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Waste Characterisation Assessment

New Civic Centre/Active Travel Roadway,

Monaghan,

Co. Monaghan

Prepared For: -

IGSL Limited
Unit F
M7 Business Park
Naas
County Kildare

Prepared By: -

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Unit 15 Melbourne Business Park
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July 2023

Project	Waste Characterisation: New Civic Centre/Active Travel Roadway, Monaghan			
Client	IGSL Limited			
Report No	Date	Status	Prepared By	Reviewed By
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1 INTRODUCTION

IGSL Limited requested O’Callaghan Moran & Associates (OCM) to undertake a waste characterisation assessment of fourteen (14 No.) samples of made and natural ground collected from five (5 No.) cable percussion boreholes and nine (9 No.) trial pits from a site at in Monaghan. The samples were collected from two separate sections of a he site, the New Civic Centre and the Active Travel Roadway.

1.1 Methodology

IGSL provided a description of the ground conditions and collected samples of the soils from the sample locations. The samples were analysed at an accredited laboratory and the results formed the basis for a waste classification assessment, which was undertaken by OCM in accordance with the Environmental Protection Agency (EPA) Guidelines on the Classification of Waste (2015).

2 WASTE CLASSIFICATION ASSESSMENT

2.1 Soil Sampling and Laboratory Analysis

2.1.1 Site Investigation

The site investigation was completed by IGSL Limited in April and May 2023 and included the collection of fourteen (14 No.) composite samples. The location of the samples is shown on Figure 2.1 and 2.2. The logs for the samples are in Appendix 1.

2.1.2 New Civic Centre

The subsurface of the boreholes and trial pits comprise Natural Ground. There is topsoil at the surface of all locations. The subsurface comprises soft to firm, sandy gravelly CLAY to circa 1.20 mbgl. This transitions to stiff, sandy gravelly CLAY with cobble and boulder content to 3.00 mbgl. BH07 was terminated at 1.00 mbgl due to an obstruction.

2.1.3 Active Travel Roadway

There is topsoil at the surface of all locations.

The subsurface of BH01R and TP09R comprise Natural Ground. The subsurface at these locations is composed of soft to firm, slightly gravelly CLAY to 3.00 mbgl. This is underlain by very stiff sandy gravelly SILT to 4.00 mbgl. Dense, GRAVEL with cobble content was encountered to 4.60 mbgl.

There is Made Ground circa 2.00m in thickness at all other locations. The Made Ground at TP02R extends to 2.50 mbgl. The Made Ground comprises sandy gravelly CLAY with cobble content and non-natural material including fragments of red brick, concrete, plastic and metal wire. The Made Ground at TP02R, TP03R and TP05R contains non-natural material >2% of the soil matrix. The Made Ground is underlain by Natural Ground similar to that at BH01 and TP09R.

2.1.4 Sample Collection

IGSL collected the samples and placed them in laboratory prepared containers that were stored in coolers prior to shipment to Chemtest Ltd.

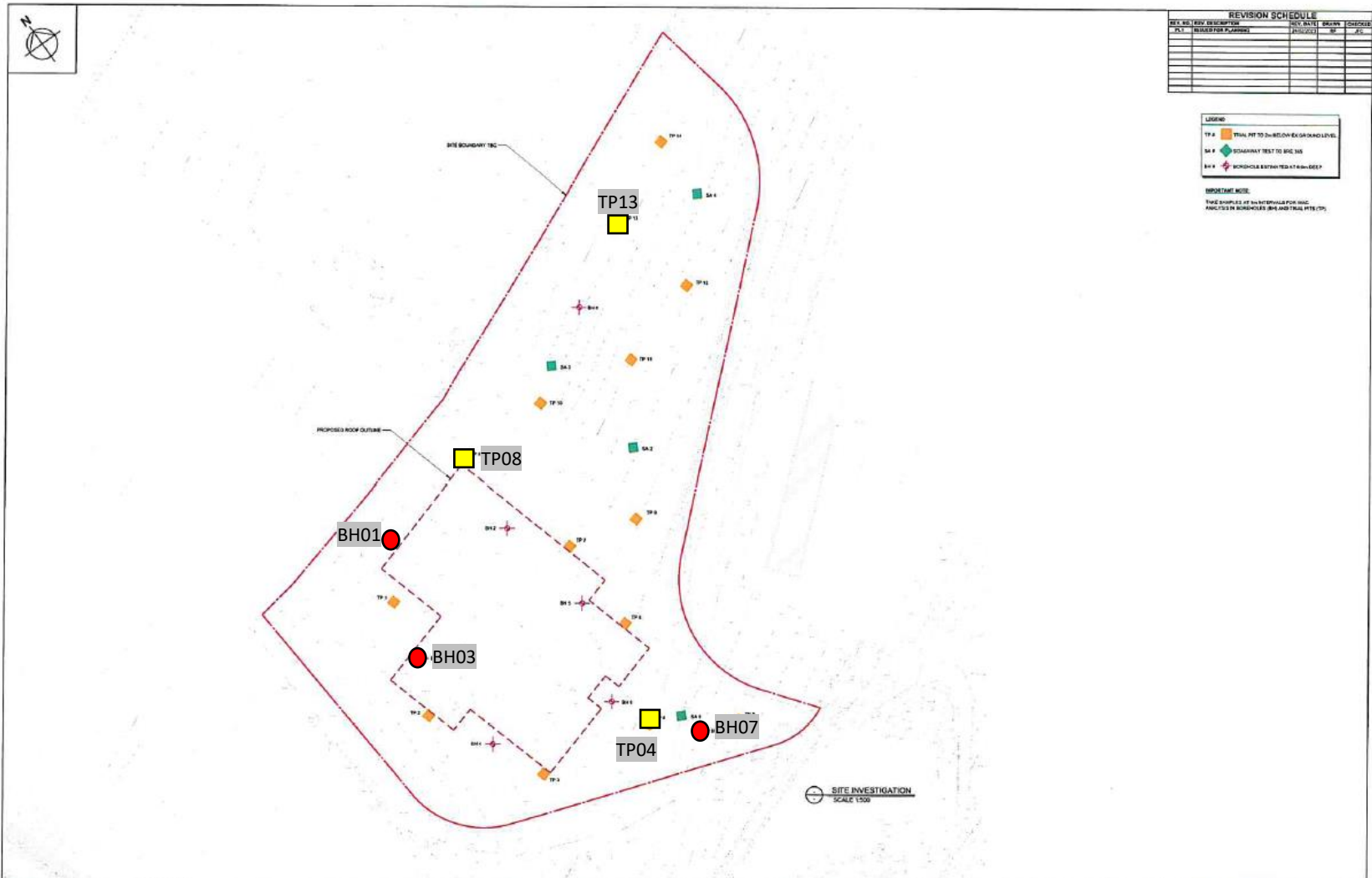
2.1.5 Laboratory Analysis

The samples were tested for, metals (arsenic, barium, cadmium, chromium, copper, mercury, molybdenum, nickel, lead, antimony, selenium and zinc), total organic carbon (TOC), BTEX (benzene, toluene, ethylbenzene and xylene) aliphatic and aromatic hydrocarbons, polychlorinated biphenyls (PCB), mineral oil, polyaromatic hydrocarbons (PAH) and asbestos. Leachate

generated from the samples was tested for arsenic, barium, cadmium, chromium, copper, mercury, molybdenum, nickel, lead, antimony, selenium and zinc, chloride, fluoride, soluble sulphate, phenols, dissolved organic carbon (DOC), total dissolved solids (TDS).

This parameter range facilitates an assessment of the hazardous properties of the waste, and also allows a determination of appropriate off-site management options based on the Waste Acceptance Criteria (WAC) applied by landfill operators.

The analytical methods were all ISO/CEN approved and the method detection limits were below the relevant guidance/threshold values. The full laboratory report is in Appendix 2.



REVISION SCHEDULE				
REV. NO.	REV. DESCRIPTION	REV. DATE	BY	CHKD BY
01	ISSUED FOR PLANNING			

LEGEND	
TP #	TRIAL PIT TO 2m BELOW EXISTING GROUND LEVEL
SA #	ROADWAY TEST TO 600 MM
BH #	BORING BATHED AT 1m DEEP

IMPORTANT NOTE:
THE SAMPLES AT EACH LOCATION FOR EACH ANALYSIS IN BORING-HOLE ARE ANALYTICAL PITS (TP)

Drawing Stage: PLANNING	Project Details:	Notes	Drawn by:	Checked by:	Approved by:	Date:		Bohan House, 10 Lower Mount Street, Dublin 2, D02 H771 Tel: +353 1 561 1100 e-mail: info@corr.ie Web: www.corr.ie			
	Site Address:		BF	KD/M	JFC	FEB '23					
	Client:		Project Name:		Scale:	Project Number:					
	Architect:		MONAGHAN CIVIC OFFICES		1:500 @ A1	2223					
M&E Designer:	Drawing Title:		Project:	Originator:	Zone:	Level:	Type:	Discipline:	Drawing No:	Stage:	Revision:
Contractor:	SITE INVESTIGATION		2223	CORA	Z2	Z2	DR	SK	29	PL	PL1



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Title:
 Figure 2.1 Sample Location Plan

Legend

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 IGSL Limited



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Figure 2.2 Sample Location Plan

Legend

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IGSL Limited

2.2 Waste Classification

The Haz Waste Online Classification Engine, developed in the UK by One Touch Data Ltd, was used to determine the waste classification. This tool was developed specifically to establish whether waste is non-hazardous or hazardous and has been approved for use in Ireland by the Environmental Protection Agency. The full Waste Classification Report is in Appendix 3 and the results are summarised in Table 2.1 and 2.2.

Table 2.1 Waste Classification (New Civic Centre)

Sample No.	Depth	Classification	LoW Code
BH01	0.50	Non-Hazardous	17 05 04
BH03	0.50	Non-Hazardous	17 05 04
BH07	0.80	Non-Hazardous	17 05 04
TP04	0.50	Non-Hazardous	17 05 04
TP08	0.80	Non-Hazardous	17 05 04
TP13	0.60	Non-Hazardous	17 05 04

Asbestos was not detected in any of the samples tested.

All samples are classified as non-hazardous and the appropriate List of Waste Code is 17 05 04 (Soil and Stone other than those mentioned in 17 05 03*).

Table 2.2 Waste Classification (Active Travel Roadway)

Sample No.	Depth	Classification	LoW Code
BH01R	0.50	Non-Hazardous	17 05 04
BH02R	1.00	Non-Hazardous	17 05 04
TP01R	0.60	Non-Hazardous	17 05 04
TP02R	2.00	Non-Hazardous	17 09 04
TP03R	1.40	Non-Hazardous	17 09 04
TP04R	0.70	Non-Hazardous	17 05 04
TP05R	0.50	Non-Hazardous	17 09 04
TP09R	0.60	Non-Hazardous	17 05 04

Asbestos was not detected in any of the samples tested.

The samples from TP02R, TP03R and TP05R are classified as non-hazardous and the appropriate List of Waste Code is 17 09 04 (Construction and Demolition Waste other than those mentioned in 17 09 03*).

All other samples are classified as non-hazardous and the appropriate List of Waste Code is 17 05 04 (Soil and Stone other than those mentioned in 17 05 03*).

2.3 Waste Acceptance Criteria

The results of the WAC testing are presented in Table 2.3 and 2.4, which includes for comparative purposes the WAC for Inert, Non Hazardous and Hazardous Waste Landfills pursuant to Article 16 of the EU Landfill Directive 1999/31/EC Annex II which establishes criteria and procedures for the acceptance of waste at landfills.

All samples from the New Civic Centre meet the inert WAC.

The samples from BH02R, TP01R and TP05R from the Active Travel Roadway exceed the inert WAC.

Total Organic Carbon (TOC) exceeds the inert WAC in BH02R, TP01R and TP05R.

Sulphate exceeds the inert WAC in TP01R.

Table 2.3 WAC Results (New Civic Centre)

Parameter	Unit	BH01	BH03	BH07	TP04	TP08	TP13	Inert Landfill	Inert Landfill Increased Limits	Non-Hazardous Landfill	Hazardous Landfill
Depth	m	0.50	0.50	0.80	0.50	0.80	0.60				
Antimony	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.06	0.18	0.7	5
Arsenic	mg/kg	0.0023	0.0031	0.0030	0.0029	0.0061	0.019	0.5	1.5	2	25
Barium	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	20	20	100	300
Cadmium	mg/kg	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.04	0.04	1	5
Chromium	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.036	0.5	0.5	10	70
Copper	mg/kg	0.011	0.011	0.016	0.010	0.0060	0.058	2	2	50	100
Lead	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.013	0.5	0.5	10	50
Molybdenum	mg/kg	0.0058	0.0079	0.0062	0.0081	0.0076	0.0043	0.5	1.5	10	30
Nickel	mg/kg	0.0066	0.0050	0.0077	0.0053	<0.0050	0.056	0.4	0.4	10	40
Selenium	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.1	0.3	0.5	7
Zinc	mg/kg	0.046	0.033	0.035	0.055	0.034	0.10	4	4	50	200
Mercury	mg/kg	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.01	0.01	0.2	2
Phenol	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	1	1	NE	NE
Fluoride	mg/kg	1.5	1.0	1.4	1.2	<1.0	1.2	10	10	150	500
Chloride	mg/kg	<10	<10	<10	<10	<10	11	800	2,400	15,000	25,000
Sulphate	mg/kg	<10	<10	23	<10	<10	20	1000*	3,000	20000*	50,000
DOC **	mg/kg	<50	<50	<50	<50	<50	57	500	500	800	1,000
pH	pH units	7.8	8.0	8.2	8.2	8.4	7.8	NE	NE	NE	NE
TDS ***	mg/kg	450	470	400	310	310	130	4,000	12,000	60,000	100,000
TOC	%	2.4	2	1.3	1.3	0.77	0.34	3	6	NE	6
Benzene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
Toluene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
Ethylbenzene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
m/p-Xylene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
o-Xylene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
PCB Total of 7	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	1	1	NE	NE
Total 17 PAH's	mg/kg	0.35	<0.20	<0.20	<0.20	<0.20	<0.20	NE	100	NE	NE
Mineral Oil	mg/kg	<10	<10	<10	<10	<10	<10	500	500	NE	NE
Asbestos	% mass	NAD	NAD	NAD	NAD	NAD	NAD	NE	NE	NE	NE

NAD denotes No Asbestos Detected

* denotes sulphate level exceeding inert waste limit may be considered as complying if the TDS value does not exceed 6,000mg/kg at L/S = 10l/kg.

