercury	M	2450	mg/kg	0.10	0.22	1.1	0.50	0.63	0.23	0.55	0.41	0.40
Nickel	M	2450	mg/kg	0.50	12	22	21	22	15	21	31	23
Lead	M	2450	mg/kg	0.50	89	180	230	300	130	4400	270	240
Selenium	M	2450	mg/kg	0.20	0.43	0.33	0.37	< 0.20	0.29	0.71	0.43	0.47
Vanadium	U	2450	mg/kg	5.0	18	26	23	23	19	26	32	27
Zinc	M	2450	mg/kg	0.50	62	140	140	120	210	610	180	140
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	7.9	7.1	11	3.5	4.7	9.8	5.7	7.2
Diesel Present	N	2670		N/A			False	False				
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0			< 1.0	< 1.0				
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0			< 1.0	< 1.0				
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0			< 1.0	< 1.0				
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0			11	< 1.0				
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0			6.8	< 1.0				
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0			< 1.0	< 1.0				
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0			130	25				
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0			< 1.0	< 1.0				
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0			150	25				
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0			< 1.0	< 1.0				
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0			< 1.0	< 1.0				
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0			< 1.0	< 1.0				

Results - Soil

Project: LKC 22 1041 Station South, Levenshulme

Client: LK Consult	Chemtest Job No.:				22-05532	22-05532	22-05532	22-05532	22-05532	22-05532	22-05532	22-05532
Quotation No.:	Chemtest Sample ID.:				1372307	1372310	1372311	1372314	1372316	1372317	1372319	1372320
	Client Sample ID.:				HD101	HD102	HD103	HD104	HD105	HD106	HD107	HD108
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.0	0.1	0.0	0.0	0.25	0.0	0.0	0.0
	Bottom Depth (m):				0.5	1.0	0.4	0.6	0.6	0.3	0.6	0.6
	Date Sampled:				11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD								
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0			< 1.0	< 1.0				
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0			61	< 1.0				
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0			490	52				
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0			2100	350				
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0			< 1.0	< 1.0				
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0			2600	400				
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0			2800	430				
Benzene	M	2760	µg/kg	1.0			< 1.0	< 1.0				
Toluene	M	2760	µg/kg	1.0			< 1.0	< 1.0				
Ethylbenzene	M	2760	µg/kg	1.0			< 1.0	< 1.0				
m & p-Xylene	M	2760	µg/kg	1.0			< 1.0	< 1.0				
o-Xylene	M	2760	µg/kg	1.0			< 1.0	< 1.0				
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0			< 1.0	< 1.0				
Naphthalene	M	2800	mg/kg	0.10	2.7	3.4	3.4	2.9	1.2	4.7	2.3	4.0
Acenaphthylene	N	2800	mg/kg	0.10	0.48	0.46	1.0	1.1	0.33	1.9	0.37	0.28
Acenaphthene	M	2800	mg/kg	0.10	1.6	6.2	8.2	5.4	0.70	15	4.7	7.7
Fluorene	M	2800	mg/kg	0.10	1.3	4.3	6.8	4.6	0.65	9.3	2.8	4.6
Phenanthrene	M	2800	mg/kg	0.10	11	35	73	33	4.0	83	26	40
Anthracene	M	2800	mg/kg	0.10	2.0	8.1	17	8.1	0.85	21	6.0	9.1
Fluoranthene	M	2800	mg/kg	0.10	16	50	120	39	5.3	140	34	58
Pyrene	M	2800	mg/kg	0.10	14	43	100	33	4.9	130	28	48
Benzo[a]anthracene	M	2800	mg/kg	0.10	6.6	21	44	16	2.3	56	14	25
Chrysene	M	2800	mg/kg	0.10	7.4	22	44	16	2.5	56	13	25
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	9.4	28	52	19	2.8	75	17	32
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	3.9	12	21	8.0	1.2	31	7.1	13
Benzo[a]pyrene	M	2800	mg/kg	0.10	8.9	27	50	20	2.9	69	17	32
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	5.6	16	30	12	1.9	46	10	18
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	1.0	2.9	6.2	2.2	0.39	9.1	1.8	3.5
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	4.5	13	25	8.8	1.5	38	8.0	14
Total Of 16 PAH's	N	2800	mg/kg	2.0	96	290	600	230	33	780	190	330
Atraton	N	2830	mg/kg	0.20								
Prometon	N	2830	mg/kg	0.20								
Simazine	N	2830	mg/kg	0.20								
Atrazine	N	2830	mg/kg	0.20								
Propazine	N	2830	mg/kg	0.20								
Terbutylazine	N	2830	mg/kg	0.20								
Secbumeton	N	2830	mg/kg	0.20								
Simetryn	N	2830	mg/kg	0.20								

Results - Soil

Project: LKC 22 1041 Station South, Levenshulme

Client: LK Consult	Chemtest Job No.:				22-05532	22-05532	22-05532	22-05532	22-05532	22-05532	22-05532	22-05532
Quotation No.:	Chemtest Sample ID.:				1372307	1372310	1372311	1372314	1372316	1372317	1372319	1372320
	Client Sample ID.:				HD101	HD102	HD103	HD104	HD105	HD106	HD107	HD108
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.0	0.1	0.0	0.0	0.25	0.0	0.0	0.0
	Bottom Depth (m):				0.5	1.0	0.4	0.6	0.6	0.3	0.6	0.6
	Date Sampled:				11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD								
Ametryn	N	2830	mg/kg	0.20								
Prometryn	N	2830	mg/kg	0.20								
Terbutryn	N	2830	mg/kg	0.20								
2,4-D	SN		mg/kg	0.10								
Dichlorprop	SN		mg/kg	0.10								
MCPA	SN		mg/kg	0.10								
MCPB	SN		mg/kg	0.10								
Mecoprop	SN		mg/kg	0.10								
2,4,5-T	SN		mg/kg	0.10								
Total Phenols	M	2920	mg/kg	0.10			< 0.10	< 0.10				

Results - Soil

Project: LKC 22 1041 Station South, Levenshulme

Client: LK Consult	Chemtest Job No.:				22-05532	22-05532	22-05532	22-05532	22-05532	22-05532	22-05532
Quotation No.:	Chemtest Sample ID.:				1372321	1372323	1372324	1372326	1372327	1372329	1372330
	Client Sample ID.:				HD109	HD110	HD111	HD112	HD113	HD114	HD114
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.0	0.0	0.0	0.15	0.0	0.0	0.2
	Bottom Depth (m):				0.3	0.75	0.6	0.6	0.2	0.2	0.6
	Date Sampled:				11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	Accred.	SOP	Units	LOD							
ACM Type	U	2192		N/A	-	-	-	-	-	-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	
Moisture	N	2030	%	0.020	9.4	17	18	17	25	17	20
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	
Chromatogram (TPH)	N			N/A	See Attached		See Attached				
pH	M	2010		4.0	8.6	8.4	8.4	9.8	8.3	8.6	
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.42		0.42				
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.048	0.022	0.023	0.12	0.024	0.027	
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50		< 0.50				
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50		< 0.50				
Arsenic	M	2450	mg/kg	1.0	17	19	18	24	21	20	
Cadmium	M	2450	mg/kg	0.10	0.60	0.43	0.51	1.0	0.54	0.38	
Chromium	M	2450	mg/kg	1.0	21	23	22	23	20	23	
Copper	M	2450	mg/kg	0.50	39	120	73	430	77	66	
Mercury	M	2450	mg/kg	0.10	0.27	0.81	0.46	1.4	0.57	0.37	
Nickel	M	2450	mg/kg	0.50	18	24	23	25	22	26	
Lead	M	2450	mg/kg	0.50	120	390	300	580	220	190	
Selenium	M	2450	mg/kg	0.20	0.20	0.30	0.33	0.33	0.39	0.38	
Vanadium	U	2450	mg/kg	5.0	28	29	27	30	28	29	
Zinc	M	2450	mg/kg	0.50	110	160	170	220	130	160	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Organic Matter	M	2625	%	0.40	14	5.3	12	10	13	6.9	
Diesel Present	N	2670		N/A	False		False				
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0		< 1.0				
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0		< 1.0				
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0		< 1.0				
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	12		12				
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	31		19				
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	110		20				
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	540		160				
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	220		7.6				
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	910		220				
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0		< 1.0				
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0		< 1.0				
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0		< 1.0				

Results - Soil

Project: LKC 22 1041 Station South, Levenshulme

Client: LK Consult	Chemtest Job No.:				22-05532	22-05532	22-05532	22-05532	22-05532	22-05532	22-05532
Quotation No.:	Chemtest Sample ID.:				1372321	1372323	1372324	1372326	1372327	1372329	1372330
	Client Sample ID.:				HD109	HD110	HD111	HD112	HD113	HD114	HD114
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.0	0.0	0.0	0.15	0.0	0.0	0.2
	Bottom Depth (m):				0.3	0.75	0.6	0.6	0.2	0.2	0.6
	Date Sampled:				11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	Accred.	SOP	Units	LOD							
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	52		8.2				
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	660		110				
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	3500		410				
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	11000		1500				
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	570		< 1.0				
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	16000		2000				
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	17000		2300				
Benzene	M	2760	µg/kg	1.0	< 1.0		< 1.0				
Toluene	M	2760	µg/kg	1.0	< 1.0		< 1.0				
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0		< 1.0				
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0		< 1.0				
o-Xylene	M	2760	µg/kg	1.0	< 1.0		< 1.0				
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0		< 1.0				
Naphthalene	M	2800	mg/kg	0.10	10	0.61	3.6	14	1.5	4.0	
Acenaphthylene	N	2800	mg/kg	0.10	17	1.3	0.84	2.4	0.48	0.35	
Acenaphthene	M	2800	mg/kg	0.10	37	1.2	7.2	40	2.0	9.3	
Fluorene	M	2800	mg/kg	0.10	37	1.6	5.0	30	1.6	6.2	
Phenanthrene	M	2800	mg/kg	0.10	480	17	40	260	15	45	
Anthracene	M	2800	mg/kg	0.10	86	3.9	9.6	59	3.6	11	
Fluoranthene	M	2800	mg/kg	0.10	570	21	58	230	25	55	
Pyrene	M	2800	mg/kg	0.10	470	20	49	200	23	47	
Benzo[a]anthracene	M	2800	mg/kg	0.10	140	11	25	84	12	24	
Chrysene	M	2800	mg/kg	0.10	130	10	25	79	11	23	
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	160	13	31	85	16	29	
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	72	8.2	13	35	6.5	12	
Benzo[a]pyrene	M	2800	mg/kg	0.10	140	15	31	81	17	29	
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	99	11	19	45	11	17	
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	20	5.4	3.7	11	2.0	3.3	
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	82	8.2	14	36	7.8	13	
Total Of 16 PAH's	N	2800	mg/kg	2.0	2600	150	330	1300	160	330	
Atraton	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
Prometon	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
Simazine	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
Atrazine	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
Propazine	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
Terbuthylazine	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
Secbumeton	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
Simetryn	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20

Results - Soil

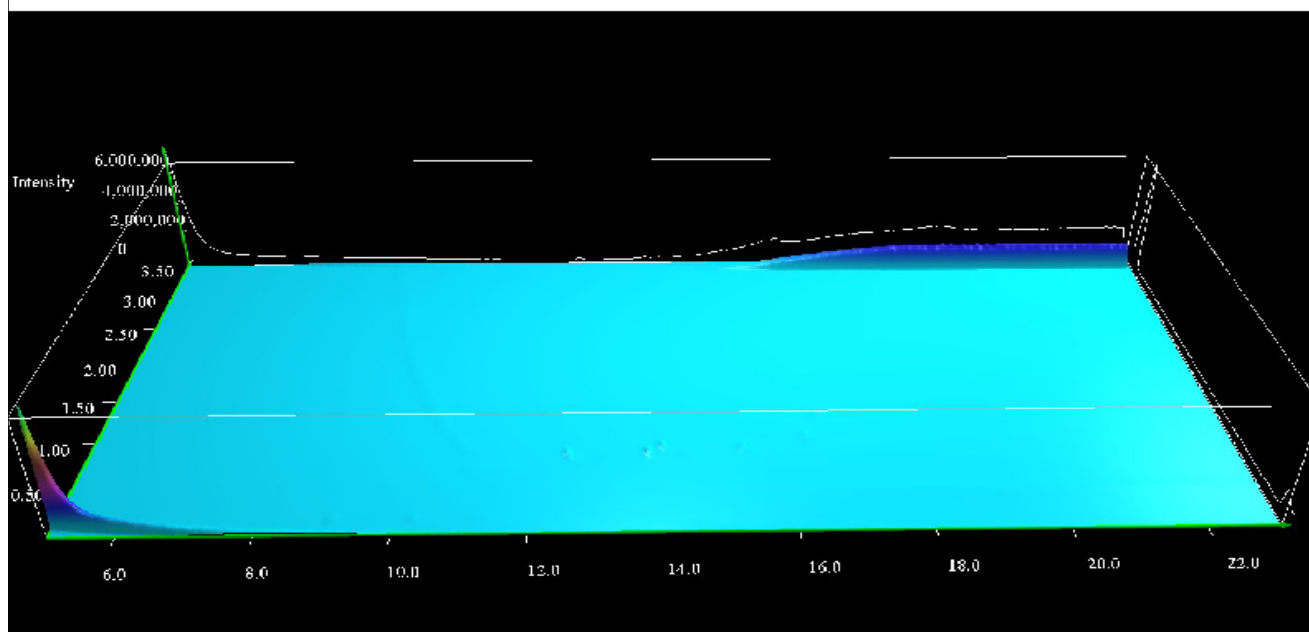
Project: LKC 22 1041 Station South, Levenshulme

Client: LK Consult	Chemtest Job No.:				22-05532	22-05532	22-05532	22-05532	22-05532	22-05532	22-05532
Quotation No.:	Chemtest Sample ID.:				1372321	1372323	1372324	1372326	1372327	1372329	1372330
	Client Sample ID.:				HD109	HD110	HD111	HD112	HD113	HD114	HD114
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.0	0.0	0.0	0.15	0.0	0.0	0.2
	Bottom Depth (m):				0.3	0.75	0.6	0.6	0.2	0.2	0.6
	Date Sampled:				11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022	11-Feb-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	Accred.	SOP	Units	LOD							
Ametryn	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
Prometryn	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
Terbutryn	N	2830	mg/kg	0.20	< 0.20		< 0.20				< 0.20
2,4-D	SN		mg/kg	0.10	< 0.10		< 0.10				< 0.10
Dichlorprop	SN		mg/kg	0.10	< 0.10		< 0.10				< 0.10
MCPA	SN		mg/kg	0.10	< 0.10		< 0.10				< 0.10
MCPB	SN		mg/kg	0.10	< 0.10		< 0.10				< 0.10
Mecoprop	SN		mg/kg	0.10	< 0.10		< 0.10				< 0.10
2,4,5-T	SN		mg/kg	0.10	< 0.10		< 0.10				< 0.10
Total Phenols	M	2920	mg/kg	0.10	< 0.10		< 0.10				

