17-19 Whitworth Street West
Manchester
M1 5WG

0161 236 2394
manchester@curtins.com
www.curtins.com

Curtins

Our Ref: 075805-CUR-XX-XX-T-GE-00005-P01

9th December 2025

Nicola Harman
Estates & Facilities Directorate
Manchester University NHS Trust

Initial Preliminary Waste Classification Assessment Letter Report for WP14, North Manchester General Hospital

Introduction

Curtins were instructed by Hive Projects (on behalf of Central Manchester University Hospital) to undertake a preliminary waste classification of soils for potential disposal at a site known as WP14, North Manchester General Hospital, Delauneys Road, Crumpsall, Manchester, M8 5RB. The purpose of this assessment is to advise on likely waste classification of the site soils if they become surplus and need disposing off site.

The ground investigation works were undertaken on the 13th and 14th October 2025. The investigations included the following:

- 3 No. Window Sample Boreholes
- 3 No. Mechanically Excavated Trial Pits (undertaken to facilitate CBR testing plate load testing, soakaway testing and soil sampling)

A Curtins Phase 2 Ground Investigation report independent of this waste classification detailing the findings of the ground investigations (ref. 075805-CUR-XX-XX-T-GE-00004-P01) should be read in conjunction with this letter.

An exploratory hole plan, ref. 075805.307-CUR-XX-XX-DR-GE-80001-P02 is appended at the rear of this report and shows the location of sampling undertaken for classification.

6 No. soil samples were collected and tested for a broad suite of contamination as part of the ground investigation, used herein for initial waste classification. WAC Suite E tests were also undertaken (total of 5No. samples)

Soil samples were obtained in a non-targeted, systematic array to provide general coverage of the site, with respect to its proposed end use and immediate environmental setting, rather than specifically for waste classification.

Curtins Waste Assessment and Classification

Where any site soils are to be moved, disposed of or recovered, guidance on the movement of contaminated soils is provided within the following document. The document, Guidance on the classification and assessment of waste (1st Edition 2015) Technical Guidance WM3 can be referred to for classification and assessment of soils potentially defined as waste and specifically those identified as surplus and scheduled for removal during construction development.

Classification and assessment of soils Technical Guidance (WM3) is relatively complex and there is commercially available software incorporating the requirements of WM3 to aid the waste classification of soils.

The environmental chemistry laboratory test results for soil samples, which can also be obtained from the geo-environmental ground investigation of a site, are inputted into software and each test result

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Registered office: 51-55 Tithebarn Street, Liverpool, L2 2SB
Branch registered in Ireland No. 908625

is assessed for the Hazardous properties and classed as Hazardous Waste or by deduction as not Hazardous Waste. It should be noted that Non-Hazardous Waste classification may include inert waste.

The information provided below can be considered as initial guidance which may be used along with the environmental chemistry results and exploratory hole log descriptions by contactors to identify appropriate disposal facilities. **Further sampling, testing, classification and assessment may be required by the contractor during the progress of the development construction works to enable compliance with WM3 and their Duty of Care**. As waste producer the Duty of Care for appropriate classification, transfer and disposal of waste and disposal of waste lies with the Principal Contractor/Earthworks Contractor/Groundworks Contractor in any event.

In providing the initial guidance environmental chemistry laboratory testing results for Made Ground soils encountered on site have been input into the Waste Soil Characterisation Tool, HazWasteOnline. This online tool gives a rapid assessment of contaminated soils and their classification as either hazardous or non-hazardous (stable non-reactive hazardous waste) waste, it should be noted that this tool does not classify inert waste. Persistent Organic Pollutants (POP's) were not tested for as part of the investigation, however based on the Conceptual Site Model the risk of these being present on the site is considered low.

In total 6 No. samples were screened using the Waste Classification Tool, HazWasteOnline from all phases of ground investigation:

- 6 No. samples were obtained from Made Ground

Table 1 provides a summary of the initial waste screening, derived waste code and also a preliminary classification of the results based on the HazWasteOnline screening (WM3 screen). The Haz Waste Online report is appended.

Table 1 – Preliminary Waste Assessment Summary

Hole	Sample Depth (m bgl)	Strata	WM3 Screen	Hazard Properties
WS01	0.20	Made Ground	Non-hazardous Waste Classified 17 05 04	-
WS01	0.62	Made Ground	Non-hazardous Waste Classified 17 05 04	-
WS02	0.30	Made Ground	Non-hazardous Waste Classified 17 05 04	-
WS02	0.45	Made Ground	Non-hazardous Waste Classified 17 05 04	-
WS03	0.10	Made Ground	Non-hazardous Waste Classified 17 05 04	-
WS03	0.40	Made Ground	Non-hazardous Waste Classified 17 05 04	-

Based on the preliminary WM3 screen assessment of the 6 No. soil samples screened, all results returned Non-Hazardous Waste, and should be classified as such if removed from site due to the results of the WM3 screen undertaken.

All soil samples were screened for asbestos. No asbestos was identified. WM3 states; if the waste contains fibres that are free and dispersed then the waste will be hazardous if the waste as a whole contains 0.1% or more asbestos. If the waste contains any identifiable pieces of suspected asbestos containing material, they must be assessed separately; the waste is hazardous if the concentration of asbestos in the piece of asbestos containing material is 0.1% or more. Therefore the concentrations of asbestos encountered would not result in the material being classified as hazardous waste.

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Where any materials are disposed of as non-hazardous, any inert constituents within the Made Ground easily identifiable and removable from the soil (e.g. brick and concrete fragments) should be separated prior to disposal.

For soils identified as hazardous, and where natural soils are being considered for offsite disposal as inert waste, Waste Acceptance Criteria (WAC) testing was undertaken and are appended to this report. The WAC testing results will be required with confirmation of acceptability from the receiving landfill. This should be segregated from other materials excavated to avoid cross contamination.

As discussed, preliminary waste classification is undertaken to offer indicative advice with respect to disposal requirements. Landfill operators are not obliged to accept and, if they were to do so, may have specific requirements beyond those outlined above prior to acceptance. Landfill operators should be contacted to confirm the above classifications or otherwise.

The results presented herein and summarised above should be provided to the proposed waste carrier/receiver and should be considered preliminary. Landfill operators are not obliged to accept waste and may require additional testing above that provided here prior to classifying and/or receiving the waste.

Considerations for Materials Management

Asbestos

All soil samples were screened for asbestos. No asbestos was identified. It's possible that further asbestos containing material or debris may be encountered at higher concentrations that recorded herein.

Ground Contamination

This report should be read in conjunction with Curtins Ground Investigation Report ref. 075805-CUR-XX-XX-T-GE-00004-P01, which includes ground contamination assessments and outline remedial recommendations.

Where unexpected contamination is identified, the advice of a Geo-Environmental consultant must be obtained to confirm remedial requirements and agreement of a Remediation Strategy.

It's possible that asbestos containing material or debris may be encountered within Made Ground soils despite not being identified during the ground investigation. If identified, the risk presented by asbestos in soils to construction workers and nearby residents should be suitably managed in accordance with a Construction and Environmental Management Plan and Asbestos Management Plan.

Re-use of Site Soils

For re-use of site soils, to ensure compliance with waste management regulations a Materials Management Plan (MMP) should be carried out in compliance with CL:AIRE Definition of Waste Code of Practice (version 2) or subject to volumes and nature of materials, a U1 waste exemption.

Yours sincerely,

[redacted]

Jonathan Lord
Geo-Environmental Engineer

For and on behalf of
Curtins Consulting Ltd

Author	Reviewed
[redacted] **J Lord** *BSc (Hons) MSc* *Senior Geo-Environmental Engineer*	[redacted] **N Farnworth** *BSc (Hons) MCIWEM C.WEM* *Principal Geo-Environmental Engineer*

Appendices

- Curtins drawing ref. 075805.307-CUR-XX-XX-DR-GE-80001-P02 Exploratory Hole Location Plan
- Curtins Intrusive Investigation Exploratory Hole Logs
- Curtins Environmental Chemistry Analysis Results (Soil + WAC Test Results)
- Curtins HazWasteOnline Waste Classification Report



Borehole Locations

- CBR
- WS

Curtins

Curtins Consulting Ltd
Merchant Exchange, 17-19 Whitworth Street West,
Manchester, M1 5WG
t: 0161 236 2394
e: manchester@curtins.com
www.curtins.com

Structures - Civils - Envrionmental - Infrastructure - Transport Planning - Sustainability - Expert Advisory Services
Birmingham - Bristol - Cardiff - Douglas - Edinburgh - Kendal - Leeds - Liverpool - London - Manchester - Nottingham

Status	INFORMATION
Project:	**NMGH WP14 Surface Car Park**
Drg Title:	**Exploratory Hole Location Plan**

Scale:	Size:	Issue Date:	Drawn:	Checked:
NTS	**A3**	**16/10/2025**	**JP**	**JL**

Drg No:	Rev:
075805.307-CUR-XX-XX-DR-GE-80001	**P02**

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Borehole Log

Borehole No. **WS01**

Sheet 1 of 1

Project Name: NMGH - WP14	Project No. 075805.307	Co-ords: 402229.79 - 384982.97	Hole Type WS
Location: NMGH, Central Drive, M8 5RB		Level: 74.39	Scale 1:30
Client: Hive Projects		Dates: 13/10/2025 - 13/10/2025	Logged By JP

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	ES					MADE GROUND: Light greyish brown sandy gravel with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone and quartzite. Cobbles are subangular of limestone.
		0.62	ES		0.61	73.78		MADE GROUND - REWORKED: Dark brown slightly clayey slightly gravelly fine to coarse sand. Gravel is fine to coarse of sandstone, mudstone and brick.
		1.20 1.00 - 1.50	B	N=14 (4,3/3,4,3,4)				
	▼				1.80	72.59		Soft brown very sandy CLAY. Sand is fine to coarse.
		2.00		N=4 (2,1/1,1,1,1)				
		2.50 - 2.60	D					
		3.00		N=20 (4,4/5,5,5,5)	3.00	71.39		Medium dense greyish brown fine to medium SAND.
		4.00		N=12 (3,3/3,3,3,3)				
		4.50 - 4.60	D		4.50	69.89		Medium dense brown slightly gravelly fine to coarse SAND with occasional bands of coal. Gravel is fine to corse, angular to subangular of coal.
		5.00		N=15 (2,2/3,4,4,4)				
					5.45	68.94		End of borehole at 5.45 m

Remarks

Window sample borehole to 5.45m bgl. Position was GPR cleared and CAT scanned by Discovery Surveys and a Curtins Engineer. A perched water strike was noted at 1.8m bgl. Borehole reached target depth.