** denotes a higher limit may be accepted provided the DOC alternative values of 500mg/kg is achieved

*** denotes TDS. The values for TDS can be used to sulphate and chloride.


 PAH over 1mg/kg and Mineral Oil over 50 mg/kg exceeds limit at soil recovery site in Ireland

Table 2.4 WAC Results (Active Travel Roadway)

Parameter	Unit	BH01R	BH02R	TP01R	TP02R	TP03R	TP04R	TP05R	TP09R	Inert Landfill	Inert Landfill Increased Limits	Non-Hazardous Landfill	Hazardous Landfill
Depth	m	0.50	1.00	0.60	2.00	1.40	0.70	0.50	0.60				
Antimony	mg/kg	<0.0050	0.0067	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.06	0.18	0.7	5
Arsenic	mg/kg	0.0030	0.020	0.0061	0.019	0.0050	<0.0020	0.0051	<0.0020	0.5	1.5	2	25
Barium	mg/kg	<0.050	0.061	0.27	0.087	0.085	<0.050	<0.050	<0.050	20	20	100	300
Cadmium	mg/kg	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.04	0.04	1	5
Chromium	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.5	0.5	10	70
Copper	mg/kg	<0.0050	0.019	0.035	0.0098	0.0097	<0.0050	0.017	0.0052	2	2	50	100
Lead	mg/kg	<0.0050	<0.0050	0.0056	<0.0050	<0.0050	<0.0050	0.0088	<0.0050	0.5	0.5	10	50
Molybdenum	mg/kg	0.0073	0.027	0.017	0.014	0.011	0.0070	0.013	0.012	0.5	1.5	10	30
Nickel	mg/kg	<0.0050	0.0063	0.010	<0.0050	0.0062	<0.0050	0.0053	<0.0050	0.4	0.4	10	40
Selenium	mg/kg	0.0099	0.010	0.0050	<0.0050	<0.0050	0.0054	<0.0050	<0.0050	0.1	0.3	0.5	7
Zinc	mg/kg	<0.025	0.052	0.071	0.030	0.044	<0.025	0.052	0.038	4	4	50	200
Mercury	mg/kg	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.01	0.01	0.2	2
Phenol	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	1	1	NE	NE
Fluoride	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	1.2	1.1	10	10	150	500
Chloride	mg/kg	11	14	80	<10	<10	<10	<10	<10	800	2,400	15,000	25,000
Sulphate	mg/kg	31	200	1100	370	130	<10	<10	<10	1000*	3,000	20000*	50,000
DOC **	mg/kg	<50	<50	85	<50	<50	<50	<50	<50	500	500	800	1,000
pH	pH units	8.0	8.0	7.4	7.9	7.8	8.3	8.2	8.4	NE	NE	NE	NE
TDS ***	mg/kg	520	620	2200	910	590	320	420	390	4,000	12,000	60,000	100,000
TOC	%	2	3.5	5.3	1.2	2.2	2.6	3.2	0.6	3	6	NE	6
Benzene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
Toluene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
Ethylbenzene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
m/p-Xylene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
o-Xylene	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	6	6	NE	NE
PCB Total of 7	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	1	1	NE	NE
Total 17 PAH's	mg/kg	<0.20	9.8	85	<0.20	0.74	<0.20	71	<0.20	NE	100	NE	NE
Mineral Oil	mg/kg	<10	<10	55	46	<10	<10	<10	<10	500	500	NE	NE
Asbestos	% mass	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NE	NE	NE	NE

NAD denotes No Asbestos Detected

* denotes sulphate level exceeding inert waste limit may be considered as complying if the TDS value does not exceed 6,000mg/kg at L/S = 10l/kg.

** denotes a higher limit may be accepted provided the DOC alternative values of 500mg/kg is achieved

*** denotes TDS. The values for TDS can be used to sulphate and chloride.

PAH over 1mg/kg and Mineral Oil over 50 mg/kg exceeds limit at soil recovery site in Ireland

2.4 Waste Management Options

All of the soils are suitable for retention on site for landscaping or similar purposes. However if the soils are removed from the site options for recovery or disposal are outlined in this section.

The EPA has issued guidance on acceptance criteria for a range of parameters for soil recovery sites. This includes;

- Metals (solid conc. not leachability) in soil and stone (including As, Cd, Cr, Cu, Hg, Ni, Pb, Zn);
- Total organic carbon in soil and stone;
- Total BTEX (benzene, toluene, ethylbenzene, xylenes) in soil and stone;
- Mineral oil in soil and stone;
- Polycyclic aromatic hydrocarbons (PAHs) in soil and stone;
- Polychlorinated Biphenyls (PCBs) in soil and stone;
- Asbestos fibres in soil and stone.

The guidance requires that soils from brownfield sites should not exceed the limits for the parameters specified in Table 2.5 and 2.6. For metals limits have been specified for a range of soil types nationally separated into six domain areas.

Table 2.5 Soil Recovery Site Criteria

Parameter	Limit for Soil Recovery Sites
Total BTEX	0.05 mg/kg
Mineral Oil	50 mg/kg
Total PAHs	1 mg/kg
Total PCBs	0.05 mg/kg

All samples from the New Civic Centre and BH01R and TP09R from the Active Travel Roadway meet the soil recovery criteria.

The remaining samples (BH02R and TP01R-TP05R) from the Active Travel Roadway do not meet the requirements for Soil Recovery Facilities as they are composed of Made Ground containing >2% non-natural material and/or exceed the inert WAC.

The soil and stone cannot be sent to soil recovery sites if the trigger levels for a particular domain are exceeded. There is however some flexibility in applying the limits. A derogation applies where up to three parameters can exceed the limit for a sample provided the concentration in the samples is no more than 1.5 times the trigger level. The site which is subject to this investigation is located in Domain 5 and the trigger levels are listed in Table 2.6.

Table 2.6 Soil Recovery Trigger Levels

		Domain 5 Trigger Level	1.5 times Trigger Level
Arsenic	mg/kg	41.5	62.25
Cadmium	mg/kg	1.42	2.13
Chromium	mg/kg	73.2	109.8
Copper	mg/kg	77.6	116.4
Mercury	mg/kg	0.302	0.453
Nickel	mg/kg	65.7	98.55
Lead	mg/kg	109	163.5
Zinc	mg/kg	224	336

All samples meet the soil recovery criteria for metal concentrations.

Waste management options are summarised on Table 2.7 and 2.8. All are subject to approval of the waste management facility operators. Class A material is suitable for soil recovery at permitted soil recovery sites. Class B-1 material is suitable for disposal to inert landfill. Class B-2 material is suitable for disposal to inert landfill with increased limits.

Table 2.7 Waste Management Options (New Civic Centre)

Sample No.	Depth	Classification	LoW Code	Category
BH01	0.50	Non-Hazardous	17 05 04	A
BH03	0.50	Non-Hazardous	17 05 04	A
BH07	0.80	Non-Hazardous	17 05 04	A
TP04	0.50	Non-Hazardous	17 05 04	A
TP08	0.80	Non-Hazardous	17 05 04	A
TP13	0.60	Non-Hazardous	17 05 04	A

A	Meets Soil Recovery Criteria
---	------------------------------

Table 2.8 Waste Management Options (Active Travel Roadway)

Sample No.	Depth	Classification	LoW Code	Category
BH01R	0.50	Non-Hazardous	17 05 04	A
BH02R	1.00	Non-Hazardous	17 05 04	B-2
TP01R	0.60	Non-Hazardous	17 05 04	B-2
TP02R	2.00	Non-Hazardous	17 09 04	B-1
TP03R	1.40	Non-Hazardous	17 09 04	B-1
TP04R	0.70	Non-Hazardous	17 05 04	B-1
TP05R	0.50	Non-Hazardous	17 09 04	B-2
TP09R	0.60	Non-Hazardous	17 05 04	A

A	Meets Soil Recovery Criteria
B-1	Suitable for disposal/recovery to Inert Landfill
B-2	Suitable for disposal/recovery to Inert Landfill with increased limits

3 CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

3.1.1 Waste Classification

3.1.1.1 New Civic Centre

Asbestos was not detected in any of the samples tested.

All samples are classified as non-hazardous and the appropriate List of Waste Code is 17 05 04 (Soil and Stone other than those mentioned in 17 05 03*).

3.1.1.2 Active Travel Roadway

Asbestos was not detected in any of the samples tested.

The samples from TP02R, TP03R and TP05R are classified as non-hazardous and the appropriate List of Waste Code is 17 09 04 (Construction and Demolition Waste other than those mentioned in 17 09 03*).

All other samples are classified as non-hazardous and the appropriate List of Waste Code is 17 05 04 (Soil and Stone other than those mentioned in 17 05 03*).

If the soils have to be removed from the site the recovery/disposal options are discussed in Section 2.4.

3.2 Recommendations

OCM recommends that a copy of this report be provided in full to the relevant waste management facilities to which the subsoils will be consigned to confirm its suitability for acceptance.

Appendix 1

Borehole and Trial Pit Logs



GEOTECHNICAL BORING RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel - Main Site		BOREHOLE NO. BH01
CO-ORDINATES		SHEET Sheet 1 of 1
GROUND LEVEL (m AOD)	RIG TYPE Dando 2000 BOREHOLE DIAMETER (mm) 200 BOREHOLE DEPTH (m) 3.00	DATE COMMENCED 13/05/2023 DATE COMPLETED 13/05/2023
CLIENT Monaghan Co.Co. ENGINEER DBFL	SPT HAMMER REF. NO. ENERGY RATIO (%)	BORED BY P.Allan PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL			0.30						
	Firm brown sandy SILT/CLAY with occasional gravel				AA192931	B	0.50			
				1.00						
1	Firm grey sandy SILT/CLAY			1.20	AA192932	B	1.00		N = 13 (2, 3, 2, 3, 4, 4)	
	Brown sandy gravelly CLAY with occasional cobbles									
2					AA192933	B	2.00		N = 17 (2, 2, 2, 4, 5, 6)	
				2.70						
3	Brown sandy gravelly CLAY with some cobble			3.00					N = 50/75 mm (25, 25, 50)	
3	Obstruction End of Borehole at 3.00 m									
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.8	3	1.5		3.00	3.00	No	1.50	20	Moderate

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
					11-05-23	3.00	Nil	1.50	End of BH

REMARKS CAT scanned location and hand dug inspection pit was carried out .	Sample Legend D - Small Disturbed (lub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG 24665M.GPJ IGSL.GDT 26/5/23



GEOTECHNICAL BORING RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel - Main Site		BOREHOLE NO. BH03
CO-ORDINATES		SHEET Sheet 1 of 1
GROUND LEVEL (m AOD)	RIG TYPE Dando 2000 BOREHOLE DIAMETER (mm) 200 BOREHOLE DEPTH (m) 3.70	DATE COMMENCED 12/05/2023 DATE COMPLETED 12/05/2023
CLIENT Monaghan Co.Co. ENGINEER DBFL	SPT HAMMER REF. NO. ENERGY RATIO (%)	BORED BY P.Allan PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL			0.30						
1	Soft to firm brown sandy SILT/CLAY with occasional gravel				AA192934	B	0.50			
					AA192935	B	1.00	N = 7 (1, 2, 1, 2, 2, 2)		
2				2.30	AA192936	B	2.00	N = 10 (2, 2, 2, 3, 2, 3)		
3	Very brown sandy gravelly CLAY with occasional cobbles				AA192937	B	3.00	N = 50 (6, 6, 10, 10, 20, 10)		
4	Obstruction End of Borehole at 3.70 m			3.70				N = 50/75 mm (25, 50)		

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.7	2.9	1							
3.5	3.7	1.5							No water strike

INSTALLATION DETAILS					Date	Hole Depth	Casing Depth	Depth to Water	Comments
Date	Tip Depth	RZ Top	RZ Base	Type					

REMARKS CAT scanned location and hand dug inspection pit was carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG 24665M.GPJ IGSL.GDT 28/5/23



GEOTECHNICAL BORING RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel - Main Site		BOREHOLE NO. BH07	
CO-ORDINATES		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD)		DATE COMMENCED 16/05/2023	
		DATE COMPLETED 16/05/2023	
CLIENT Monaghan Co.Co.		SPT HAMMER REF. NO.	
ENGINEER DBFL		ENERGY RATIO (%)	
		BORED BY P.Allan	
		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL			0.20						
	Very stiff brown sandy SILT/CLAY with some gravel and occasional cobbles			1.00	AA171710	B	0.80		N = 50/75 mm (25, 50)	
1	Obstruction End of Borehole at 1.00 m									
2										
3										
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
0.9	1	1							No water strike

INSTALLATION DETAILS					Date	Hole Depth	Casing Depth	Depth to Water	Comments
Date	Tip Depth	RZ Top	RZ Base	Type					

REMARKS CAT scanned location and hand dug inspection pit was carried out .	Sample Legend D - Small Disturbed (tub) B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG 24665M.GPJ IGSL.GDT 26/5/23



TRIAL PIT RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel

TRIAL PIT NO. TP04

SHEET Sheet 1 of 1

LOGGED BY I.Reder

CO-ORDINATES 667,481.57 E
833,781.44 N

DATE STARTED 28/04/2023

DATE COMPLETED 28/04/2023

CLIENT ENGINEER Monaghan Co.Co.
DBFL/Cora

GROUND LEVEL (m) 73.74

EXCAVATION METHOD 3T Tracked machine

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL Firm, brown, slightly sandy very gravelly CLAY with high cobbles and boulders content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles and boulders are subangular to angular. (POSSIBLE FILL)		0.10	73.64						
	Firm to stiff, greyish brown, sandy gravelly slightly silty CLAY with high cobbles and boulders content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles and boulders are subangular to angular.		0.60	73.14		AA200184	B	0.50		
1.0										
						AA200185	B	1.30		
2.0	TP terminated at 1.8m due to many boulders End of Trial Pit at 1.80m		1.80	71.94						

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP done for civic offices project

IGSL TP LOG 24665.GPJ IGSL.GDT 10/5/23



TRIAL PIT RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel

TRIAL PIT NO. TP08
SHEET Sheet 1 of 1

LOGGED BY I.Reder

CO-ORDINATES 667,426.80 E
833,858.25 N

DATE STARTED 28/04/2023
DATE COMPLETED 28/04/2023

CLIENT ENGINEER Monaghan Co.Co.
DBFL/Cora

GROUND LEVEL (m) 79.90

EXCAVATION METHOD 3T Tracked machine

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL									
0.25	Soft to firm, brown, slightly sandy gravelly CLAY with low cobbles and hair roots content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles are small subangular to subrounded.		0.25	79.65						
0.50			0.50	79.40						
0.80	Firm to stiff, greyish brown, slightly sandy gravelly CLAY with high cobbles and low boulders content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles and boulders are subangular to angular.					AA200195	B	0.80		
1.80						AA200196	B	1.80		
2.20	TP terminated at 2.2m due to many boulders End of Trial Pit at 2.20m		2.20	77.70						
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP done for civic offices project

IGSL TP LOG 24665.GPJ IGSL_GDT 10/5/23



TRIAL PIT RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel

TRIAL PIT NO. TP13
SHEET Sheet 1 of 1

LOGGED BY I.Reider

CO-ORDINATES 667,464.88 E
833,929.00 N

DATE STARTED 04/05/2023
DATE COMPLETED 04/05/2023

CLIENT ENGINEER Monaghan Co.Co.
DBFL/Cora

GROUND LEVEL (m) 83.28

EXCAVATION METHOD 3T Tracked machine

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL									
	Soft, brown, slightly sandy slightly slightly gravelly CLAY with hair roots content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded.		0.20	83.08						
	Firm to stiff, greyish brown, slightly sandy slightly gravelly CLAY with low cobbles and boulders content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles and boulders are subangular to subrounded.		0.50	82.78						
1.0						AA205173	B	0.60		
	TP terminated at 1.4m due to many boulders End of Trial Pit at 1.40m		1.40	81.88		AA205174	B	1.40		
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP done for civic offices project