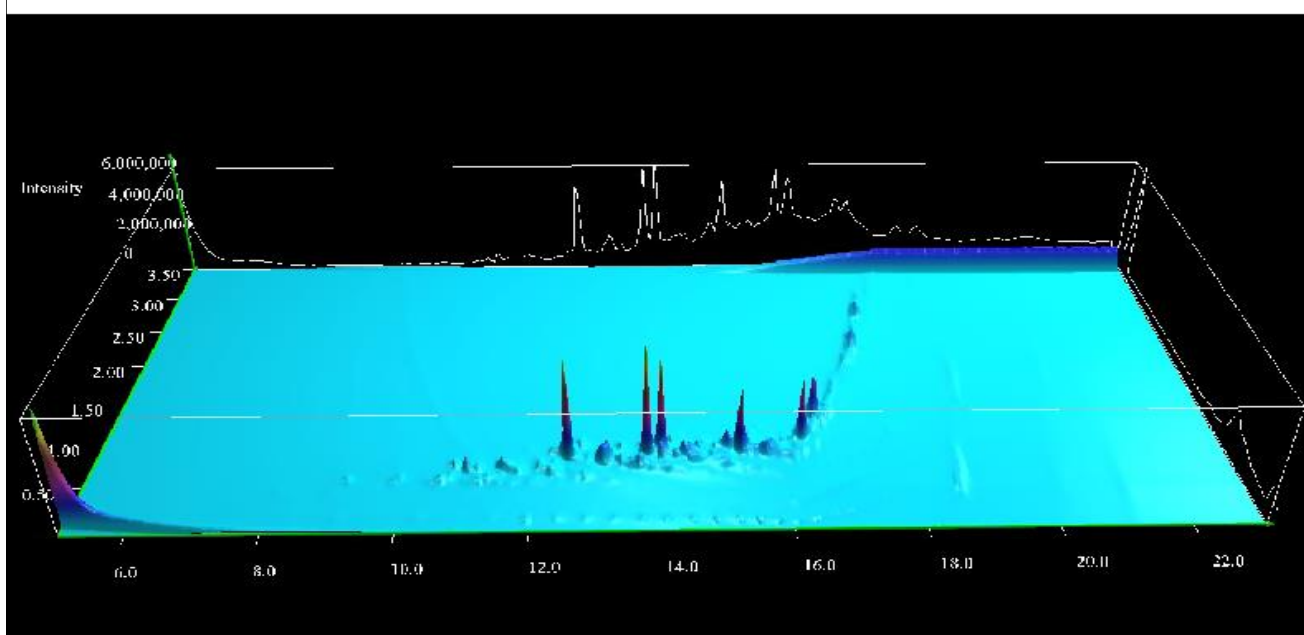
TPH Chromatogram on Soil Sample: 1372311

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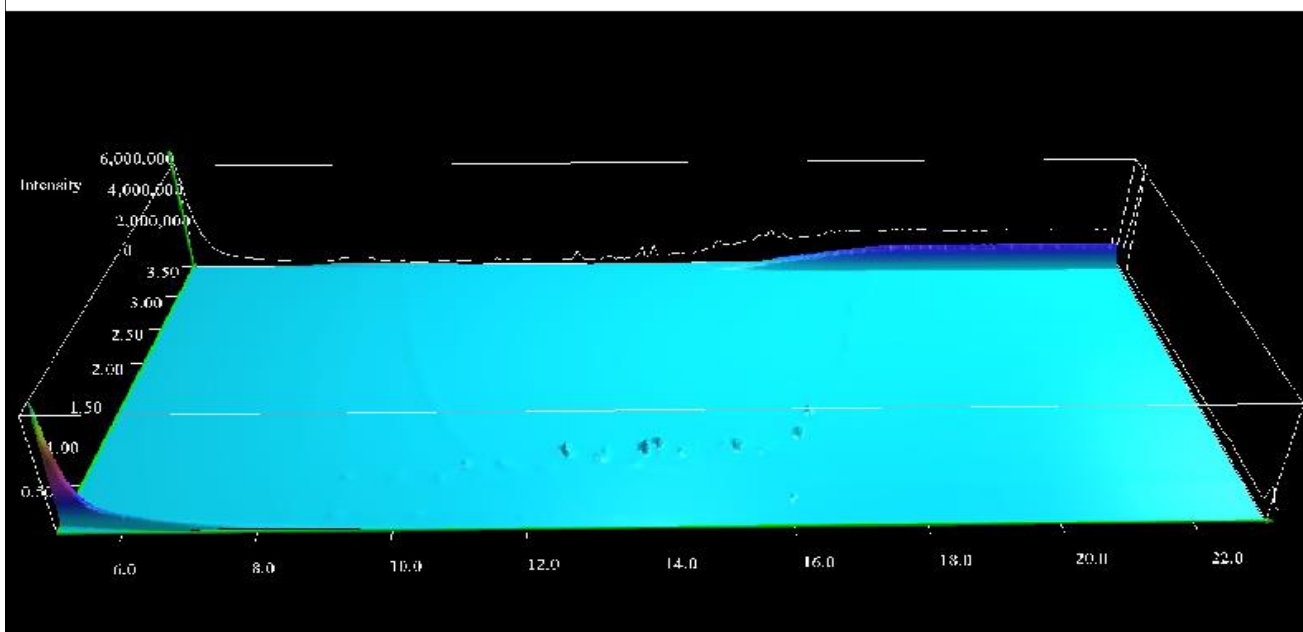
TPH Chromatogram on Soil Sample: 1372314



TPH Chromatogram on Soil Sample: 1372321



TPH Chromatogram on Soil Sample: 1372324



TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
22-05532	1372311	S			HD103	0.0	No	PAH
22-05532	1372314	S			HD104	0.0	No	PAH
22-05532	1372321	S			HD109	0.0	No	PAH
22-05532	1372324	S			HD111	0.0	No	PAH and Heavy Oil

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2830	Organonitrogen (O-N) Pesticides in Soils by GC-MS	Organonitrogen pesticide representative suite including Triazines etc, plus client specific determinands	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
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U/S	Unsuitable Sample
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<	"less than"
>	"greater than"
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LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

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customerservices@chemtest.com



Final Report

Report No.: 22-05576-1
Initial Date of Issue: 22-Feb-2022
Client LK Consult
Client Address: Unit 29 Eton Business Park
Eton Hill Road
Radcliffe
Manchester
Lancashire
M26 2ZS
Contact(s): Michelle Thorniley
Contaminated Land
Project LKC 22 1041 Station South,
Levenshulme

Quotation No.:	Date Received:	15-Feb-2022
Order No.:	Date Instructed:	15-Feb-2022
No. of Samples: 2		
Turnaround (Wkdays): 5	Results Due:	21-Feb-2022
Date Approved: 21-Feb-2022		

Approved By:

Details: Stuart Henderson, Technical
Manager

Results - Soil

Project: LKC 22 1041 Station South, Levenshulme

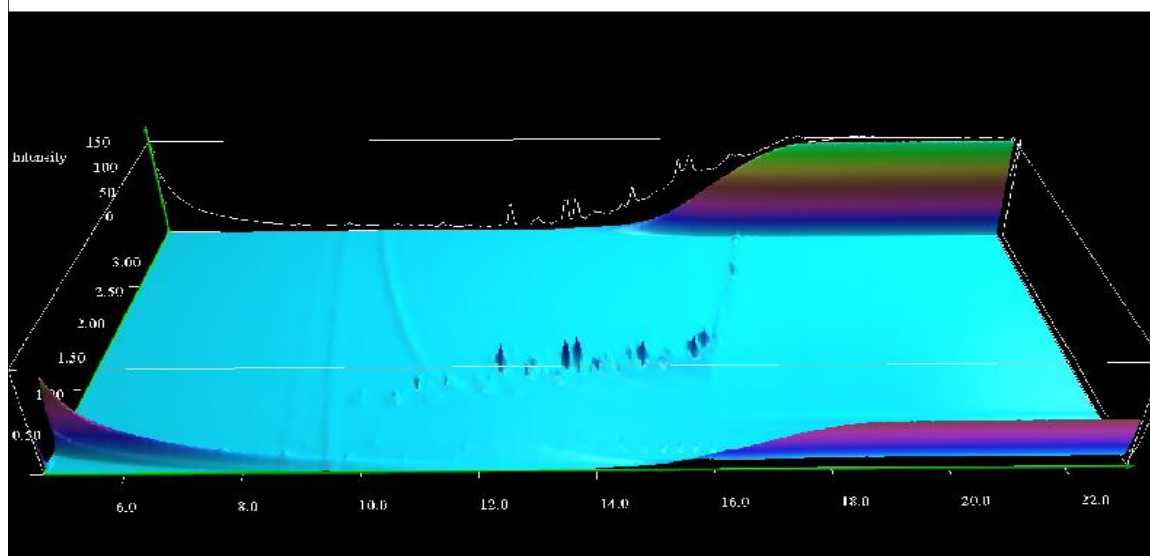
Client: LK Consult	Chemtest Job No.:				22-05576	22-05576
Quotation No.:	Chemtest Sample ID.:				1372579	1372580
	Client Sample ID.:				HD115	HD116
	Sample Type:				SOIL	SOIL
	Top Depth (m):				0.0	0.0
	Bottom Depth (m):				0.6	0.6
	Date Sampled:				11-Feb-2022	11-Feb-2022
	Asbestos Lab:				DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD		
ACM Type	U	2192		N/A	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	19	21
Soil Colour	N	2040		N/A	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand
Chromatogram (TPH)	N			N/A	See Attached	
pH	M	2010		4.0	8.4	8.5
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	< 0.40	
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.019	0.035
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	
Arsenic	M	2450	mg/kg	1.0	17	9.0
Cadmium	M	2450	mg/kg	0.10	0.66	0.28
Chromium	M	2450	mg/kg	1.0	67	70
Copper	M	2450	mg/kg	0.50	61	36
Mercury	M	2450	mg/kg	0.10	0.37	0.18
Nickel	M	2450	mg/kg	0.50	43	46
Lead	M	2450	mg/kg	0.50	180	92
Selenium	M	2450	mg/kg	0.20	0.33	0.24
Vanadium	U	2450	mg/kg	5.0	28	15
Zinc	M	2450	mg/kg	0.50	150	80
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	7.8	7.4
Diesel Present	N	2670		N/A	False	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	87	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	87	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	

Results - Soil

Project: LKC 22 1041 Station South, Levenshulme

Client: LK Consult	Chemtest Job No.:				22-05576	22-05576
Quotation No.:	Chemtest Sample ID.:				1372579	1372580
	Client Sample ID.:				HD115	HD116
	Sample Type:				SOIL	SOIL
	Top Depth (m):				0.0	0.0
	Bottom Depth (m):				0.6	0.6
	Date Sampled:				11-Feb-2022	11-Feb-2022
	Asbestos Lab:				DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD		
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	110	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	540	
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	2300	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	2900	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	3000	
Benzene	M	2760	µg/kg	1.0	< 1.0	
Toluene	M	2760	µg/kg	1.0	< 1.0	
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	
o-Xylene	M	2760	µg/kg	1.0	< 1.0	
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	
Naphthalene	M	2800	mg/kg	0.10	2.5	5.5
Acenaphthylene	N	2800	mg/kg	0.10	0.14	0.31
Acenaphthene	M	2800	mg/kg	0.10	3.1	5.5
Fluorene	M	2800	mg/kg	0.10	2.3	4.3
Phenanthrene	M	2800	mg/kg	0.10	19	31
Anthracene	M	2800	mg/kg	0.10	4.7	8.3
Fluoranthene	M	2800	mg/kg	0.10	27	40
Pyrene	M	2800	mg/kg	0.10	22	32
Benzo[a]anthracene	M	2800	mg/kg	0.10	12	19
Chrysene	M	2800	mg/kg	0.10	12	17
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	15	21
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	5.9	8.0
Benzo[a]pyrene	M	2800	mg/kg	0.10	13	20
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	7.5	12
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	1.1	2.2
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	6.5	9.4
Total Of 16 PAH's	N	2800	mg/kg	2.0	150	240
Total Phenols	M	2920	mg/kg	0.10	< 0.10	

TPH Chromatogram on Soil Sample: 1372579



TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
22-05576	1372579	S			HD115	0.0	No	PAH

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
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2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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Appendix D

Generic Assessment Criteria Values

CATEGORY 4 SCREENING LEVELS

Substance	Residential (with home- grown produce)	Residential (without home- grown produce)	Allotments	Commercial	Public Open Space 1	Public Open Space 2
Arsenic	37 mg/kg	40 mg/kg	49 mg/kg	640 mg/kg	79 mg/kg	170 mg/kg
Benzene	0.87 mg/kg	3.3 mg/kg	0.18 mg/kg	98 mg/kg	140 mg/kg	230 mg/kg
Benzo(a)pyrene	5.0 mg/kg	5.3 mg/kg	5.7 mg/kg	77 mg/kg	10 mg/kg	21 mg/kg
Cadmium	22 mg/kg	150 mg/kg	3.9 mg/kg	410 mg/kg	220 mg/kg	880 mg/kg
Chromium VI	21 mg/kg	21 mg/kg	170 mg/kg	49 mg/kg	21 mg/kg	250 mg/kg
Lead	200 mg/kg	310 mg/kg	80 mg/kg	2300 mg/kg	630 mg/kg	1300 mg/kg

Tetrachlorethene (PCE) – 1% SOM	0.31 mg/kg	0.32 mg/kg	2.0 mg/kg	24 mg/kg	3,200 mg/kg	1,400 mg/kg
Tetrachlorethene (PCE) – 2.5% SOM	0.70 mg/kg	0.71 mg/kg	4.8 mg/kg	55 mg/kg	3,300 mg/kg	1,900 mg/kg
Tetrachlorethene (PCE) – 6% SOM	1.6 mg/kg	1.6 mg/kg	11 mg/kg	130 mg/kg	3,400 mg/kg	2,500 mg/kg
Trichlorethene (TCE) – 1% SOM	0.0093 mg/kg	0.0097 mg/kg	0.032 mg/kg	0.73 mg/kg	76 mg/kg	41 mg/kg
Trichlorethene (TCE) – 2.5% SOM	0.020 mg/kg	0.020 mg/kg	0.072 mg/kg	1.5 mg/kg	78 mg/kg	54 mg/kg
Trichlorethene (TCE) – 6% SOM	0.043 mg/kg	0.045 mg/kg	0.16 mg/kg	3.4 mg/kg	79 mg/kg	69 mg/kg
Vinyl Chloride (VC) – 1%SOM	0.0064 mg/kg	0.015 mg/kg	0.0017 mg/kg	1.1 mg/kg	7.8 mg/kg	18 mg/kg
Vinyl Chloride (VC) – 2.5%SOM	0.010 mg/kg	0.019 mg/kg	0.0031 mg/kg	1.4 mg/kg	7.8 mg/kg	19 mg/kg
Vinyl Chloride (VC) – 6%SOM	0.017 mg/kg	0.029 mg/kg	0.0058 mg/kg	2.2 mg/kg	7.8 mg/kg	19 mg/kg

Summary Table for the Generic Assessment Criteria for Human Health Risk Assessment Land Quality Management (LQM) S4ULs.

All GAC are based on sandy
loam soils with a pH 7.

All GAC are based on sandy loam soils with a pH 7.			LQM Generic Assessment Criteria (mg/kg) Dry weight soil					
Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Metals	Inorganic Arsenic	6%	37	40	43	640	79	170
	Beryllium	6%	1.7	1.7	35	12	2.2	63
	Boron	6%	290	11,000	45	240,000	21,000	46,000
	Cadmium	6%	11	85	1.9	190	120	532
	Chromium (III)	6%	910	910	18,000	8,600	1,500	33,000
	Chromium (VI)	6%	6.0	6.0	1.8	33	7.7	220
	Copper	6%	2,400	7,100	520	68,000	12,000	44,000
	Elemental Mercury	6%	1.2	1.2	21	58 (25.8) ^{vap}	16	30 (25.8) ^{vap}
	Inorganic Mercury	6%	40	56	19	1,100	120	240
	Methylmercury	6%	11	15	6.0	320	40	68
	Nickel (update 2015)	6%	126	181	53	983	231	804
	Selenium	6%	250	430	88	12,000	1,100	1,800
	Vanadium	6%	410	1,200	91	9,000	2,000	5,000
Zinc	6%	3,700	40,000	620	730,000	81,000	170,000	
BTEX Compounds	Benzene	1%	0.087	0.38	0.017	27	72	90
		2.5%	0.17	0.70	0.034	47	72	100
		6%	0.37	1.4	0.075	90	73	110
	Toluene	1%	130	880 (869) ^{vap}	22	56,000 (869) ^{vap}	56,000	87,000 (869) ^{vap}
		2.5%	290	1,900	51	110,000 (1,920) ^{vap}	56,000	95,000 (1,920) ^{vap}
		6%	660	3,900	120	180,000 (4,360) ^{vap}	56,000	100,000 (4,360) ^{vap}
	Ethylbenzene	1%	47	83	16	5,700 (518) ^{vap}	24,000	17,000 (518) ^{vap}
		2.5%	110	190	39	13,000 (1,220) ^{vap}	24,000	22,000 (1,220) ^{vap}
		6%	260	440	91	27,000 (2,840) ^{vap}	25,000	27,000 (2,840) ^{vap}
	o-xylene	1%	60	88	28	6,600 (478) ^{sol}	41,000	17,000 (478) ^{sol}
		2.5%	140	210	67	15,000 (1,120) ^{sol}	42,000	24,000 (1,120) ^{sol}
		6%	330	480	160	33,000 (2,620) ^{sol}	43,000	33,000 (2,620) ^{sol}
	m-xylene	1%	59	82	31	6,200 (625) ^{vap}	41,000	17,000 (625) ^{vap}
		2.5%	140	190	74	14,000 (1,470) ^{vap}	42,000	24,000 (1,470) ^{vap}
		6%	320	450	170	31,000 (3,460) ^{vap}	43,000	32,000 (3,460) ^{vap}
	p-xylene	1%	56	79	29	5,900 (576) ^{sol}	41,000	17,000 (576) ^{sol}
		2.5%	130	180	69	14,000 (1,350) ^{sol}	42,000	23,000 (1,350) ^{sol}
		6%	310	430	160	30,000 (3,170) ^{sol}	43,000	31,000 (3,170) ^{sol}

NOTES

^{sol} / ^{vap} = solubility / vapour limit (potentially use if free product identified, although highly conservative).

f = oral, dermal and inhalation exposures compared to oral HCV.