Borehole Log

Borehole No. **WS02**

Sheet 1 of 1

Project Name: NMGH - WP14	Project No. 075805.307	Co-ords: 402229.58 - 385004.82	Hole Type WS
Location: NMGH, Central Drive, M8 5RB		Level: 74.66	Scale 1:30
Client: Hive Projects		Dates: 13/10/2025 - 13/10/2025	Logged By JP

Well	Water Strikes	Samples and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
		0.00 - 0.40	B					MADE GROUND: Light greyish brown sandy gravel with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone and quartzite. Cobbles are subangular of limestone.
		0.30	ES					
		0.45	ES		0.40	74.26		MADE GROUND - REWORKED: Reddish brown slightly clayey slightly gravelly fine to coarse sand. Gravel is fine to coarse, angular to subangular of sandstone and coal.
					1.00	73.66		Firm brown slightly gravelly very sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of coal.
		1.20		N=12 (3,3/3,3,4,2)				
		1.20 - 1.30	D					
					1.60	73.06		Medium dense reddish brown slightly gravelly slightly clayey fine to coarse SAND.Gravel is fine to coarse, subangular of coal.
		2.00		N=14 (2,2/3,3,4,4)				
					2.15	72.51		
		2.15 - 2.25	D		2.25	72.41		Medium dense reddish brown sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse, subangular of ironstone.
	▼				2.43	72.23		Medium dense reddish brown slightly gravelly fine to coarse SAND. Gravel is fine to coarse, subangular of ironstone and coal.
		2.50 - 2.60	D					Firm brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of coal.
		3.00		N=16 (3,4/3,3,5,5)	3.00	71.66		*From 2.43m to 3.00m bgl: Strata is damp*
								Medium dense light brown fine to medium SAND.
	▼							*From 3.90m to 4.00m bgl: Strata is damp*
		4.00		N=17 (3,4/4,4,4,5)				
		4.00 - 5.00	B					
		5.00		N=19 (2,3/4,5,5,5)				
					5.45	69.21		End of borehole at 5.45 m

Remarks

Window sample borehole to 5.45m bgl. Position was GPR cleared and CAT scanned by Discovery Surveys and a Curtins Engineer. A perched water strike was noted at 2.34m and 3.90m bgl. Borehole reached target depth.

Borehole Log

Borehole No. **WS03**

Sheet 1 of 1

Project Name: NMGH - WP14	Project No. 075805.307	Co-ords: 402205.52 - 385018.87	Hole Type WS
Location: NMGH, Central Drive, M8 5RB		Level: 75.50	Scale 1:30
Client: Hive Projects		Dates: 13/10/2025 - 13/10/2025	Logged By JP

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10	ES					MADE GROUND: Light greyish brown sandy gravel with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone and quartzite. Cobbles are subangular of limestone.
		0.00 - 0.40	B					
		0.40	ES		0.40	75.10		MADE GROUND- REWORKED: Reddish brown slightly gravelly fine to medium SAND. Gravel is coarse, subangular of limestone.
		1.20		N=20 (3,3/5,5,5,5)	1.20	74.30		Firm brown very sandy CLAY. Sand is fine to coarse.
		1.30 - 1.40	D		1.40	74.10		Medium dense light brown fine to medium SAND.
		1.50 - 2.00	B					
		2.00		N=24 (2,2/4,6,6,8)				
		2.80 - 2.90	D		2.75	72.74		Medium dense brown clayey fine to medium SAND.
		3.00		N=20 (4,5/5,5,5,5)	2.95	72.54		Medium dense reddish brown slightly gravelly fine to coarse SAND. Gravel is fine to medium, subangular of coal.
					3.40	72.10		Medium dense light brown fine to medium SAND.
		4.00		N=16 (2,2/3,4,4,5)	4.00	71.50		Medium dense reddish brown gravelly fine to coarse SAND. Gravel is fine to coarse, angular to subangular of coal.
		4.00 - 5.00	B					
		5.00		N=14 (2,3/4,3,5,2)				
					5.45	70.04		End of borehole at 5.45 m

Remarks

Window sample borehole to 5.45m bgl. Position was GPR cleared and CAT scanned by Discovery Surveys and a Curtins Engineer. No water strikes were noted during the borehole progression. Borehole reached target depth.

SPT Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

ARCHWAY ENGINEERING UK LTD
AINLEYS INDUSTRIAL ESTATE
ELLAND
WEST YORKSHIRE
HX5 9JP

SPT Hammer Ref:	AR4035
Test Date:	11/04/2025
Report Date:	11/04/2025
File Name:	AR4035.spt
Test Operator:	CM

Instrumented Rod Data

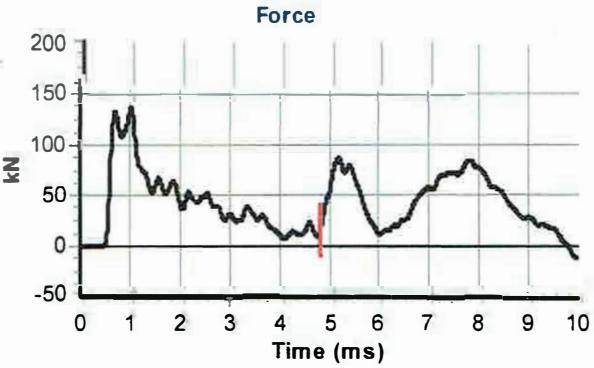
Diameter d_r (mm):	54
Wall Thickness t_r (mm):	6.5
Assumed Modulus E_a (GPa):	208
Accelerometer No.1:	72572
Accelerometer No.2:	72757

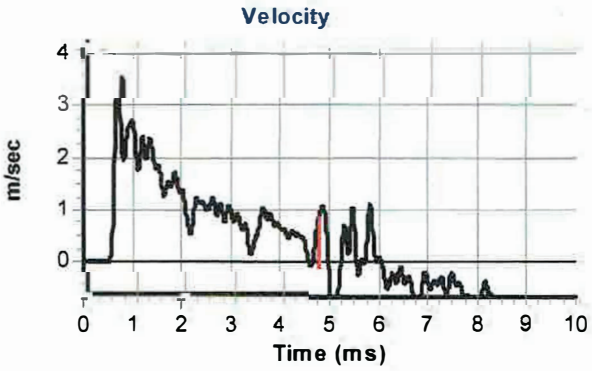
SPT Hammer Information

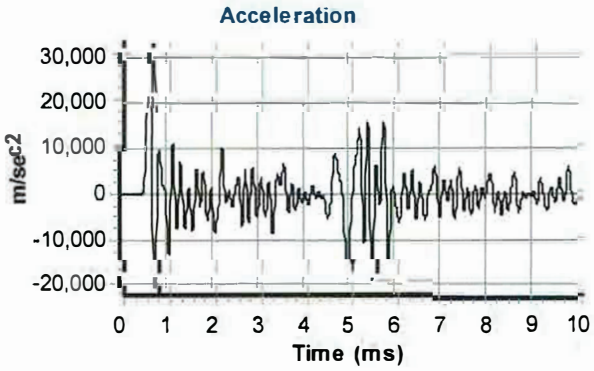
Hammer Mass m (kg):	63.5
Falling Height h (mm):	760
SPT String Length L (m):	10.0

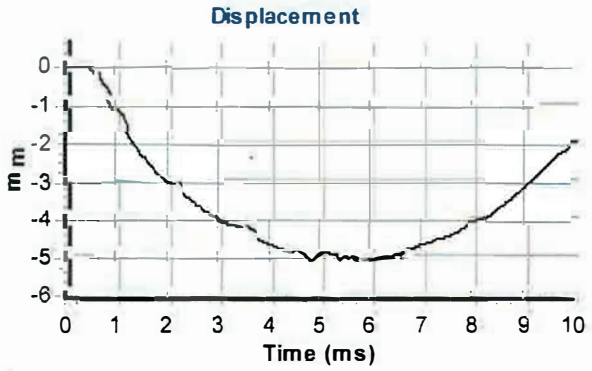
Comments / Location

TAYLOR DRILLING SERVICES LTD-81636









Calculations

Area of Rod A (mm2):	970
Theoretical Energy E_{theor} (J):	473
Measured Energy E_{meas} (J):	340

Energy Ratio E_r (%): **72**

[redacted]

Signed: C.McCLUSKEY

Title: FITTER

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Borehole Log

Borehole No. **CBR01**

Sheet 1 of 1

Project Name: NMGH - WP14	Project No. 075805.307	Co-ords: 402236.06 - 384988.93	Hole Type TP
Location: NMGH, Central Drive, M8 5RB		Level: 74.30	Scale 1:30
Client: Hive Projects		Dates: 14/10/2025 - 14/10/2025	Logged By JP

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.62	73.68		MADE GROUND: Light greyish brown sandy gravel with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone and quartzite. Cobbles are subangular of limestone.
					1.00	73.30		MADE GROUND - REWORKED: Reddish brown slightly clayey slightly gravelly fine to coarse sand. Gravel is fine to coarse, angular to subangular of limestone and brick.
		1.10 - 1.20	D		1.50	72.80		Dark reddish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of coal.
		1.50 - 2.00	B		2.10	72.20		Firm brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone, mudstone and coal.
								End of borehole at 2.10 m

1 2 3 4 5 6

Remarks

Machine excavated trial pit to 2.1m bgl with a CBR plate test at 0.65m bgl and a follow-on BRE Soakaway test from 1.00m to 2.10m bgl. Position was GPR cleared and CAT scanned by Discovery Surveys and a Curtins Engineer. No water strikes were noted during the excavation. CBR plate test used a 610mm plate.