IGSL TP LOG 24665.GPJ IGSLGDT 10/5/23



GEOTECHNICAL BORING RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel - Road & Bridge project				BOREHOLE NO. BH01R	
CO-ORDINATES 667,653.00 E 833,742.61 N		RIG TYPE Dando 2000		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 56.30		BOREHOLE DIAMETER (mm) 200		DATE COMMENCED 17/05/2023	
		BOREHOLE DEPTH (m) 4.60		DATE COMPLETED 17/05/2023	
CLIENT Monaghan Co.Co.		SPT HAMMER REF. NO.		BORED BY P.Allan	
ENGINEER DBFL		ENERGY RATIO (%)		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		56.20	0.10						
	Soft brown SILT/CLAY with occasional fine gravel				AA192926 AA197907	B B	0.50 0.50		N = 50/75 mm (25, 50)	
1	Firm grey sandy SILT/CLAY with some gravel		55.20	1.10	AA197908	B	1.00		N = 12 (2, 2, 1, 2, 3, 6)	
2					AA197909	B	2.00		N = 10 (15, 5, 2, 2, 2, 4)	
3	Very stiff grey very sandy very gravelly SILT		53.10	3.20	AA197910	B	3.00		N = 14 (1, 2, 3, 2, 2, 7)	
4	Dense grey fine to coarse GRAVEL with some cobbles		52.30	4.00					N = 50/150 mm (9, 16, 30, 20)	
4.6	Obstruction End of Borehole at 4.60 m		51.70	4.60						

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.4	4.6	1.5		4.00	4.00	No	3.00	20	Moderate

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
					17-05-23	4.60	Nil	3.00	End of BH

REMARKS CATscanned location and hand dug inspection pit was carried out .	Sample Legend D - Small Disturbed (lub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG 24665 - BRIDGE & ROAD SITE.GPJ IGSL_GDT 24/7/23



GEOTECHNICAL BORING RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel - Road & Bridge project		BOREHOLE NO. BH02R	
CO-ORDINATES 667,668.30 E 833,709.23 N		SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD) 56.07		DATE COMMENCED 10/05/2023	
		DATE COMPLETED 10/05/2023	
CLIENT Monaghan Co.Co.		SPT HAMMER REF. NO.	
ENGINEER DBFL		ENERGY RATIO (%)	
		BORED BY P.Allan	
		PROCESSED BY F.C	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	TOPSOIL		55.97	0.10						
	MADE GROUND (Comprised of hardcore road fill)		55.87	0.20						
	MADE GROUND (Comprised of brown gravelly clay fill)									
1	Soft to firm sandy gravelly SILT/CLAY (Possibly Made Ground)		54.87	1.20	AA192927	B	1.00	N = 33 (2, 6, 8, 10, 6, 9)		
2	Stiff grey gravelly CLAY		53.87	2.20	AA192928	B	2.00	N = 5 (3, 2, 1, 1, 2, 1)		
3					AA192929	B	3.00	N = 22 (3, 6, 10, 3, 6, 3)		
4	Dense grey fine to coarse GRAVEL with some cobbles		52.57	3.50						
4			51.67	4.40	AA192930	B	4.00	N = 50/150 mm (19, 40, 10) N = 50/75 mm (25, 50)		
5	Obstruction End of Borehole at 4.40 m									

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.4	1.6	1		2.00	2.00	No	1.50	20	Moderate
4.2	4.4	1.5		4.00	4.00	No	2.50	20	Moderate

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
					10-05-23	4.40	Nil	3.00	End of BH

REMARKS CATscanned location and hand dug inspection pit was carried out .	Sample Legend D - Small Disturbed (tub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) UT - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG 24665 - BRIDGE & ROAD SITE.GPJ IGSL.GDT 24/7/23



TRIAL PIT RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel		TRIAL PIT NO. TP01R	
LOGGED BY I.Reeder		SHEET Sheet 1 of 1	
CLIENT ENGINEER Monaghan Co.Co. DBFL/Cora		CO-ORDINATES 667,612.60 E 833,657.82 N	
		GROUND LEVEL (m) 56.08	
		DATE STARTED 02/05/2023	
		DATE COMPLETED 02/05/2023	
		EXCAVATION METHOD 3T Tracked machine	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL		0.10	55.98						
	MADE GROUND (comprised of brown/grey sandy gravelly clay, angular stones, red brick pieces, roots)					AA205155	B	0.60		
1.0	MADE GROUND (comprised of soft grey/dark brown/brown sandy gravelly clay/silt, angular cobbles and boulders, organic matter)		1.00	55.08						
						AA205156	B	1.60		
2.0	Soft, grey, slightly sandy SILT/CLAY (possible original ground)		2.10	53.98	↓ (Slow)					
	End of Trial Pit at 2.60m		2.60	53.48		AA205157	B	2.50		
3.0										
4.0										

Groundwater Conditions
Slow water flow at 2.1m

Stability
TP stable

General Remarks
TP done for Active Travel Road project. PBT01R done in location at 0.5m depth

IGSL TP LOG 24665.GPJ IGSL.GDT 10/5/23



TRIAL PIT RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel		TRIAL PIT NO. TP02R	
LOGGED BY I.Reder		SHEET Sheet 1 of 1	
CLIENT ENGINEER Monaghan Co.Co. DBFL/Cora		CO-ORDINATES 667,669.21 E 833,702.33 N	
GROUND LEVEL (m) 56.19		DATE STARTED 02/05/2023	
		DATE COMPLETED 02/05/2023	
		EXCAVATION METHOD 3T Tracked machine	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL		0.10	56.09						
	MADE GROUND (comprised of brown/grey sandy gravelly clay, angular stones, red brick pieces, roots, timber pieces, occasional plastic rubbish, old steel wires, boulders, concrete pieces)									
1.0						AA205159	B	1.00		
2.0						AA205160	B	2.00		
2.50	TP terminated at 2.5m due to many boulders End of Trial Pit at 2.50m		2.50	53.69						
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP unstable

General Remarks
TP done for Active Travel Road project. PBT02R done in location at 0.6m depth

IGSL TP LOG 24665.GPJ IGSL.GDT 10/5/23



TRIAL PIT RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel

TRIAL PIT NO. TP03R
SHEET Sheet 1 of 1

LOGGED BY I.Reder

CO-ORDINATES 667,627.81 E
833,761.65 N

DATE STARTED 03/05/2023
DATE COMPLETED 03/05/2023

CLIENT ENGINEER Monaghan Co.Co.
DBFL/Cora

GROUND LEVEL (m) 56.94

EXCAVATION METHOD 3T Tracked machine

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL									
0.15	MADE GROUND (comprised of brown sandy gravelly clay, many cobbles and boulders, red brick pieces)		0.15	56.79						
0.60	MADE GROUND (comprised of soft grey/dark grey slightly sandy gravelly silty clay, concrete pieces, steel rubbish, many organic pieces, timber pieces, old wires)		0.60	56.34		AA205161	B	0.60		
1.40						AA205162	B	1.40		
1.70	Soft to firm, grey, slightly sandy gravelly silty CLAY with medium cobbles and organic matter content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles are subangular to subrounded.		1.70	55.24						
2.30						AA205163	B	2.30		
3.00	End of Trial Pit at 3.00m		3.00	53.94						

Groundwater Conditions
TP dry

Stability
TP slightly unstable

General Remarks
TP done for Active Travel Road project. PBT03R done in location at 0.6m depth

IGSL TP LOG 24665.GPJ IGSL.GDT 10/5/23



TRIAL PIT RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel		TRIAL PIT NO. TP04R	
LOGGED BY I.Reder		SHEET Sheet 1 of 1	
CLIENT ENGINEER Monaghan Co.Co. DBFL/Cora		CO-ORDINATES 667,651.63 E 833,752.38 N	
GROUND LEVEL (m) 56.52		DATE STARTED 03/05/2023	
		DATE COMPLETED 03/05/2023	
		EXCAVATION METHOD 3T Tracked machine	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL									
0.30	MADE GROUND (comprised of brown/grey sandy gravelly clay, cobbles, red brick pieces)		0.30	56.22		AA205164	B	0.70		
1.40	Soft to firm, brown/grey mottled, slightly sandy gravelly slightly silty CLAY with medium cobbles content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles are small subangular to subrounded. (possible original ground)		1.40	55.12		AA205165	B	1.70		
2.70			2.70			AA205166	B	2.70		
3.00	End of Trial Pit at 3.00m		3.00	53.52						

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP done for Active Travel Road project. PBT04R done in location at 0.6m depth

IGSL TP LOG 24665.GPJ IGSL.GDT 10/5/23



TRIAL PIT RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel		TRIAL PIT NO. TP05R	
LOGGED BY I.Reeder		SHEET Sheet 1 of 1	
CLIENT ENGINEER Monaghan Co.Co. DBFL/Cora		CO-ORDINATES 667,594.17 E 833,778.20 N	
		DATE STARTED 03/05/2023	
		DATE COMPLETED 03/05/2023	
		EXCAVATION METHOD 3T Tracked machine	
		GROUND LEVEL (m) 57.02	

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL									
0.15	MADE GROUND (comprised of brown sandy gravelly clay, cobbles, boulders, red brick pieces, concrete rubble, roots, occasional plastic rubbish)		0.15	56.87		AA205167	B	0.50		
1.70	Firm, brown, sandy very gravelly CLAY with high cobbles content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles are subangular to subrounded		1.70	55.32		AA205168	B	1.50		
1.90	TP terminated at 1.9m due to boulders End of Trial Pit at 1.90m		1.90	55.12						

Groundwater Conditions
TP dry

Stability
TP unstable

General Remarks
TP done for Active Travel Road project. PBT05R done in location at 0.5m depth

IGSL TP LOG 24665.GPJ IGSL.GDT 10/5/23



TRIAL PIT RECORD

REPORT NUMBER

24665

CONTRACT Monaghan Active Travel		TRIAL PIT NO. TP09R	
LOGGED BY I.Reeder		SHEET Sheet 1 of 1	
CLIENT Monaghan Co.Co.		DATE STARTED 04/05/2023	
ENGINEER DBFL/Cora		DATE COMPLETED 04/05/2023	
CO-ORDINATES 667,458.08 E 834,009.19 N		EXCAVATION METHOD 3T Tracked machine	
GROUND LEVEL (m) 82.75			

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL									
0.25	Soft, brown, slightly sandy slightly slightly gravelly CLAY with low cobbles and hair roots content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles are subangular to subrounded. Firm to stiff, brown, slightly sandy very gravelly CLAY with high cobbles and boulders content. Sand is fine to coarse, gravel is fine to coarse subangular to subrounded, cobbles and boulders are subangular to angular.		0.25	82.50	 (Seepage)					
0.50			82.25	AA205182		B	0.60			
1.50	81.25	AA205183	B	1.40						
1.50	TP terminated at 1.5m due to boulders End of Trial Pit at 1.50m									

Groundwater Conditions
Slightly seepage flow at 0.5m

Stability
TP stable

General Remarks
TP done for Active Travel Road project. PBT09R done in location at 0.6m depth

IGSL TP LOG 24665.GPJ IGSL.GDT 10/5/23

Appendix 2
Laboratory Report



Final Report

Report No.: 23-19446-1

Initial Date of Issue: 19-Jun-2023

Re-Issue Details:

Client IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project 24665 / 1 Monaghan Town Active
Travel Development Site(CORA)

Quotation No.: Q20-19951

Date Received: 08-Jun-2023

Order No.:

Date Instructed: 08-Jun-2023

No. of Samples: 18

Turnaround (Wkdays): 7

Results Due: 16-Jun-2023

Date Approved: 19-Jun-2023

Approved By:

Details: Stuart Henderson, Technical
Manager

Results - Leachate

Project: 24665 / 1 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL	Chemtest Job No.:						23-19446	23-19446	23-19446	23-19446	23-19446	23-19446
Quotation No.: Q20-19951	Chemtest Sample ID.:						1653387	1653389	1653392	1653395	1653398	1653402
Order No.:	Client Sample Ref.:						AA192931	AA192934	AA171710	AA200184	AA200195	AA205173
	Sample Location:						BH01	BH03	BH07	TP04	TP08	TP13
	Sample Type:						SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):						0.50	0.50	0.80	0.50	0.80	0.60
Determinand	Accred.	SOP	Type	Units	LOD							
pH	U	1010	10:1		N/A	8.4	8.1	8.8	8.9	8.9	8.2	
Ammonium	U	1220	10:1	mg/l	0.050	0.22	0.13	0.11	0.11	0.12	0.15	
Ammonium	N	1220	10:1	mg/kg	0.10	2.5	1.4	1.5	1.6	1.7	1.6	
Boron (Dissolved)	U	1455	10:1	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo[<i>a</i>]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	

Results - Soil

Project: 24665 / 1 Monaghan Town Active Travel Development

Site(CORA)

Client: IGSL	Chemtest Job No.:		23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446
Quotation No.: Q20-19951	Chemtest Sample ID.:		1653387	1653388	1653389	1653390	1653391	1653392	1653393	1653394	1653395	
Order No.:	Client Sample Ref.:		AA192931	AA197802	AA192934	AA192939	AA192947	AA171710	AA200193	AA200179	AA200184	
	Sample Location:		BH01	BH02	BH03	BH04A	BH05	BH07	TP01	TP03	TP04	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.50	1.00	0.50	1.00	1.00	0.80	0.70	0.60	0.50	
	Asbestos Lab:		DURHAM		DURHAM			NEW-ASB			NEW-ASB	
Determinand	Accred.	SOP	Units	LOD								
ACM Type	U	2192		N/A	-		-		-			-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected			No Asbestos Detected
Moisture	N	2030	%	0.020	25	7.0	22	11	11	6.8	10	16
pH (2.5:1)	N	2010		4.0		[A] 8.6		[A] 8.5	[A] 8.5			
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[A] < 0.40		[A] < 0.40			[A] < 0.40		[A] < 0.40
Magnesium (Water Soluble)	N	2120	g/l	0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010			
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010			
Total Sulphur	U	2175	%	0.010		[A] 0.032		[A] 0.015	[A] 0.019			
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] 2.7		[A] 3.2			[A] 2.3		[A] 2.2
Chloride (Water Soluble)	U	2220	g/l	0.010		[A] 0.11		[A] < 0.010	[A] < 0.010			
Nitrate (Water Soluble)	N	2220	g/l	0.010		< 0.010		< 0.010	< 0.010			
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50		[A] < 0.50			[A] < 0.50		[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 14		[A] 4.7			[A] 2.5		[A] 4.6
Ammonium (Water Soluble)	U	2220	g/l	0.01		< 0.01		< 0.01	< 0.01			
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.024	[A] 0.057	[A] 0.018	[A] 0.029	[A] 0.031	[A] 0.014		[A] 0.053
Arsenic	U	2455	mg/kg	0.5	3.3		3.6			3.3		5.1
Barium	U	2455	mg/kg	0	28		39			38		34
Cadmium	U	2455	mg/kg	0.10	< 0.10		< 0.10			< 0.10		< 0.10
Chromium	U	2455	mg/kg	0.5	15		16			15		18
Molybdenum	U	2455	mg/kg	0.5	< 0.5		< 0.5			< 0.5		< 0.5
Antimony	N	2455	mg/kg	2.0	< 2.0		< 2.0			< 2.0		< 2.0
Copper	U	2455	mg/kg	0.50	10		13			11		13
Mercury	U	2455	mg/kg	0.05	< 0.05		< 0.05			0.05		0.07
Nickel	U	2455	mg/kg	0.50	23		31			21		28
Lead	U	2455	mg/kg	0.50	8.1		12			14		20
Selenium	U	2455	mg/kg	0.25	< 0.25		< 0.25			< 0.25		< 0.25
Zinc	U	2455	mg/kg	0.50	29		38			37		62
Chromium (Trivalent)	N	2490	mg/kg	1.0	15		16			15		18
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50		< 0.50			< 0.50		< 0.50
Organic Matter	U	2625	%	0.40						[A] 2.5	[A] 1.8	
Mineral Oil (TPH Calculation)	N	2670	mg/kg	10	< 10		< 10			< 10		< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Aliphatic TPH >C8-C10	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Aliphatic TPH >C10-C12	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Aliphatic TPH >C12-C16	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Aliphatic TPH >C16-C21	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0