All GAC are based on sandy loam soils with a pH 7.

All GAC are based on sandy loam soils with a pH 7.			LQM Generic Assessment Criteria (mg/kg) Dry weight soil					
Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Polycyclic Aromatic Hydrocarbons (PAHs)	Acenaphthene	1%	210	3,000 (57.1) ^{sol}	34	84,000 (57.0) ^{sol}	15,000	29,000
		2.5%	510	4,700 (141) ^{sol}	85	97,000 (141) ^{sol}	15,000	30,000
		6%	1,100	6,000 (336) ^{sol}	200	100,000	15,000	30,000
	Acenaphthylene	1%	170	2,900 (86.1) ^{sol}	28	83,000 (86.1) ^{sol}	15,000	29,000
		2.5%	420	4,600 (212) ^{sol}	69	97,000 (212) ^{sol}	15,000	30,000
		6%	920	6,000 (506) ^{sol}	160	100,000	15,000	30,000
	Anthracene	1%	2,400	31,000 (1.17) ^{vap}	380	520,000	74,000	150,000
		2.5%	5,400	35,000	950	540,000	74,000	150,000
		6%	11,000	37,000	2,200	540,000	74,000	150,000
	Benz(a)anthracene	1%	7.2	11	2.9	170	29	49
		2.5%	11	14	6.5	170	29	56
		6%	13	15	13	180	29	62
	Benzo(a)pyrene (only)	1%	2.2	3.2	0.97	35	5.7	11
		2.5%	2.7	3.2	2.0	35	5.7	12
		6%	3.0	3.2	3.5	36	5.7	13
	Benzo(b)fluoranthene	1%	2.6	3.9	0.99	44	7.1	13
		2.5%	3.3	4.0	2.1	44	7.2	15
		6%	3.7	4.0	3.9	45	7.2	16
	Benzo(ghi)perylene	1%	320	360	290	3,900	640	1,400
		2.5%	340	360	470	4,000	640	1,500
		6%	350	360	640	4,000	640	1,600
	Benzo(k)fluoranthene	1%	77	110	37	1,200	190	370
		2.5%	93	110	75	1,200	190	410
		6%	100	110	130	1,200	190	440
	Chrysene	1%	15	30	4.1	350	57	93
		2.5%	22	31	9.4	350	57	110
		6%	27	32	19	350	57	120
	Dibenzo(ah)anthracene	1%	0.24	0.31	0.14	3.5	0.57	1.1
		2.5%	0.28	0.32	0.27	3.6	0.58	1.3
		6%	0.3	0.32	0.43	3.6	0.58	1.4
	Fluoranthene	1%	280	1,500	52	23,000	3,100	6,300
		2.5%	560	1,600	130	23,000	3,100	6,300
		6%	890	1,600	290	23,000	3,100	6,400
	Fluorene	1%	170	2,800 (36.0) ^{sol}	27	63,000 (30.9) ^{sol}	9,900	20,000
		2.5%	400	3,800 (76.5) ^{sol}	67	68,000	9,900	20,000
		6%	860	4,500 (183) ^{sol}	160	71,000	9,900	20,000
	Indeno(123-cd)pyrene	1%	27	45	9.5	500	82	150
		2.5%	36	46	21	510	82	170
		6%	41	46	39	510	82	180
	Naphthalene	1%	2.3 ^f	2.3 ^f	4.1 ^f	190 ^f (76.4) ^{sol}	4,900 ^f	1,200 ^f (76.4) ^{sol}
		2.5%	5.6 ^f	5.6 ^f	10 ^f	460 ^f (183) ^{sol}	4,900 ^f	1,900 ^f (183) ^{sol}
		6%	13 ^f	13 ^f	24 ^f	1,100 ^f (432) ^{sol}	4,900 ^f	3,000
	Phenanthrene	1%	95	1,300 (36.0) ^{sol}	15	22,000	3,100	6,200
		2.5%	220	1,500	38	22,000	3,100	6,200
		6%	440	1,500	90	22,000	3,100	6,300
	Pyrene	1%	620	3,700	110	54,000	7,400	15,000
		2.5%	1,200	3,800	270	54,000	7,400	15,000
		6%	2,000	3,800	620	54,000	7,400	15,000
Coal Tar (B(a)P as surrogate marker)	1%	0.79	1.2	0.32	15	2.2	4.4	
	2.5%	0.98	1.2	0.67	15	2.2	4.7	
	6%	1.1	1.2	1.2	15	2.2	4.8	

NOTES

^{sol} / ^{vap} = solubility / vapour limit (potentially use if free product identified, although highly conservative).

^f = naphthalene is based on comparison of inhalation exposure with TDI_{inhal} for localised effect.

All GAC are based on sandy loam soils with a pH 7.

LQM Generic Assessment Criteria (mg/kg) Dry weight soil

Contaminant	SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Aliphatic							
EC 5-6	1%	42	42	730	3,200 (304) ^{sol}	570,000(304) ^{sol}	95,000 (304) ^{sol}
EC>6-8	1%	100	100	2,300	7,800 (144) ^{sol}	600,000	150,000 (144) ^{sol}
EC>8-10	1%	27	27	320	2,000 (78) ^{sol}	13,000	14,000 (78) ^{vap}
EC>10-12	1%	130 (48) ^{vap}	130 (48) ^{vap}	2,200	9,700 (48) ^{sol}	13,000	21,000 (48) ^{vap}
EC>12-16	1%	1,100 (24) ^{sol}	1,100 (24) ^{sol}	11,000	59,000 (24) ^{sol}	13,000	25,000 (24) ^{sol}
EC>16-35	1%	65,000 (8.48) ^{f, sol}	65,000 (8.48) ^{f, sol}	260,000 ^f	160,000 ^f	250,000 ^f	450,000 ^f
EC>35-44	1%	65,000 (8.48) ^{f, sol}	65,000 (8.48) ^{f, sol}	260,000 ^f	160,000 ^f	250,000 ^f	450,000 ^f
Aliphatic							
EC 5-6	2.5%	78	78	1,700	5,900 (558) ^{sol}	590,000	130,000 (558) ^{sol}
EC>6-8	2.5%	230	230	5,600	17,000 (322) ^{sol}	610,000	220,000 (322) ^{sol}
EC>8-10	2.5%	65	65	770	4,800 (190) ^{vap}	13,000	18,000 (190) ^{vap}
EC>10-12	2.5%	330 (118) ^{vap}	330 (118) ^{vap}	4,400	23,000 (118) ^{vap}	13,000	23,000 (118) ^{vap}
EC>12-16	2.5%	2,400 (59) ^{sol}	2,400 (59) ^{sol}	13,000	82,000 (59) ^{sol}	13,000	25,000 (59) ^{sol}
EC>16-35	2.5%	92,000 (21) ^{f, sol}	92,000 (21) ^{f, sol}	270,000 ^f	1,700,000 ^f	250,000 ^f	480,000 ^f
EC>35-44	2.5%	92,000 (21) ^{f, sol}	92,000 (21) ^{f, sol}	270,000 ^f	1,700,000 ^f	250,000 ^f	480,000 ^f
Aliphatic							
EC 5-6	6%	160	160	3,900	12,000 (1,150) ^{sol}	600,000	180,000 (1,150) ^{sol}
EC>6-8	6%	530	530	13,000	40,000 (736) ^{sol}	620,000	320,000 (736) ^{sol}
EC>8-10	6%	150	150	1,700	11,000 (451) ^{vap}	13,000	21,000 (451) ^{vap}
EC>10-12	6%	760 (283) ^{vap}	760 (283) ^{vap}	7,300	47,000 (283) ^{vap}	13,000	24,000 (283) ^{vap}
EC>12-16	6%	4,300 (142) ^{sol}	4,400 (142) ^{sol}	13,000	90,000 (142) ^{sol}	13,000	26,000 (142) ^{sol}
EC>16-35	6%	110,000 ^f	110,000 ^f	270,000 ^f	1,800,000 ^f	250,000 ^f	490,000 ^f
EC>35-44	6%	110,000 ^f	110,000 ^f	270,000 ^f	1,800,000 ^f	250,000 ^f	490,000 ^f
Aromatic							
EC5-7(benzene as non-threshold)	1%	70	370	13	26,000 (1,220) ^{sol}	56,000	76,000 (1,220) ^{sol}
EC>7-8(toluene)	1%	130	860	22	56,000 (869) ^{vap}	56,000	87,000 (869) ^{vap}
EC>8-10	1%	34	47	8.6	3,500 (613) ^{vap}	5,000	7,200 (613) ^{vap}
EC>10-12	1%	74	250	13	16,000 (364) ^{sol}	5,000	9,200 (364) ^{sol}
EC>12-16	1%	140	1,800	23	36,000 (169) ^{sol}	5,100	10,000
EC>16-21	1%	260 ^f	1,900 ^f	46 ^f	28,000 ^f	3,800 ^f	7,600 ^f
EC>21-35	1%	1,100 ^f	1,900 ^f	370 ^f	28,000 ^f	3,800 ^f	7,800 ^f
EC>35-44	1%	1,100 ^f	1,900 ^f	370 ^f	28,000 ^f	3,800 ^f	7,800 ^f
Aromatic							
EC5-7(benzene as non-threshold)	2.5%	140	690	27	46,000 (2,260) ^{sol}	56,000	84,000 (2,260) ^{sol}
EC>7-8(toluene)	2.5%	290	1,800	51	110,000 (1,920) ^{sol}	56,000	95,000 (1,920) ^{sol}
EC>8-10	2.5%	83	110	21	8,100 (1,500) ^{vap}	5,000	8,500 (1,500) ^{vap}
EC>10-12	2.5%	180	590	31	28,000 (899) ^{sol}	5,000	9,700 (899) ^{sol}
EC>12-16	2.5%	330	2,300 (419) ^{sol}	57	37,000	5,100	10,000
EC>16-21	2.5%	540 ^f	1,900 ^f	110 ^f	28,000 ^f	3,800 ^f	7,700 ^f
EC>21-35	2.5%	1,500 ^f	1,900 ^f	820 ^f	28,000 ^f	3,800 ^f	7,800 ^f
EC>35-44	2.5%	1,500 ^f	1,900 ^f	820 ^f	28,000 ^f	3,800 ^f	7,800 ^f
Aromatic							
EC5-7(benzene as non-threshold)	6%	300	1,400	57	86,000 (4,710) ^{sol}	56,000	92,000 (4,710) ^{sol}
EC>7-8(toluene)	6%	660	3,900	120	180,000 (4,360) ^{vap}	56,000	100,000 (4,360) ^{vap}
EC>8-10	6%	190	270	51	17,000 (3,580) ^{vap}	5,000	9,300 (3,580) ^{vap}
EC>10-12	6%	380	1,200	74	34,000 (2,150) ^{sol}	5,000	10,000
EC>12-16	6%	660	2,500	130	38,000	5,100	10,000
EC>16-21	6%	930 ^f	1,900 ^f	260 ^f	28,000 ^f	3,800 ^f	7,800 ^f
EC>21-35	6%	1,700 ^f	1,900 ^f	1,600 ^f	28,000 ^f	3,800 ^f	7,900 ^f
EC>35-44	6%	1,700 ^f	1,900 ^f	1,600 ^f	28,000 ^f	3,800 ^f	7,900 ^f
Aliphatic +Aromatic >EC44	1%	1,600 ^f	1,900 ^f	1,200 ^f	28,000 ^f	3,800 ^f	7,800 ^f
	2.5%	1,800 ^f	1,900 ^f	2,100 ^f	28,000 ^f	3,800 ^f	7,800 ^f
	6%	1,900 ^f	1,900 ^f	3,000 ^f	28,000 ^f	3,800 ^f	7,900 ^f

NOTES

Sol / vap = solubility / vapour limit (potentially use if free product identified, although highly conservative).

f = oral, dermal and inhalation exposures compared to oral HCV.

All GAC are based on sandy loam soils with a pH 7.

All GAC are based on sandy loam soils with a pH 7.			LQM Generic Assessment Criteria (mg/kg) Dry weight soil					
Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Chloalkanes and Alkenes & Explosives	1,2 Dichloroethane (DCA)	1%	7.1E-03	9.2E-03	4.6E-03	0.67	29	21
		2.5%	1.1E-02	1.3E-02	8.3E-03	0.97	29	24
		6%	1.9E-02	2.3E-02	1.6E-02	1.7	29	28
	1,1,1 Trichloroethane (TCA)	1%	8.8	9.0	48	660	140,000	57,000 (1,425) ^{vap}
		2.5%	18	18	110	1,300	140,000	76,000 (2,915) ^{vap}
		6%	39	40	240	3,000	140,000	100,000 (6,392) ^{vap}
	1,1,2,2-Tetrachloroethanes (PCA)	1%	1.6	3.9	0.41	270	1,400	1,800
		2.5%	3.4	8.0	0.89	550	1,400	2,100
		6%	7.5	17	2.0	1,100	1,400	2,300
	1,1,1,2-Tetrachloroethanes (PCA)	1%	1.2	1.5	0.79	110	1,400	1,500
		2.5%	2.8	3.5	1.9	250	1,400	1,800
		6%	6.4	8.2	4.4	560	1,400	2,100
	Tetrachloroethene (PCE)	1%	0.18	0.18	0.65	19	1,400	810 (424) ^{sol}
		2.5%	0.39	0.40	1.5	42	1,400	1,100 (951) ^{sol}
		6%	0.90	0.92	3.6	95	1,400	1,500
	Tetrachloromethane (carbon tetrachloride)	1%	2.6E-02	2.6E-02	0.45	2.9	890	190
		2.5%	5.6E-02	5.6E-02	1.0	6.3	920	270
		6%	0.13	0.13	2.4	14	950	400
	Trichloroethene (TCE)	1%	1.6E-02	1.7E-02	4.1E-02	1.2	120	70
		2.5%	3.4E-02	3.6E-02	9.1E-02	2.6	120	91
		6%	7.5E-02	8.0E-02	0.21	5.7	120	120
	Trichloromethane (chloroform)	1%	0.91	1.2	0.42	99	2,500	2,600
		2.5%	1.7	2.1	0.83	170	2,500	2,800
		6%	3.4	4.2	1.7	350	2,500	3,100
	Chloroethene (vinyl chloride)	1%	6.4E-04	7.7E-04	5.5E-04	5.9E-02	3.5	4.8
		2.5%	8.7E-04	1.0E-03	1.0E-03	7.7E-02	3.5	5.0
		6%	1.4E-03	1.5E-03	1.8E-03	0.12	3.5	5.4
	2,4,6-Trinitrotoluene (TNT)	1%	1.6	65	0.24	1,000	130	260
		2.5%	3.7	66	0.58	1,000	130	270
		6%	8.1	66	1.4	1,000	130	270
	RDX	1%	120	13,000	17	210,000	26,000	49,000 (18.7) ^{sol}
		2.5%	250	13,000	38	210,000	26,000	51,000
		6%	540	13,000	85	210,000	27,000	53,000
	HMX	1%	5.7	6,700	0.86	110,000	13,000	23,000 (0.35) ^{vap}
		2.5%	13	6,700	1.9	110,000	13,000	23,000 (0.39) ^{vap}
		6%	26	6,700	3.9	110,000	13,000	24,000 (0.48) ^{vap}
Pesticides	Aldrin	1%	5.7	7.3	3.2	170	18	30
		2.5%	6.6	7.4	6.1	170	18	31
		6%	7.1	7.5	9.8	170	18	31
	Dieldrin	1%	0.97	7.0	0.17	170	18	30
		2.5%	2.0	7.3	0.41	170	18	30
		6%	3.5	7.4	0.96	170	18	31
	Atrazine	1%	3.3	610	0.5	9,300	1,200	2,300
		2.5%	7.8	620	1.2	9,400	1,200	2,400
		6%	17.4	620	2.7	9,400	1,200	2,400
	Dichlorvos	1%	3.2E-02	6.4	4.9E-03	140	16	26
		2.5%	6.6E-02	6.5	1.0E-02	140	16	26
		6%	0.14	6.6	2.2E-02	140	16	27
	Endosulfanns (2 isomers)	1%	7.4	160 (3.0E-03) ^{vap}	1.2	5,600 (3.0E-03) ^{vap}	1,200	2,300
		2.5%	18	280 (7.0E-03) ^{vap}	2.9	7,400 (7.0E-03) ^{vap}	1,200	2,400
		6%	41	410 (1.6E-02) ^{vap}	6.8	8,400 (1.6E-02) ^{vap}	1,200	2,500
	Hexachlorocyclohexane (3 isomers), inc Lindane	1%	8.5E-02	3.7	1.3E-02	65	8.1	15
		2.5%	0.2	3.8	3.2E-02	65	8.1	15
		6%	0.46	3.8	7.7E-02	65	8.1	16

NOTES

Sol / vap = solubility / vapour limit (potentially use if free product identified, although highly conservative).