AGS

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Borehole Log

Borehole No.
CBR02
Sheet 1 of 1

Project Name: NMGH - WP14	Project No. 075805.307	Co-ords: 402217.81 - 385006.39	Hole Type TP
Location: NMGH, Central Drive, M8 5RB		Level: 75.06	Scale 1:30
Client: Hive Projects		Dates: 14/10/2025 - 14/10/2025	Logged By JP

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								MADE GROUND: Light greyish brown sandy gravel with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone and quartzite. Cobbles are subangular of limestone.
					0.55	74.51		MADE GROUND - REWORKED: Reddish brown slightly gravelly fine to medium sand. Gravel is fine to coarse, subangular of coal and brick.
					1.10	73.96		Reddish brown slightly gravelly very sandy CLAY with bands of coal. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of coal.
		1.50 - 1.60	D					
					2.85	72.21		Light brown slightly clayey fine to medium SAND.
					3.70	71.36		End of borehole at 3.70 m

Remarks
Machine excavated trial pit to 3.7m bgl with a CBR plate test at 0.68m bgl and a follow-on trial pit. Position was GPR cleared and CAT scanned by Discovery Surveys and a Curtins Engineer. No water strikes were noted during the excavation. CBR plate test used a 610mm plate.

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Borehole Log

Borehole No.
CBR03
Sheet 1 of 1

Project Name:	NMGH - WP14	Project No. 075805.307	Co-ords: 402221.23 - 385018.05	Hole Type TP
Location:	NMGH, Central Drive, M8 5RB		Level: 75.14	Scale 1:30
Client:	Hive Projects		Dates: 14/10/2025 - 14/10/2025	Logged By JP

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.45	74.69		MADE GROUND: Light greyish brown sandy gravel with a medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone and quartzite. Cobbles are subangular of limestone.
					0.60	74.54		MADE GROUND - REWORKED: Reddish brown slightly gravelly fine to coarse sand. Gravel is fine to coarse, subangular of limestone.
					1.10	74.04		MADE GROUND - REWORKED: Dark reddish brown slightly clayey gravelly fine to coarse sand with a low cobble content and a low rootlet content. Gravel is fine to coarse, subangular of limestone and lime. Cobbles are subangular of lime.
								End of borehole at 1.10 m

1
2
3
4
5
6

Remarks
Machine excavated trial pit to 1.1m bgl with a CBR plate test at 0.48m bgl and a follow-on BRE Soakaway test from 0.60m to 1.10m bgl. Position was GPR cleared and CAT scanned by Discovery Surveys and a Curtins Engineer. No water strikes were noted during the excavation. CBR plate test used a 610mm plate.

AGS

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 25/11833
Issue Number: 1 **Date:** 28 October, 2025

Client:
Curtins Consulting (Manchester)
Merchant Exchange
17-19 Whitworth Street
Manchester
UK
M1 5WG

Project Manager: Jonathan Provis/Niall Farnworth/Rebecca Baksh-Jone
Project Name: NMGH-WP14
Project Ref: 75805
Order No: 27337
Date Samples Received: 16/10/25
Date Instructions Received: 17/10/25
Date Analysis Completed: 28/10/25

Approved by:

[redacted]

Danielle Brierley
Client Services Supervisor

Envirolab Job Number: 25/11833

Client Project Name: NMGH-WP14

Client Project Ref: 75805

Lab Sample ID	25/11833/1	25/11833/2	25/11833/3	25/11833/4	25/11833/5	25/11833/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS01	WS02	WS02	WS03	WS03				
Depth to Top	0.20	0.62	0.30	0.45	0.10	0.40				
Depth To Bottom										
Date Sampled	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25				
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES				
Sample Matrix Code	4A	4A	4A	4A	4A	1				
% Moisture at <40C$_A$	3.7	9.6	2.3	15.5	3.4	9.0		% w/w	0.1	A-T-044
% Stones >10mm$_A$	9.4	<0.1	22.1	<0.1	19.3	<0.1		% w/w	0.1	A-T-044
pH$_D$ M#	9.07	10.46	9.33	7.38	9.01	7.76		pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$ M#	0.04	0.02	0.02	0.01	0.03	<0.01		g/l	0.01	A-T-026s
Cyanide (total)$_A$ M#	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		mg/kg	0.2	A-T-050s
Organic Matter$_D$ M#	0.82	1.36	2.85	1.14	2.99	0.51		% w/w	0.14	A-T-032s
Arsenic$_D$ M#	2	2	<1	2	2	3		mg/kg	1	A-T-024s
Boron (water soluble)$_D$ M#	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium$_D$	1.4	<1.0	1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-024s
Copper$_D$ M#	9	10	5	9	6	9		mg/kg	1	A-T-024s
Chromium$_D$ M#	5	6	5	5	6	4		mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead$_D$ M#	46	6	23	5	37	5		mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17		mg/kg	0.17	A-T-024s
Nickel$_D$ M#	9	7	5	6	6	6		mg/kg	1	A-T-024s
Selenium$_D$ M#	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc$_D$ M#	53	19	37	22	45	21		mg/kg	1	A-T-024s

Envirolab Job Number: 25/11833

Client Project Name: NMGH-WP14

Client Project Ref: 75805

Lab Sample ID	25/11833/1	25/11833/2	25/11833/3	25/11833/4	25/11833/5	25/11833/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS01	WS02	WS02	WS03	WS03				
Depth to Top	0.20	0.62	0.30	0.45	0.10	0.40				
Depth To Bottom										
Date Sampled	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25				
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES				
Sample Matrix Code	4A	4A	4A	4A	4A	1				
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-				A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-				A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	N/A	N/A	N/A	N/A				A-T-045

Envirolab Job Number: 25/11833

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Lab Sample ID	25/11833/1	25/11833/2	25/11833/3	25/11833/4	25/11833/5	25/11833/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS01	WS02	WS02	WS03	WS03				
Depth to Top	0.20	0.62	0.30	0.45	0.10	0.40				
Depth To Bottom										
Date Sampled	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25				
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES				
Sample Matrix Code	4A	4A	4A	4A	4A	1				
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.08	0.06	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.18	0.04	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.19	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.08	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.12	<0.06	<0.06	<0.06	<0.06	<0.06		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.17	0.11	<0.08	<0.08	<0.08	<0.08		mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.08	<0.03	<0.03	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	0.04	<0.03	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.08	0.08	0.05	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.17	0.10	<0.07	<0.07	<0.07	<0.07		mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	1.15	0.43	<0.08	<0.08	<0.08	<0.08		mg/kg	0.01	A-T-019s

Envirolab Job Number: 25/11833

Client Project Name: NMGH-WP14

Client Project Ref: 75805

Lab Sample ID	25/11833/1	25/11833/2	25/11833/3	25/11833/4	25/11833/5	25/11833/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS01	WS02	WS02	WS03	WS03				
Depth to Top	0.20	0.62	0.30	0.45	0.10	0.40				
Depth To Bottom										
Date Sampled	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25	13-Oct-25				
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES				
Sample Matrix Code	4A	4A	4A	4A	4A	1				
TPH CWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	2	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	5	<1	<1	<1	2	<1		mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	24	2	3	<1	4	<1		mg/kg	1	A-T-055s
Total Aliphatics$_A$	31	2	3	<1	6	<1		mg/kg	1	Calc-As Recd
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	14	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	4	2	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	11	4	2	<1	<1	<1		mg/kg	1	A-T-055s
Total Aromatics$_A$	16	21	2	<1	2	<1		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35)$_A$	47	23	5	<1	8	<1		mg/kg	1	Calc-As Recd
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s

Report Notes

General

•This report shall not be reproduced, except in full, without written approval from Envirolab.
•The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
•The results reported herein relate only to the material supplied to the laboratory.
•The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
•Analytical results reflect the quality of the sample at the time of analysis only.
•Opinions and Interpretations expressed are outside our scope of accreditation.
•A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
•If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
•Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "D" on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
"Trace Asbestos Identified" will be reported if there is not enough present to verify the type.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^0C / 11550µS/cm @ 20^0C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Curtins Consulting (Manchester), Merchant Exchange, 17-19 Whitworth Street , Manchester, UK, M1 5WG