Results - Soil

Project: 24665 / 1 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL	Chemtest Job No.:					23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446
Quotation No.: Q20-19951	Chemtest Sample ID.:					1653387	1653388	1653389	1653390	1653391	1653392	1653393	1653394	1653395
Order No.:	Client Sample Ref.:					AA192931	AA197802	AA192934	AA192939	AA192947	AA171710	AA200193	AA200179	AA200184
	Sample Location:					BH01	BH02	BH03	BH04A	BH05	BH07	TP01	TP03	TP04
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.50	1.00	0.50	1.00	1.00	0.80	0.70	0.60	0.50
	Asbestos Lab:					DURHAM		DURHAM			NEW-ASB			NEW-ASB
Determinand	Accred.	SOP	Units	LOD										
Aliphatic TPH >C21-C35	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0			[A] < 5.0			[A] < 5.0			[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Aromatic TPH >C8-C10	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Aromatic TPH >C10-C12	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Aromatic TPH >C12-C16	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Aromatic TPH >C16-C21	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Aromatic TPH >C21-C35	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0			[A] < 5.0			[A] < 5.0			[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10			[A] < 10			[A] < 10			[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0			[A] < 1.0			[A] < 1.0
Naphthalene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Acenaphthylene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Acenaphthene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Fluorene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Phenanthrene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Anthracene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Fluoranthene	N	2800	mg/kg	0.010	[A] 0.17			[A] < 0.010			[A] < 0.010			[A] < 0.010
Pyrene	N	2800	mg/kg	0.010	[A] 0.18			[A] < 0.010			[A] < 0.010			[A] < 0.010
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Chrysene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Coronene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010			[A] < 0.010			[A] < 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] 0.35			[A] < 0.20			[A] < 0.20			[A] < 0.20
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010			[A] < 0.0010			[A] < 0.0010			[A] < 0.0010

Results - Soil

Project: 24665 / 1 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL		Chemtest Job No.:								
Quotation No.: Q20-19951	Chemtest Sample ID.:		23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446
Order No.:	Client Sample Ref.:		1653387	1653388	1653389	1653390	1653391	1653392	1653393	1653394
	Sample Location:		AA192931	AA197802	AA192934	AA192939	AA192947	AA171710	AA200193	AA200179
	Sample Type:		BH01	BH02	BH03	BH04A	BH05	BH07	TP01	TP03
	Top Depth (m):		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Asbestos Lab:		0.50	1.00	0.50	1.00	1.00	0.80	0.70	0.60
			DURHAM		DURHAM			NEW-ASB		NEW-ASB
Determinand	Accred.	SOP	Units	LOD						
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010		[A] < 0.0010	
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010		[A] < 0.0010	
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010		[A] < 0.0010	
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010		[A] < 0.0010	
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010		[A] < 0.0010	
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010		[A] < 0.0010	
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010		[A] < 0.0010	
Total Phenols	U	2920	mg/kg	0.10	< 0.10		< 0.10		< 0.10	

Results - Soil

Project: 24665 / 1 Monaghan Town Active Travel Development

Site(CORA)

Client: IGSL	Chemtest Job No.:		23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446
Quotation No.: Q20-19951	Chemtest Sample ID.:		1653396	1653397	1653398	1653399	1653400	1653401	1653402	1653403	1653404	1653404
Order No.:	Client Sample Ref.:		AA200182	AA200188	AA200195	AA200196	AA200191	AA205178	AA205173	AA205175	AA205176	AA205176
	Sample Location:		TP05	TP07	TP08	TP08	TP09	TP12	TP13	TP14	TP14	TP14
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		0.70	0.50	0.80	1.80	0.70	0.80	0.60	0.70	1.50	1.50
	Asbestos Lab:				COVENTRY				NEW-ASB			
Determinand	Accred.	SOP	Units	LOD								
ACM Type	U	2192		N/A			-			-		
Asbestos Identification	U	2192		N/A			No Asbestos Detected			No Asbestos Detected		
Moisture	N	2030	%	0.020	13	12	10	7.8	11	11	19	17
pH (2.5:1)	N	2010		4.0		[A] 8.0		[A] 8.6				[A] 7.8
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40			[A] < 0.40				[A] 0.52	
Magnesium (Water Soluble)	N	2120	g/l	0.010		[A] < 0.010		[A] < 0.010				[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010		[A] < 0.010		[A] < 0.010				[A] 0.24
Total Sulphur	U	2175	%	0.010		[A] 0.034		[A] 0.027				[A] 0.077
Sulphur (Elemental)	U	2180	mg/kg	1.0			[A] 2.6				[A] 3.8	
Chloride (Water Soluble)	U	2220	g/l	0.010		[A] 0.028		[A] < 0.010				[A] < 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010		0.017		< 0.010				< 0.010
Cyanide (Total)	U	2300	mg/kg	0.50			[A] < 0.50				[A] < 0.50	
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50			[A] 3.3				[A] 3.3	
Ammonium (Water Soluble)	U	2220	g/l	0.01		< 0.01		< 0.01				< 0.01
Sulphate (Acid Soluble)	U	2430	%	0.010		[A] 0.065	[A] 0.033	[A] 0.045			[A] 0.040	[A] 0.075
Arsenic	U	2455	mg/kg	0.5			4.5				5.3	
Barium	U	2455	mg/kg	0			48				43	
Cadmium	U	2455	mg/kg	0.10			< 0.10				< 0.10	
Chromium	U	2455	mg/kg	0.5			27				28	
Molybdenum	U	2455	mg/kg	0.5			< 0.5				< 0.5	
Antimony	N	2455	mg/kg	2.0			< 2.0				< 2.0	
Copper	U	2455	mg/kg	0.50			21				18	
Mercury	U	2455	mg/kg	0.05			< 0.05				< 0.05	
Nickel	U	2455	mg/kg	0.50			43				37	
Lead	U	2455	mg/kg	0.50			16				13	
Selenium	U	2455	mg/kg	0.25			< 0.25				< 0.25	
Zinc	U	2455	mg/kg	0.50			48				41	
Chromium (Trivalent)	N	2490	mg/kg	1.0			27				28	
Chromium (Hexavalent)	N	2490	mg/kg	0.50			< 0.50				< 0.50	
Organic Matter	U	2625	%	0.40	[A] 1.1				[A] 1.1	[A] 1.0		[A] 1.1
Mineral Oil (TPH Calculation)	N	2670	mg/kg	10			< 10				< 10	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0			[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0			[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C8-C10	N	2680	mg/kg	1.0			[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C10-C12	N	2680	mg/kg	1.0			[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C12-C16	N	2680	mg/kg	1.0			[A] < 1.0				[A] < 1.0	
Aliphatic TPH >C16-C21	N	2680	mg/kg	1.0			[A] < 1.0				[A] < 1.0	

Results - Soil

Project: 24665 / 1 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL	Chemtest Job No.:		23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	23-19446	
Quotation No.: Q20-19951	Chemtest Sample ID.:		1653396	1653397	1653398	1653399	1653400	1653401	1653402	1653403	1653404
Order No.:	Client Sample Ref.:		AA200182	AA200188	AA200195	AA200196	AA200191	AA205178	AA205173	AA205175	AA205176
	Sample Location:		TP05	TP07	TP08	TP08	TP09	TP12	TP13	TP14	TP14
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		0.70	0.50	0.80	1.80	0.70	0.80	0.60	0.70	1.50
	Asbestos Lab:				COVENTRY				NEW-ASB		
Determinand	Accred.	SOP	Units	LOD							
Aliphatic TPH >C21-C35	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0			[A] < 5.0			[A] < 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Aromatic TPH >C8-C10	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Aromatic TPH >C10-C12	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Aromatic TPH >C12-C16	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Aromatic TPH >C16-C21	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Aromatic TPH >C21-C35	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0			[A] < 1.0			[A] < 1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0			[A] < 5.0			[A] < 5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0			[A] < 10			[A] < 10	
Benzene	U	2760	µg/kg	1.0			[A] < 1.0			[A] < 1.0	
Toluene	U	2760	µg/kg	1.0			[A] < 1.0			[A] < 1.0	
Ethylbenzene	U	2760	µg/kg	1.0			[A] < 1.0			[A] < 1.0	
m & p-Xylene	U	2760	µg/kg	1.0			[A] < 1.0			[A] < 1.0	
o-Xylene	U	2760	µg/kg	1.0			[A] < 1.0			[A] < 1.0	
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0			[A] < 1.0			[A] < 1.0	
Naphthalene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Acenaphthylene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Acenaphthene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Fluorene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Phenanthrene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Anthracene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Fluoranthene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Pyrene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Benzo[a]anthracene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Chrysene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Benzo[b]fluoranthene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Benzo[k]fluoranthene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Benzo[a]pyrene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Coronene	N	2800	mg/kg	0.010			[A] < 0.010			[A] < 0.010	
Total Of 17 PAH's	N	2800	mg/kg	0.20			[A] < 0.20			[A] < 0.20	
PCB 28	N	2815	mg/kg	0.0010			[A] < 0.0010			[A] < 0.0010	

Results - Soil

Project: 24665 / 1 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL	Chemtest Job No.:									
Quotation No.: Q20-19951	Chemtest Sample ID.:									
Order No.:	Client Sample Ref.:									
	Sample Location:									
	Sample Type:									
	Top Depth (m):									
	Asbestos Lab:									
Determinand	Accred.	SOP	Units	LOD						
PCB 52	N	2815	mg/kg	0.0010			[A] < 0.0010			[A] < 0.0010
PCB 90+101	N	2815	mg/kg	0.0010			[A] < 0.0010			[A] < 0.0010
PCB 118	N	2815	mg/kg	0.0010			[A] < 0.0010			[A] < 0.0010
PCB 153	N	2815	mg/kg	0.0010			[A] < 0.0010			[A] < 0.0010
PCB 138	N	2815	mg/kg	0.0010			[A] < 0.0010			[A] < 0.0010
PCB 180	N	2815	mg/kg	0.0010			[A] < 0.0010			[A] < 0.0010
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010			[A] < 0.0010			[A] < 0.0010
Total Phenols	U	2920	mg/kg	0.10			< 0.10			< 0.10

Results - Single Stage WAC

Project: 24665 / 1 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19446 Chemtest Sample ID: 1653387 Sample Ref: AA192931 Sample ID: Sample Location: BH01 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 2.4	3	5	6
Loss On Ignition	2610	U	%	5.0	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 0.35	100	--	--
pH	2010	U		7.8	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.0080	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0002	0.0023	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0011	0.011	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0006	0.0058	0.5	10	30
Nickel	1455	U	0.0007	0.0066	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.005	0.046	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.15	1.5	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	45	450	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.8	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	25

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 1 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19446 Chemtest Sample ID: 1653389 Sample Ref: AA192934 Sample ID: Sample Location: BH03 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 2.0	3	5	6
Loss On Ignition	2610	U	%	1.5	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.0	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.012	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0003	0.0031	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0011	0.011	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0008	0.0079	0.5	10	30
Nickel	1455	U	0.0005	0.0050	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.003	0.033	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.10	1.0	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	47	470	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.1	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	22

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 1 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19446 Chemtest Sample ID: 1653392 Sample Ref: AA171710 Sample ID: Sample Location: BH07 Top Depth(m): 0.80 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 1.3	3	5	6
Loss On Ignition	2610	U	%	10	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.011	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0003	0.0030	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0016	0.016	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0006	0.0062	0.5	10	30
Nickel	1455	U	0.0008	0.0077	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.003	0.035	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.14	1.4	10	150	500
Sulphate	1220	U	2.3	23	1000	20000	50000
Total Dissolved Solids	1020	N	40	400	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.4	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	6.8

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 1 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19446 Chemtest Sample ID: 1653395 Sample Ref: AA200184 Sample ID: Sample Location: TP04 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria			
				Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 1.3	3	5	6
Loss On Ignition	2610	U	%	3.1	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.0060	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0003	0.0029	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0010	0.010	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0008	0.0081	0.5	10	30
Nickel	1455	U	0.0005	0.0053	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.005	0.055	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	31	310	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.5	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	10

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 1 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19446 Chemtest Sample ID: 1653398 Sample Ref: AA200195 Sample ID: Sample Location: TP08 Top Depth(m): 0.80 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.77	3	5	6
Loss On Ignition	2610	U	%	2.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.017	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0006	0.0061	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0006	0.0060	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0008	0.0076	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.003	0.034	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.096	< 1.0	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	31	310	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	10

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 1 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19446 Chemtest Sample ID: 1653402 Sample Ref: AA205173 Sample ID: Sample Location: TP13 Top Depth(m): 0.60 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.34	3	5	6
Loss On Ignition	2610	U	%	4.7	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		7.8	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.0090	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0019	0.019	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	0.0036	0.036	0.5	10	70
Copper	1455	U	0.0058	0.058	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0004	0.0043	0.5	10	30
Nickel	1455	U	0.0056	0.056	0.4	10	40
Lead	1455	U	0.0013	0.013	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.010	0.10	4	50	200
Chloride	1220	U	1.1	11	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	2.0	20	1000	20000	50000
Total Dissolved Solids	1020	N	13	130	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	5.7	57	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	19

Waste Acceptance Criteria

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

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1653387	AA192931		BH01		A	Amber Glass 250ml
1653387	AA192931		BH01		A	Plastic Tub 500g
1653388	AA197802		BH02		A	Amber Glass 250ml
1653388	AA197802		BH02		A	Plastic Tub 500g
1653389	AA192934		BH03		A	Amber Glass 250ml
1653389	AA192934		BH03		A	Plastic Tub 500g
1653390	AA192939		BH04A		A	Amber Glass 250ml
1653390	AA192939		BH04A		A	Plastic Tub 500g
1653391	AA192947		BH05		A	Amber Glass 250ml
1653391	AA192947		BH05		A	Plastic Tub 500g
1653392	AA171710		BH07		A	Amber Glass 250ml
1653392	AA171710		BH07		A	Plastic Tub 500g
1653393	AA200193		TP01		A	Amber Glass 250ml
1653393	AA200193		TP01		A	Plastic Tub 500g
1653394	AA200179		TP03		A	Amber Glass 250ml
1653394	AA200179		TP03		A	Plastic Tub 500g
1653395	AA200184		TP04		A	Amber Glass 250ml
1653395	AA200184		TP04		A	Plastic Tub 500g
1653396	AA200182		TP05		A	Amber Glass 250ml
1653396	AA200182		TP05		A	Plastic Tub 500g
1653397	AA200188		TP07		A	Amber Glass 250ml
1653397	AA200188		TP07		A	Plastic Tub 500g

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1653398	AA200195		TP08		A	Amber Glass 250ml
1653398	AA200195		TP08		A	Plastic Tub 500g
1653399	AA200196		TP08		A	Amber Glass 250ml
1653399	AA200196		TP08		A	Plastic Tub 500g
1653400	AA200191		TP09		A	Amber Glass 250ml
1653400	AA200191		TP09		A	Plastic Tub 500g
1653401	AA205178		TP12		A	Amber Glass 250ml
1653401	AA205178		TP12		A	Plastic Tub 500g
1653402	AA205173		TP13		A	Amber Glass 250ml
1653402	AA205173		TP13		A	Plastic Tub 500g
1653403	AA205175		TP14		A	Amber Glass 250ml
1653403	AA205175		TP14		A	Plastic Tub 500g
1653404	AA205176		TP14		A	Amber Glass 250ml
1653404	AA205176		TP14		A	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurement by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2300	Cyanides & Thiocyanate in Soils	Free (or easily liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.