All GAC are based on
sandy loam soils with a pH
7.

LQM Generic Assessment Criteria (mg/kg) Dry weight soil

Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Chlorobenzenes	Chlorobenzene	1%	0.46	0.46	5.9	56	11,000	1,300 (675) ^{sol}
		2.5%	1.0	1.0	14	130	13,000	2,000 (1,520) ^{sol}
		6%	2.4	2.4	32	290	14,000	2,900
	Dichlorobenzenes (3 isomers)	1%	23	24	94	2,000 (571) ^{sol}	90,000	24,000 (571) ^{sol}
		2.5%	55	57	230	4,800 (1,370) ^{sol}	95,000	36,000 (1,370) ^{sol}
		6%	130	130	540	11,000 (3,240) ^{sol}	98,000	51,000 (3,270) ^{sol}
	Trichlorobenzenes (3 isomers)	1%	2.6	2.6	55	220	15,000	1,700 (318) ^{vap}
		2.5%	6.4	6.4	140	530	17,000	2,600 (786) ^{vap}
		6%	15	15	320	1,300	19,000	4,000 (1,880) ^{vap}
	Tetrachlorobenzenes (3 isomers)	1%	0.66	0.75	0.38	49 (39.4) ^{vap}	78	110 (39) ^{vap}
		2.5%	1.6	1.9	0.90	120 (98.1) ^{vap}	79	120
		6%	3.7	4.3	2.2	240 (235) ^{vap}	79	130
	Pentachlorobenzene	1%	5.8	19	1.2	640 (43.0) ^{sol}	100	190
		2.5%	12	30	3.1	770 (107) ^{sol}	100	190
		6%	22	38	7.0	830	100	190
	Hexachlorobenzene	1%	1.8 (0.20) ^{vap}	4.1 (0.20) ^{vap}	0.47	110 (0.20) ^{vap}	16	30
		2.5%	3.3 (0.50) ^{vap}	5.7 (0.50) ^{vap}	1.1	120	16	30
		6%	4.9	6.7 (1.2) ^{vap}	2.5	120	16	30
Chlorophenol	Chlorophenols (4 congeners)	1%	0.87 ^g	94	0.13 ^g	3,500	620	1,100
		2.5%	2.0	150	0.30	4,000	620	1,100
		6%	4.5	210	0.70	4,300	620	1,100
	Pentachlorophenol	1%	0.22	27 (16.4) ^{vap}	3.0E-02	400	60	110
		2.5%	0.52	29	8.0E-02	400	60	120
		6%	1.2	31	0.19	400	60	120
Others	Carbon Disulphide	1%	0.14	0.14	4.8	11	11,000	1,300
		2.5%	0.29	0.29	10	22	11,000	1,900
		6%	0.62	0.62	23	47	11,000	2,700
	Hexachlorobutadiene	1%	0.29	0.32	0.25	31	25	48
		2.5%	0.7	0.78	0.61	66	25	50
		6%	1.6	1.8	1.4	120	25	51
	Phenol	1%	280	750	66	760 ^{dir} (31,000)	760 ^{dir} (11,000)	760 ^{dir} (8,600)
		2.5%	550	1,300	140	1,500 ^{dir} (35,000)	1,500 ^{dir} (11,000)	1,500 ^{dir} (9,700)
		6%	1,100	2,300	280	3,200 ^{dir} (37,000)	3,200 ^{dir} (11,000)	3,200 ^{dir} (11,000)

NOTES

^{Sol / vap} = solubility / vapour limit (potentially use if free product identified, although highly conservative).

^{dir} = S4uls based on threshold protective of direct skin contact with phenol (brackets long term exposure for illustration purposes).

^g = derived based on 2,3,4,6-tetrachlorophenol.

Appendix E

Hazard Index Spreadsheets

$$HI = \sum_{Fi=1}^{16} HQ_{Fi} = \frac{\text{Measured concentration } Fi \text{ (mg/kg)}}{S4UL \text{ } Fi \text{ (mg/kg)}}$$

where: HI = Hazard Index
 HQ = Hazard Quotient
 Fi = Fraction I
 S4UL = LQM Sutable 4 Use Levels (S4ULs)

Job Station South
Job No. LKC 22 1041
SOM 3%
Comment HD104 0.0-0.6m

POS - Park

	1% S4UL	2.50% S4UL	6% S4UL	Max Soil concn.	HQ (1%SOM)	HQ (2.5%SOM)	HQ (6% SOM)
Aliphatic							
EC5-EC6	95000	130000	180000	1	1.053E-05	7.692E-06	5.556E-06
EC6-EC8	150000	220000	320000	1	6.667E-06	4.545E-06	3.125E-06
EC8-EC10	14000	18000	21000	1	7.143E-05	5.556E-05	4.762E-05
EC10-EC12	21000	23000	24000	1	4.762E-05	4.348E-05	4.167E-05
EC12-EC16	25000	25000	26000	1	0.00004	0.00004	3.846E-05
EC16-EC21	450000	480000	490000	25	5.556E-05	5.208E-05	5.102E-05
EC21-EC35	450000	480000	490000	1	2.222E-06	2.083E-06	2.041E-06
EC35-EC44	450000	480000	490000	1			
Aromatic							
EC5-EC7 (benzene)	76000	84000	92000	1	1.316E-05	1.19E-05	1.087E-05
EC7-EC8 (tolulene)	87000	95000	100000	1	1.149E-05	1.053E-05	0.00001
EC8-EC10	7200	8500	9300	1	0.0001389	0.0001176	0.0001075
EC10-EC12	9200	9700	10000	1	0.0001087	0.0001031	0.0001
EC12-EC16	10000	10000	10000	1	0.0001	0.0001	0.0001
EC16-EC21	7600	7700	7800	52	0.0068421	0.0067532	0.0066667
EC21-EC35	7800	7800	7900	350	0.0448718	0.0448718	0.0443038
EC35-EC44	7800	7800	7900	1	0.0001282	0.0001282	0.0001266

HI	0.05	0.05	0.05
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$$HI = \sum_{Fi=1}^{16} HQ_{Fi} = \frac{\text{Measured concentration } Fi \text{ (mg/kg)}}{S4UL \text{ } Fi \text{ (mg/kg)}}$$

where: HI = Hazard Index
 HQ = Hazard Quotient
 Fi = Fraction I
 S4UL = LQM Sutable 4 Use Levels (S4ULs)

Job Station South
Job No. LKC 22 1041
SOM 6%
Comment HD111 0.0-0.6m

POS - Park

	1% S4UL	2.50% S4UL	6% S4UL	Max Soil concn.	HQ (1%SOM)	HQ (2.5%SOM)	HQ (6% SOM)
Aliphatic							
EC5-EC6	95000	130000	180000	1	1.053E-05	7.692E-06	5.556E-06
EC6-EC8	150000	220000	320000	1	6.667E-06	4.545E-06	3.125E-06
EC8-EC10	14000	18000	21000	1	7.143E-05	5.556E-05	4.762E-05
EC10-EC12	21000	23000	24000	12	0.0005714	0.0005217	0.0005
EC12-EC16	25000	25000	26000	19	0.00076	0.00076	0.0007308
EC16-EC21	450000	480000	490000	180	0.0004	0.000375	0.0003673
EC21-EC35							
EC35-EC44	450000	480000	490000	7.6	1.689E-05	1.583E-05	1.551E-05
Aromatic							
EC5-EC7 (benzene)	76000	84000	92000	1	1.316E-05	1.19E-05	1.087E-05
EC7-EC8 (tolulene)	87000	95000	100000	1	1.149E-05	1.053E-05	0.00001
EC8-EC10	7200	8500	9300	1	0.0001389	0.0001176	0.0001075
EC10-EC12	9200	9700	10000	8.2	0.0008913	0.0008454	0.00082
EC12-EC16	10000	10000	10000	110	0.011	0.011	0.011
EC16-EC21	7600	7700	7800	410	0.0539474	0.0532468	0.0525641
EC21-EC35	7800	7800	7900	1500	0.1923077	0.1923077	0.1898734
EC35-EC44	7800	7800	7900	1	0.0001282	0.0001282	0.0001266

HI	0.26	0.26	0.26
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$$HI = \sum_{Fi=1}^{16} HQ_{Fi} = \frac{\text{Measured concentration } Fi \text{ (mg/kg)}}{S4UL \text{ } Fi \text{ (mg/kg)}}$$

where: HI = Hazard Index
 HQ = Hazard Quotient
 Fi = Fraction I
 S4UL = LQM Sutable 4 Use Levels (S4ULs)

Job Station South
Job No. LKC 22 1041
SOM 6%
Comment HD115 0.0-0.6m

POS - Park

	1% S4UL	2.50% S4UL	6% S4UL	Max Soil concn.	HQ (1%SOM)	HQ (2.5%SOM)	HQ (6% SOM)
Aliphatic							
EC5-EC6	95000	130000	180000	1	1.053E-05	7.692E-06	5.556E-06
EC6-EC8	150000	220000	320000	1	6.667E-06	4.545E-06	3.125E-06
EC8-EC10	14000	18000	21000	1	7.143E-05	5.556E-05	4.762E-05
EC10-EC12	21000	23000	24000	1	4.762E-05	4.348E-05	4.167E-05
EC12-EC16	25000	25000	26000	1	0.00004	0.00004	3.846E-05
EC16-EC21	450000	480000	490000	87	0.0001933	0.0001813	0.0001776
EC21-EC35							
EC35-EC44	450000	480000	490000	1	2.222E-06	2.083E-06	2.041E-06
Aromatic							
EC5-EC7 (benzene)	76000	84000	92000	1	1.316E-05	1.19E-05	1.087E-05
EC7-EC8 (tolulene)	87000	95000	100000	1	1.149E-05	1.053E-05	0.00001
EC8-EC10	7200	8500	9300	1	0.0001389	0.0001176	0.0001075
EC10-EC12	9200	9700	10000	1	0.0001087	0.0001031	0.0001
EC12-EC16	10000	10000	10000	110	0.011	0.011	0.011
EC16-EC21	7600	7700	7800	540	0.0710526	0.0701299	0.0692308
EC21-EC35	7800	7800	7900	2300	0.2948718	0.2948718	0.2911392
EC35-EC44	7800	7800	7900	1	0.0001282	0.0001282	0.0001266

HI	0.38	0.38	0.37
----	------	------	------

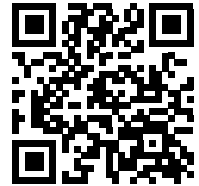
Appendix F

HazWasteOnline Output Sheets

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)



EXCCF-XO2W4-KZ7CP

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

Job name

LKC 22 1041

Description/Comments

Project

LKC 22 1041

Site

Station South, Levenshulme

Classified by

Name: **Colin Crompton**
 Date: **15 Mar 2022 15:34 GMT**
 Telephone: **0161 763 7200**
 Company: **LK Group**
Unit 29, Eton Business Park
Eton Hill Rd, Radcliffe
Greater Manchester
M26 2ZS

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

HazWasteOnline™ Certification:

CERTIFIED

Course
 Hazardous Waste Classification

Date
 08 Oct 2020

Next 3 year Refresher due by Oct 2023

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	HD101-11/02/2022-0.0	0.0-0.5	Non Hazardous		3
2	HD102-11/02/2022-0.1	0.1-1.0	Non Hazardous		5
3	HD103-11/02/2022-0.0	0.0-0.4	Hazardous	HP 7, HP 11	7
4	HD104-11/02/2022-0.0	0.0-0.6	Non Hazardous		10
5	HD105-11/02/2022-0.25	0.25-0.6	Non Hazardous		13
6	HD106-11/02/2022-0.0	0.0-0.3	Hazardous	HP 7, HP 10, HP 14	15
7	HD107-11/02/2022-0.0	0.0-0.6	Non Hazardous		18
8	HD108-11/02/2022-0.0	0.0-0.6	Non Hazardous		20
9	HD109-11/02/2022-0.0	0.0-0.3	Hazardous	HP 7, HP 11	22
10	HD110-11/02/2022-0.0	0.0-0.75	Non Hazardous		26
11	HD111-11/02/2022-0.0	0.0-0.6	Hazardous	HP 7, HP 11	28
12	HD112-11/02/2022-0.15	0.15-0.6	Non Hazardous		32
13	HD113-11/02/2022-0.0	0.0-0.2	Non Hazardous		34
14	HD114-11/02/2022-0.0	0.0-0.2	Non Hazardous		36
15	HD115-11/02/2022-0.0	0.0-0.6	Hazardous	HP 7, HP 11	38
16	HD116-11/02/2022-0.0	0.0-0.6	Non Hazardous		41

Related documents

#	Name	Description
1	HWOL_22-05532-20220307 110202.hwol	.hwol file used to create the Job
2	HWOL_22-05576-20220222 001000.hwol	.hwol file used to create the Job
3	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Colin Crompton

Created date: 15 Mar 2022 15:34 GMT

Appendices

Appendix A: Classifier defined and non GB MCL determinands

Page

43

Appendices	Page
Appendix B: Rationale for selection of metal species	44
Appendix C: Version	45

Classification of sample: HD101-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD101-11/02/2022-0.0	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.0-0.5 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
23%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 23% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				14 mg/kg	1.32	14.233 mg/kg	0.00142 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				0.16 mg/kg	1.142	0.141 mg/kg	0.0000141 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				14 mg/kg	1.462	15.756 mg/kg	0.00158 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				44 mg/kg	1.126	38.145 mg/kg	0.00381 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	89 mg/kg		68.53 mg/kg	0.00685 %	✓	
	082-001-00-6									
7	mercury { mercury dichloride }				0.22 mg/kg	1.353	0.229 mg/kg	0.0000229 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				12 mg/kg	2.976	27.501 mg/kg	0.00275 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				0.43 mg/kg	2.554	0.846 mg/kg	0.0000846 %	✓	
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				62 mg/kg	2.774	132.438 mg/kg	0.0132 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	pH				7.5 pH		7.5 pH	7.5 pH		
			PH							
12	naphthalene				2.7 mg/kg		2.079 mg/kg	0.000208 %	✓	
	601-052-00-2	202-049-5	91-20-3							
13	acenaphthylene				0.48 mg/kg		0.37 mg/kg	0.000037 %	✓	
		205-917-1	208-96-8							
14	acenaphthene				1.6 mg/kg		1.232 mg/kg	0.000123 %	✓	
		201-469-6	83-32-9							
15	fluorene				1.3 mg/kg		1.001 mg/kg	0.0001 %	✓	
		201-695-5	86-73-7							