Project: NMGH-WP14

Clients Project No: 75805

Project No: 25/11833

Date Received: 17/10/2025 (am)

Cool Box Temperatures (°C): 9.5, 9.7

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	25/11833/1	25/11833/2	25/11833/3	25/11833/4	25/11833/5	25/11833/6
Client Sample No						
Client Sample ID/Depth	WS01 0.20m	WS01 0.62m	WS02 0.30m	WS02 0.45m	WS03 0.10m	WS03 0.40m
Date Sampled	13/10/25	13/10/25	13/10/25	13/10/25	13/10/25	13/10/25
A-T-004s	24/10/2025	24/10/2025	24/10/2025		24/10/2025	24/10/2025
A-T-007m	24/10/2025	24/10/2025	24/10/2025		24/10/2025	24/10/2025
A-T-019s	24/10/2025	24/10/2025	24/10/2025	24/10/2025	24/10/2025	24/10/2025
A-T-022s	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
A-T-024s	23/10/2025	23/10/2025	23/10/2025	23/10/2025	23/10/2025	23/10/2025
A-T-025w	28/10/2025	28/10/2025	28/10/2025		28/10/2025	28/10/2025
A-T-026s	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
A-T-026w	28/10/2025	28/10/2025	28/10/2025		28/10/2025	28/10/2025
A-T-026w (F)	28/10/2025	28/10/2025	28/10/2025		28/10/2025	28/10/2025
A-T-027s	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
A-T-030s	22/10/2025	22/10/2025	23/10/2025		23/10/2025	22/10/2025
A-T-031s	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
A-T-031w	28/10/2025	28/10/2025	28/10/2025		28/10/2025	28/10/2025
A-T-032s	22/10/2025	22/10/2025	23/10/2025	22/10/2025	23/10/2025	22/10/2025
A-T-032w	28/10/2025	28/10/2025	28/10/2025		28/10/2025	28/10/2025
A-T-037w	28/10/2025	28/10/2025	28/10/2025		28/10/2025	28/10/2025
A-T-040s	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
A-T-042sTCN	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
A-T-044	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
A-T-045	20/10/2025	20/10/2025	20/10/2025	20/10/2025	20/10/2025	20/10/2025
A-T-050s	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
A-T-050w	28/10/2025	28/10/2025	28/10/2025		28/10/2025	28/10/2025
A-T-055s	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
A-T-ANCs	23/10/2025	23/10/2025	24/10/2025		23/10/2025	23/10/2025
Calc-As Recd	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025	22/10/2025
Calc-no stones	28/10/2025	28/10/2025	28/10/2025		28/10/2025	28/10/2025
Probe (w)	28/10/2025	28/10/2025	28/10/2025		28/10/2025	28/10/2025

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

Final Test Report

Envirolab Job Number:	25/11833		
Issue Number:	1	Date:	28-Oct-25

Client:
Curtins Consulting (Manchester)
Merchant Exchange
17-19 Whitworth Street
Manchester
UK
M1 5WG

Project Manager:	Jonathan Provis/Niall Farnworth/Rebecca Baksh-Jone
Project Name:	NMGH-WP14
Project Ref:	75805
Order No:	27337
Date Samples Received:	16-Oct-25
Date Instructions Received:	17-Oct-25
Date Analysis Completed:	28-Oct-25

Notes - Soil analysis

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones >10mm are removed or excluded from the sample prior to analysis and reported results corrected to a whole sample basis.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis.

Notes - General

This report shall not be reproduced, except in full, without written approval from Envirolab.

Subscript "A" indicates analysis performed on the sample as received. "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve, unless asbestos is found to be present in which case all analysis is performed on the sample as received.

All analysis is performed on the dried and crushed sample for samples with Matrix Code 7 and this supercedes any "A" subscripts.

All analysis is performed on the sample as received for soil samples from outside the European Union and this supercedes any "D" subscripts

For complex, multi-compound analysis, quality control results do not always fall within chart limits for every compound and we have criteria for reporting in these situations.

If results are in italic font they are associated with such quality control failures and may be unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid

Predominant Matrix Codes: 1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample

Secondary Matrix Codes: A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

IS indicates Insufficient sample for analysis, NDP indicates No Determination Possible and NAD indicates No Asbestos Detected.

Analytical results reflect the quality of the sample at the time of analysis only. Opinions and interpretations expressed are outside the scope of our accreditation.

Please contact us if you need any further information.

HWOL TPH Code: EH_CU_1D_AL: Extractable hydrocarbons - i.e. everything extracted by the solvent(s), Clean-up - e.g. by florisil, silica gel, GC - Single coil gas chromatography, Aliphatics only

Approved by:

[redacted]

Danielle Brierley
Client Services Supervisor

Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Sample Details						Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	25/11833/1				
Client Sample Number						Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample ID				WS01				
Depth to Top				0.2				
Depth to Bottom								
Date Sampled				13/10/2025				
Sample Type				Soil - ES				
Sample Matrix Code				4A				
Solid Waste Analysis								
pH (pH Units)$_D$	A-T-031	N	N	**9.07**		-	>6	-
ANC to pH 4 (mol/kg)$_D$	A-T-ANC	N	N	**0.02**		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg)$_D$	A-T-ANC	N	N	**<0.01**		-	to be evaluated	to be evaluated
Loss on Ignition (%)$_D$	A-T-030	N	N	**2.1**		-	-	10
Total Organic Carbon (%)$_D$	A-T-032	N	N	**0.47**		3	5	6
PAH Sum of 17 (mg/kg)$_A$	A-T-019	N	N	**1.2**		100	-	-
Mineral Oil (mg/kg)$_{A\ EH_CU_1D_AL}$	A-T-007	N	N	**<10**		500	-	-
Sum of 7 PCBs (mg/kg)$_A$	A-T-004	N	N	**<0.007**		1	-	-
Sum of BTEX (mg/kg)$_A$	A-T-022	N	N	**<0.01**		6	-	-
Eluate Analysis				**10:1** mg/l	**10:1** mg/kg	**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)**		
Arsenic	A-T-025	N	N	<0.001	**<0.01**	0.5	2	25
Barium	A-T-025	N	N	0.162	**1.620**	20	100	300
Cadmium	A-T-025	N	N	<0.001	**<0.01**	0.04	1	5
Chromium	A-T-025	N	N	<0.001	**<0.01**	0.5	10	70
Copper	A-T-025	N	N	<0.004	**<0.04**	2	50	100
Mercury	A-T-025	N	N	<0.0005	**<0.005**	0.01	0.2	2
Molybdenum	A-T-025	N	N	<0.001	**<0.01**	0.5	10	30
Nickel	A-T-025	N	N	<0.002	**<0.02**	0.4	10	40
Lead	A-T-025	N	N	<0.001	**<0.01**	0.5	10	50
Antimony	A-T-025	N	N	<0.001	**<0.01**	0.06	0.7	5
Selenium	A-T-025	N	N	<0.001	**<0.01**	0.1	0.5	7
Zinc	A-T-025	N	N	<0.002	**<0.02**	4	50	200
Chloride	A-T-026	N	N	<1.00	**<10**	800	15000	25000
Fluoride	A-T-026	N	N	0.2	**2.0**	10	150	500
Sulphate as SO_4	A-T-026	N	N	5	**50**	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	22	**220**	4000	60000	100000
Phenol Index	A-T-050	N	N	<0.01	**<0.1**	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<2.0	**<200**	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	9.7				
Conductivity (µS/cm)	A-T-037	N	N	44				
Mass Sample (kg)				0.181				
Dry Matter (%)	A-T-044	N	N	96.8				

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

Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Sample Details						Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	25/11833/2		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample Number								
Client Sample ID				WS01				
Depth to Top				0.62				
Depth to Bottom								
Date Sampled				13/10/2025				
Sample Type				Soil - ES				
Sample Matrix Code				4A				
Solid Waste Analysis								
pH (pH Units)$_D$	A-T-031	N	N	**10.46**		-	>6	-
ANC to pH 4 (mol/kg)$_D$	A-T-ANC	N	N	**0.03**		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg)$_D$	A-T-ANC	N	N	**0.01**		-	to be evaluated	to be evaluated
Loss on Ignition (%)$_D$	A-T-030	N	N	**2.3**		-	-	10
Total Organic Carbon (%)$_D$	A-T-032	N	N	**0.79**		3	5	6
PAH Sum of 17 (mg/kg) $_A$	A-T-019	N	N	**0.44**		100	-	-
Mineral Oil (mg/kg)$_{A\ EH_CU_1D_AL}$	A-T-007	N	N	**<10**		500	-	-
Sum of 7 PCBs (mg/kg)$_A$	A-T-004	N	N	**<0.007**		1	-	-
Sum of BTEX (mg/kg)$_A$	A-T-022	N	N	**<0.01**		6	-	-
Eluate Analysis				**10:1** mg/l	**10:1** mg/kg	**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)**		
Arsenic	A-T-025	N	N	<0.001	**<0.01**	0.5	2	25
Barium	A-T-025	N	N	0.049	**0.490**	20	100	300
Cadmium	A-T-025	N	N	<0.001	**<0.01**	0.04	1	5
Chromium	A-T-025	N	N	0.003	**0.030**	0.5	10	70
Copper	A-T-025	N	N	0.015	**0.150**	2	50	100
Mercury	A-T-025	N	N	<0.0005	**<0.005**	0.01	0.2	2
Molybdenum	A-T-025	N	N	0.006	**0.060**	0.5	10	30
Nickel	A-T-025	N	N	0.009	**0.090**	0.4	10	40
Lead	A-T-025	N	N	<0.001	**<0.01**	0.5	10	50
Antimony	A-T-025	N	N	0.001	**0.010**	0.06	0.7	5
Selenium	A-T-025	N	N	0.001	**0.010**	0.1	0.5	7
Zinc	A-T-025	N	N	0.003	**0.030**	4	50	200
Chloride	A-T-026	N	N	2	**19**	800	15000	25000
Fluoride	A-T-026	N	N	1.3	**13.0**	10	150	500
Sulphate as SO_4	A-T-026	N	N	4	**42**	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	570	**5700**	4000	60000	100000
Phenol Index	A-T-050	N	N	<0.01	**<0.1**	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<2.0	**<200**	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	11.9				
Conductivity (µS/cm)	A-T-037	N	N	1139				
Mass Sample (kg)				0.188				
Dry Matter (%)	A-T-044	N	N	93.2				

