PHASE II GEO-ENVIRONMENTAL ASSESSMENT REPORT

C3432 – IBA Site, Saxon Works, Peterborough

April 2022

hsp consulting

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IBA Site,
Saxon Works,
Peterborough

Phase II Geo-Environmental Assessment Report

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Executive Summary

HSP Consulting has been commissioned by Johnsons Aggregates and Recycling Limited to undertake an intrusive ground investigation at the site to investigate the existing ground conditions and provide information on likely constraints to the development, preliminary parameters for design and recommendations for any mitigation measures should they be required.

The site is located within a large excavation and comprises part of a former brickworks. A large industrial unit is present in the west of the site as well as a steel frame shed in the centre. A smaller industrial unit is also present in the north of the site. In addition, sea containers used by a removal and storage company as present adjacent to the eastern boundary of the site. Furthermore, a large masonry chimney which appears to be in poor condition is present in the centre of the site.

The ground investigation comprised 26No window sample boreholes to a maximum depth of 3.80m, 7No mechanically excavated trial pits to a maximum depth of 2.20m begl, 3No hand dug pits to a maximum depth of 0.40m begl, 2No cable percussion boreholes to a maximum depth of 6.00m begl and two diamond corers used to determine hard standing composition only. The ground conditions recorded on the site consists of Made Ground underlain by fine deposits of the Oxford Clay Formation.

The natural fine deposits encountered are likely to be considered to be a suitable formation layer where they are encountered in a firm condition. Boreholes within proximity to the proposed retaining structures exhibit soft clay at shallow depth potentially due to softening by perched groundwater. Given the variable strength of the fine deposits across the site, it is considered prudent to undertake additional exploratory holes and/or plate bearing tests to determine maximum settlement along the length of the proposed walls. Additionally, to better understand the ground conditions along the length of the wall prior to excavation, it may be prudent to undertake surface wave ground stiffness profiling.

With the exception of a nickel exceedance and asbestos fibres/clumps encountered within shallow Made Ground at one location each. The concentrations of potential contaminants recorded at the site indicate an acceptably low risk. Significant hard standing is proposed across the site and therefore should hard landscaped areas be proposed within proximity to WS13 and TP03, the hard cover should provide a suitable break.

For any concrete likely to be in contact with shallow deposits, the chemical analysis indicates it is considered appropriate to adopt a basic Design Sulphate Class of DS-3 together with and Aggressive Chemical Environment for Concrete (ACEC) of AC-3. In addition, the chemical results show exceedances of the threshold values for PE and PVC pipes.

Ground gas monitoring has confirmed a CS2 classification for the site. Ground gas mitigation will be required. The risk is considered to be LOW where gas protection measures are adopted.

The executive summary contains an overview of key findings and conclusions. However, no reliance should be placed on the executive summary until the whole of the report has been read. Other sections of the report may contain information which puts into context the findings noted within the executive summary.

1. Introduction

1.1 Background

Proposals are for the receipt, storage, processing and distribution of Incinerator Bottom Ash (IBA)/Incinerator Bottom Ash Aggregates (IBAA). It should be noted that large areas of the site are to be retained in their current state. In particular, the building proposed as the main processing shed and trommel is an existing building.

The proposals include for new development in the centre and east of the site incorporating a concrete slab with retaining structures to the boundaries on the north, east and south to facilitate stockpiling/retention where surface water runoff is proposed. Current development plans are presented within Appendix II.

1.2 Client Brief & Scope

HSP Consulting has been commissioned by Johnsons Aggregates and Recycling Limited to undertake an intrusive ground investigation at the site to investigate the existing ground conditions and provide information on likely constraints to the development, preliminary parameters for design and recommendations for any mitigation measures should they be required.

Following completion of the initial investigation in April 2021, HSP Consulting were commissioned to complete a supplementary ground investigation including groundwater sampling and testing in the west of the site which was previously inaccessible. This supplementary investigation was complete in December 2021 with subsequent groundwater sampling and testing completed in early 2022.

This revision of the report includes the results of this supplementary investigation.

The report presents the following information:

- details of the ground investigation undertaken and the ground conditions encountered,
- details and results of the geotechnical testing and contamination analysis,
- recommendations for mitigating constraints to the proposed development where appropriate and providing parameters for foundation design.