#	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								
16	phenanthrene	201-581-5	85-01-8		11 mg/kg		8.47 mg/kg	0.000847 %		✓	
17	anthracene	204-371-1	120-12-7		2 mg/kg		1.54 mg/kg	0.000154 %		✓	
18	fluoranthene	205-912-4	206-44-0		16 mg/kg		12.32 mg/kg	0.00123 %		✓	
19	pyrene	204-927-3	129-00-0		14 mg/kg		10.78 mg/kg	0.00108 %		✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	6.6 mg/kg		5.082 mg/kg	0.000508 %		✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	7.4 mg/kg		5.698 mg/kg	0.00057 %		✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	9.4 mg/kg		7.238 mg/kg	0.000724 %		✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	3.9 mg/kg		3.003 mg/kg	0.0003 %		✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	8.9 mg/kg		6.853 mg/kg	0.000685 %		✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		5.6 mg/kg		4.312 mg/kg	0.000431 %		✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	1 mg/kg		0.77 mg/kg	0.000077 %		✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		4.5 mg/kg		3.465 mg/kg	0.000347 %		✓	
28	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	18 mg/kg	1.785	24.743 mg/kg	0.00247 %		✓	
Total:									0.0398 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HD102-11/02/2022-0.1

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

Sample details

Sample name:	LoW Code:
HD102-11/02/2022-0.1	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.1-1.0 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
17%	
(wet weight correction)	

Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				21 mg/kg	1.32	23.013 mg/kg	0.0023 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				0.43 mg/kg	1.142	0.408 mg/kg	0.0000408 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				21 mg/kg	1.462	25.475 mg/kg	0.00255 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				55 mg/kg	1.126	51.397 mg/kg	0.00514 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	180 mg/kg		149.4 mg/kg	0.0149 %	✓	
	082-001-00-6									
7	mercury { mercury dichloride }				1.1 mg/kg	1.353	1.236 mg/kg	0.000124 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				22 mg/kg	2.976	54.347 mg/kg	0.00543 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				0.33 mg/kg	2.554	0.699 mg/kg	0.0000699 %	✓	
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				140 mg/kg	2.774	322.356 mg/kg	0.0322 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	pH				8.4 pH		8.4 pH	8.4 pH		
			PH							
12	naphthalene				3.4 mg/kg		2.822 mg/kg	0.000282 %	✓	
	601-052-00-2	202-049-5	91-20-3							
13	acenaphthylene				0.46 mg/kg		0.382 mg/kg	0.0000382 %	✓	
		205-917-1	208-96-8							
14	acenaphthene				6.2 mg/kg		5.146 mg/kg	0.000515 %	✓	
		201-469-6	83-32-9							
15	fluorene				4.3 mg/kg		3.569 mg/kg	0.000357 %	✓	
		201-695-5	86-73-7							

#	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								
16	phenanthrene	201-581-5	85-01-8		35 mg/kg		29.05 mg/kg	0.00291 %		✓	
17	anthracene	204-371-1	120-12-7		8.1 mg/kg		6.723 mg/kg	0.000672 %		✓	
18	fluoranthene	205-912-4	206-44-0		50 mg/kg		41.5 mg/kg	0.00415 %		✓	
19	pyrene	204-927-3	129-00-0		43 mg/kg		35.69 mg/kg	0.00357 %		✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	21 mg/kg		17.43 mg/kg	0.00174 %		✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	22 mg/kg		18.26 mg/kg	0.00183 %		✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	28 mg/kg		23.24 mg/kg	0.00232 %		✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	12 mg/kg		9.96 mg/kg	0.000996 %		✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	27 mg/kg		22.41 mg/kg	0.00224 %		✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		16 mg/kg		13.28 mg/kg	0.00133 %		✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	2.9 mg/kg		2.407 mg/kg	0.000241 %		✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		13 mg/kg		10.79 mg/kg	0.00108 %		✓	
28	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	26 mg/kg	1.785	38.524 mg/kg	0.00385 %		✓	
Total:									0.0911 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HD103-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD103-11/02/2022-0.0	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.0-0.4 m	Entry:
Moisture content:	17 05 03 * (Soil and stones containing hazardous substances)
19%	
(wet 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.: 0.227%)

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.: 0.227%)

Determinands

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

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				19 mg/kg	1.32	20.32	mg/kg	0.00203 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
2	boron { diboron trioxide; boric oxide }				0.65 mg/kg	3.22	1.695	mg/kg	0.00017 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
3	cadmium { cadmium oxide }				0.46 mg/kg	1.142	0.426	mg/kg	0.0000426 %	✓	
	048-002-00-0	215-146-2	1306-19-0								
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				16 mg/kg	1.462	18.942	mg/kg	0.00189 %	✓	
		215-160-9	1308-38-9								
5	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135	mg/kg	<0.000113 %		<LOD
	024-017-00-8										
6	copper { dicopper oxide; copper (I) oxide }				62 mg/kg	1.126	56.542	mg/kg	0.00565 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	230 mg/kg		186.3	mg/kg	0.0186 %	✓	
	082-001-00-6										

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
8	mercury { mercury dichloride }				0.5	mg/kg	1.353	0.548	mg/kg	0.0000548 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel chromate }				21	mg/kg	2.976	50.626	mg/kg	0.00506 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
10	selenium { nickel selenate }				0.37	mg/kg	2.554	0.765	mg/kg	0.0000765 %	✓	
	028-031-00-5	239-125-2	15060-62-5									
11	zinc { zinc chromate }				140	mg/kg	2.774	314.588	mg/kg	0.0315 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
12	TPH (C6 to C40) petroleum group				2800	mg/kg		2268	mg/kg	0.227 %	✓	
			TPH									
13	confirm TPH has NOT arisen from diesel or petrol				☒							
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
15	benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
16	toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
17	ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
18	xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<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]									
19	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											
20	pH				8.1	pH		8.1	pH	8.1 pH		
			PH									
21	naphthalene				3.4	mg/kg		2.754	mg/kg	0.000275 %	✓	
	601-052-00-2	202-049-5	91-20-3									
22	acenaphthylene				1	mg/kg		0.81	mg/kg	0.000081 %	✓	
		205-917-1	208-96-8									
23	acenaphthene				8.2	mg/kg		6.642	mg/kg	0.000664 %	✓	
		201-469-6	83-32-9									
24	fluorene				6.8	mg/kg		5.508	mg/kg	0.000551 %	✓	
		201-695-5	86-73-7									
25	phenanthrene				73	mg/kg		59.13	mg/kg	0.00591 %	✓	
		201-581-5	85-01-8									
26	anthracene				17	mg/kg		13.77	mg/kg	0.00138 %	✓	
		204-371-1	120-12-7									
27	fluoranthene				120	mg/kg		97.2	mg/kg	0.00972 %	✓	
		205-912-4	206-44-0									
28	pyrene				100	mg/kg		81	mg/kg	0.0081 %	✓	
		204-927-3	129-00-0									
29	benzo[a]anthracene				44	mg/kg		35.64	mg/kg	0.00356 %	✓	
	601-033-00-9	200-280-6	56-55-3									
30	chrysene				44	mg/kg		35.64	mg/kg	0.00356 %	✓	
	601-048-00-0	205-923-4	218-01-9									
31	benzo[b]fluoranthene				52	mg/kg		42.12	mg/kg	0.00421 %	✓	
	601-034-00-4	205-911-9	205-99-2									
32	benzo[k]fluoranthene				21	mg/kg		17.01	mg/kg	0.0017 %	✓	
	601-036-00-5	205-916-6	207-08-9									
33	benzo[a]pyrene; benzo[def]chrysene				50	mg/kg		40.5	mg/kg	0.00405 %	✓	
	601-032-00-3	200-028-5	50-32-8									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
34	indeno[123-cd]pyrene	205-893-2	193-39-5		30 mg/kg		24.3 mg/kg	0.00243 %	✓	
35	dibenz[a,h]anthracene	601-041-00-2	200-181-8		6.2 mg/kg		5.022 mg/kg	0.000502 %	✓	
36	benzo[ghi]perylene	205-883-8	191-24-2		25 mg/kg		20.25 mg/kg	0.00202 %	✓	
37	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8		23 mg/kg	1.785	33.258 mg/kg	0.00333 %	✓	
38	monohydric phenols		P1186		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
Total:								0.344 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1 Only the metal concentration has been used for classification	

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.227%)

Classification of sample: HD104-11/02/2022-0.0

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

Sample details

Sample name: **HD104-11/02/2022-0.0** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: **0.0-0.6 m** Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: **16%**
(wet weight correction)

Hazard properties

None identified

Determinands

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

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
1		arsenic { arsenic trioxide }				12	mg/kg	1.32	13.309	mg/kg	0.00133 %	✓	
		033-003-00-0	215-481-4	1327-53-3									
2		boron { diboron trioxide; boric oxide }				<0.4	mg/kg	3.22	<1.288	mg/kg	<0.000129 %		<LOD
		005-008-00-8	215-125-8	1303-86-2									
3		cadmium { cadmium oxide }				0.53	mg/kg	1.142	0.509	mg/kg	0.0000509 %	✓	
		048-002-00-0	215-146-2	1306-19-0									
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23	mg/kg	1.462	28.237	mg/kg	0.00282 %	✓	
			215-160-9	1308-38-9									
5		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5	mg/kg	2.27	<1.135	mg/kg	<0.000113 %		<LOD
		024-017-00-8											
6		copper { dicopper oxide; copper (I) oxide }				48	mg/kg	1.126	45.396	mg/kg	0.00454 %	✓	
		029-002-00-X	215-270-7	1317-39-1									
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	300	mg/kg		252	mg/kg	0.0252 %	✓	
		082-001-00-6											
8		mercury { mercury dichloride }				0.63	mg/kg	1.353	0.716	mg/kg	0.0000716 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
9		nickel { nickel chromate }				22	mg/kg	2.976	55.001	mg/kg	0.0055 %	✓	
		028-035-00-7	238-766-5	14721-18-7									
10		selenium { nickel selenate }				<0.2	mg/kg	2.554	<0.511	mg/kg	<0.0000511 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
11		zinc { zinc chromate }				120	mg/kg	2.774	279.634	mg/kg	0.028 %	✓	
		024-007-00-3	236-878-9	13530-65-9									
12		TPH (C6 to C40) petroleum group				430	mg/kg		361.2	mg/kg	0.0361 %	✓	
				TPH									
13		confirm TPH has NOT arisen from diesel or petrol				☒							
14		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
15		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<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								
16	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-021-00-3	203-625-9	108-88-3								
17	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
18	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<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]								
19	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										
20	pH		PH		8.5 pH		8.5 pH	8.5 pH			
21	naphthalene				2.9 mg/kg		2.436 mg/kg	0.000244 %		✓	
	601-052-00-2	202-049-5	91-20-3								
22	acenaphthylene				1.1 mg/kg		0.924 mg/kg	0.0000924 %		✓	
		205-917-1	208-96-8								
23	acenaphthene				5.4 mg/kg		4.536 mg/kg	0.000454 %		✓	
		201-469-6	83-32-9								
24	fluorene				4.6 mg/kg		3.864 mg/kg	0.000386 %		✓	
		201-695-5	86-73-7								
25	phenanthrene				33 mg/kg		27.72 mg/kg	0.00277 %		✓	
		201-581-5	85-01-8								
26	anthracene				8.1 mg/kg		6.804 mg/kg	0.00068 %		✓	
		204-371-1	120-12-7								
27	fluoranthene				39 mg/kg		32.76 mg/kg	0.00328 %		✓	
		205-912-4	206-44-0								
28	pyrene				33 mg/kg		27.72 mg/kg	0.00277 %		✓	
		204-927-3	129-00-0								
29	benzo[a]anthracene				16 mg/kg		13.44 mg/kg	0.00134 %		✓	
	601-033-00-9	200-280-6	56-55-3								
30	chrysene				16 mg/kg		13.44 mg/kg	0.00134 %		✓	
	601-048-00-0	205-923-4	218-01-9								
31	benzo[b]fluoranthene				19 mg/kg		15.96 mg/kg	0.0016 %		✓	
	601-034-00-4	205-911-9	205-99-2								
32	benzo[k]fluoranthene				8 mg/kg		6.72 mg/kg	0.000672 %		✓	
	601-036-00-5	205-916-6	207-08-9								
33	benzo[a]pyrene; benzo[def]chrysene				20 mg/kg		16.8 mg/kg	0.00168 %		✓	
	601-032-00-3	200-028-5	50-32-8								
34	indeno[123-cd]pyrene				12 mg/kg		10.08 mg/kg	0.00101 %		✓	
		205-893-2	193-39-5								
35	dibenz[a,h]anthracene				2.2 mg/kg		1.848 mg/kg	0.000185 %		✓	
	601-041-00-2	200-181-8	53-70-3								
36	benzo[ghi]perylene				8.8 mg/kg		7.392 mg/kg	0.000739 %		✓	
		205-883-8	191-24-2								
37	vanadium { divanadium pentaoxide; vanadium pentoxide }				23 mg/kg	1.785	34.49 mg/kg	0.00345 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
38	monohydric phenols		P1186		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									0.127 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0361%)

Classification of sample: HD105-11/02/2022-0.25

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

Sample details

Sample name:	LoW Code:
HD105-11/02/2022-0.25	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.25-0.6 m	
Moisture content:	
21%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 21% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				11 mg/kg	1.32	11.474 mg/kg	0.00115 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				0.26 mg/kg	1.142	0.235 mg/kg	0.0000235 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				16 mg/kg	1.462	18.474 mg/kg	0.00185 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				72 mg/kg	1.126	64.041 mg/kg	0.0064 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	130 mg/kg		102.7 mg/kg	0.0103 %	✓	
	082-001-00-6									
7	mercury { mercury dichloride }				0.23 mg/kg	1.353	0.246 mg/kg	0.0000246 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				15 mg/kg	2.976	35.269 mg/kg	0.00353 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				0.29 mg/kg	2.554	0.585 mg/kg	0.0000585 %	✓	
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				210 mg/kg	2.774	460.231 mg/kg	0.046 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	pH				7.9 pH		7.9 pH	7.9 pH		
			PH							
12	naphthalene				1.2 mg/kg		0.948 mg/kg	0.0000948 %	✓	
	601-052-00-2	202-049-5	91-20-3							
13	acenaphthylene				0.33 mg/kg		0.261 mg/kg	0.0000261 %	✓	
		205-917-1	208-96-8							
14	acenaphthene				0.7 mg/kg		0.553 mg/kg	0.0000553 %	✓	
		201-469-6	83-32-9							
15	fluorene				0.65 mg/kg		0.514 mg/kg	0.0000514 %	✓	
		201-695-5	86-73-7							

#		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							
16	phenanthrene	201-581-5	85-01-8		4 mg/kg		3.16 mg/kg	0.000316 %	✓		
17	anthracene	204-371-1	120-12-7		0.85 mg/kg		0.671 mg/kg	0.0000671 %	✓		
18	fluoranthene	205-912-4	206-44-0		5.3 mg/kg		4.187 mg/kg	0.000419 %	✓		
19	pyrene	204-927-3	129-00-0		4.9 mg/kg		3.871 mg/kg	0.000387 %	✓		
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	2.3 mg/kg		1.817 mg/kg	0.000182 %	✓		
21	chrysene	601-048-00-0	205-923-4	218-01-9	2.5 mg/kg		1.975 mg/kg	0.000198 %	✓		
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	2.8 mg/kg		2.212 mg/kg	0.000221 %	✓		
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	1.2 mg/kg		0.948 mg/kg	0.0000948 %	✓		
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	2.9 mg/kg		2.291 mg/kg	0.000229 %	✓		
25	indeno[123-cd]pyrene	205-893-2	193-39-5		1.9 mg/kg		1.501 mg/kg	0.00015 %	✓		
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.39 mg/kg		0.308 mg/kg	0.0000308 %	✓		
27	benzo[ghi]perylene	205-883-8	191-24-2		1.5 mg/kg		1.185 mg/kg	0.000119 %	✓		
28	 vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	19 mg/kg	1.785	26.796 mg/kg	0.00268 %	✓		
Total:									0.0748 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HD106-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD106-11/02/2022-0.0	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.0-0.3 m	Entry:
Moisture content:	17 05 03 * (Soil and stones containing hazardous substances)
28%	
(wet weight correction)	

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.122%)

HP 10: Toxic for reproduction "waste which has adverse effects on sexual function and fertility in adult males and females, as well as developmental toxicity in the offspring"

Hazard Statements hit:

Repr. 1A; H360Df "May damage the unborn child. Suspected of damaging fertility."