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Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Sample Details						Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	25/11833/3		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample Number								
Client Sample ID				WS02				
Depth to Top				0.3				
Depth to Bottom								
Date Sampled				13/10/2025				
Sample Type				Soil - ES				
Sample Matrix Code				4A				
Solid Waste Analysis								
pH (pH Units)$_D$	A-T-031	N	N	**9.33**		-	>6	-
ANC to pH 4 (mol/kg)$_D$	A-T-ANC	N	N	**4.53**		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg)$_D$	A-T-ANC	N	N	**0.28**		-	to be evaluated	to be evaluated
Loss on Ignition (%)$_D$	A-T-030	N	N	**1.7**		-	-	10
Total Organic Carbon (%)$_D$	A-T-032	N	N	**1.65**		3	5	6
PAH Sum of 17 (mg/kg) $_A$	A-T-019	N	N	**<0.08**		100	-	-
Mineral Oil (mg/kg)$_{A\ EH_CU_1D_AL}$	A-T-007	N	N	**<10**		500	-	-
Sum of 7 PCBs (mg/kg)$_A$	A-T-004	N	N	**<0.007**		1	-	-
Sum of BTEX (mg/kg)$_A$	A-T-022	N	N	**<0.01**		6	-	-
Eluate Analysis				**10:1** mg/l	**10:1** mg/kg	**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)**		
Arsenic	A-T-025	N	N	<0.001	**<0.01**	0.5	2	25
Barium	A-T-025	N	N	0.127	**1.270**	20	100	300
Cadmium	A-T-025	N	N	<0.001	**<0.01**	0.04	1	5
Chromium	A-T-025	N	N	<0.001	**<0.01**	0.5	10	70
Copper	A-T-025	N	N	<0.004	**<0.04**	2	50	100
Mercury	A-T-025	N	N	<0.0005	**<0.005**	0.01	0.2	2
Molybdenum	A-T-025	N	N	<0.001	**<0.01**	0.5	10	30
Nickel	A-T-025	N	N	<0.002	**<0.02**	0.4	10	40
Lead	A-T-025	N	N	<0.001	**<0.01**	0.5	10	50
Antimony	A-T-025	N	N	<0.001	**<0.01**	0.06	0.7	5
Selenium	A-T-025	N	N	<0.001	**<0.01**	0.1	0.5	7
Zinc	A-T-025	N	N	<0.002	**<0.02**	4	50	200
Chloride	A-T-026	N	N	<1.00	**<10**	800	15000	25000
Fluoride	A-T-026	N	N	<0.10	**<1**	10	150	500
Sulphate as SO_4	A-T-026	N	N	<1.00	**<10**	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	23	**230**	4000	60000	100000
Phenol Index	A-T-050	N	N	0.01	**0.10**	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<2.0	**<200**	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	9.7				
Conductivity (µS/cm)	A-T-037	N	N	45				
Mass Sample (kg)				0.178				
Dry Matter (%)	A-T-044	N	N	98.1				

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Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Sample Details						Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	25/11833/5		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample Number								
Client Sample ID				WS03				
Depth to Top				0.1				
Depth to Bottom								
Date Sampled				13/10/2025				
Sample Type				Soil - ES				
Sample Matrix Code				4A				
Solid Waste Analysis								
pH (pH Units)$_D$	A-T-031	N	N	**9.01**		-	>6	-
ANC to pH 4 (mol/kg)$_D$	A-T-ANC	N	N	**1.89**		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg)$_D$	A-T-ANC	N	N	**0.08**		-	to be evaluated	to be evaluated
Loss on Ignition (%)$_D$	A-T-030	N	N	**1.4**	1.4	-	-	10
Total Organic Carbon (%)$_D$	A-T-032	N	N	**1.74**		3	5	6
PAH Sum of 17 (mg/kg) $_A$	A-T-019	N	N	**<0.08**		100	-	-
Mineral Oil (mg/kg)$_{A\ EH_CU_1D_AL}$	A-T-007	N	N	**11**		500	-	-
Sum of 7 PCBs (mg/kg)$_A$	A-T-004	N	N	**<0.007**		1	-	-
Sum of BTEX (mg/kg)$_A$	A-T-022	N	N	**<0.01**		6	-	-
Eluate Analysis				**10:1** mg/l	**10:1** mg/kg	**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)**		
Arsenic	A-T-025	N	N	0.001	**0.010**	0.5	2	25
Barium	A-T-025	N	N	0.102	**1.020**	20	100	300
Cadmium	A-T-025	N	N	<0.001	**<0.01**	0.04	1	5
Chromium	A-T-025	N	N	<0.001	**<0.01**	0.5	10	70
Copper	A-T-025	N	N	<0.004	**<0.04**	2	50	100
Mercury	A-T-025	N	N	<0.0005	**<0.005**	0.01	0.2	2
Molybdenum	A-T-025	N	N	0.004	**0.040**	0.5	10	30
Nickel	A-T-025	N	N	<0.002	**<0.02**	0.4	10	40
Lead	A-T-025	N	N	0.003	**0.030**	0.5	10	50
Antimony	A-T-025	N	N	<0.001	**<0.01**	0.06	0.7	5
Selenium	A-T-025	N	N	<0.001	**<0.01**	0.1	0.5	7
Zinc	A-T-025	N	N	0.003	**0.030**	4	50	200
Chloride	A-T-026	N	N	<1.00	**<10**	800	15000	25000
Fluoride	A-T-026	N	N	<0.10	**<1**	10	150	500
Sulphate as SO_4	A-T-026	N	N	3	**31**	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	27	**270**	4000	60000	100000
Phenol Index	A-T-050	N	N	<0.01	**<0.1**	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<2.0	**<200**	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	9.4				
Conductivity (µS/cm)	A-T-037	N	N	54				
Mass Sample (kg)				0.183				
Dry Matter (%)	A-T-044	N	N	95.7				

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Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Sample Details						Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	25/11833/6		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample Number								
Client Sample ID				WS03				
Depth to Top				0.4				
Depth to Bottom								
Date Sampled				13/10/2025				
Sample Type				Soil - ES				
Sample Matrix Code				1				
Solid Waste Analysis								
pH (pH Units)$_D$	A-T-031	N	N	**7.76**		-	>6	-
ANC to pH 4 (mol/kg)$_D$	A-T-ANC	N	N	**0.02**		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg)$_D$	A-T-ANC	N	N	**<0.01**		-	to be evaluated	to be evaluated
Loss on Ignition (%)$_D$	A-T-030	N	N	**0.9**		-	-	10
Total Organic Carbon (%)$_D$	A-T-032	N	N	**0.3**		3	5	6
PAH Sum of 17 (mg/kg) $_A$	A-T-019	N	N	**<0.08**		100	-	-
Mineral Oil (mg/kg)$_{A\ EH_CU_1D_AL}$	A-T-007	N	N	**<10**		500	-	-
Sum of 7 PCBs (mg/kg)$_A$	A-T-004	N	N	**<0.007**		1	-	-
Sum of BTEX (mg/kg)$_A$	A-T-022	N	N	**<0.01**		6	-	-
Eluate Analysis				**10:1** mg/l	**10:1** mg/kg	**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)**		
Arsenic	A-T-025	N	N	<0.001	**<0.01**	0.5	2	25
Barium	A-T-025	N	N	0.005	**0.050**	20	100	300
Cadmium	A-T-025	N	N	<0.001	**<0.01**	0.04	1	5
Chromium	A-T-025	N	N	<0.001	**<0.01**	0.5	10	70
Copper	A-T-025	N	N	<0.004	**<0.04**	2	50	100
Mercury	A-T-025	N	N	<0.0005	**<0.005**	0.01	0.2	2
Molybdenum	A-T-025	N	N	0.001	**0.010**	0.5	10	30
Nickel	A-T-025	N	N	<0.002	**<0.02**	0.4	10	40
Lead	A-T-025	N	N	<0.001	**<0.01**	0.5	10	50
Antimony	A-T-025	N	N	<0.001	**<0.01**	0.06	0.7	5
Selenium	A-T-025	N	N	<0.001	**<0.01**	0.1	0.5	7
Zinc	A-T-025	N	N	<0.002	**<0.02**	4	50	200
Chloride	A-T-026	N	N	<1.00	**<10**	800	15000	25000
Fluoride	A-T-026	N	N	<0.10	**<1**	10	150	500
Sulphate as SO_4	A-T-026	N	N	<1.00	**<10**	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	31	**310**	4000	60000	100000
Phenol Index	A-T-050	N	N	<0.01	**<0.1**	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<2.0	**<200**	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	7.8				
Conductivity (µS/cm)	A-T-037	N	N	61				
Mass Sample (kg)				0.184				
Dry Matter (%)	A-T-044	N	N	95.1				

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Waste Classification Report

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

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

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

111L0-8VE7C-1O5H1

Report is invalid if pages are removed.