Where applicable, the fieldwork was undertaken in accordance with BS5930:2015 Code of Practice for Site Investigations and BS10175:2011+A1:2013 Investigation of Potentially Contaminated Sites.

1.3 Report Objectives

The objectives of this report are to:

- establish the geological and hydrogeological conditions using existing available/published information.

- summarise available information and identify site specific geotechnical and environmental hazards which may place a constraint upon the proposed site use.
- produce an updated Conceptual Site Model identifying potential pollution linkages between sources of contamination, pathways and receptors.

1.4 Limitations

The recommendations made in this report are based on the findings of the intrusive ground investigation undertaken by HSP Consulting Ltd between the 16th November 2020 to 7th December 2021.

1.5 Previous Reports

HSP Consulting have completed a Phase I Geo-environmental Desk Study Report for the site, details of which can be found below:

- HSP Consulting Engineers Limited, Phase I Geo-Environmental Desk Study Report, 'IBA Site, Saxon Works'. April 2021, Ref: HSP2021-C3432-G-GPI-65

2. Review of Existing Information & Geo-environmental Setting

2.1 The Site

2.1.1 Location

The site is located within an excavation which is accessed off Peterborough Road to the north of the site. The approximate National Grid Reference for the centre of the site is (NGR) 525500, 297163. A Site Location Plan is included in Appendix I.

2.1.2 Description

The site is located within a large excavation and comprises part of a former brickworks. A large industrial unit is present in the west of the site as well as a steel frame shed in the centre. A smaller industrial unit is also present in the north of the site. In addition, sea containers used by a removal and storage company are present adjacent to the eastern boundary of the site. During the site walkover, a number of portable screening plants were being stored on the site as well as lorry trailers and conveyor belt parts. A large masonry chimney, remnant from the former brickworks, is present in the centre of the site.

The site is generally flat with hardstanding comprising concrete and asphalt concrete present except for the area surrounding the chimney as well as the northern margin of the site comprising hardcore (predominantly crushed brick was identified).

The eastern boundary of the site is defined by paladin fencing with the access road beyond. All other site boundaries are open and not formally defined.

No visual or olfactory evidence of contamination was identified during the walkover.

2.1.3 Surrounding Land Use

The main features of interest identified are:

North:	Overgrown slope of the excavation with open fields and a nature reserve beyond.
East:	Overgrown slope of the excavation with residential housing beyond.
South:	Former brickworks with railway and open fields beyond.
West:	Lakes and railway with brickworks and open fields beyond.

2.1.4 Site Access

Access is provided into the excavation along an existing sealed access road from Peterborough Road along the northern slope of the pit.

2.1.5 Proposed End Use

Proposals are for the receipt, storage, processing and distribution of Incinerator Bottom Ash (IBA)/Incinerator Bottom Ash Aggregates (IBAA).

2.2 Geology

2.2.1 Made Ground

The BGS 1:50,000 scale mapping indicates worked ground (undivided) – Void is recorded across the site described by the BGS as "*Worked ground is an area where the land surface (natural or artificial) has been lowered as a result of man-made excavations".*

2.2.2 Superficial Deposits

The BGS mapping indicates no superficial deposits across the site.

2.2.3 Bedrock Geology

BGS bedrock mapping indicates the site is underlain by the Oxford Clay Formation of the Jurassic Period described by the BGS as *'Silicate-mudstone, grey, generally smooth to slightly silty, with sporadic beds of argillaceous limestone nodules.'*

2.3 Pertinent Site Sensitivity Information

Based on the information collated for the desk study, the geo-environmental setting of the site is summarised as follows:

- The site straddles two open fields from earliest mapping with no significant changes until the 1920s when the excavation associated with the Saxon Brick Works encroaches into the west of the site. By the 1950's the entire site is located within the excavation and a tramway and aerial ropeways are recorded. During the 1970's, a large building labelled as a Kiln as well as a number of small buildings are recorded on the site with an additional unit recorded by 2010. By 2021, the Kiln and smaller buildings recorded during the 1970's are no longer present. 1st edition mapping shows the land within 250m of the site is predominantly agricultural. In subsequent mapping, large clay pits are recorded adjacent to the site along with associated industrial units, railway lines and aerial ropeways. The Central Brick Works approximately 250m west of the site is recorded as a reservoir by 1950. During the 1970's the majority of land surrounding the site is recorded as excavations associated with the neighbouring brickworks. During the 1970's, a large unit labelled as a Kiln as well as other smaller units and a conveyor are recorded adjacent to the site. No significant changes are recorded on subsequent mapping.
- The BGS 1:50,000 scale mapping indicates worked ground (undivided) – Void is recorded across the site.
- The BGS mapping indicates no superficial deposits across the site.
- BGS bedrock mapping indicates the site is underlain by the Oxford Clay Formation of the Jurassic Period.
- There are no records of active Landfill Sites within 250m of the site. However, there are three historical landfill records within 250m of the site. In addition, there are two licensed waste sites within 250m of the site. These both relate to the Saxon Brickworks and are defined as physical treatment facilities. There are also four waste exemptions within 250m of the site. These relate to use of waste in construction (1), screening and

blending of waste (1), burning waste in the open (1) and storage of waste in a secure place (1).

Based on the above, the environmental sensitivity of the site can be considered to be Low to Moderate at this stage.

3. Fieldwork & Factual Information

Site work was carried out between the 16th November 2020 to 7th December 2021 (Initial WS Drilling – November 2020, additional window sampling, cable percussion drilling and trial pitting – February 2021 and limited supplementary WS drilling in the west of the site – December 2021). Where applicable, the fieldwork was undertaken in accordance with BS5930:2015 Code of Practice for Site Investigations (Ref. 5) and BS10175:2011+A1:2013 Investigation of Potentially Contaminated Sites (Ref. 7).

The exploratory holes were positioned by HSP Consulting Engineers Limited to provide general coverage of the site and provide preliminary information for foundation design and obtain representative soil samples for geotechnical and geo-environmental analysis.

3.1 Exploratory Methods

The exploratory methods are detailed in the table below.

Table 1 – Exploratory Methods

Type	Quantity	Maximum Depth (m)	Details
Windowless Sampling Boreholes	28	3.80	WS01 to WS16, WS101 – WS106, WS201 – WS204.
Diamond Drilling Cores	2	0.40	CORE 1, CORE 6
Mechanically Excavated Trial Pits	7	2.20	TP01 – TP07
Hand Dug Pits	3	0.40	HDP01 – HDP03
Cable Percussion Boreholes	2	6.00	BH01 – BH02

The exploratory holes were logged and sampled by an Engineer from HSP Consulting Ltd and the logs are presented in Appendix III. The exploratory hole locations are shown on the Ground Investigation Layout Plan presented in Appendix IV.

Fragmentary bulk disturbed and undisturbed samples were recovered from materials revealed within all the exploratory holes. Geo-environmental samples, placed in plastic tubs and glass jars supplied by the laboratory, were also obtained specifically for chemical analysis. The samples were taken to UKAS accredited laboratories for further examination and testing.

3.2 In-situ Testing

3.2.1 Standard Penetration Tests

Standard Penetration Tests (SPTs) were carried out at 1.00m intervals to a maximum of 6.00m begl within the boreholes. The SPTs were undertaken in accordance with BS EN ISO 22476-3: 2005 + A1:2011 and the results are included on the appended borehole logs.

3.3 Laboratory Testing

The laboratory testing schedules were prepared by HSP Consulting Ltd.

3.3.1 Geotechnical Testing

Geotechnical testing has been scheduled to be undertaken by a UKAS accredited laboratory as part of the works at the site:

- Plasticity indexes
- Natural moisture content
- Particle Size Distributions
- BRE Suite for concrete classification

The laboratory testing has been carried out by Kiwa CMT Testing (UKAS accredited, laboratory No.0529), in accordance with BS1377:1990 using calibrated equipment specifically for the British Standard. The results are presented in Appendix V.

3.3.2 Chemical Analysis

The geo-environmental samples retained specifically for chemical analysis were stored in cooled containers until delivery to the laboratory by courier.