Because of determinand:

lead compounds with the exception of those specified elsewhere in this Annex: (Note 1 conc.: 0.317%)

HP 14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment"

Hazard Statements hit:

Aquatic Chronic 1; H410 "Very toxic to aquatic life with long lasting effects."

Because of determinands:

lead compounds with the exception of those specified elsewhere in this Annex: (Note 1 conc.: 0.317%)

zinc chromate: (compound conc.: 0.122%)

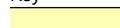
Determinands

Moisture content: 28% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	 arsenic { arsenic trioxide }				20 mg/kg	1.32	19.013 mg/kg	0.0019 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	 cadmium { cadmium oxide }				0.97 mg/kg	1.142	0.798 mg/kg	0.0000798 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
3	 chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				22 mg/kg	1.462	23.151 mg/kg	0.00232 %	✓	
		215-160-9	1308-38-9							
4	 chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
5	 copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	1	140	mg/kg	1.126	113.49	mg/kg	0.0113 %	✓
6	 lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6				4400	mg/kg		3168	mg/kg	0.317 %	✓
7	 mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.55	mg/kg	1.353	0.536	mg/kg	0.0000536 %	✓
8	 nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		21	mg/kg	2.976	45.001	mg/kg	0.0045 %	✓
9	 selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		0.71	mg/kg	2.554	1.306	mg/kg	0.000131 %	✓
10	 zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		610	mg/kg	2.774	1218.405	mg/kg	0.122 %	✓
11	pH		PH			8.2	pH		8.2	pH	8.2 pH	
12	naphthalene	601-052-00-2	202-049-5	91-20-3		4.7	mg/kg		3.384	mg/kg	0.000338 %	✓
13	acenaphthylene		205-917-1	208-96-8		1.9	mg/kg		1.368	mg/kg	0.000137 %	✓
14	acenaphthene		201-469-6	83-32-9		15	mg/kg		10.8	mg/kg	0.00108 %	✓
15	fluorene		201-695-5	86-73-7		9.3	mg/kg		6.696	mg/kg	0.00067 %	✓
16	phenanthrene		201-581-5	85-01-8		83	mg/kg		59.76	mg/kg	0.00598 %	✓
17	anthracene		204-371-1	120-12-7		21	mg/kg		15.12	mg/kg	0.00151 %	✓
18	fluoranthene		205-912-4	206-44-0		140	mg/kg		100.8	mg/kg	0.0101 %	✓
19	pyrene		204-927-3	129-00-0		130	mg/kg		93.6	mg/kg	0.00936 %	✓
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		56	mg/kg		40.32	mg/kg	0.00403 %	✓
21	chrysene	601-048-00-0	205-923-4	218-01-9		56	mg/kg		40.32	mg/kg	0.00403 %	✓
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		75	mg/kg		54	mg/kg	0.0054 %	✓
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		31	mg/kg		22.32	mg/kg	0.00223 %	✓
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		69	mg/kg		49.68	mg/kg	0.00497 %	✓
25	indeno[123-cd]pyrene		205-893-2	193-39-5		46	mg/kg		33.12	mg/kg	0.00331 %	✓
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		9.1	mg/kg		6.552	mg/kg	0.000655 %	✓
27	benzo[ghi]perylene		205-883-8	191-24-2		38	mg/kg		27.36	mg/kg	0.00274 %	✓
28	 vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		26	mg/kg	1.785	33.419	mg/kg	0.00334 %	✓
Total:										0.519 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1 Only the metal concentration has been used for classification	

Classification of sample: HD107-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD107-11/02/2022-0.0	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.0-0.6 m	
Moisture content:	
23%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 23% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				18 mg/kg	1.32	18.3 mg/kg	0.00183 %		✓	
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				0.46 mg/kg	1.142	0.405 mg/kg	0.0000405 %		✓	
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				29 mg/kg	1.462	32.637 mg/kg	0.00326 %		✓	
		215-160-9	1308-38-9								
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %			<LOD
	024-017-00-8										
5	copper { dicopper oxide; copper (I) oxide }				69 mg/kg	1.126	59.818 mg/kg	0.00598 %		✓	
	029-002-00-X	215-270-7	1317-39-1								
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	270 mg/kg		207.9 mg/kg	0.0208 %		✓	
	082-001-00-6										
7	mercury { mercury dichloride }				0.41 mg/kg	1.353	0.427 mg/kg	0.0000427 %		✓	
	080-010-00-X	231-299-8	7487-94-7								
8	nickel { nickel chromate }				31 mg/kg	2.976	71.043 mg/kg	0.0071 %		✓	
	028-035-00-7	238-766-5	14721-18-7								
9	selenium { nickel selenate }				0.43 mg/kg	2.554	0.846 mg/kg	0.0000846 %		✓	
	028-031-00-5	239-125-2	15060-62-5								
10	zinc { zinc chromate }				180 mg/kg	2.774	384.497 mg/kg	0.0384 %		✓	
	024-007-00-3	236-878-9	13530-65-9								
11	pH				8.4 pH		8.4 pH	8.4 pH			
			PH								
12	naphthalene				2.3 mg/kg		1.771 mg/kg	0.000177 %		✓	
	601-052-00-2	202-049-5	91-20-3								
13	acenaphthylene				0.37 mg/kg		0.285 mg/kg	0.0000285 %		✓	
		205-917-1	208-96-8								
14	acenaphthene				4.7 mg/kg		3.619 mg/kg	0.000362 %		✓	
		201-469-6	83-32-9								
15	fluorene				2.8 mg/kg		2.156 mg/kg	0.000216 %		✓	
		201-695-5	86-73-7								

#		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								
16	phenanthrene	201-581-5	85-01-8		26 mg/kg		20.02 mg/kg	0.002 %	✓			
17	anthracene	204-371-1	120-12-7		6 mg/kg		4.62 mg/kg	0.000462 %	✓			
18	fluoranthene	205-912-4	206-44-0		34 mg/kg		26.18 mg/kg	0.00262 %	✓			
19	pyrene	204-927-3	129-00-0		28 mg/kg		21.56 mg/kg	0.00216 %	✓			
20	benzo[a]anthracene	601-033-00-9	200-280-6		14 mg/kg		10.78 mg/kg	0.00108 %	✓			
21	chrysene	601-048-00-0	205-923-4		13 mg/kg		10.01 mg/kg	0.001 %	✓			
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		17 mg/kg		13.09 mg/kg	0.00131 %	✓			
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		7.1 mg/kg		5.467 mg/kg	0.000547 %	✓			
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		17 mg/kg		13.09 mg/kg	0.00131 %	✓			
25	indeno[123-cd]pyrene	205-893-2	193-39-5		10 mg/kg		7.7 mg/kg	0.00077 %	✓			
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		1.8 mg/kg		1.386 mg/kg	0.000139 %	✓			
27	benzo[ghi]perylene	205-883-8	191-24-2		8 mg/kg		6.16 mg/kg	0.000616 %	✓			
28	 vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	32 mg/kg	1.785	43.987 mg/kg	0.0044 %	✓			
Total:									0.0969 %			

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HD108-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD108-11/02/2022-0.0	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.0-0.6 m	
Moisture content:	
20%	
(wet weight correction)	

Hazard properties

None identified

Determinands

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

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value		MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number										
1		arsenic { arsenic trioxide }				15	mg/kg	1.32	15.844	mg/kg	0.00158 %	✓		
	033-003-00-0	215-481-4	1327-53-3											
2		cadmium { cadmium oxide }				0.32	mg/kg	1.142	0.292	mg/kg	0.0000292 %	✓		
	048-002-00-0	215-146-2	1306-19-0											
3		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				21	mg/kg	1.462	24.554	mg/kg	0.00246 %	✓		
		215-160-9	1308-38-9											
4		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5	mg/kg	2.27	<1.135	mg/kg	<0.000113 %		<LOD	
	024-017-00-8													
5		copper { dicopper oxide; copper (I) oxide }				52	mg/kg	1.126	46.837	mg/kg	0.00468 %	✓		
	029-002-00-X	215-270-7	1317-39-1											
6		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	240	mg/kg		192	mg/kg	0.0192 %	✓		
	082-001-00-6													
7		mercury { mercury dichloride }				0.4	mg/kg	1.353	0.433	mg/kg	0.0000433 %	✓		
	080-010-00-X	231-299-8	7487-94-7											
8		nickel { nickel chromate }				23	mg/kg	2.976	54.763	mg/kg	0.00548 %	✓		
	028-035-00-7	238-766-5	14721-18-7											
9		selenium { nickel selenate }				0.47	mg/kg	2.554	0.96	mg/kg	0.000096 %	✓		
	028-031-00-5	239-125-2	15060-62-5											
10		zinc { zinc chromate }				140	mg/kg	2.774	310.704	mg/kg	0.0311 %	✓		
	024-007-00-3	236-878-9	13530-65-9											
11		pH				8.3	pH		8.3	pH	8.3 pH			
			PH											
12		naphthalene				4	mg/kg		3.2	mg/kg	0.00032 %	✓		
	601-052-00-2	202-049-5	91-20-3											
13		acenaphthylene				0.28	mg/kg		0.224	mg/kg	0.0000224 %	✓		
		205-917-1	208-96-8											
14		acenaphthene				7.7	mg/kg		6.16	mg/kg	0.000616 %	✓		
		201-469-6	83-32-9											
15		fluorene				4.6	mg/kg		3.68	mg/kg	0.000368 %	✓		
		201-695-5	86-73-7											

#	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							
16	phenanthrene	201-581-5	85-01-8		40 mg/kg		32 mg/kg	0.0032 %	✓	
17	anthracene	204-371-1	120-12-7		9.1 mg/kg		7.28 mg/kg	0.000728 %	✓	
18	fluoranthene	205-912-4	206-44-0		58 mg/kg		46.4 mg/kg	0.00464 %	✓	
19	pyrene	204-927-3	129-00-0		48 mg/kg		38.4 mg/kg	0.00384 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		25 mg/kg		20 mg/kg	0.002 %	✓	
21	chrysene	601-048-00-0	205-923-4		25 mg/kg		20 mg/kg	0.002 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		32 mg/kg		25.6 mg/kg	0.00256 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		13 mg/kg		10.4 mg/kg	0.00104 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		32 mg/kg		25.6 mg/kg	0.00256 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		18 mg/kg		14.4 mg/kg	0.00144 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		3.5 mg/kg		2.8 mg/kg	0.00028 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		14 mg/kg		11.2 mg/kg	0.00112 %	✓	
28	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8		27 mg/kg	1.785	38.56 mg/kg	0.00386 %	✓	
Total:								0.0953 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
•	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HD109-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD109-11/02/2022-0.0	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.0-0.3 m	Entry:
Moisture content:	17 05 03 * (Soil and stones containing hazardous substances)
9.4%	
(wet 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.: 1.54%)

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.: 1.54%)

Determinands

Moisture content: 9.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	 arsenic { arsenic trioxide }				17	mg/kg	1.32	20.336	mg/kg	0.00203 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	 boron { diboron trioxide; boric oxide }				0.42	mg/kg	3.22	1.225	mg/kg	0.000123 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
3	 cadmium { cadmium oxide }				0.6	mg/kg	1.142	0.621	mg/kg	0.0000621 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	 chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				21	mg/kg	1.462	27.808	mg/kg	0.00278 %	✓	
		215-160-9	1308-38-9									
5	 chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5	mg/kg	2.27	<1.135	mg/kg	<0.000113 %		<LOD
	024-017-00-8											
6	 copper { dicopper oxide; copper (I) oxide }				39	mg/kg	1.126	39.782	mg/kg	0.00398 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	 lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	120	mg/kg		108.72	mg/kg	0.0109 %	✓	
	082-001-00-6											

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
8		mercury { mercury dichloride } 080-010-00-X 231-299-8 7487-94-7				0.27	mg/kg	1.353	0.331	mg/kg	0.0000331 %	✓	
9		nickel { nickel chromate } 028-035-00-7 238-766-5 14721-18-7				18	mg/kg	2.976	48.537	mg/kg	0.00485 %	✓	
10		selenium { nickel selenate } 028-031-00-5 239-125-2 15060-62-5				0.2	mg/kg	2.554	0.463	mg/kg	0.0000463 %	✓	
11		zinc { zinc chromate } 024-007-00-3 236-878-9 13530-65-9				110	mg/kg	2.774	276.471	mg/kg	0.0276 %	✓	
12		TPH (C6 to C40) petroleum group TPH				17000	mg/kg		15402	mg/kg	1.54 %	✓	
13		confirm TPH has NOT arisen from diesel or petrol ☒											
14		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X 216-653-1 1634-04-4				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		benzene 601-020-00-8 200-753-7 71-43-2				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		toluene 601-021-00-3 203-625-9 108-88-3				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		ethylbenzene 601-023-00-4 202-849-4 100-41-4				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
18		xylene 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]				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
19		cyanides {  salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
20		pH PH				8.6	pH		8.6	pH	8.6 pH		
21		naphthalene 601-052-00-2 202-049-5 91-20-3				10	mg/kg		9.06	mg/kg	0.000906 %	✓	
22		acenaphthylene 205-917-1 208-96-8				17	mg/kg		15.402	mg/kg	0.00154 %	✓	
23		acenaphthene 201-469-6 83-32-9				37	mg/kg		33.522	mg/kg	0.00335 %	✓	
24		fluorene 201-695-5 86-73-7				37	mg/kg		33.522	mg/kg	0.00335 %	✓	
25		phenanthrene 201-581-5 85-01-8				480	mg/kg		434.88	mg/kg	0.0435 %	✓	
26		anthracene 204-371-1 120-12-7				86	mg/kg		77.916	mg/kg	0.00779 %	✓	
27		fluoranthene 205-912-4 206-44-0				570	mg/kg		516.42	mg/kg	0.0516 %	✓	
28		pyrene 204-927-3 129-00-0				470	mg/kg		425.82	mg/kg	0.0426 %	✓	
29		benzo[a]anthracene 601-033-00-9 200-280-6 56-55-3				140	mg/kg		126.84	mg/kg	0.0127 %	✓	
30		chrysene 601-048-00-0 205-923-4 218-01-9				130	mg/kg		117.78	mg/kg	0.0118 %	✓	
31		benzo[b]fluoranthene 601-034-00-4 205-911-9 205-99-2				160	mg/kg		144.96	mg/kg	0.0145 %	✓	
32		benzo[k]fluoranthene 601-036-00-5 205-916-6 207-08-9				72	mg/kg		65.232	mg/kg	0.00652 %	✓	
33		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3 200-028-5 50-32-8				140	mg/kg		126.84	mg/kg	0.0127 %	✓	

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
34	indeno[123-cd]pyrene	205-893-2	193-39-5		99 mg/kg		89.694 mg/kg	0.00897 %		✓	
35	dibenz[a,h]anthracene	601-041-00-2	200-181-8		20 mg/kg		18.12 mg/kg	0.00181 %		✓	
36	benzo[ghi]perylene	205-883-8	191-24-2		82 mg/kg		74.292 mg/kg	0.00743 %		✓	
37	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8		28 mg/kg	1.785	45.287 mg/kg	0.00453 %		✓	
38	monohydric phenols		P1186		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
39	simazine (ISO); 6-chloro-N,N'-diethyl-1,3,5-triazine-2,4-diamine	612-088-00-3	204-535-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
40	atrazine (ISO); 2-chloro-4-ethylamine-6-isopropylamine-1,3,5-triazine	613-068-00-7	217-617-8		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
41	propazine (ISO); 2-chloro-4,6-bis(isopropylamino)-1,3,5-triazine	613-067-00-1	205-359-9		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
42	terbuthylazine (ISO); N-tert-butyl-6-chloro-N'-ethyl-1,3,5-triazine-2,4-diamine	613-323-00-2	227-637-9		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
43	secbumeton (ISO); 2-sec-butylamino-4-ethylamino-6-methoxy-1,3,5-triazine	613-063-00-X	247-554-1		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
44	simetryn (ISO); 2,4-bis(ethylamino)-6-methylthio-1,3,5-triazine	613-065-00-0	213-801-7		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
45	ametryn (ISO); N-ethyl-N'-isopropyl-6-(methylthio)-1,3,5-triazine-2,4-diamine	613-010-00-0	212-634-7		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
46	MCPA (ISO); 4-chloro-o-tolyloxyacetic acid	607-051-00-3	202-360-6		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
47	MCPB (ISO); 4-(4-chloro-o-tolyloxy) butyric acid	607-053-00-4	202-365-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
48	2,4-D (ISO); 2,4-dichlorophenoxyacetic acid	607-039-00-8	202-361-1		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
49	2,4,5-T (ISO); 2,4,5-trichlorophenoxy acetic acid	607-041-00-9	202-273-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
50	dichlorprop (ISO); 2-(2,4-dichlorophenoxy) propionic acid	607-045-00-0	204-390-5		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
51	mecoprop (ISO); 2-(4-chloro-o-tolyloxy) propionic acid; (RS)-2-(4-chloro-o-tolyloxy)propionic acid; [1] 2-(4-chloro-2-methylphenoxy)propionic acid [2]	607-049-00-2	230-386-8 [1] 202-264-4 [2]		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									1.829 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 1.54%)