Job name

075805 - NMGH WP14

Description/Comments

Project

Site

Classified by

Name:
Jonathan Lord
Date:
03 Dec 2025 09:07 GMT
Telephone:
0161 236 2394

Company:
Curtins
Merchant Exchange
17-19 Whitworth Street West
Manchester
M1 5WG

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

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	08 Feb 2024

Next 3 year Refresher due by Feb 2027

Purpose of classification

2 - Material Characterisation

Address of the waste

North Manchester General Hospital, Delauneys Road, Crumpsall, Manchester **Post Code** M8 5RB

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Redevelopment of site for carparking

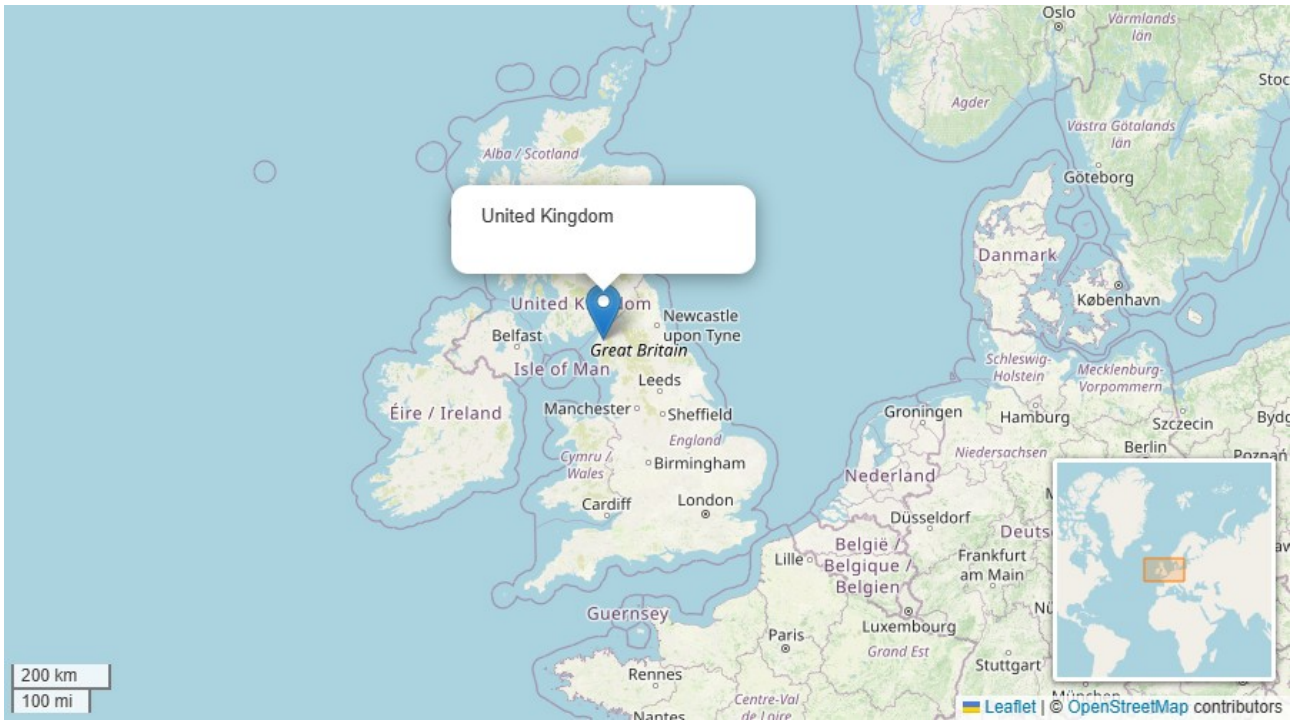
Description of the specific process, sub-process and/or activity that created the waste

Waste created during construction

Description of the waste

Mixed lithology

Waste Location



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01	0.2	Non Hazardous		3
2	WS01[2]	0.62	Non Hazardous		6
3	WS02	0.3	Non Hazardous		9
4	WS02[2]	0.45	Non Hazardous		12
5	WS03	0.1	Non Hazardous		14
6	WS03[2]	0.4	Non Hazardous		17

Related documents

#	Name	Description
1	Curtins - Envirolab Standard Suite	waste stream template used to create this Job

Report

Created by: Jonathan Lord

Created date: 03 Dec 2025 09:07 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	19
Appendix B: Rationale for selection of metal species	20
Appendix C: Version	22

Classification of sample: WS01

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

Sample details

Sample name:
WS01
Sample Depth:
0.2 m
Moisture content:
3.7%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 3.7% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.07 pH		9.07 pH	9.07 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	phenol	604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2 mg/kg	1.32	2.543 mg/kg	0.000254 %	✓	
5	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	9.758 mg/kg	0.000976 %	✓	
7	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.4 mg/kg	1.142	1.54 mg/kg	0.000154 %	✓	
8	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5 mg/kg	1.462	7.037 mg/kg	0.000704 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	46 mg/kg	1.56	69.097 mg/kg	0.00443 %	✓	
10	mercury { mercury(II) sulfide }		215-696-3	1344-48-5		<0.17 mg/kg	1.16	<0.197 mg/kg	<0.0000197 %		<LOD
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		9 mg/kg	2.976	25.795 mg/kg	0.00258 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		53 mg/kg	2.774	141.59 mg/kg	0.0142 %	✓	
14	acenaphthene		201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7									
17		benzo[a]anthracene				0.08	mg/kg		0.077	mg/kg	0.0000077 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				0.18	mg/kg		0.173	mg/kg	0.0000173 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				0.19	mg/kg		0.183	mg/kg	0.0000183 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20	●	benzo[ghi]perylene				0.08	mg/kg		0.077	mg/kg	0.0000077 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				0.12	mg/kg		0.116	mg/kg	0.0000116 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
24	●	fluoranthene				0.17	mg/kg		0.164	mg/kg	0.0000164 %	✓	
			205-912-4	206-44-0									
25	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
26	●	indeno[123-cd]pyrene				0.08	mg/kg		0.077	mg/kg	0.0000077 %	✓	
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
28	●	phenanthrene				0.08	mg/kg		0.077	mg/kg	0.0000077 %	✓	
			201-581-5	85-01-8									
29	●	pyrene				0.17	mg/kg		0.164	mg/kg	0.0000164 %	✓	
			204-927-3	129-00-0									
30	●	TPH (C6 to C40) petroleum group				47	mg/kg		45.261	mg/kg	0.00453 %	✓	
				TPH									
31		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
32		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
33	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
34		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
35		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0279 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%) because: Material is not a liquid waste, or have a free draining liquid phase. The waste does not contain substances assigned H250. The waste is a solid containing substances assigned Hazard Statement Code H226. Hazardous Waste flagged above 1,000mg/kg

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00453%)

Classification of sample: WS01[2]

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

Sample details

Sample name:
WS01[2]
Sample Depth:
0.62 m
Moisture content:
9.6%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 9.6% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		10.46 pH		10.46 pH	10.46 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	phenol	604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2 mg/kg	1.32	2.387 mg/kg	0.000239 %	✓	
5	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	10.178 mg/kg	0.00102 %	✓	
7	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<1 mg/kg	1.142	<1.142 mg/kg	<0.000114 %		<LOD
8	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6 mg/kg	1.462	7.927 mg/kg	0.000793 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	6 mg/kg	1.56	8.46 mg/kg	0.000542 %	✓	
10	mercury { mercury(II) sulfide }		215-696-3	1344-48-5		<0.17 mg/kg	1.16	<0.197 mg/kg	<0.0000197 %		<LOD
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		7 mg/kg	2.976	18.834 mg/kg	0.00188 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		19 mg/kg	2.774	47.649 mg/kg	0.00476 %	✓	
14	acenaphthene		201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
17		benzo[a]anthracene				0.06	mg/kg		0.0542	mg/kg	0.00000542 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				0.04	mg/kg		0.0362	mg/kg	0.00000362 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
20		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
24		fluoranthene				0.11	mg/kg		0.0994	mg/kg	0.00000994 %	✓	
			205-912-4	206-44-0									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
27		naphthalene				0.04	mg/kg		0.0362	mg/kg	0.00000362 %	✓	
		601-052-00-2	202-049-5	91-20-3									
28		phenanthrene				0.08	mg/kg		0.0723	mg/kg	0.00000723 %	✓	
			201-581-5	85-01-8									
29		pyrene				0.1	mg/kg		0.0904	mg/kg	0.00000904 %	✓	
			204-927-3	129-00-0									
30		TPH (C6 to C40) petroleum group				23	mg/kg		20.792	mg/kg	0.00208 %	✓	
				TPH									
31		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
32		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
33		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
34		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
35		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0114 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%) because: Material is not a liquid waste, or have a free draining liquid phase. The waste does not contain substances assigned H250. The waste is a solid containing substances assigned Hazard Statement Code H226. Hazardous Waste flagged above 1,000mg/kg

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00208%)