Chemical analysis was scheduled on twenty-four soil samples for the presence of a selected suite of potential contaminants as outlined in the tables below:

Table 2a – Chemical Analysis

Exploratory Hole Location & Depth	Sample Description
WS01A 0.25m	Made Ground [1,3,4]
WS02A 0.95m	Made Ground [1,3,4]
WS06 0.60m	Made Ground [1,3,4]
WS07 0.40m	Made Ground [1,3]
WS07 1.00m	CLAY [2]
WS08 0.80m	Made Ground [1,3]
WS08 3.00m	CLAY [2]
WS10 0.25m	Made Ground [1,3,4]
WS11 0.35m	Made Ground [1,3]
WS11 2.00m	CLAY [2]
WS12 0.05m	Made Ground [1,3]
WS13 0.30m	Made Ground [1,3]
WS14 1.00m	Made Ground [1,3,4]
WS14 3.00m	CLAY [2]
WS15 1.00m	MUDSTONE [2]
WS16 0.40m	Made Ground [1,3,4]
TP01 2.00m	Made Ground [1,3,4]
TP02 0.55m	Made Ground [1,3,4]
TP02 1.00m	Made Ground [1,3,4]
TP03 0.80m	Made Ground [1,3,4]
TP04 1.00m	Made Ground [1,3,4]
TP04 1.50m	Made Ground [1,3,4]
TP05 0.65m	Made Ground [1,3,4]
TP05 1.60m	Made Ground [1,3,4]
TP06 0.50m	Made Ground [1,3,4]
WS101 0.60m	Made Ground [1,3,4]
WS103 0.50m	Made Ground [1,3,4]
WS104 0.10m	Made Ground [1,3,4]

WS104 1.10m	Made Ground [1,3,4]
WS105 0.15m	Made Ground [1,3,4]
WS105 1.00m	Made Ground [1,3,4]
WS105 2.00m	CLAY [2]
WS106 0.20m	Made Ground [1,3,4]
WS106 0.85m	Made Ground [1,3,4]
WS106 2.00m	CLAY [2]
HDP01 0.20m	Made Ground [1,3,4]
HDP02 0.10m	Made Ground [1,3,4]
HDP03 0.10m	Made Ground [1,3,4]
WS201 0.30m	Made Ground [1,3,4]
WS201 0.80m	CLAY [1,3,4]
WS202 0.10m	Made Ground [1,3,4]
WS202 0.40m	CLAY [1,3,4]
WS203 0.50m	Made Ground [1,3,4]
WS203 0.90m	CLAY [1,3,4]
WS204 0.10m	Made Ground [1,3,4]
WS204 0.30m	CLAY [1,3,4]

[1] HSP Standard Suite, [2] BRE Short Suite, [3] Asbestos Screen, [4] Organic Matter

Table 2b – HSP Standard Chemical Analysis Suite

Metals	Cadmium	Chromium (III & VI)	Copper
	Lead	Mercury	Nickel
	Zinc		
Semi Metals and Non-metals	Arsenic	Boron	Selenium
Others	pH		
Inorganic Chemicals	Cyanide	Sulphate	Sulphide
Organic Chemicals	PAH (US EPA 16)	TPH (CWG)	Phenol

During 2021, to supplement the soil testing, five groundwater samples were recovered by Waterra oscillating pumping method into glass 1000ml Winchester bottles and glass vials. In addition, two surface water samples (SW1 – SW2) were recovered from a ditch present along the northern boundary of the site.

Table 2c – Chemical Analysis, Water - 2021

Exploratory Hole Location	
SW1 [1]	SW2 [1]
WS06 [1]	WS08 [1]
WS14 [1]	BH01 [1]
BH02 [1]	

[1] Geo-environmental Analysis,

As part of the limited supplementary window sample drilling completed in late 2021, groundwater samples were recovered by Waterra oscillating pumping method into glass 1000ml Winchester bottles and glass vials. During the monitoring visits, WS204 was not located and is assumed to have been destroyed by site operations and WS202 was dry and therefore no sample was recovered.