Test Methods

SOP	Title	Parameters included	Method summary
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and Trimethylphenols Note: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	Compliance Test for Leaching of Granular Waste Material and Sludge

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Final Report

Report No.: 23-19442-1

Initial Date of Issue: 19-Jun-2023

Re-Issue Details:

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: 24665 / 2 Monaghan Town Active
Travel Development Site(CORA)

Quotation No.: Q20-19951

Date Received: 08-Jun-2023

Order No.:

Date Instructed: 08-Jun-2023

No. of Samples: 13

Turnaround (Wkdays): 7

Results Due: 16-Jun-2023

Date Approved: 19-Jun-2023

Approved By:

Details: Stuart Henderson, Technical
Manager

Results - Leachate

Project: 24665 / 2 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL		Chemtest Job No.:											
Quotation No.: Q20-19951		Chemtest Sample ID.:											
		Client Sample ID.:											
		Sample Location:											
		Sample Type:											
		Top Depth (m):											
Determinand	Accred.	SOP	Type	Units	LOD								
pH	U	1010	10:1		N/A	8.6	8.8	8.1	8.4	8.2	8.6	8.8	8.9
Ammonium	U	1220	10:1	mg/l	0.050	0.18	0.11	0.18	0.12	0.26	0.12	0.13	0.24
Ammonium	N	1220	10:1	mg/kg	0.10	2.2	1.5	1.9	1.3	2.8	1.5	1.8	3.5
Boron (Dissolved)	U	1455	10:1	mg/kg	0.01	< 0.01	0.12	0.16	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo[<i>a</i>]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: 24665 / 2 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL	Chemtest Job No.:		23-19442	23-19442	23-19442	23-19442	23-19442	23-19442	23-19442	23-19442	23-19442	23-19442
Quotation No.: Q20-19951	Chemtest Sample ID.:		1653336	1653337	1653338	1653339	1653340	1653341	1653342	1653343	1653344	
	Client Sample ID.:		AA197907	AA197908	AA192927	AA205155	AA205157	AA205160	AA205162	AA205163	AA205164	
	Sample Location:		BH01	BH01	BH02	TP01R	TP01R	TP02R	TP03R	TP03R	TP04R	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.50	1.00	1.00	0.60	2.50	2.00	1.40	2.30	0.70	
	Asbestos Lab:		DURHAM		DURHAM	DURHAM		DURHAM	DURHAM		DURHAM	
Determinand	Accred.	SOP	Units	LOD								
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	12	15	8.7	17	18	18	17	11
pH (2.5:1)	N	2010		4.0		[A] 8.2						[A] 8.1
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[A] < 0.40		[A] < 0.40	[A] 2.8		[A] 1.9	[A] 1.9	
Magnesium (Water Soluble)	N	2120	g/l	0.010		[A] < 0.010						[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010		[A] < 0.010						[A] < 0.010
Total Sulphur	U	2175	%	0.010		[A] 0.13						[A] 0.22
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] 5.6		[A] 57	[A] 5.6		[A] 130	[A] 29	
Chloride (Water Soluble)	U	2220	g/l	0.010		[A] < 0.010						[A] 0.016
Nitrate (Water Soluble)	N	2220	g/l	0.010		< 0.010						0.082
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50		[A] 6.5	[A] 150		[A] < 0.50	[A] < 0.50	
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 14		[A] 9.8	[A] 5.6		[A] 5.8	[A] 9.6	
Ammonium (Water Soluble)	U	2220	g/l	0.01		< 0.01						< 0.01
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.12	[A] 0.064	[A] 0.057	[A] 0.064		[A] 0.072	[A] 0.032	[A] 0.069
Arsenic	U	2455	mg/kg	0.5	4.6		3.6	3.9		5.1	3.5	
Barium	U	2455	mg/kg	0	60		42	61		60	28	
Cadmium	U	2455	mg/kg	0.10	< 0.10		< 0.10	< 0.10		< 0.10	< 0.10	
Chromium	U	2455	mg/kg	0.5	21		19	15		21	12	
Molybdenum	U	2455	mg/kg	0.5	< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
Antimony	N	2455	mg/kg	2.0	< 2.0		< 2.0	< 2.0		< 2.0	< 2.0	
Copper	U	2455	mg/kg	0.50	16		21	13		22	10	
Mercury	U	2455	mg/kg	0.05	< 0.05		0.06	0.09		0.25	0.06	
Nickel	U	2455	mg/kg	0.50	34		34	24		31	19	
Lead	U	2455	mg/kg	0.50	15		36	29		54	20	
Selenium	U	2455	mg/kg	0.25	< 0.25		< 0.25	< 0.25		< 0.25	< 0.25	
Zinc	U	2455	mg/kg	0.50	42		50	64		75	44	
Chromium (Trivalent)	N	2490	mg/kg	1.0	21		19	15		21	12	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50		< 0.50	< 0.50		< 0.50	< 0.50	
Organic Matter	U	2625	%	0.40				[A] 9.1	[A] 2.0			[A] 1.3
Mineral Oil (TPH Calculation)	N	2670	mg/kg	10	< 10		< 10	55		46	< 10	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] 43		[A] 46	[A] < 1.0	
Aliphatic TPH >C8-C10	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C10-C12	N	2680	mg/kg	1.0	[A] < 1.0		[A] 4.6	[A] 12		[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C12-C16	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C16-C21	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	

Results - Soil

Project: 24665 / 2 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL	Chemtest Job No.:		23-19442	23-19442	23-19442	23-19442	23-19442	23-19442	23-19442	23-19442	23-19442	
Quotation No.: Q20-19951	Chemtest Sample ID.:		1653336	1653337	1653338	1653339	1653340	1653341	1653342	1653343	1653344	
	Client Sample ID.:		AA197907	AA197908	AA192927	AA205155	AA205157	AA205160	AA205162	AA205163	AA205164	
	Sample Location:		BH01	BH01	BH02	TP01R	TP01R	TP02R	TP03R	TP03R	TP04R	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.50	1.00	1.00	0.60	2.50	2.00	1.40	2.30	0.70	
	Asbestos Lab:		DURHAM		DURHAM	DURHAM		DURHAM	DURHAM		DURHAM	
Determinand	Accred.	SOP	Units	LOD								
Aliphatic TPH >C21-C35	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0		[A] < 5.0	[A] 55		[A] 46	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C10-C12	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C12-C16	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C16-C21	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] 25		[A] 120	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	N	2680	mg/kg	1.0	[A] < 1.0		[A] 41	[A] 180		[A] 450	[A] 75	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0		[A] 41	[A] 200		[A] 570	[A] 75	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10		[A] 46	[A] 260		[A] 610	[A] 75	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0
Naphthalene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.13	[A] 0.71		[A] < 0.010	[A] < 0.010	[A] < 0.010
Acenaphthylene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.12	[A] 1.3		[A] < 0.010	[A] < 0.010	[A] < 0.010
Acenaphthene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.11	[A] 0.13		[A] < 0.010	[A] < 0.010	[A] < 0.010
Fluorene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.11	[A] 0.69		[A] < 0.010	[A] < 0.010	[A] < 0.010
Phenanthrene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.49	[A] 5.6		[A] < 0.010	[A] 0.16	[A] < 0.010
Anthracene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.31	[A] 1.9		[A] < 0.010	[A] < 0.010	[A] < 0.010
Fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 1.6	[A] 14		[A] < 0.010	[A] 0.29	[A] < 0.010
Pyrene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 1.5	[A] 12		[A] < 0.010	[A] 0.29	[A] < 0.010
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.96	[A] 7.6		[A] < 0.010	[A] < 0.010	[A] < 0.010
Chrysene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.97	[A] 7.7		[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 1.1	[A] 10		[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.41	[A] 4.1		[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.91	[A] 7.8		[A] < 0.010	[A] < 0.010	[A] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.54	[A] 5.9		[A] < 0.010	[A] < 0.010	[A] < 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] 1.1		[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] < 0.010		[A] 0.50	[A] 4.6		[A] < 0.010	[A] < 0.010	[A] < 0.010
Coronene	N	2800	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] < 0.20		[A] 9.8	[A] 85		[A] < 0.20	[A] 0.74	[A] < 0.20
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010	[A] < 0.0010

Results - Soil

Project: 24665 / 2 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL		Chemtest Job No.:											
Quotation No.: Q20-19951		Chemtest Sample ID.:											
		1653336	1653337	1653338	1653339	1653340	1653341	1653342	1653343	1653344			
		Client Sample ID.:		AA197907	AA197908	AA192927	AA205155	AA205157	AA205160	AA205162	AA205163	AA205164	
		Sample Location:		BH01	BH01	BH02	TP01R	TP01R	TP02R	TP03R	TP03R	TP04R	
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
		Top Depth (m):		0.50	1.00	1.00	0.60	2.50	2.00	1.40	2.30	0.70	
		Asbestos Lab:		DURHAM		DURHAM	DURHAM		DURHAM	DURHAM		DURHAM	
Determinand	Accred.	SOP	Units	LOD									
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010	[A] < 0.0010		[A] < 0.0010
Total Phenols	U	2920	mg/kg	0.10	< 0.10		< 0.10	< 0.10		< 0.10	< 0.10		< 0.10

Results - Soil

Project: 24665 / 2 Monaghan Town Active Travel Development

Site(CORA)

Client: IGSL		Chemtest Job No.:				23-19442	23-19442	23-19442	23-19442
Quotation No.: Q20-19951		Chemtest Sample ID.:				1653345	1653346	1653347	1653348
		Client Sample ID.:				AA205167	AA205168	AA205169	AA205182
		Sample Location:				TP05R	TP05R	TP07R	TP09R
		Sample Type:				SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.50	1.50	0.90	0.60
		Asbestos Lab:				DURHAM			DURHAM
Determinand	Accred.	SOP	Units	LOD					
ACM Type	U	2192		N/A	-			-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected			No Asbestos Detected	
Moisture	N	2030	%	0.020	13	14	15	14	
pH (2.5:1)	N	2010		4.0		[A] 8.3	[A] 8.1		
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[A] < 0.40			[A] 0.47	
Magnesium (Water Soluble)	N	2120	g/l	0.010		[A] < 0.010	[A] < 0.010		
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010		[A] < 0.010	[A] < 0.010		
Total Sulphur	U	2175	%	0.010		[A] 0.093	[A] 0.037		
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] 2.4			[A] 3.3	
Chloride (Water Soluble)	U	2220	g/l	0.010		[A] < 0.010	[A] < 0.010		
Nitrate (Water Soluble)	N	2220	g/l	0.010		0.013	0.012		
Cyanide (Total)	U	2300	mg/kg	0.50	[A] 1.3			[A] < 0.50	
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 7.7			[A] 14	
Ammonium (Water Soluble)	U	2220	g/l	0.01		< 0.01	< 0.01		
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.058	[A] 0.036	[A] 0.095	[A] 0.064	
Arsenic	U	2455	mg/kg	0.5	3.3			5.8	
Barium	U	2455	mg/kg	0	54			60	
Cadmium	U	2455	mg/kg	0.10	< 0.10			< 0.10	
Chromium	U	2455	mg/kg	0.5	14			19	
Molybdenum	U	2455	mg/kg	0.5	< 0.5			< 0.5	
Antimony	N	2455	mg/kg	2.0	< 2.0			< 2.0	
Copper	U	2455	mg/kg	0.50	13			22	
Mercury	U	2455	mg/kg	0.05	0.09			0.32	
Nickel	U	2455	mg/kg	0.50	21			31	
Lead	U	2455	mg/kg	0.50	26			56	
Selenium	U	2455	mg/kg	0.25	< 0.25			< 0.25	
Zinc	U	2455	mg/kg	0.50	60			86	
Chromium (Trivalent)	N	2490	mg/kg	1.0	14			19	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50			< 0.50	
Organic Matter	U	2625	%	0.40					
Mineral Oil (TPH Calculation)	N	2670	mg/kg	10	< 10			< 10	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aliphatic TPH >C8-C10	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aliphatic TPH >C10-C12	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aliphatic TPH >C12-C16	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aliphatic TPH >C16-C21	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	

Results - Soil

Project: 24665 / 2 Monaghan Town Active Travel Development

Site(CORA)

Client: IGSL		Chemtest Job No.:				23-19442	23-19442	23-19442	23-19442
Quotation No.: Q20-19951		Chemtest Sample ID.:				1653345	1653346	1653347	1653348
		Client Sample ID.:				AA205167	AA205168	AA205169	AA205182
		Sample Location:				TP05R	TP05R	TP07R	TP09R
		Sample Type:				SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.50	1.50	0.90	0.60
		Asbestos Lab:				DURHAM			DURHAM
Determinand	Accred.	SOP	Units	LOD					
Aliphatic TPH >C21-C35	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0			[A] < 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aromatic TPH >C8-C10	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aromatic TPH >C10-C12	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aromatic TPH >C12-C16	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Aromatic TPH >C16-C21	N	2680	mg/kg	1.0	[A] 26			[A] < 1.0	
Aromatic TPH >C21-C35	N	2680	mg/kg	1.0	[A] 280			[A] < 1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0			[A] < 1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] 310			[A] < 5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] 310			[A] < 10	
Benzene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0	
Toluene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0	
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0	
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0	
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0	
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0			[A] < 1.0	
Naphthalene	N	2800	mg/kg	0.010	[A] 0.37			[A] < 0.010	
Acenaphthylene	N	2800	mg/kg	0.010	[A] 0.84			[A] < 0.010	
Acenaphthene	N	2800	mg/kg	0.010	[A] 0.10			[A] < 0.010	
Fluorene	N	2800	mg/kg	0.010	[A] 0.42			[A] < 0.010	
Phenanthrene	N	2800	mg/kg	0.010	[A] 3.5			[A] < 0.010	
Anthracene	N	2800	mg/kg	0.010	[A] 2.0			[A] < 0.010	
Fluoranthene	N	2800	mg/kg	0.010	[A] 14			[A] < 0.010	
Pyrene	N	2800	mg/kg	0.010	[A] 11			[A] < 0.010	
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] 7.2			[A] < 0.010	
Chrysene	N	2800	mg/kg	0.010	[A] 6.1			[A] < 0.010	
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] 7.8			[A] < 0.010	
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] 3.1			[A] < 0.010	
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] 6.6			[A] < 0.010	
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] 4.0			[A] < 0.010	
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] 0.85			[A] < 0.010	
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] 3.0			[A] < 0.010	
Coronene	N	2800	mg/kg	0.010	[A] < 0.010			[A] < 0.010	
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] 71			[A] < 0.20	
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010			[A] < 0.0010	