Classification of sample: HD110-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD110-11/02/2022-0.0	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.0-0.75 m	
Moisture content:	
17%	
(wet weight correction)	

Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				19 mg/kg	1.32	20.822 mg/kg	0.00208 %		✓	
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				0.43 mg/kg	1.142	0.408 mg/kg	0.0000408 %		✓	
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23 mg/kg	1.462	27.901 mg/kg	0.00279 %		✓	
		215-160-9	1308-38-9								
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %			<LOD
	024-017-00-8										
5	copper { dicopper oxide; copper (I) oxide }				120 mg/kg	1.126	112.138 mg/kg	0.0112 %		✓	
	029-002-00-X	215-270-7	1317-39-1								
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	390 mg/kg		323.7 mg/kg	0.0324 %		✓	
	082-001-00-6										
7	mercury { mercury dichloride }				0.81 mg/kg	1.353	0.91 mg/kg	0.000091 %		✓	
	080-010-00-X	231-299-8	7487-94-7								
8	nickel { nickel chromate }				24 mg/kg	2.976	59.287 mg/kg	0.00593 %		✓	
	028-035-00-7	238-766-5	14721-18-7								
9	selenium { nickel selenate }				0.3 mg/kg	2.554	0.636 mg/kg	0.0000636 %		✓	
	028-031-00-5	239-125-2	15060-62-5								
10	zinc { zinc chromate }				160 mg/kg	2.774	368.407 mg/kg	0.0368 %		✓	
	024-007-00-3	236-878-9	13530-65-9								
11	pH				8.4 pH		8.4 pH	8.4 pH			
			PH								
12	naphthalene				0.61 mg/kg		0.506 mg/kg	0.0000506 %		✓	
	601-052-00-2	202-049-5	91-20-3								
13	acenaphthylene				1.3 mg/kg		1.079 mg/kg	0.000108 %		✓	
		205-917-1	208-96-8								
14	acenaphthene				1.2 mg/kg		0.996 mg/kg	0.0000996 %		✓	
		201-469-6	83-32-9								
15	fluorene				1.6 mg/kg		1.328 mg/kg	0.000133 %		✓	
		201-695-5	86-73-7								

#	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							
16	phenanthrene	201-581-5	85-01-8		17 mg/kg		14.11 mg/kg	0.00141 %	✓	
17	anthracene	204-371-1	120-12-7		3.9 mg/kg		3.237 mg/kg	0.000324 %	✓	
18	fluoranthene	205-912-4	206-44-0		21 mg/kg		17.43 mg/kg	0.00174 %	✓	
19	pyrene	204-927-3	129-00-0		20 mg/kg		16.6 mg/kg	0.00166 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		11 mg/kg		9.13 mg/kg	0.000913 %	✓	
21	chrysene	601-048-00-0	205-923-4		10 mg/kg		8.3 mg/kg	0.00083 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		13 mg/kg		10.79 mg/kg	0.00108 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		8.2 mg/kg		6.806 mg/kg	0.000681 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		15 mg/kg		12.45 mg/kg	0.00125 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		11 mg/kg		9.13 mg/kg	0.000913 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		5.4 mg/kg		4.482 mg/kg	0.000448 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		8.2 mg/kg		6.806 mg/kg	0.000681 %	✓	
28	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8		29 mg/kg	1.785	42.969 mg/kg	0.0043 %	✓	
Total:								0.108 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HD111-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD111-11/02/2022-0.0	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.0-0.6 m	Entry:
Moisture content:	17 05 03 * (Soil and stones containing hazardous substances)
18%	
(wet 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.: 0.189%)

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.: 0.189%)

Determinands

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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	 arsenic { arsenic trioxide }				18	mg/kg	1.32	19.488	mg/kg	0.00195 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	 boron { diboron trioxide; boric oxide }				0.42	mg/kg	3.22	1.109	mg/kg	0.000111 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
3	 cadmium { cadmium oxide }				0.51	mg/kg	1.142	0.478	mg/kg	0.0000478 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	 chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				22	mg/kg	1.462	26.366	mg/kg	0.00264 %	✓	
		215-160-9	1308-38-9									
5	 chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5	mg/kg	2.27	<1.135	mg/kg	<0.000113 %		<LOD
	024-017-00-8											
6	 copper { dicopper oxide; copper (I) oxide }				73	mg/kg	1.126	67.396	mg/kg	0.00674 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	 lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	300	mg/kg		246	mg/kg	0.0246 %	✓	
	082-001-00-6											

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
8	mercury { mercury dichloride }				0.46	mg/kg	1.353	0.511	mg/kg	0.0000511 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel chromate }				23	mg/kg	2.976	56.132	mg/kg	0.00561 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
10	selenium { nickel selenate }				0.33	mg/kg	2.554	0.691	mg/kg	0.0000691 %	✓	
	028-031-00-5	239-125-2	15060-62-5									
11	zinc { zinc chromate }				170	mg/kg	2.774	386.716	mg/kg	0.0387 %	✓	
	024-007-00-3	236-878-9	13530-65-9									
12	TPH (C6 to C40) petroleum group				2300	mg/kg		1886	mg/kg	0.189 %	✓	
			TPH									
13	confirm TPH has NOT arisen from diesel or petrol				☒							
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									
15	benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
16	toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3									
17	ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4									
18	xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<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]									
19	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											
20	pH				8.4	pH		8.4	pH	8.4 pH		
			PH									
21	naphthalene				3.6	mg/kg		2.952	mg/kg	0.000295 %	✓	
	601-052-00-2	202-049-5	91-20-3									
22	acenaphthylene				0.84	mg/kg		0.689	mg/kg	0.0000689 %	✓	
		205-917-1	208-96-8									
23	acenaphthene				7.2	mg/kg		5.904	mg/kg	0.00059 %	✓	
		201-469-6	83-32-9									
24	fluorene				5	mg/kg		4.1	mg/kg	0.00041 %	✓	
		201-695-5	86-73-7									
25	phenanthrene				40	mg/kg		32.8	mg/kg	0.00328 %	✓	
		201-581-5	85-01-8									
26	anthracene				9.6	mg/kg		7.872	mg/kg	0.000787 %	✓	
		204-371-1	120-12-7									
27	fluoranthene				58	mg/kg		47.56	mg/kg	0.00476 %	✓	
		205-912-4	206-44-0									
28	pyrene				49	mg/kg		40.18	mg/kg	0.00402 %	✓	
		204-927-3	129-00-0									
29	benzo[a]anthracene				25	mg/kg		20.5	mg/kg	0.00205 %	✓	
	601-033-00-9	200-280-6	56-55-3									
30	chrysene				25	mg/kg		20.5	mg/kg	0.00205 %	✓	
	601-048-00-0	205-923-4	218-01-9									
31	benzo[b]fluoranthene				31	mg/kg		25.42	mg/kg	0.00254 %	✓	
	601-034-00-4	205-911-9	205-99-2									
32	benzo[k]fluoranthene				13	mg/kg		10.66	mg/kg	0.00107 %	✓	
	601-036-00-5	205-916-6	207-08-9									
33	benzo[a]pyrene; benzo[def]chrysene				31	mg/kg		25.42	mg/kg	0.00254 %	✓	
	601-032-00-3	200-028-5	50-32-8									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
34	indeno[123-cd]pyrene	205-893-2	193-39-5		19 mg/kg		15.58 mg/kg	0.00156 %		✓	
35	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	3.7 mg/kg		3.034 mg/kg	0.000303 %		✓	
36	benzo[ghi]perylene	205-883-8	191-24-2		14 mg/kg		11.48 mg/kg	0.00115 %		✓	
37	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	27 mg/kg	1.785	39.524 mg/kg	0.00395 %		✓	
38	monohydric phenols		P1186		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
39	simazine (ISO); 6-chloro-N,N'-diethyl-1,3,5-triazine-2,4-diamine	612-088-00-3	204-535-2	122-34-9	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
40	atrazine (ISO); 2-chloro-4-ethylamine-6-isopropylamine-1,3,5-triazine	613-068-00-7	217-617-8	1912-24-9	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
41	propazine (ISO); 2-chloro-4,6-bis(isopropylamino)-1,3,5-triazine	613-067-00-1	205-359-9	139-40-2	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
42	terbuthylazine (ISO); N-tert-butyl-6-chloro-N-ethyl-1,3,5-triazine-2,4-diamine	613-323-00-2	227-637-9	5915-41-3	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
43	secbumeton (ISO); 2-sec-butylamino-4-ethylamino-6-methoxy-1,3,5-triazine	613-063-00-X	247-554-1	26259-45-0	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
44	simetryn (ISO); 2,4-bis(ethylamino)-6-methylthio-1,3,5-triazine	613-065-00-0	213-801-7	1014-70-6	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
45	ametryn (ISO); N-ethyl-N'-isopropyl-6-(methylthio)-1,3,5-triazine-2,4-diamine	613-010-00-0	212-634-7	834-12-8	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
46	MCPA (ISO); 4-chloro-o-tolyloxyacetic acid	607-051-00-3	202-360-6	94-74-6	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
47	MCPB (ISO); 4-(4-chloro-o-tolyloxy) butyric acid	607-053-00-4	202-365-3	94-81-5	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
48	2,4-D (ISO); 2,4-dichlorophenoxyacetic acid	607-039-00-8	202-361-1	94-75-7	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
49	2,4,5-T (ISO); 2,4,5-trichlorophenoxy acetic acid	607-041-00-9	202-273-3	93-76-5	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
50	dichlorprop (ISO); 2-(2,4-dichlorophenoxy) propionic acid	607-045-00-0	204-390-5	120-36-5	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
51	mecoprop (ISO); 2-(4-chloro-o-tolyloxy) propionic acid; (RS)-2-(4-chloro-o-tolyloxy)propionic acid; [1] 2-(4-chloro-2-methylphenoxy)propionic acid [2]	607-049-00-2	230-386-8 [1] 202-264-4 [2]	7085-19-0 [1] 7085-19-0 [2]	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									0.301 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Hazardous result
- Determinand defined or amended by HazWasteOnline (see Appendix A)
- Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
- This determinand is defined in the EU CLP Table 3
- <LOD Below limit of detection
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.189%)

Classification of sample: HD112-11/02/2022-0.15

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

Sample details

Sample name:	LoW Code:
HD112-11/02/2022-0.15	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.15-0.6 m	
Moisture content:	
17%	
(wet weight correction)	

Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				24 mg/kg	1.32	26.301 mg/kg	0.00263 %	✓		
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				1 mg/kg	1.142	0.948 mg/kg	0.0000948 %	✓		
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23 mg/kg	1.462	27.901 mg/kg	0.00279 %	✓		
		215-160-9	1308-38-9								
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %			<LOD
	024-017-00-8										
5	copper { dicopper oxide; copper (I) oxide }				430 mg/kg	1.126	401.83 mg/kg	0.0402 %	✓		
	029-002-00-X	215-270-7	1317-39-1								
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	580 mg/kg		481.4 mg/kg	0.0481 %	✓		
	082-001-00-6										
7	mercury { mercury dichloride }				1.4 mg/kg	1.353	1.573 mg/kg	0.000157 %	✓		
	080-010-00-X	231-299-8	7487-94-7								
8	nickel { nickel chromate }				25 mg/kg	2.976	61.757 mg/kg	0.00618 %	✓		
	028-035-00-7	238-766-5	14721-18-7								
9	selenium { nickel selenate }				0.33 mg/kg	2.554	0.699 mg/kg	0.0000699 %	✓		
	028-031-00-5	239-125-2	15060-62-5								
10	zinc { zinc chromate }				220 mg/kg	2.774	506.559 mg/kg	0.0507 %	✓		
	024-007-00-3	236-878-9	13530-65-9								
11	pH				9.8 pH		9.8 pH	9.8 pH			
			PH								
12	naphthalene				14 mg/kg		11.62 mg/kg	0.00116 %	✓		
	601-052-00-2	202-049-5	91-20-3								
13	acenaphthylene				2.4 mg/kg		1.992 mg/kg	0.000199 %	✓		
		205-917-1	208-96-8								
14	acenaphthene				40 mg/kg		33.2 mg/kg	0.00332 %	✓		
		201-469-6	83-32-9								
15	fluorene				30 mg/kg		24.9 mg/kg	0.00249 %	✓		
		201-695-5	86-73-7								

#	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							
16	phenanthrene	201-581-5	85-01-8		260 mg/kg		215.8 mg/kg	0.0216 %	✓	
17	anthracene	204-371-1	120-12-7		59 mg/kg		48.97 mg/kg	0.0049 %	✓	
18	fluoranthene	205-912-4	206-44-0		230 mg/kg		190.9 mg/kg	0.0191 %	✓	
19	pyrene	204-927-3	129-00-0		200 mg/kg		166 mg/kg	0.0166 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		84 mg/kg		69.72 mg/kg	0.00697 %	✓	
21	chrysene	601-048-00-0	205-923-4		79 mg/kg		65.57 mg/kg	0.00656 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		85 mg/kg		70.55 mg/kg	0.00705 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		35 mg/kg		29.05 mg/kg	0.00291 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		81 mg/kg		67.23 mg/kg	0.00672 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		45 mg/kg		37.35 mg/kg	0.00374 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		11 mg/kg		9.13 mg/kg	0.000913 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		36 mg/kg		29.88 mg/kg	0.00299 %	✓	
28	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8		30 mg/kg	1.785	44.451 mg/kg	0.00445 %	✓	
Total:								0.263 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
•	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HD113-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD113-11/02/2022-0.0	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.0-0.2 m	
Moisture content:	
25%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 25% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				21 mg/kg	1.32	20.795 mg/kg	0.00208 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				0.54 mg/kg	1.142	0.463 mg/kg	0.0000463 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				20 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				77 mg/kg	1.126	65.02 mg/kg	0.0065 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	220 mg/kg		165 mg/kg	0.0165 %	✓	
	082-001-00-6									
7	mercury { mercury dichloride }				0.57 mg/kg	1.353	0.579 mg/kg	0.0000579 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				22 mg/kg	2.976	49.108 mg/kg	0.00491 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				0.39 mg/kg	2.554	0.747 mg/kg	0.0000747 %	✓	
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				130 mg/kg	2.774	270.479 mg/kg	0.027 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	pH				8.3 pH		8.3 pH	8.3 pH		
			PH							
12	naphthalene				1.5 mg/kg		1.125 mg/kg	0.000112 %	✓	
	601-052-00-2	202-049-5	91-20-3							
13	acenaphthylene				0.48 mg/kg		0.36 mg/kg	0.000036 %	✓	
		205-917-1	208-96-8							
14	acenaphthene				2 mg/kg		1.5 mg/kg	0.00015 %	✓	
		201-469-6	83-32-9							
15	fluorene				1.6 mg/kg		1.2 mg/kg	0.00012 %	✓	
		201-695-5	86-73-7							