Table 2d – Chemical Analysis, Water - 2022

Exploratory Hole Location	
WS201 [1]	WS203 [1]

[1] Geo-environmental Analysis,

The groundwater samples recovered during both phases were assessed for the presence of a selected suite of potential contaminants as outlined in the table below:

Table 2e - HSP Standard Geo-environmental Analysis Suite, Water

Metals	Cadmium	Chromium (III & VI)	Copper
	Lead	Mercury	Nickel
	Zinc		
Semi Metals and Non-metals	Arsenic	Boron	Selenium
Others	pH	Hardness	Electrical Conductivity
	Suspended Solids	Dissolved Oxygen	Redox Potential
	Alkalinity		
Inorganic Chemicals	Cyanide	Sulphate	Sulphide
Organic Chemicals	PAH (US EPA 16)	TPH (CWG)	Phenol

The contamination analysis was carried out by Eurofins Chemtest Ltd (UKAS accredited, laboratory No. 2183). For the investigation completed in late 2020 – early 2021, the soils analysis was completed between the 10th December 2020 – 24th February 2021 and 18th to 24th February 2021 for groundwater analysis. For the supplementary western investigation, the soil analysis was completed between the 13th December and 17th December 2021 and between the 13th January and 9th February 2022 for the groundwater analysis. The results are presented in Appendix V.

3.4 Ground Conditions

3.4.1 Published Geology

The published geology indicates the site is underlain by bedrock deposits of the Oxford Clay Formation as described in section 2.2.3 above.

3.4.2 Ground Conditions on site or General Geology & Revealed Strata

The exploratory hole data confirms the published information. The strata generally comprises:

Table 2 – Encountered Ground Conditions

Strata		Depth (m begl)	Thickness (m)	Description
Anthropogenic	MADE GROUND	G.L – 0.09	0.09m	MADE GROUND comprising asphalt concrete,
	MADE GROUND	G.L – 0.15	0.15m	MADE GROUND comprising reddish brown slightly clayey gravelly sand.
	MADE GROUND	G.L – 0.20	0.20m	MADE GROUND comprising concrete
	MADE GROUND	G.L – 2.00	1.80m	MADE GROUND comprising reddish brown sandy clayey gravel with low cobble content

Strata		Depth (m begl)	Thickness (m)	Description
	MADE GROUND	G.L – 5.00	1.10m	MADE GROUND comprising dark grey sandy slightly gravelly clay.
	MADE GROUND	0.15 – 1.50	1.35m	MADE GROUND comprising red gravelly sand.
	MADE GROUND	0.20 – 0.21	0.01m	MADE GROUND comprising membrane
	MADE GROUND	0.20 – 0.58	0.38m	MADE GROUND comprising subbase
	MADE GROUND	0.90 – 3.10	2.30m	MADE GROUND comprising dark brownish black sandy gravel.
Bedrock	OXFORD CLAY FORMATION	0.40 – 6.00	1.50m	Very soft to very stiff very sandy slightly gravelly CLAY.
	OXFORD CLAY FORMATION	0.60 – 3.00	0.40m	Extremely weak to very weak grey MUDSTONE

3.5 Groundwater Levels

Groundwater was encountered during the advancement of the boreholes between 0.80 – 1.50m begl within the anthropogenic deposits. These strikes are considered to represent perched groundwater.

3.6 Ground Gas Monitoring

Sources of potential ground gas were identified prior and during the ground investigation and therefore ground gas monitoring has been scheduled as part of this investigation.

Gas monitoring installations were constructed within seven of the window sample boreholes and both cable percussion borehole to facilitate ground gas and groundwater monitoring. Each well has been constructed using 50mm diameter HDPE pipe with the top metre being plain and the remainder slotted. All of the borehole installations have a 6mm pea gravel surround to the slotted pipe with a bentonite seal above and a gas tap. The covers are cemented flush with ground level and are either a round or square lockable stopcock cover.

The results of the ground gas monitoring are discussed in Section 5.5 below.

3.7 Visual and Olfactory Evidence of Contamination

Exploratory holes completed within the proximity to the chimney (TP01 – TP07, BH01 – BH02, WS02, WS02a, WS12 and WS13) encountered black gravel with anthropogenic gravel comprising wire, rubber, fabric, plastic and ceramics. For these deposits, a hydrocarbon odour was recorded within WS13, TP04 and TP05.