Results - Soil

Project: 24665 / 2 Monaghan Town Active Travel Development
Site(CORA)

Client: IGSL	Chemtest Job No.:					23-19442	23-19442	23-19442	23-19442
Quotation No.: Q20-19951	Chemtest Sample ID.:					1653345	1653346	1653347	1653348
	Client Sample ID.:					AA205167	AA205168	AA205169	AA205182
	Sample Location:					TP05R	TP05R	TP07R	TP09R
	Sample Type:					SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.50	1.50	0.90	0.60
	Asbestos Lab:					DURHAM			DURHAM
Determinand	Accred.	SOP	Units	LOD					
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010			[A] < 0.0010	
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010			[A] < 0.0010	
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010			[A] < 0.0010	
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010			[A] < 0.0010	
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010			[A] < 0.0010	
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010			[A] < 0.0010	
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010			[A] < 0.0010	
Total Phenols	U	2920	mg/kg	0.10	< 0.10			< 0.10	

Results - Single Stage WAC

Project: 24665 / 2 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19442 Chemtest Sample ID: 1653336 Sample Ref: Sample ID: AA197907 Sample Location: BH01 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 2.0	3	5	6
Loss On Ignition	2610	U	%	7.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.0	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.0050	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0003	0.0030	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	< 0.0005	< 0.0050	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0007	0.0073	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	0.0010	0.0099	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.025	4	50	200
Chloride	1220	U	1.1	11	800	15000	25000
Fluoride	1220	U	0.092	< 1.0	10	150	500
Sulphate	1220	U	3.1	31	1000	20000	50000
Total Dissolved Solids	1020	N	52	520	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.4	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 2 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19442 Chemtest Sample ID: 1653338 Sample Ref: Sample ID: AA192927 Sample Location: BH02 Top Depth(m): 1.00 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 3.5	3	5	6
Loss On Ignition	2610	U	%	4.0	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] 670	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 9.8	100	--	--
pH	2010	U		8.0	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.016	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0020	0.020	0.5	2	25
Barium	1455	U	0.006	0.061	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0019	0.019	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0027	0.027	0.5	10	30
Nickel	1455	U	0.0006	0.0063	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	0.0007	0.0067	0.06	0.7	5
Selenium	1455	U	0.0010	0.010	0.1	0.5	7
Zinc	1455	U	0.005	0.052	4	50	200
Chloride	1220	U	1.4	14	800	15000	25000
Fluoride	1220	U	0.083	< 1.0	10	150	500
Sulphate	1220	U	20	200	1000	20000	50000
Total Dissolved Solids	1020	N	62	620	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.5	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	8.7

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 2 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19442 Chemtest Sample ID: 1653339 Sample Ref: Sample ID: AA205155 Sample Location: TP01R Top Depth(m): 0.60 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 5.3	3	5	6
Loss On Ignition	2610	U	%	9.5	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] 800	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 85	100	--	--
pH	2010	U		7.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.018	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0006	0.0061	0.5	2	25
Barium	1455	U	0.027	0.27	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0035	0.035	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0017	0.017	0.5	10	30
Nickel	1455	U	0.0010	0.010	0.4	10	40
Lead	1455	U	0.0006	0.0056	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	0.0005	0.0050	0.1	0.5	7
Zinc	1455	U	0.007	0.071	4	50	200
Chloride	1220	U	8.0	80	800	15000	25000
Fluoride	1220	U	0.094	< 1.0	10	150	500
Sulphate	1220	U	110	1100	1000	20000	50000
Total Dissolved Solids	1020	N	220	2200	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	8.5	85	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	17

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 2 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19442 Chemtest Sample ID: 1653341 Sample Ref: Sample ID: AA205160 Sample Location: TP02R Top Depth(m): 2.00 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 1.2	3	5	6
Loss On Ignition	2610	U	%	4.0	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] 220	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		7.9	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.015	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0019	0.019	0.5	2	25
Barium	1455	U	0.009	0.087	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0010	0.0098	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0014	0.014	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.003	0.030	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.080	< 1.0	10	150	500
Sulphate	1220	U	37	370	1000	20000	50000
Total Dissolved Solids	1020	N	91	910	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	18

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 2 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19442 Chemtest Sample ID: 1653342 Sample Ref: Sample ID: AA205162 Sample Location: TP03R Top Depth(m): 1.40 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 2.2	3	5	6
Loss On Ignition	2610	U	%	6.7	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] 140	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 0.74	100	--	--
pH	2010	U		7.8	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.013	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0005	0.0050	0.5	2	25
Barium	1455	U	0.008	0.085	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0010	0.0097	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0010	0.011	0.5	10	30
Nickel	1455	U	0.0006	0.0062	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.004	0.044	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.088	< 1.0	10	150	500
Sulphate	1220	U	13	130	1000	20000	50000
Total Dissolved Solids	1020	N	59	590	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	< 2.5	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	17

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 2 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19442 Chemtest Sample ID: 1653344 Sample Ref: Sample ID: AA205164 Sample Location: TP04R Top Depth(m): 0.70 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 2.6	3	5	6
Loss On Ignition	2610	U	%	6.4	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.3	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.021	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	< 0.0002	< 0.0020	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	< 0.0005	< 0.0050	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0007	0.0070	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	0.0005	0.0054	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.025	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.14	1.4	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	33	320	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.2	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	14

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 2 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19442 Chemtest Sample ID: 1653345 Sample Ref: Sample ID: AA205167 Sample Location: TP05R Top Depth(m): 0.50 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 3.2	3	5	6
Loss On Ignition	2610	U	%	3.1	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] 240	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 71	100	--	--
pH	2010	U		8.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.019	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0005	0.0051	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0017	0.017	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0013	0.013	0.5	10	30
Nickel	1455	U	0.0005	0.0053	0.4	10	40
Lead	1455	U	0.0009	0.0088	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.005	0.052	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	42	420	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.4	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: 24665 / 2 Monaghan Town Active Travel Development Site(CORA)

Chemtest Job No: 23-19442 Chemtest Sample ID: 1653348 Sample Ref: Sample ID: AA205182 Sample Location: TP09R Top Depth(m): 0.60 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.60	3	5	6
Loss On Ignition	2610	U	%	2.1	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.016	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	< 0.0002	< 0.0020	0.5	2	25
Barium	1455	U	< 0.005	< 0.050	20	100	300
Cadmium	1455	U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455	U	0.0005	0.0052	2	50	100
Mercury	1455	U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455	U	0.0012	0.012	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455	U	0.004	0.038	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.11	1.1	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	39	390	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.2	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	14

Waste Acceptance Criteria

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

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1653336		AA197907	BH01		A	Amber Glass 250ml
1653336		AA197907	BH01		A	Plastic Tub 500g
1653337		AA197908	BH01		A	Amber Glass 250ml
1653337		AA197908	BH01		A	Plastic Tub 500g
1653338		AA192927	BH02		A	Amber Glass 250ml
1653338		AA192927	BH02		A	Plastic Tub 500g
1653339		AA205155	TP01R		A	Amber Glass 250ml
1653339		AA205155	TP01R		A	Plastic Tub 500g
1653340		AA205157	TP01R		A	Amber Glass 250ml
1653340		AA205157	TP01R		A	Plastic Tub 500g
1653341		AA205160	TP02R		A	Amber Glass 250ml
1653341		AA205160	TP02R		A	Plastic Tub 500g
1653342		AA205162	TP03R		A	Amber Glass 250ml
1653342		AA205162	TP03R		A	Plastic Tub 500g
1653343		AA205163	TP03R		A	Amber Glass 250ml
1653343		AA205163	TP03R		A	Plastic Tub 500g
1653344		AA205164	TP04R		A	Amber Glass 250ml
1653344		AA205164	TP04R		A	Plastic Tub 500g
1653345		AA205167	TP05R		A	Amber Glass 250ml
1653345		AA205167	TP05R		A	Plastic Tub 500g
1653346		AA205168	TP05R		A	Amber Glass 250ml
1653346		AA205168	TP05R		A	Plastic Tub 500g

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1653347		AA205169	TP07R		A	Amber Glass 250ml
1653347		AA205169	TP07R		A	Plastic Tub 500g
1653348		AA205182	TP09R		A	Amber Glass 250ml
1653348		AA205182	TP09R		A	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurement by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2300	Cyanides & Thiocyanate in Soils	Free (or easily liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.

Test Methods

SOP	Title	Parameters included	Method summary
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and Trimethylphenols Note: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	Compliance Test for Leaching of Granular Waste Material and Sludge

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com

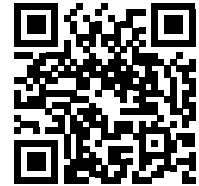
Appendix 3

Waste Classification Report

Waste Classification Report

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

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



CGDAH-VRA6U-VOMG2

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

Job name

23-001-23 Monaghan (1)

Description/Comments

6 No. Composite Samples from 3 No. Cable Percussion Boreholes and 3 No. Trial Pits

Project

23-001-23

Site

Monaghan (1)

Classified by

Name:

Austin Hynes

Date:

28 Jul 2023 09:16 GMT

Telephone:

+353 (0)21 4345366

Company:

O'Callaghan Moran & Associates

Unit 15 Melbourne Business Park,

Model Farm Road

Cork

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

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification

Date

06 Oct 2022

Next 3 year Refresher due by Oct 2025

Purpose of classification

7 - Disposal of Waste

Address of the waste

New Civic Centre, Monaghan

Post Code NA

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Site Investigation

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

Excavation

Description of the waste

Soil and Stone



environmental management for business

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	BH01	0.50	Non Hazardous		3
2	BH03	0.50	Non Hazardous		6
3	BH07	0.80	Non Hazardous		9
4	TP04	0.50	Non Hazardous		12
5	TP08	0.80	Non Hazardous		15
6	TP13	0.60	Non Hazardous		18

Related documents

#	Name	Description
1	OCM Waste Stream Updated 2021	waste stream template used to create this Job

Report

Created by: Austin Hynes

Created date: 28 Jul 2023 09:16 GMT

Appendices	Page
Appendix A: Classifier defined and non EU CLP determinands	21
Appendix B: Rationale for selection of metal species	22
Appendix C: Version	23

Classification of sample: BH01

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

Sample details

Sample name:	LoW Code:	
BH01	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50 m		
Moisture content:		
25%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 25% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				3.3 mg/kg	1.32	4.357 mg/kg	0.000436 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				15 mg/kg	1.462	21.923 mg/kg	0.00219 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
		024-017-00-8								
7	copper { dicopper oxide; copper (I) oxide }				10 mg/kg	1.126	11.259 mg/kg	0.00113 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	8.1 mg/kg	1.56	12.635 mg/kg	0.00081 %		
	082-004-00-2	231-846-0	7758-97-6							
9	manganese { manganese sulphate }				<0.05 mg/kg	2.749	<0.137 mg/kg	<0.0000137 %		<LOD
	025-003-00-4	232-089-9	7785-87-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				23 mg/kg	2.976	68.454 mg/kg	0.00685 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				29 mg/kg	2.774	80.45 mg/kg	0.00805 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							







environmental management for business

#	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	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
21	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22	acenaphthylene 205-917-1		208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23	acenaphthene 201-469-6		83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24	fluorene 201-695-5		86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	phenanthrene 201-581-5		85-01-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
26	anthracene 204-371-1		120-12-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
27	fluoranthene 205-912-4		206-44-0		0.17 mg/kg		0.17 mg/kg	0.000017 %		
28	pyrene 204-927-3		129-00-0		0.18 mg/kg		0.18 mg/kg	0.000018 %		
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
30	chrysene 601-048-00-0	205-923-4	218-01-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	indeno[123-cd]pyrene 205-893-2		193-39-5		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	benzo[ghi]perylene 205-883-8		191-24-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
37	phenol 604-001-00-2	203-632-7	108-95-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	polychlorobiphenyls; PCB 602-039-00-4	215-648-1	1336-36-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
Total:								0.0213 %		



environmental management for business

Key

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



Classification of sample: BH03

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

Sample details

Sample name:	LoW Code:	
BH03	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50 m		
Moisture content:		
22%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 22% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				3.6 mg/kg	1.32	4.753 mg/kg	0.000475 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				16 mg/kg	1.462	23.385 mg/kg	0.00234 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
7	copper { dicopper oxide; copper (I) oxide }				13 mg/kg	1.126	14.637 mg/kg	0.00146 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	12 mg/kg	1.56	18.718 mg/kg	0.0012 %		
	082-004-00-2	231-846-0	7758-97-6							
9	manganese { manganese sulphate }				<0.05 mg/kg	2.749	<0.137 mg/kg	<0.0000137 %		<LOD
	025-003-00-4	232-089-9	7785-87-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				31 mg/kg	2.976	92.264 mg/kg	0.00923 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				38 mg/kg	2.774	105.418 mg/kg	0.0105 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

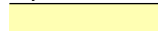





environmental management for business

#	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	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<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]							
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
21	naphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-469-6	83-32-9							
24	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-695-5	86-73-7							
25	phenanthrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-581-5	85-01-8							
26	anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-371-1	120-12-7							
27	fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-912-4	206-44-0							
28	pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-927-3	129-00-0							
29	benzo[a]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-883-8	191-24-2							
37	phenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
38	polychlorobiphenyls; PCB				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
Total:								0.027 %		



Key

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

Classification of sample: BH07

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

Sample details

Sample name:	BH07	LoW Code:	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	0.80 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)	
Moisture content:	6.8% (no correction)			