Classification of sample: WS02

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

Sample details

Sample name:
WS02
Sample Depth:
0.3 m
Moisture content:
2.3%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 2.3% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.33 pH		9.33 pH	9.33 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	phenol	604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		<1 mg/kg	1.32	<1.32 mg/kg	<0.000132 %		<LOD
5	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.5 mg/kg	0.00055 %	✓	
7	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1 mg/kg	1.142	1.116 mg/kg	0.000112 %	✓	
8	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5 mg/kg	1.462	7.14 mg/kg	0.000714 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	23 mg/kg	1.56	35.051 mg/kg	0.00225 %	✓	
10	mercury { mercury(II) sulfide }		215-696-3	1344-48-5		<0.17 mg/kg	1.16	<0.197 mg/kg	<0.0000197 %		<LOD
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		5 mg/kg	2.976	14.539 mg/kg	0.00145 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		37 mg/kg	2.774	100.283 mg/kg	0.01 %	✓	
14	acenaphthene		201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
17		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
20	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
24	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
25	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
28	●	phenanthrene				0.05	mg/kg		0.0489	mg/kg	0.00000489 %	✓	
			201-581-5	85-01-8									
29	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30	●	TPH (C6 to C40) petroleum group				5	mg/kg		4.885	mg/kg	0.000489 %	✓	
				TPH									
31		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
32		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
33	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
34		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
35		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0156 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%) because: Material is not a liquid waste, or have a free draining liquid phase. The waste does not contain substances assigned H250. The waste is a solid containing substances assigned Hazard Statement Code H226. Hazardous Waste flagged above 1,000mg/kg

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00048%)

Classification of sample: WS02[2]

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

Sample details

Sample name:
WS02[2]
Sample Depth:
0.45 m
Moisture content:
15.5%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 15.5% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		7.38 pH		7.38 pH	7.38 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	phenol	604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2 mg/kg	1.32	2.231 mg/kg	0.000223 %	✓	
5	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	8.562 mg/kg	0.000856 %	✓	
7	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<1 mg/kg	1.142	<1.142 mg/kg	<0.000114 %		<LOD
8	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5 mg/kg	1.462	6.175 mg/kg	0.000618 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	5 mg/kg	1.56	6.59 mg/kg	0.000423 %	✓	
10	mercury { mercury(II) sulfide }		215-696-3	1344-48-5		<0.17 mg/kg	1.16	<0.197 mg/kg	<0.0000197 %		<LOD
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		6 mg/kg	2.976	15.09 mg/kg	0.00151 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		22 mg/kg	2.774	51.571 mg/kg	0.00516 %	✓	
14	acenaphthene		201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
17		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
20		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
24		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
28		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		TPH (C6 to C40) petroleum group				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
				TPH									
31		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
32		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
33		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
34		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
35		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.00879 %		

Key

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

Classification of sample: WS03

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

Sample details

Sample name:
WS03
Sample Depth:
0.1 m
Moisture content:
3.4%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 3.4% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.01 pH		9.01 pH	9.01 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	phenol	604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2 mg/kg	1.32	2.551 mg/kg	0.000255 %	✓	
5	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.526 mg/kg	0.000653 %	✓	
7	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<1 mg/kg	1.142	<1.142 mg/kg	<0.000114 %		<LOD
8	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6 mg/kg	1.462	8.471 mg/kg	0.000847 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	37 mg/kg	1.56	55.751 mg/kg	0.00357 %	✓	
10	mercury { mercury(II) sulfide }		215-696-3	1344-48-5		<0.17 mg/kg	1.16	<0.197 mg/kg	<0.0000197 %		<LOD
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		6 mg/kg	2.976	17.25 mg/kg	0.00173 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		45 mg/kg	2.774	120.592 mg/kg	0.0121 %	✓	
14	acenaphthene		201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
17		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
20		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
24		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
28		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		TPH (C6 to C40) petroleum group				8	mg/kg		7.728	mg/kg	0.000773 %	✓	
				TPH									
31		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
32		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
33		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
34		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
35		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0199 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%) because: Material is not a liquid waste, or have a free draining liquid phase. The waste does not contain substances assigned H250. The waste is a solid containing substances assigned Hazard Statement Code H226. Hazardous Waste flagged above 1,000mg/kg

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00077%)

Classification of sample: WS03[2]

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

Sample details

Sample name:
WS03[2]
Sample Depth:
0.4 m
Moisture content:
9%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 9% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		7.76 pH		7.76 pH	7.76 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
3	phenol	604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3 mg/kg	1.32	3.604 mg/kg	0.00036 %	✓	
5	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	9.221 mg/kg	0.000922 %	✓	
7	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<1 mg/kg	1.142	<1.142 mg/kg	<0.000114 %		<LOD
8	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4 mg/kg	1.462	5.32 mg/kg	0.000532 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	5 mg/kg	1.56	7.097 mg/kg	0.000455 %	✓	
10	mercury { mercury(II) sulfide }		215-696-3	1344-48-5		<0.17 mg/kg	1.16	<0.197 mg/kg	<0.0000197 %		<LOD
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		6 mg/kg	2.976	16.25 mg/kg	0.00163 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		21 mg/kg	2.774	53.014 mg/kg	0.0053 %	✓	
14	acenaphthene		201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
17		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
20	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
24	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
25	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
28	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
29	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30	●	TPH (C6 to C40) petroleum group				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
				TPH									
31		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
32		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
33	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
34		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
35		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
										Total:	0.0092 %		

Key

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

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

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

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

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

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

mercury(II) sulfide (EC Number: 215-696-3, CAS Number: 1344-48-5)

Description/Comments: Data from ECHA's C&L and SDS Sigma Aldrich V6 dated 17/9/2019

Threshold for EUH031 based on calculation method in WM3 Box C12.1
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/8530
Data source date: 14 May 2020
Hazard Statements: EUH031 >= 1 % , EUH031 , Skin Sens. 1; H317 , STOT RE 2; H373

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

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

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

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

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

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

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

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

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

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

Description/Comments: Unknown Oil

Hazard statements taken from WM3 1st Edition 2015
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

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

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

Appendix B: Rationale for selection of metal species

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

"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}" has been chosen as complex cyanides and other specified cyanides in the annex are not likely to be present in the soil. Complex cyanides, such as ferrocyanides, ferricyanides, and mercuric oxycyanides, are chemical compounds that contain cyanide ions bound to metal ions. These compounds are typically used in specific industrial applications and are not commonly found in soil. The use of the harmonised group entry for cyanides is based on the assumption that the most reasonable scenario for the presence of cyanides in the soil is the presence of simple salts of cyanide are present. This worst-case compound is commonly used as a reference for regulatory purposes, as it represents a conservative estimate of the potential toxicity of cyanide compounds.

arsenic {arsenic trioxide}

Arsenic Trioxide, or As2O3, is the soil's most probable arsenic species. This is primarily due to its chemical properties and the environmental conditions facilitating its stability. One of the determining factors is its CLP (Classification, Labelling, and Packaging) species classification, which is based on notable hazard statements and molecular weight. The site's industrial implications further strengthen this contention. Arsenic Trioxide is a common byproduct in industrial processes such as smelting. In addition, it is the main precursor to various other arsenic compounds, potentially increasing its prevalence in the environment. Another argument that supports Arsenic Trioxide's predominance in soils is the relative absence of other arsenic species. For instance, the likelihood of encountering Arsenic Trioxide used in wood preservatives in soil environments is comparatively low. The primary reason is that these compounds are highly soluble and readily dissolve in water, minimising the chances of their presence in soil samples. Likewise, other species, like Arsenic acid and its mineral salts are also unlikely.

boron {diboron trioxide}

Boric Oxide has been selected as the sensible choice for a Classification, Labelling and Packaging (CLP) species because of the compound's physical form and low solubility qualities. Comparatively, other chemical species, such as Boron Trifluoride and Boron Trichloride, are colourless gases. Boron Tribromide is a fuming liquid, rendering it less likely to be the main form of Boron found at the site. Boric Acid is often found as the source contaminant, attributed to its wide-ranging uses in industry and agriculture as an antiseptic, insecticide, flame retardant, garden nutrient balancer, neutron absorber and as a precursor to synthesising other boron-related compounds. However, its higher solubility means it is less likely to remain in the environment in its pure form and much more likely to be leached out by groundwater and infiltration. Boric Acid crucially undergoes a chemical reaction with the metal ions present - typically calcium, magnesium, or aluminium - to form borates, with one product being boric oxide. Boric oxide is used directly as a fluxing agent for glasses and enamels and as an additive for fibre optics and borosilicate glass.