4. Geotechnical Assessment

4.1 Detailed Ground Model

For the purpose of this foundation assessment the information gained from the window sample boreholes has been included. The borehole logs are presented in Appendix III.

4.1.1 Made Ground

Across the majority of the site, Made Ground to a maximum depth of 2.00m and of variable composition was encountered overlying the fine bedrock deposits.

In addition to the above Made Ground encountered across the site, exploratory holes completed within proximity to the chimney (TP01 – TP07, BH01 – BH02, WS02, WS02a, WS12 and WS13) encountered black gravel with anthropogenic gravel comprising wire, rubber, fabric, plastic and ceramics. For these deposits, a hydrocarbon odour was recorded. Underlying this material is Made Ground comprising reworked fine deposits with anthropogenic gravel and cobbles. Due to the rubbery nature of the material as well as perched groundwater ingress, the window sample boreholes and trial pits were unable to penetrate to the base of the Made Ground. Both cable percussion boreholes encountered the base of the Made Ground at a depth of between 3.10 – 5.00m begl.

4.1.2 Oxford CLAY Formation

Bedrock deposits of the Oxford Clay Formation were encountered underlying the Made Ground deposits generally comprising very soft to very stiff sandy CLAY underlain by extremely to very weak MUDSTONE. The base of the formation was not penetrated.

4.1.3 In-situ Testing, Laboratory Testing and Assessment

A series of Standard Penetration Tests (SPT's) undertaken within all boreholes have returned SPT 'N' values of 6 - 50 at 1.00m depth. The following table summarises the N values at depth across the site.

Table 3 – SPT N Values

Depth (m)	Range of 'N' Values	Mean 'N' Value	Description
1.00	7 – 16	11	Made Ground
	6 – 50	39	CLAY/MUDSTONE
2.00	7 – 50	23	Made Ground
	6 – 50	24	CLAY/MUDSTONE
3.00	5	5	Made Ground
	40 - 50	49	CLAY/MUDSTONE

Four plasticity index and moisture content tests have been undertaken in the laboratory on disturbed samples of the fine deposits. The results indicate compliance with the definition of soils of high plasticity (MH/CH) after the classification system of BS5930: 2015. These soils are considered to be moderate volume change potential in accordance with the National House Building Council (NHBC) Standards, Chapter 4.2: 2007.

Table 4 - Plasticity Index Values

Sample Ref:	Laboratory Material Descriptions	LL (%)	PL (%)	PI (%)	% passing 425µm	Modified PI (%)	Soil Class	MC (%)
WS07 1.00 – 2.00m	*Grey silty CLAY*	52	27	25	100	25	CH	30.5
WS08 2.00 – 3.00m	*Grey/brown CLAY and SILT*	51	28	23	96	22	CH/MH	25.5
WS10 0.40 – 0.80m	*Brown silty CLAY*	54	30	24	98	24	MH	27.8
WS11 @ 1.00 – 2.00m	*Brown CLAY*	59	31	28	100	28	CH/MH	31.1

One Particle Size Distribution analysis test has been undertaken to confirm the visual description and engineering behaviour of the soils. The results of the geotechnical testing are presented in Appendix VI.

4.2 Earthworks

Given the current site levels and proposed use of the site, significant earthworks operations are not expected at the site.

4.3 Excavations

In general, excavations to proposed formation levels for new foundations and infrastructure should be feasible using standard excavation plant and equipment. Random and potentially severe falls should be anticipated from the faces of near vertically sided unsupported excavations carried out at the site. Where personnel are required to enter near vertically sided excavations, it is considered that full support should be provided to the full depth of all excavations.

It is recommended that all support systems are continually assessed by fully trained or experienced personnel.

Groundwater strikes between 0.80 – 1.50m were encountered during the advancement of the exploratory holes. It should be noted that groundwater levels may vary due to seasonal variations or other effects. Should shallow groundwater entries be encountered at the site during groundwork operations, traditional sump and pump dewatering should be sufficient if required.

4.4 Foundations

It should be noted that large areas of the site are to be retained in their current state. In particular, the building proposed as the main processing shed and trommel is an existing building.