Hazard properties

None identified

Determinands

Moisture content: 6.8% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				3.3 mg/kg	1.32	4.357 mg/kg	0.000436 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				15 mg/kg	1.462	21.923 mg/kg	0.00219 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
		024-017-00-8								
7	copper { dicopper oxide; copper (I) oxide }				11 mg/kg	1.126	12.385 mg/kg	0.00124 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	14 mg/kg	1.56	21.837 mg/kg	0.0014 %		
	082-004-00-2	231-846-0	7758-97-6							
9	manganese { manganese sulphate }				0.05 mg/kg	2.749	0.137 mg/kg	0.0000137 %		
	025-003-00-4	232-089-9	7785-87-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				21 mg/kg	2.976	62.502 mg/kg	0.00625 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				37 mg/kg	2.774	102.643 mg/kg	0.0103 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							







environmental management for business

#	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	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<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]							
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
21	naphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-469-6	83-32-9							
24	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-695-5	86-73-7							
25	phenanthrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-581-5	85-01-8							
26	anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-371-1	120-12-7							
27	fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-912-4	206-44-0							
28	pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-927-3	129-00-0							
29	benzo[a]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-883-8	191-24-2							
37	phenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
38	polychlorobiphenyls; PCB				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
Total:								0.0235 %		




environmental management for business

Key

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

Classification of sample: TP04

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

Sample details

Sample name:	LoW Code:
TP04	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50 m	
Moisture content:	
10%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 10% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				5.1 mg/kg	1.32	6.734 mg/kg	0.000673 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				18 mg/kg	1.462	26.308 mg/kg	0.00263 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
7	copper { dicopper oxide; copper (I) oxide }				13 mg/kg	1.126	14.637 mg/kg	0.00146 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	20 mg/kg	1.56	31.196 mg/kg	0.002 %		
	082-004-00-2	231-846-0	7758-97-6							
9	manganese { manganese sulphate }				0.07 mg/kg	2.749	0.192 mg/kg	0.0000192 %		
	025-003-00-4	232-089-9	7785-87-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				28 mg/kg	2.976	83.335 mg/kg	0.00833 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				62 mg/kg	2.774	171.997 mg/kg	0.0172 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

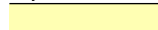





environmental management for business

#	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	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<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]							
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
21	naphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-469-6	83-32-9							
24	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-695-5	86-73-7							
25	phenanthrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-581-5	85-01-8							
26	anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-371-1	120-12-7							
27	fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-912-4	206-44-0							
28	pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-927-3	129-00-0							
29	benzo[a]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-883-8	191-24-2							
37	phenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
38	polychlorobiphenyls; PCB				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
Total:								0.0341 %		



Key

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

Classification of sample: TP08

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

Sample details

Sample name:	LoW Code:	
TP08	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.80 m		
Moisture content:		
10%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				4.5 mg/kg	1.32	5.941 mg/kg	0.000594 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				27 mg/kg	1.462	39.462 mg/kg	0.00395 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
7	copper { dicopper oxide; copper (I) oxide }				21 mg/kg	1.126	23.644 mg/kg	0.00236 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	16 mg/kg	1.56	24.957 mg/kg	0.0016 %		
	082-004-00-2	231-846-0	7758-97-6							
9	manganese { manganese sulphate }				<0.05 mg/kg	2.749	<0.137 mg/kg	<0.0000137 %		<LOD
	025-003-00-4	232-089-9	7785-87-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				43 mg/kg	2.976	127.979 mg/kg	0.0128 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				48 mg/kg	2.774	133.159 mg/kg	0.0133 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							







environmental management for business

#	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	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<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]							
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
21	naphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-469-6	83-32-9							
24	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-695-5	86-73-7							
25	phenanthrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-581-5	85-01-8							
26	anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-371-1	120-12-7							
27	fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-912-4	206-44-0							
28	pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-927-3	129-00-0							
29	benzo[a]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-883-8	191-24-2							
37	phenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
38	polychlorobiphenyls; PCB				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
Total:								0.0364 %		



environmental management for business

Key

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

Classification of sample: TP13

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

Sample details

Sample name:	LoW Code:	
TP13	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.60 m		
Moisture content:		
19%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 19% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				5.3 mg/kg	1.32	6.998 mg/kg	0.0007 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				0.52 mg/kg	3.22	1.674 mg/kg	0.000167 %		
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				28 mg/kg	1.462	40.924 mg/kg	0.00409 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
7	copper { dicopper oxide; copper (I) oxide }				18 mg/kg	1.126	20.266 mg/kg	0.00203 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	13 mg/kg	1.56	20.278 mg/kg	0.0013 %		
	082-004-00-2	231-846-0	7758-97-6							
9	manganese { manganese sulphate }				<0.05 mg/kg	2.749	<0.137 mg/kg	<0.0000137 %		<LOD
	025-003-00-4	232-089-9	7785-87-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				37 mg/kg	2.976	110.122 mg/kg	0.011 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				41 mg/kg	2.774	113.74 mg/kg	0.0114 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

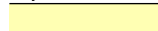





environmental management for business

#	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	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<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]							
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
21	naphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-469-6	83-32-9							
24	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-695-5	86-73-7							
25	phenanthrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-581-5	85-01-8							
26	anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-371-1	120-12-7							
27	fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-912-4	206-44-0							
28	pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-927-3	129-00-0							
29	benzo[a]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-883-8	191-24-2							
37	phenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
38	polychlorobiphenyls; PCB				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
Total:								0.0323 %		



Key

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

Appendix A: Classifier defined and non EU CLP determinands

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

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

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

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

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

EU CLP index number: 601-023-00-4

Description/Comments:

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

Reason for additional Hazards Statement(s):

03 Jun 2015 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

EU CLP 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):

14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 21 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

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

Data source date: 21 Aug 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015

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

Data source date: 23 Jul 2015

Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

EU CLP index number: 602-039-00-4

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

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

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

Reason for additional Hazards Statement(s):

29 Sep 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

arsenic {arsenic trioxide}

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

boron {diboron trioxide}

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

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

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

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

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

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

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

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

manganese {manganese sulphate}

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

molybdenum {molybdenum(VI) oxide}

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

nickel {nickel chromate}

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

selenium {nickel selenate}

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

zinc {zinc chromate}

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

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

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.1.NI - Jan 2021**

HazWasteOnline Classification Engine Version: 2023.208.5698.10490 (27 Jul 2023)

HazWasteOnline Database: 2023.208.5698.10490 (27 Jul 2023)

This classification utilises the following guidance and legislation:

WM3 v1.1.NI - Waste Classification - 1st Edition v1.1.NI - Jan 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

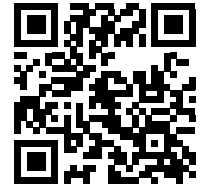
17th ATP - Regulation (EU) 2021/849 of 11 March 2021

18th ATP - Regulation (EU) 2022/692 of 16 February 2022

Waste Classification Report

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

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



A3IFA-KKUCG-Y2DV7

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

Job name

23-001-23 Monaghan (2) 17 05 04

Description/Comments

5 No. Composite Samples from 2 No. Cable Percussion Boreholes and 3 No. Trial Pits.

Project

23-001-23

Site

Monaghan (2)

Classified by

Name:

Austin Hynes

Date:

28 Jul 2023 09:21 GMT

Telephone:

+353 (0)21 4345366

Company:

O'Callaghan Moran & Associates

Unit 15 Melbourne Business Park,

Model Farm Road

Cork

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

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification

Date

06 Oct 2022

Next 3 year Refresher due by Oct 2025

Purpose of classification

7 - Disposal of Waste

Address of the waste

Active Travel Roadway, Monaghan

Post Code NA

SIC for the process giving rise to the waste

42110 Construction of roads and motorways

Description of industry/producer giving rise to the waste

Site Investigation

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

Excavation

Description of the waste

Soil and Stone



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	BH01R	0.50	Non Hazardous		3
2	BH02R	1.00	Non Hazardous		6
3	TP01R	0.60	Non Hazardous		9
4	TP04R	0.70	Non Hazardous		12
5	TP09R	0.60	Non Hazardous		15

Related documents

#	Name	Description
1	OCM Waste Stream Updated 2021	waste stream template used to create this Job

Report

Created by: Austin Hynes

Created date: 28 Jul 2023 09:21 GMT

Appendices	Page
Appendix A: Classifier defined and non EU CLP determinands	18
Appendix B: Rationale for selection of metal species	19
Appendix C: Version	20

Classification of sample: BH01R

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

Sample details

Sample name:	BH01R	LoW Code:	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	0.50 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)	
Moisture content:	12% (no correction)			

Hazard properties

None identified

Determinands

Moisture content: 12% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				4.6 mg/kg	1.32	6.073 mg/kg	0.000607 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				21 mg/kg	1.462	30.693 mg/kg	0.00307 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
		024-017-00-8								
7	copper { dicopper oxide; copper (I) oxide }				16 mg/kg	1.126	18.014 mg/kg	0.0018 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	15 mg/kg	1.56	23.397 mg/kg	0.0015 %		
	082-004-00-2	231-846-0	7758-97-6							
9	mercury { mercury dichloride }				<0.05 mg/kg	1.353	<0.0677 mg/kg	<0.00000677 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				34 mg/kg	2.976	101.193 mg/kg	0.0101 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				42 mg/kg	2.774	116.514 mg/kg	0.0117 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							







environmental management for business

#	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	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
21	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22	acenaphthylene 205-917-1		208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23	acenaphthene 201-469-6		83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24	fluorene 201-695-5		86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	phenanthrene 201-581-5		85-01-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
26	anthracene 204-371-1		120-12-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
27	fluoranthene 205-912-4		206-44-0		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
28	pyrene 204-927-3		129-00-0		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
30	chrysene 601-048-00-0	205-923-4	218-01-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	indeno[123-cd]pyrene 205-893-2		193-39-5		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	benzo[ghi]perylene 205-883-8		191-24-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
37	phenol 604-001-00-2	203-632-7	108-95-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	polychlorobiphenyls; PCB 602-039-00-4	215-648-1	1336-36-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
Total:								0.0305 %		



environmental management for business

Key

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

Classification of sample: BH02R

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

Sample details

Sample name:	LoW Code:	
BH02R	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
1.00 m		
Moisture content:		
8.7%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.7% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				3.6 mg/kg	1.32	4.753 mg/kg	0.000475 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
7	copper { dicopper oxide; copper (I) oxide }				21 mg/kg	1.126	23.644 mg/kg	0.00236 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	36 mg/kg	1.56	56.153 mg/kg	0.0036 %		
	082-004-00-2	231-846-0	7758-97-6							
9	mercury { mercury dichloride }				0.06 mg/kg	1.353	0.0812 mg/kg	0.00000812 %		
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				34 mg/kg	2.976	101.193 mg/kg	0.0101 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				50 mg/kg	2.774	138.707 mg/kg	0.0139 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				46 mg/kg		46 mg/kg	0.0046 %		
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



environmental management for business

#	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	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<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]							
20	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 }				6.5 mg/kg	1.884	12.246 mg/kg	0.00122 %		
	006-007-00-5									
21	naphthalene				0.13 mg/kg		0.13 mg/kg	0.000013 %		
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				0.12 mg/kg		0.12 mg/kg	0.000012 %		
		205-917-1	208-96-8							
23	acenaphthene				0.11 mg/kg		0.11 mg/kg	0.000011 %		
		201-469-6	83-32-9							
24	fluorene				0.11 mg/kg		0.11 mg/kg	0.000011 %		
		201-695-5	86-73-7							
25	phenanthrene				0.49 mg/kg		0.49 mg/kg	0.000049 %		
		201-581-5	85-01-8							
26	anthracene				0.31 mg/kg		0.31 mg/kg	0.000031 %		
		204-371-1	120-12-7							
27	fluoranthene				1.6 mg/kg		1.6 mg/kg	0.00016 %		
		205-912-4	206-44-0							
28	pyrene				1.5 mg/kg		1.5 mg/kg	0.00015 %		
		204-927-3	129-00-0							
29	benzo[a]anthracene				0.96 mg/kg		0.96 mg/kg	0.000096 %		
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				0.97 mg/kg		0.97 mg/kg	0.000097 %		
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				1.1 mg/kg		1.1 mg/kg	0.00011 %		
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				0.41 mg/kg		0.41 mg/kg	0.000041 %		
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				0.91 mg/kg		0.91 mg/kg	0.000091 %		
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				0.54 mg/kg		0.54 mg/kg	0.000054 %		
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				0.5 mg/kg		0.5 mg/kg	0.00005 %		
		205-883-8	191-24-2							
37	phenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
38	polychlorobiphenyls; PCB				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
Total:								0.0407 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<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 because Can be discounted as this is a solid waste without a free draining liquid phase.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0046%)

Classification of sample: TP01R

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

Sample details

Sample name:	LoW Code:	
TP01R	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.60 m		
Moisture content:		
17%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				3.9 mg/kg	1.32	5.149 mg/kg	0.000515 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				2.8 mg/kg	3.22	9.016 mg/kg	0.000902 %		
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				15 mg/kg	1.462	21.923 mg/kg	0.00219 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
		024-017-00-8								
7	copper { dicopper oxide; copper (I) oxide }				13 mg/kg	1.126	14.637 mg/kg	0.00146 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	29 mg/kg	1.56	45.235 mg/kg	0.0029 %		
	082-004-00-2	231-846-0	7758-97-6							
9	mercury { mercury dichloride }				0.09 mg/kg	1.353	0.122 mg/kg	0.0000122 %		
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				24 mg/kg	2.976	71.43 mg/kg	0.00714 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				64 mg/kg	2.774	177.545 mg/kg	0.0178 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				260 mg/kg		260 mg/kg	0.026 %		
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



environmental management for business

#	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	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
20	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				150 mg/kg	1.884	282.6 mg/kg	0.0283 %		
21	naphthalene 601-052-00-2	202-049-5	91-20-3		0.71 mg/kg		0.71 mg/kg	0.000071 %		
22	acenaphthylene 205-917-1		208-96-8		1.3 mg/kg		1.3 mg/kg	0.00013 %		
23	acenaphthene 201-469-6		83-32-9		0.13 mg/kg		0.13 mg/kg	0.000013 %		
24	fluorene 201-695-5		86-73-7		0.69 mg/kg		0.69 mg/kg	0.000069 %		
25	phenanthrene 201-581-5		85-01-8		5.6 mg/kg		5.6 mg/kg	0.00056 %		
26	anthracene 204-371-1		120-12-7		1.9 mg/kg		1.9 mg/kg	0.00019 %		
27	fluoranthene 205-912-4		206-44-0		14 mg/kg		14 mg/kg	0.0014 %		
28	pyrene 204-927-3		129-00-0		12 mg/kg		12 mg/kg	0.0012 %		
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		7.6 mg/kg		7.6 mg/kg	0.00076 %		
30	chrysene 601-048-00-0	205-923-4	218-01-9		7.7 mg/kg		7.7 mg/kg	0.00077 %		
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		10 mg/kg		10 mg/kg	0.001 %		
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		4.1 mg/kg		4.1 mg/kg	0.00041 %		
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		7.8 mg/kg		7.8 mg/kg	0.00078 %		
34	indeno[123-cd]pyrene 205-893-2		193-39-5		5.9 mg/kg		5.9 mg/kg	0.00059 %		
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		1.1 mg/kg		1.1 mg/kg	0.00011 %		
36	benzo[ghi]perylene 205-883-8		191-24-2		4.6 mg/kg		4.6 mg/kg	0.00046 %		
37	phenol 604-001-00-2	203-632-7	108-95-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	polychlorobiphenyls; PCB 602-039-00-4	215-648-1	1336-36-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
Total:								0.0962 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<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 because Can be discounted as this is a solid waste without a free draining liquid phase.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.026%)