copper {dicopper oxide; copper (I) oxide}

Substances like Copper Sulphate Pentahydrate and Copper(II) Chloride Dihydrate, being soluble in water, can easily leach out over time with the infiltrating water. Similarly, Copper Sulphate, mostly used in agriculture as a fungicide, along with Copper(II) Chloride, Copper Dichloride, Copper Chloride, Copper(I) Chloride, and Cuprous Chloride, can also be leached out due to their solubility. Certain compounds like Copper Thiocyanate and Copper Dihydroxide are mainly used in labs, don't occur naturally, and are unlikely to be found on most brownfield sites. It's worth noting that Tetracopper Hexahydroxide Sulphate is more likely in areas where copper and sulphur mining has occurred. Dicopper Chloride Trihydroxide, due to its high reactivity and solubility, and compounds like Copper(II) Carbonate – Copper(II) Hydroxide (1:1), which form in the presence of carbonates and hydroxides, are not typically found in brownfield soils. Copper (I) Oxide, otherwise known as cuprous oxide (Cu2O), are more common in brownfield soils than Copper (II) Oxide (CuO) for several reasons. Firstly, cuprous oxide is more chemically stable in the environmental conditions found in brownfield soils, resisting oxidation and lasting longer in the presence of oxygen and moisture. In contrast, cupric oxide readily reacts with oxygen and other elements, converting it into different copper compounds or minerals. Secondly, brownfield soils often have reduced oxygen levels, favouring the formation of cuprous oxide under these anaerobic conditions. Conversely, Cupric oxide is associated with oxidising conditions, less prevalent in brownfield soils. Additionally, cuprous oxide is likely a by-product of industrial activities such as copper smelting or pyrometallurgical processes, common in brownfield areas. Its presence in the soil can thus indicate historical industrial activities. Cupric oxide, however, is less directly associated with industrial processes. Furthermore, cuprous oxide has lower solubility than cupric oxide, meaning it is less likely to dissolve and spread within the soil or contaminate groundwater if copper-containing compounds are released. Due to its higher solubility, cupric oxide can move more easily within the soil and contaminate distant areas or water bodies. Lastly, copper (I) oxide is frequently found in aged or weathered soil settings, signifying long-term contamination or historical pollution, as other copper compounds transform into cuprous oxide over time through weathering or microbial activity. In summary, based on the factors of chemical stability, redox environment, industrial sources, mobility, and historical pollution, Copper (I) Oxide is more commonly found in brownfield soils compared to Copper (II) Oxide.

cadmium {cadmium oxide}

Cadmium oxide is reasonably classified under the CLP regulation based on its hazard statements and molecular weight. One of its remarkable properties is its very low solubility in water. This compound can be commonly found in several industrial processes and products, such as electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. Other compounds such as cadmium sulfate, chloride, fluoride, and iodide are soluble compared to cadmium oxide's very low solubility. This contrasts with the site environment, which is not conducive to highly soluble compounds. Secondly, the other species mentioned in the Annex are not likely to occur based on the industrial usage of the site or site history. Cadmium compounds that are used in industries such as for electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments, and nematocides are likely to contain more cadmium oxide as compared to cadmium sulfate, chloride, fluoride and iodide. Therefore, the chances of these compounds being present are significantly low. In addition to these, other cadmium compounds such as cadmium nitrate; cadmium dinitrate, cadmium carbonate, cadmium hydroxide; cadmium dihydroxide, cadmium sulfide, cadmium (pyrophoric), cadmium compounds (except cadmium sulphoselenide, reaction mass of cadmium sulphide with zinc sulphide, reaction mass of cadmium sulphide with mercury sulphide, and those specified elsewhere in Annex), cadmiumhexafluorosilicate(2-); cadmium fluorosilica, cadmium diformate; cadmium formate, cadmium cyanide are all unlikely due to similar reasons - either high solubility and/or industrial usage not related to site history or expected composition of substances in urban brownfield soils.

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

Chromium (III) is often found in soils due to anthropogenic activities. It has a relatively high molecular weight contributes to its ability to persist in the environment, as substances with lower molecular weights are typically more easily degraded biologically or chemically. Industry is a major source of Chromium (III) contamination. It is used extensively in the tanning industry to produce leather goods. The tanning process involves treating raw hides with chemicals, including chromium salts, which can then leach into soil and groundwater. In addition, Chromium (III) is used as a pigment in paints, inks, and glass due to its vibrant and stable colours. During these products' manufacturing and disposal processes, Chromium (III) can be released into the environment and may contaminate surrounding soils. Furthermore, in industrial settings, accidental spills and improper disposal of wastes can also lead to soil contamination. Contaminated soils can then act as a Chromium (III) source for groundwater and surface water, posing potential risks to human health and the environment. Therefore, due to its wide use in various industries and its environmental persistence, Chromium (III) is a reasonable case species to be found in soils.

lead {lead chromate}

Due to its bright yellow colour, lead chromate is commonly used in pigments for paints, plastics, ceramics, etc.. It is also used as a corrosion inhibitor and pigment in road marking and industrial paints. Various industries have historically made significant use of chemicals such as lead chromate. Particularly, lead chromate was used in large quantities by the manufacturing and construction industries, which are prime origins for brownfield sites due to their previous industrial use. There's a high probability of lead chromate contamination in brownfield soils due to the residual effect of previous industrial activities, including painting old structures, roads, and equipment, where lead chromate paints or materials were used, spilling or leaking into the surrounding soils. In addition, lead chromate is highly durable and resistant to weathering, which means it can persist in soil for many years without breaking down. Thus, even if the industrial activities have ceased, lead chromate may still be present in the soil. Furthermore, the other specified chemicals in the Annex such as lead compounds—lead di(acetate), lead diazide, trilead bis(orthophosphate)—are not typically used in large quantities in industrial applications and are therefore less likely to be found in significant concentrations in brownfield soils. In conclusion, due to the heavy industrial use, persistent nature of lead chromate, and its resistance to weathering, it is a likely contaminant in brownfield soils.

mercury {mercury(II) sulfide}

Mercury(II) sulfide, commonly known as cinnabar or red mercury sulfide, is a compound with low solubility in water. Unlike other mercury compounds, such as mercury dichloride and mercury fulminate, which are highly soluble and less likely to remain in brownfield soils, mercury(II) sulfide can persist in the soil for many years. This insoluble compound binds tightly to soil particles and slowly releases mercury into the environment under specific conditions. Therefore, mercury(II) sulphide is a persistent and long-term source of contamination in brownfield soils. There are various sources of mercury(II) sulphide in brownfield soils. One possible source is the historical deposition of industrial emissions or waste products containing elemental mercury. Activities like coal burning, metal smelting,

and chemical manufacturing release mercury into the environment, which reacts with sulphur and other compounds in the soil to form mercury(II) sulphide. These reactions are typically facilitated by microorganisms that convert elemental mercury into a more stable and insoluble form. Natural weathering and erosion processes also contribute to mercury(II) sulphide formation in brownfield soils. As mercury-containing rocks and minerals weather, the released mercury can react with sulphur in the soil, forming mercury(II) sulphide precipitates. Furthermore, the historical use of mercury-based pesticides or fungicides on the land can contribute to mercury(II) sulphide in brownfield soils. These compounds may have persisted in the soil and undergone chemical transformations, leading to mercury(II) sulphide formation. In summary, mercury(II) sulphide is more likely to contaminate brownfield soils than other mercury compounds due to its low solubility. Its sources in brownfield soils include industrial emissions, natural weathering, and the historical use of mercury-based pesticides or fungicides.

nickel {nickel chromate}

Nickel chromate is the most likely of these chemicals to be found in brownfield urban soils due to its common use in various industrial applications, including electroplating, pigments, and anti-corrosion coatings. In these applications, nickel chromate often enters the environment through manufacturing waste discharge or improper disposal of products containing it. Nickel chromate is highly insoluble in water, so it won't easily dissolve and spread into the groundwater. Instead, it settles in the soil, where it could potentially contaminate local ecosystems. Some chemical species, including nickel sulfate, dichloride, dibromide, diiodide, dicyanide, difluoride, dithiocyanate and dinickel hexacyanoferrate mentioned specifically in the annexe, have been eliminated as they are soluble in water and the Conceptual Site Model indicates that these would likely have been mobilised into the groundwater by infiltration or groundwater. The remaining chemical species were nickel, (II) carbonate, dihydroxide, sulfide, dioxide, monoxide, trioxide, dichromate, and chromate - of which a realistic worst case was Nickel Chromate.

selenium {nickel selenate}

Due to its severe hazard statements and potentially high molecular weight, nickel selenate is chosen as the worst-case CLP species in hazardous waste management. Hazard statements indicate the level of risk a substance poses, and nickel selenate is selected based on having the most severe statements. The compound is also likely to have a higher molecular weight, indicating greater persistence, bioaccumulation, and toxicity to several other species contained within the Annex. Overall, nickel selenate is deemed a hazardous compound and a suitable candidate for the worst-case scenario.

zinc {zinc chromate}

Amongst the listed compounds in the annex, zinc chromate is a chemical of concern. This is because it is relatively common compared to other compounds listed. Zinc chromate is frequently used as a corrosion inhibitor and pigment in various aerospace, automotive, and electronics industries. Its widespread use increases the potential for human exposure and environmental contamination. Furthermore, zinc chromate is not highly soluble in water, making it less likely to dissolve and disperse in the environment quickly. This characteristic enhances its potential for persistence and accumulation in the soil and other matrices. Additionally, zinc chromate has been shown to possess toxic properties. It contains hexavalent chromium, a known human carcinogen toxic to aquatic life. Exposure to zinc chromate through inhalation, ingestion, or dermal contact has been linked to various health issues, including respiratory problems, skin irritation, and DNA damage. Considering the criteria mentioned earlier, zinc chromate emerges as a chemical of concern due to its common presence, potential for environmental persistence, and significant health risks associated with its exposure. It is crucial to carefully manage and regulate the use of zinc chromate to minimise its detrimental effects on human health and the environment.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2025.332.6908.12479 (29 Nov 2025)
HazWasteOnline Database: 2025.332.6908.12479 (29 Nov 2025)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021
GB MCL List v2.0 - version 2.0 of 20th October 2023
GB MCL List v3.0 - version 3.0 of 11th January 2024
GB MCL List v4.0 - version 4.0 of 2nd March 2024
GB MCL List v5.0 - version 5.0 of 26th June 2024
GB MCL List v6.0 - version 6.0 of 15th February 2025
GB MCL List v7.0 - version 7.0 of 23rd September 2025