The proposals include for new development in the centre and east of the site incorporating a concrete slab with retaining structures to the boundaries on the north, east and south to facilitate stockpiling/retention where surface water runoff is proposed.

The foundation assessment assumes no changes in level at the site and should be reviewed when development plans and levels are more certain.

The natural fine deposits encountered are likely to be considered to be a suitable formation layer where they are encountered in a firm condition. Boreholes within proximity to the proposed retaining structures exhibit soft clay at shallow depth potentially due to softening by perched groundwater within the overlying Made Ground.

Given the variable strength of the fine deposits across the site and limited exploratory holes along the length of the retaining structure, it is considered prudent to undertake additional exploratory holes and/or plate bearing tests to determine maximum settlement along the length of the proposed walls when accessible. Additionally, to better understand the ground conditions along the length of the wall prior to excavation, it may be prudent to undertake surface wave ground stiffness profiling, once the proposed location of the wall is accessible and where the equipment's use is permissible.

In addition, attendance of a geotechnical specialist is considered prudent during excavation of the bases to confirm specific foundation depths.

The soils on site are of medium volume change potential. Foundations should be deepened and designed in accordance with NHBC Chapter 4.2 Building near trees (Ref. 10).

4.5 Ground Floor Slab

As highlighted in section 4.4 above, no new buildings are proposed. However, existing industrial units are proposed for reuse and therefore consideration of the adequacy of existing heave protection and ground gas protection measures will need to be considered when detailed proposals are available.

4.6 Concrete Classification

The results of sulphate and pH testing carried out on selected soil samples taken during this investigation have been compared with the recommendations outlined in BRE Special Digest 1, Part 1: 2005.

The guidelines given in BRE Special Digest 1 are based upon a site classification relating to its previous usage. It is considered appropriate to define this site as a 'brownfield site' location for the purposes of concrete classification.

For any concrete likely to be in contact with made ground and shallow natural materials, the chemical analysis indicates it is considered appropriate to adopt a basic Design Sulphate Class of DS-3 together with and Aggressive Chemical Environment for Concrete (ACEC) of AC-3.

5. Environmental Assessment

5.1 Introduction

The approach to the human health risk assessment reported here follows the principals given in CLR 11, i.e. application of the following assessment hierarchy:

- Tier 1 risk screening by establishment of potential pollutant linkages, i.e. the preliminary conceptual site model (PCSM), or
- Tier 2 generic quantitative assessment using generic assessment criteria (GACs) that represent 'acceptably low' risk, or
- Tier 3 quantitative risk assessment using site specific assessment criteria (SSACs) that represent 'unacceptable risk', or where generic assessment criteria are not available, or they are not applicable to the CSM.

The results of laboratory analysis have been screened against GACs including the Defra Category 4 Screening Levels (C4SL) and LQM and CIEH S4ULs for Human Health Risk Assessment (Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3180. All rights reserved). (Refs 9 and 10 respectively).

The standard exposure scenario of commercial has been used to identify potential exposure pathways for human health receptors. Controlled water, flora and fauna and property receptors have also been included within the CSM.

It should be noted that organic contamination (PAH, TPH and BTEX) have been screened against the GAC for 1% Soil Organic Matter (SOM).

The assessment of PAHs is undertaken using the surrogate marker approach; recommended by Health Protection Agency (2010) guidance, providing the PAH profile is sufficiently similar to the coal tars tested by Culp et al (1998). Where PAH profile is not sufficiently coal tar like the TEF method is adopted using the LQM and CIEH S4ULs. Prior to assessment a PAH profile is generated for all samples analysed for PAH using the LQM PAH Profiling Tool v1.3, the graphical output is presented in Appendix IV.

5.2 Assessment of Soil Analysis Results

Twenty-seven samples, as detailed in section 3.3.2, were scheduled for analysis from the development area. These provide a basis for characterising the soils to outline the potential impacts on human health and any environmental receptors from any contamination found.

The screening process for on-site human health receptors show that the GACs, representative of minimal risk for a commercial setting were exceeded for nickel within one sample.

Details of the exceedances can be seen in Table 7 below. The results for the remaining contaminants of concern were below the screening criteria for individual contaminant concentrations.