#	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							
16	phenanthrene	201-581-5	85-01-8		15 mg/kg		11.25 mg/kg	0.00112 %	✓	
17	anthracene	204-371-1	120-12-7		3.6 mg/kg		2.7 mg/kg	0.00027 %	✓	
18	fluoranthene	205-912-4	206-44-0		25 mg/kg		18.75 mg/kg	0.00188 %	✓	
19	pyrene	204-927-3	129-00-0		23 mg/kg		17.25 mg/kg	0.00173 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		12 mg/kg		9 mg/kg	0.0009 %	✓	
21	chrysene	601-048-00-0	205-923-4		11 mg/kg		8.25 mg/kg	0.000825 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		16 mg/kg		12 mg/kg	0.0012 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		6.5 mg/kg		4.875 mg/kg	0.000488 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		17 mg/kg		12.75 mg/kg	0.00128 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		11 mg/kg		8.25 mg/kg	0.000825 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		2 mg/kg		1.5 mg/kg	0.00015 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		7.8 mg/kg		5.85 mg/kg	0.000585 %	✓	
28	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8		28 mg/kg	1.785	37.489 mg/kg	0.00375 %	✓	
Total:								0.0749 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HD114-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD114-11/02/2022-0.0	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.0-0.2 m	
Moisture content:	
17%	
(wet weight correction)	

Hazard properties

None identified

Determinands

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

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				20 mg/kg	1.32	21.917 mg/kg	0.00219 %		✓	
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				0.38 mg/kg	1.142	0.36 mg/kg	0.000036 %		✓	
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23 mg/kg	1.462	27.901 mg/kg	0.00279 %		✓	
		215-160-9	1308-38-9								
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %			<LOD
	024-017-00-8										
5	copper { dicopper oxide; copper (I) oxide }				66 mg/kg	1.126	61.676 mg/kg	0.00617 %		✓	
	029-002-00-X	215-270-7	1317-39-1								
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	190 mg/kg		157.7 mg/kg	0.0158 %		✓	
	082-001-00-6										
7	mercury { mercury dichloride }				0.37 mg/kg	1.353	0.416 mg/kg	0.0000416 %		✓	
	080-010-00-X	231-299-8	7487-94-7								
8	nickel { nickel chromate }				26 mg/kg	2.976	64.228 mg/kg	0.00642 %		✓	
	028-035-00-7	238-766-5	14721-18-7								
9	selenium { nickel selenate }				0.38 mg/kg	2.554	0.805 mg/kg	0.0000805 %		✓	
	028-031-00-5	239-125-2	15060-62-5								
10	zinc { zinc chromate }				160 mg/kg	2.774	368.407 mg/kg	0.0368 %		✓	
	024-007-00-3	236-878-9	13530-65-9								
11	pH				8.6 pH		8.6 pH	8.6 pH			
			PH								
12	naphthalene				4 mg/kg		3.32 mg/kg	0.000332 %		✓	
	601-052-00-2	202-049-5	91-20-3								
13	acenaphthylene				0.35 mg/kg		0.291 mg/kg	0.0000291 %		✓	
		205-917-1	208-96-8								
14	acenaphthene				9.3 mg/kg		7.719 mg/kg	0.000772 %		✓	
		201-469-6	83-32-9								
15	fluorene				6.2 mg/kg		5.146 mg/kg	0.000515 %		✓	
		201-695-5	86-73-7								

#	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							
16	phenanthrene	201-581-5	85-01-8		45 mg/kg		37.35 mg/kg	0.00374 %	✓	
17	anthracene	204-371-1	120-12-7		11 mg/kg		9.13 mg/kg	0.000913 %	✓	
18	fluoranthene	205-912-4	206-44-0		55 mg/kg		45.65 mg/kg	0.00456 %	✓	
19	pyrene	204-927-3	129-00-0		47 mg/kg		39.01 mg/kg	0.0039 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		24 mg/kg		19.92 mg/kg	0.00199 %	✓	
21	chrysene	601-048-00-0	205-923-4		23 mg/kg		19.09 mg/kg	0.00191 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		29 mg/kg		24.07 mg/kg	0.00241 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		12 mg/kg		9.96 mg/kg	0.000996 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		29 mg/kg		24.07 mg/kg	0.00241 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		17 mg/kg		14.11 mg/kg	0.00141 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		3.3 mg/kg		2.739 mg/kg	0.000274 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		13 mg/kg		10.79 mg/kg	0.00108 %	✓	
28	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8		29 mg/kg	1.785	42.969 mg/kg	0.0043 %	✓	
Total:								0.102 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
•	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: HD115-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD115-11/02/2022-0.0	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.0-0.6 m	Entry:
Moisture content:	17 05 03 * (Soil and stones containing hazardous substances)
19%	
(wet 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.: 0.243%)

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.: 0.243%)

Determinands

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

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	 arsenic { arsenic trioxide }				17 mg/kg	1.32	18.181	mg/kg	0.00182 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
2	 boron { diboron trioxide; boric oxide }				<0.4 mg/kg	3.22	<1.288	mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2								
3	 cadmium { cadmium oxide }				0.66 mg/kg	1.142	0.611	mg/kg	0.0000611 %	✓	
	048-002-00-0	215-146-2	1306-19-0								
4	 chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				67 mg/kg	1.462	79.319	mg/kg	0.00793 %	✓	
		215-160-9	1308-38-9								
5	 chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135	mg/kg	<0.000113 %		<LOD
	024-017-00-8										
6	 copper { dicopper oxide; copper (I) oxide }				61 mg/kg	1.126	55.63	mg/kg	0.00556 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
7	 lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	180 mg/kg		145.8	mg/kg	0.0146 %	✓	
	082-001-00-6										

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
8	mercury { mercury dichloride }				0.37 mg/kg	1.353	0.406 mg/kg	0.0000406 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel chromate }				43 mg/kg	2.976	103.663 mg/kg	0.0104 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
10	selenium { nickel selenate }				0.33 mg/kg	2.554	0.683 mg/kg	0.0000683 %	✓	
	028-031-00-5	239-125-2	15060-62-5							
11	zinc { zinc chromate }				150 mg/kg	2.774	337.059 mg/kg	0.0337 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
12	TPH (C6 to C40) petroleum group				3000 mg/kg		2430 mg/kg	0.243 %	✓	
			TPH							
13	confirm TPH has NOT arisen from diesel or petrol				☒					
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
15	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<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]							
19	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									
20	pH				8.4 pH		8.4 pH	8.4 pH		
			PH							
21	naphthalene				2.5 mg/kg		2.025 mg/kg	0.000202 %	✓	
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				0.14 mg/kg		0.113 mg/kg	0.0000113 %	✓	
		205-917-1	208-96-8							
23	acenaphthene				3.1 mg/kg		2.511 mg/kg	0.000251 %	✓	
		201-469-6	83-32-9							
24	fluorene				2.3 mg/kg		1.863 mg/kg	0.000186 %	✓	
		201-695-5	86-73-7							
25	phenanthrene				19 mg/kg		15.39 mg/kg	0.00154 %	✓	
		201-581-5	85-01-8							
26	anthracene				4.7 mg/kg		3.807 mg/kg	0.000381 %	✓	
		204-371-1	120-12-7							
27	fluoranthene				27 mg/kg		21.87 mg/kg	0.00219 %	✓	
		205-912-4	206-44-0							
28	pyrene				22 mg/kg		17.82 mg/kg	0.00178 %	✓	
		204-927-3	129-00-0							
29	benzo[a]anthracene				12 mg/kg		9.72 mg/kg	0.000972 %	✓	
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				12 mg/kg		9.72 mg/kg	0.000972 %	✓	
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				15 mg/kg		12.15 mg/kg	0.00122 %	✓	
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				5.9 mg/kg		4.779 mg/kg	0.000478 %	✓	
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				13 mg/kg		10.53 mg/kg	0.00105 %	✓	
	601-032-00-3	200-028-5	50-32-8							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
34	indeno[123-cd]pyrene	205-893-2	193-39-5		7.5 mg/kg		6.075 mg/kg	0.000607 %	✓	
35	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	1.1 mg/kg		0.891 mg/kg	0.0000891 %	✓	
36	benzo[ghi]perylene	205-883-8	191-24-2		6.5 mg/kg		5.265 mg/kg	0.000527 %	✓	
37	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	28 mg/kg	1.785	40.488 mg/kg	0.00405 %	✓	
38	monohydric phenols		P1186		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
Total:								0.334 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1 Only the metal concentration has been used for classification	

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.243%)

Classification of sample: HD116-11/02/2022-0.0

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

Sample details

Sample name:	LoW Code:
HD116-11/02/2022-0.0	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.0-0.6 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
21%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 21% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				9 mg/kg	1.32	9.388 mg/kg	0.000939 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				0.28 mg/kg	1.142	0.253 mg/kg	0.0000253 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				70 mg/kg	1.462	80.824 mg/kg	0.00808 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				36 mg/kg	1.126	32.02 mg/kg	0.0032 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	92 mg/kg		72.68 mg/kg	0.00727 %	✓	
	082-001-00-6									
7	mercury { mercury dichloride }				0.18 mg/kg	1.353	0.192 mg/kg	0.0000192 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				46 mg/kg	2.976	108.157 mg/kg	0.0108 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				0.24 mg/kg	2.554	0.484 mg/kg	0.0000484 %	✓	
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				80 mg/kg	2.774	175.326 mg/kg	0.0175 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	pH		PH		8.5 pH		8.5 pH	8.5 pH		
12	naphthalene				5.5 mg/kg		4.345 mg/kg	0.000435 %	✓	
	601-052-00-2	202-049-5	91-20-3							
13	acenaphthylene				0.31 mg/kg		0.245 mg/kg	0.0000245 %	✓	
		205-917-1	208-96-8							
14	acenaphthene				5.5 mg/kg		4.345 mg/kg	0.000435 %	✓	
		201-469-6	83-32-9							
15	fluorene				4.3 mg/kg		3.397 mg/kg	0.00034 %	✓	
		201-695-5	86-73-7							

#	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								
16	phenanthrene	201-581-5	85-01-8		31 mg/kg		24.49 mg/kg	0.00245 %		✓	
17	anthracene	204-371-1	120-12-7		8.3 mg/kg		6.557 mg/kg	0.000656 %		✓	
18	fluoranthene	205-912-4	206-44-0		40 mg/kg		31.6 mg/kg	0.00316 %		✓	
19	pyrene	204-927-3	129-00-0		32 mg/kg		25.28 mg/kg	0.00253 %		✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	19 mg/kg		15.01 mg/kg	0.0015 %		✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	17 mg/kg		13.43 mg/kg	0.00134 %		✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	21 mg/kg		16.59 mg/kg	0.00166 %		✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	8 mg/kg		6.32 mg/kg	0.000632 %		✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	20 mg/kg		15.8 mg/kg	0.00158 %		✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		12 mg/kg		9.48 mg/kg	0.000948 %		✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	2.2 mg/kg		1.738 mg/kg	0.000174 %		✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		9.4 mg/kg		7.426 mg/kg	0.000743 %		✓	
28	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	15 mg/kg	1.785	21.154 mg/kg	0.00212 %		✓	
Total:									0.0688 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

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

Description/Comments: Data from C&L Inventory Database

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

GB MCL index number: 082-001-00-6

Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2

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

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

• 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

■ **divanadium pentaoxide; vanadium pentoxide** (EC Number: 215-239-8, CAS Number: 1314-62-1)

EU CLP index number: 023-001-00-8
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Muta. 2; H341 , Repr. 2; H361d , STOT RE 1; H372 , Acute Tox. 4; H332 , Acute Tox. 4; H302 , STOT SE 3; H335 , Aquatic Chronic 2; H411

■ **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

■ **confirm TPH has NOT arisen from diesel or petrol**

Description/Comments: Chapter 3, section 4b requires a positive confirmation for benzo[a]pyrene to be used as a marker in evaluating Carc. 1B; H350 (HP 7) and Muta. 1B; H340 (HP 11)
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

■ **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

■ **monohydric phenols** (CAS Number: P1186)

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

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(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (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 compounds with the exception of those specified elsewhere in this Annex}

Worst case compound based on absence of CrVI and assumed metal oxides from a combustion, ash based source.

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)

vanadium {divanadium pentaoxide; vanadium pentoxide}

worst case/most likely scenario

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (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: 2022.25.4995.9469 (25 Jan 2022)

HazWasteOnline Database: 2022.25.4995.9469 (25 Jan 2022)

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

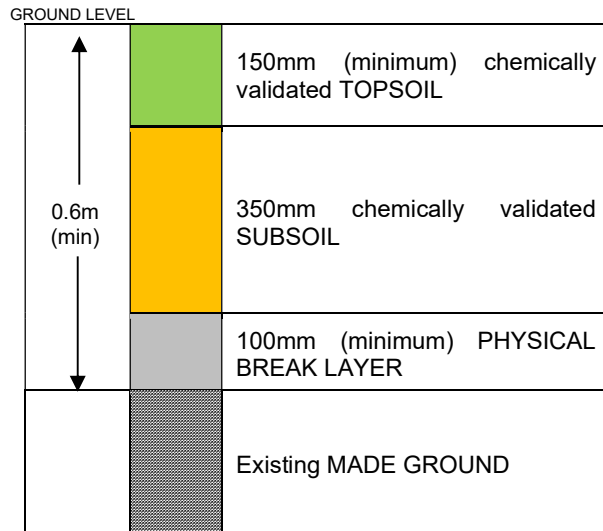
GB MCL List - version 1.1 of 09 June 2021

Appendix G

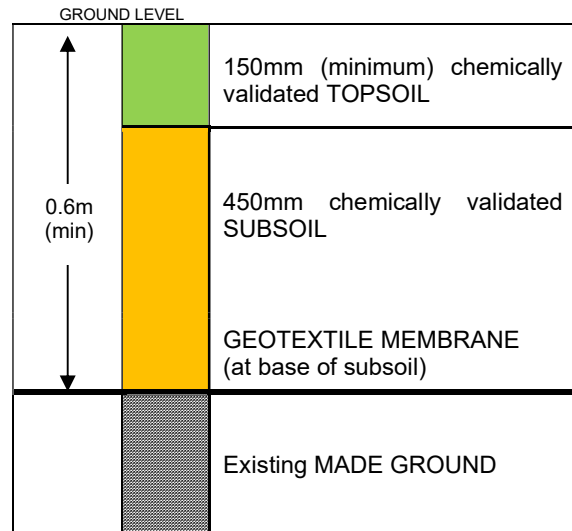
Environmental Cover System Construction

ALLOTMENT AND COMMUNITY GARDEN:

Either (physical break layer)

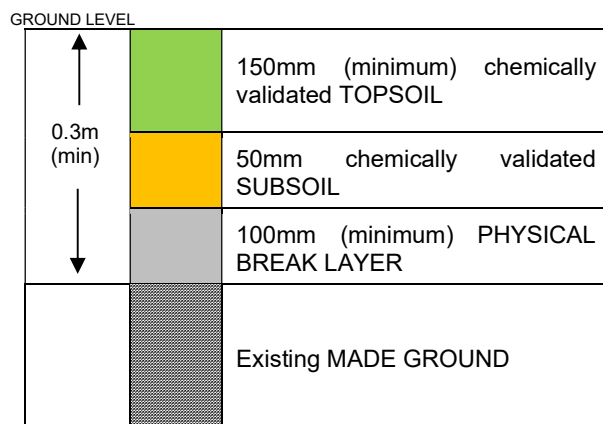


Or (geotextile membrane)

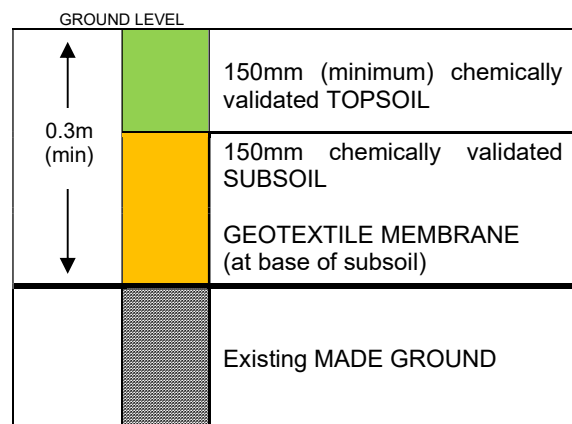


PUBLIC OPEN SPACE:

Either (physical break layer)



Or (geotextile membrane)



Hardstood Areas – No Remediation Required

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