Classification of sample: TP04R

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

Sample details

Sample name:	LoW Code:	
TP04R	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.70 m		
Moisture content:		
14%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 14% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				4 mg/kg	1.32	5.281 mg/kg	0.000528 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				21 mg/kg	1.462	30.693 mg/kg	0.00307 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
7	copper { dicopper oxide; copper (I) oxide }				23 mg/kg	1.126	25.895 mg/kg	0.00259 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	47 mg/kg	1.56	73.311 mg/kg	0.0047 %		
	082-004-00-2	231-846-0	7758-97-6							
9	mercury { mercury dichloride }				0.07 mg/kg	1.353	0.0947 mg/kg	0.00000947 %		
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				39 mg/kg	2.976	116.074 mg/kg	0.0116 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				56 mg/kg	2.774	155.352 mg/kg	0.0155 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

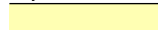





environmental management for business

#	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	benzene 601-020-00-8 200-753-7 71-43-2				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	toluene 601-021-00-3 203-625-9 108-88-3				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
18	ethylbenzene 601-023-00-4 202-849-4 100-41-4				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
19	xylene 601-022-00-9 202-422-2 [1] 95-47-6 [1] 203-396-5 [2] 106-42-3 [2] 203-576-3 [3] 108-38-3 [3] 215-535-7 [4] 1330-20-7 [4]				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
21	naphthalene 601-052-00-2 202-049-5 91-20-3				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22	acenaphthylene 205-917-1 208-96-8				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23	acenaphthene 201-469-6 83-32-9				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24	fluorene 201-695-5 86-73-7				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	phenanthrene 201-581-5 85-01-8				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
26	anthracene 204-371-1 120-12-7				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
27	fluoranthene 205-912-4 206-44-0				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
28	pyrene 204-927-3 129-00-0				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
29	benzo[a]anthracene 601-033-00-9 200-280-6 56-55-3				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
30	chrysene 601-048-00-0 205-923-4 218-01-9				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
31	benzo[b]fluoranthene 601-034-00-4 205-911-9 205-99-2				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
32	benzo[k]fluoranthene 601-036-00-5 205-916-6 207-08-9				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3 200-028-5 50-32-8				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	indeno[123-cd]pyrene 205-893-2 193-39-5				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
35	dibenz[a,h]anthracene 601-041-00-2 200-181-8 53-70-3				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	benzo[ghi]perylene 205-883-8 191-24-2				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
37	phenol 604-001-00-2 203-632-7 108-95-2				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	polychlorobiphenyls; PCB 602-039-00-4 215-648-1 1336-36-3				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
Total:								0.0398 %		



Key

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

Classification of sample: TP09R

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

Sample details

Sample name:	LoW Code:	
TP09R	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.60 m		
Moisture content:		
14%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 14% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				5.8 mg/kg	1.32	7.658 mg/kg	0.000766 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				0.47 mg/kg	3.22	1.513 mg/kg	0.000151 %		
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
		024-017-00-8								
7	copper { dicopper oxide; copper (I) oxide }				22 mg/kg	1.126	24.77 mg/kg	0.00248 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	56 mg/kg	1.56	87.35 mg/kg	0.0056 %		
	082-004-00-2	231-846-0	7758-97-6							
9	mercury { mercury dichloride }				0.32 mg/kg	1.353	0.433 mg/kg	0.0000433 %		
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				31 mg/kg	2.976	92.264 mg/kg	0.00923 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				86 mg/kg	2.774	238.577 mg/kg	0.0239 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							







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#	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	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
21	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22	acenaphthylene 205-917-1	208-96-8			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23	acenaphthene 201-469-6	83-32-9			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24	fluorene 201-695-5	86-73-7			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	phenanthrene 201-581-5	85-01-8			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
26	anthracene 204-371-1	120-12-7			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
27	fluoranthene 205-912-4	206-44-0			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
28	pyrene 204-927-3	129-00-0			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
30	chrysene 601-048-00-0	205-923-4	218-01-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	benzo[ghi]perylene 205-883-8	191-24-2			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
37	phenol 604-001-00-2	203-632-7	108-95-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	polychlorobiphenyls; PCB 602-039-00-4	215-648-1	1336-36-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
Total:								0.0465 %		



Key

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

Appendix A: Classifier defined and non EU CLP determinands

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

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

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

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

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

EU CLP index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

EU CLP 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):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411

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

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

- phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

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

Data source date: 21 Aug 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015

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

Data source date: 23 Jul 2015

Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

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

EU CLP index number: 602-039-00-4

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

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

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

Reason for additional Hazards Statement(s):

29 Sep 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

arsenic {arsenic trioxide}

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

boron {diboron trioxide}

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

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

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

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

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

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

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worst case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

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

mercury {mercury dichloride}

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

molybdenum {molybdenum(VI) oxide}

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



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nickel {nickel chromate}

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

selenium {nickel selenate}

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

zinc {zinc chromate}

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

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

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.1.NI - Jan 2021**

HazWasteOnline Classification Engine Version: 2023.208.5698.10490 (27 Jul 2023)

HazWasteOnline Database: 2023.208.5698.10490 (27 Jul 2023)

This classification utilises the following guidance and legislation:

WM3 v1.1.NI - Waste Classification - 1st Edition v1.1.NI - Jan 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

17th ATP - Regulation (EU) 2021/849 of 11 March 2021

18th ATP - Regulation (EU) 2022/692 of 16 February 2022

Waste Classification Report

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

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



THOIF-84IYH-BVHKT

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

Job name

23-001-23 Monaghan (2) 17 09 04

Description/Comments

3 No. Composite Samples from 3 No. Trial Pits

Project

23-001-23

Site

Monaghan (2)

Classified by

Name:

Austin Hynes

Date:

28 Jul 2023 09:25 GMT

Telephone:

+353 (0)21 4345366

Company:

O'Callaghan Moran & Associates

Unit 15 Melbourne Business Park,

Model Farm Road

Cork

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

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification

Date

06 Oct 2022

Next 3 year Refresher due by Oct 2025

Purpose of classification

7 - Disposal of Waste

Address of the waste

Active Travel Roadway, Monaghan

Post Code NA

SIC for the process giving rise to the waste

42110 Construction of roads and motorways

Description of industry/producer giving rise to the waste

Site Investigation

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

Excavation

Description of the waste

Construction and Demolition Waste



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Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP02R	2.00	Non Hazardous		3
2	TP03R	1.40	Non Hazardous		6
3	TP05R	0.50	Non Hazardous		9

Related documents

#	Name	Description
1	OCM Waste Stream Updated 2021	waste stream template used to create this Job

Report

Created by: Austin Hynes

Created date: 28 Jul 2023 09:25 GMT

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

Classification of sample: TP02R

✔ **Non Hazardous Waste**
Classified as **17 09 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP02R	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 09 04 (mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03)
2.00 m		
Moisture content:		
18%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 18% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				5.1 mg/kg	1.32	6.734 mg/kg	0.000673 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				1.9 mg/kg	3.22	6.118 mg/kg	0.000612 %		
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				21 mg/kg	1.462	30.693 mg/kg	0.00307 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
		024-017-00-8								
7	copper { dicopper oxide; copper (I) oxide }				22 mg/kg	1.126	24.77 mg/kg	0.00248 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	54 mg/kg	1.56	84.23 mg/kg	0.0054 %		
	082-004-00-2	231-846-0	7758-97-6							
9	mercury { mercury dichloride }				0.25 mg/kg	1.353	0.338 mg/kg	0.0000338 %		
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				31 mg/kg	2.976	92.264 mg/kg	0.00923 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				75 mg/kg	2.774	208.061 mg/kg	0.0208 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				610 mg/kg		610 mg/kg	0.061 %		
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



environmental management for business

#	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	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
21	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22	acenaphthylene 205-917-1	208-96-8			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23	acenaphthene 201-469-6	83-32-9			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24	fluorene 201-695-5	86-73-7			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	phenanthrene 201-581-5	85-01-8			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
26	anthracene 204-371-1	120-12-7			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
27	fluoranthene 205-912-4	206-44-0			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
28	pyrene 204-927-3	129-00-0			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
30	chrysene 601-048-00-0	205-923-4	218-01-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	benzo[ghi]perylene 205-883-8	191-24-2			<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
37	phenol 604-001-00-2	203-632-7	108-95-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	polychlorobiphenyls; PCB 602-039-00-4	215-648-1	1336-36-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
Total:								0.104 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<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 because Can be discounted as this is a solid waste without a free draining liquid phase.


Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.061%)

Classification of sample: TP03R

 **Non Hazardous Waste**
Classified as **17 09 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP03R	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 09 04 (mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03)
1.40 m		
Moisture content:		
17%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				3.5 mg/kg	1.32	4.621 mg/kg	0.000462 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				1.9 mg/kg	3.22	6.118 mg/kg	0.000612 %		
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				12 mg/kg	1.462	17.539 mg/kg	0.00175 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
	024-017-00-8									
7	copper { dicopper oxide; copper (I) oxide }				10 mg/kg	1.126	11.259 mg/kg	0.00113 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	20 mg/kg	1.56	31.196 mg/kg	0.002 %		
	082-004-00-2	231-846-0	7758-97-6							
9	mercury { mercury dichloride }				0.06 mg/kg	1.353	0.0812 mg/kg	0.00000812 %		
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				19 mg/kg	2.976	56.549 mg/kg	0.00565 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				44 mg/kg	2.774	122.062 mg/kg	0.0122 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				75 mg/kg		75 mg/kg	0.0075 %		
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



environmental management for business

#	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	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<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]							
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
21	naphthalene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-469-6	83-32-9							
24	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		201-695-5	86-73-7							
25	phenanthrene				0.16 mg/kg		0.16 mg/kg	0.000016 %		
		201-581-5	85-01-8							
26	anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		204-371-1	120-12-7							
27	fluoranthene				0.29 mg/kg		0.29 mg/kg	0.000029 %		
		205-912-4	206-44-0							
28	pyrene				0.29 mg/kg		0.29 mg/kg	0.000029 %		
		204-927-3	129-00-0							
29	benzo[a]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		205-883-8	191-24-2							
37	phenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
38	polychlorobiphenyls; PCB				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
Total:								0.032 %		



Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Can be discounted as this is a solid waste without a free draining liquid phase.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0075%)

Classification of sample: TP05R

✔ **Non Hazardous Waste**
Classified as **17 09 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP05R	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 09 04 (mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03)
0.50 m		
Moisture content:		
13% (no correction)		

Hazard properties

None identified

Determinands

Moisture content: 13% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				<2 mg/kg	1.197	<2.394 mg/kg	<0.000239 %		<LOD
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				3.3 mg/kg	1.32	4.357 mg/kg	0.000436 %		
	033-003-00-0	215-481-4	1327-53-3							
3	boron { diboron trioxide }				<0.4 mg/kg	3.22	<1.288 mg/kg	<0.000129 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				14 mg/kg	1.462	20.462 mg/kg	0.00205 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.5 mg/kg	2.27	<1.135 mg/kg	<0.000113 %		<LOD
		024-017-00-8								
7	copper { dicopper oxide; copper (I) oxide }				13 mg/kg	1.126	14.637 mg/kg	0.00146 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead chromate }			1	26 mg/kg	1.56	40.555 mg/kg	0.0026 %		
	082-004-00-2	231-846-0	7758-97-6							
9	mercury { mercury dichloride }				0.09 mg/kg	1.353	0.122 mg/kg	0.0000122 %		
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel chromate }				21 mg/kg	2.976	62.502 mg/kg	0.00625 %		
	028-035-00-7	238-766-5	14721-18-7							
12	selenium { nickel selenate }				<0.25 mg/kg	2.554	<0.638 mg/kg	<0.0000638 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc chromate }				60 mg/kg	2.774	166.449 mg/kg	0.0166 %		
	024-007-00-3	236-878-9	13530-65-9							
14	TPH (C6 to C40) petroleum group				310 mg/kg		310 mg/kg	0.031 %		
			TPH							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



environmental management for business

#	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	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
20	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				1.3 mg/kg	1.884	2.449 mg/kg	0.000245 %		
21	naphthalene 601-052-00-2	202-049-5	91-20-3		0.37 mg/kg		0.37 mg/kg	0.000037 %		
22	acenaphthylene 205-917-1	208-96-8			0.84 mg/kg		0.84 mg/kg	0.000084 %		
23	acenaphthene 201-469-6	83-32-9			0.1 mg/kg		0.1 mg/kg	0.00001 %		
24	fluorene 201-695-5	86-73-7			0.42 mg/kg		0.42 mg/kg	0.000042 %		
25	phenanthrene 201-581-5	85-01-8			3.5 mg/kg		3.5 mg/kg	0.00035 %		
26	anthracene 204-371-1	120-12-7			2 mg/kg		2 mg/kg	0.0002 %		
27	fluoranthene 205-912-4	206-44-0			14 mg/kg		14 mg/kg	0.0014 %		
28	pyrene 204-927-3	129-00-0			11 mg/kg		11 mg/kg	0.0011 %		
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		7.2 mg/kg		7.2 mg/kg	0.00072 %		
30	chrysene 601-048-00-0	205-923-4	218-01-9		6.1 mg/kg		6.1 mg/kg	0.00061 %		
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		7.8 mg/kg		7.8 mg/kg	0.00078 %		
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		3.1 mg/kg		3.1 mg/kg	0.00031 %		
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		6.6 mg/kg		6.6 mg/kg	0.00066 %		
34	indeno[123-cd]pyrene 205-893-2	193-39-5			4 mg/kg		4 mg/kg	0.0004 %		
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		0.85 mg/kg		0.85 mg/kg	0.000085 %		
36	benzo[ghi]perylene 205-883-8	191-24-2			3 mg/kg		3 mg/kg	0.0003 %		
37	phenol 604-001-00-2	203-632-7	108-95-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	polychlorobiphenyls; PCB 602-039-00-4	215-648-1	1336-36-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
Total:								0.0684 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<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 because Can be discounted as this is a solid waste without a free draining liquid phase.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.031%)

Appendix A: Classifier defined and non EU CLP determinands

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

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

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

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

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

EU CLP index number: 601-023-00-4

Description/Comments:

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

Reason for additional Hazards Statement(s):

03 Jun 2015 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

EU CLP 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):

14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

- phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 21 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

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

Data source date: 21 Aug 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015

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

Data source date: 23 Jul 2015

Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

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

EU CLP index number: 602-039-00-4

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

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

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

Reason for additional Hazards Statement(s):

29 Sep 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

arsenic {arsenic trioxide}

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

boron {diboron trioxide}

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

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

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

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

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

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

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worst case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

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

mercury {mercury dichloride}

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

molybdenum {molybdenum(VI) oxide}

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



nickel {nickel chromate}

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

selenium {nickel selenate}

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

zinc {zinc chromate}

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

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

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.1.NI - Jan 2021**

HazWasteOnline Classification Engine Version: 2023.208.5698.10490 (27 Jul 2023)

HazWasteOnline Database: 2023.208.5698.10490 (27 Jul 2023)

This classification utilises the following guidance and legislation:

WM3 v1.1.NI - Waste Classification - 1st Edition v1.1.NI - Jan 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

17th ATP - Regulation (EU) 2021/849 of 11 March 2021

18th ATP - Regulation (EU) 2022/692 of 16 February 2022