Table 7 – GAC Exceedances

Contaminant	GAC (mg/kg)	No. of exceedances	Concentration (mg/kg), sampling location and depth (m)
Nickel	980[3]	1	1200 TP03 0.80m

[1] C4SL, [2] SGV, [3] LQM & CIEH GAC. –

In addition, thirty nine samples were screened for asbestos with chrysotile clumps/fibres identified within one sample (WS10 0.25m). Within the remaining thirty samples, no asbestos was identified within any of the samples.

5.3 Assessment of Groundwater Analysis Results

Potential risks to controlled waters have been assessed through assessment of surface water and groundwater sampling and analysis data.

Groundwater samples were screened against Environmental Quality Standards (EQS) for fresh water specific pollutants. In the absence of EQS, the samples have been screened against the UK Drinking Water Standards (DWS).

Screening has identified exceedances of the water quality standards for selenium at two locations and boron at five locations as well as exceedances at one location for cadmium, copper, nickel and zinc. Details of the exceedance can be found in the table below:

Table 10 – Screening Criteria Exceedances

Contaminant	Screening Criteria	No. of exceedances	Concentration and sampling location
Selenium	10ug/l [1]	3	18ug/l – WS06 14ug/l – WS14 20ug/l – BH02
Boron	2000ug/l [1]	5	12000ug/l – WS06 4000ug/l – WS08 12000ug/l – WS14 3600ug/l – BH01 8400ug/l – BH02 12000ug/l – WS201
Cadmium	1.5ug/l [1]	3	2.4ug/l – WS201
Copper	28ug/l [1]	3	120ug/l – WS201
Nickel	20ug/l [1]	3	52ug/l – WS201 35ug/l – WS201
Zinc	125ug/l [1]	3	130ug/l – WS201

[1]EQS - UK Environmental Quality Standards

5.4 Human Health Mitigation

With the exception of a nickel exceedance and asbestos fibres/clumps encountered within shallow Made Ground at one location each. The concentrations of potential contaminants recorded at the site indicate an acceptably low risk.

Asbestos identified within WS13 is located within an area of scrubland adjacent to the existing access to the large industrial unit; in addition, the nickel exceedance was identified adjacent to the existing chimney. Significant hard standing is proposed across the site. Should hard landscaped areas be proposed within proximity to WS13 and TP03, the hard cover should provide a suitable break. If either of these areas are to remain soft landscaping then delineation and subsequent removal to a suitable licence waste disposal facility is considered appropriate at this stage, subject to EHO approval.
At present, it is considered that mitigation measures are not required as part of the proposed development, subject to any further assessment, if required.

Should any obvious evidence of unexpected contamination be encountered during the redevelopment works it should be reported to HSP so that an inspection can be made and appropriate sampling and assessment work be carried out.

Appropriate health and safety precautions should be adopted during any excavation works to avoid exposure to potentially contaminated soils and dust.

The approval of the local Environmental Health Officer should be sought with respect to the soil contamination assessment and mitigation proposals.

5.5 Protection of Controlled Waters

Potential risks to controlled waters have been assessed through assessment of surface water and groundwater sampling and analysis data. The samples have been screened against the EQS and Drinking Water Standards (DWS) where an EQS value is not available.

As discussed in Section 5.3, water samples obtained from monitoring wells and surface water samples show two marginal selenium exceedances when compared against the conservative Drinking Water Standards (DWS) screening criteria used within this assessment. In addition, five boron exceedances were recorded against the relevant environmental quality standard as well as exceedances for cadmium, copper, nickel and zinc at one location (WS201).

The Phase I Desk Study (Ref 1) indicates the site overall has very low sensitivity to controlled waters due to the underlying Unproductive Aquifer which will act to limit downward and lateral migration of any pollutants.

It is therefore considered the risk of migration to the underlying aquifer and surface water features will be minimal and therefore no remedial measures are likely to be required.

5.6 Water Supply

The environmental testing for the site has been compared to the following document in order to assess the most appropriate pipe material that should be used upon the site for mains water supply:

'Guidance for the selection of water supply pipes to be used in Brownfield sites – UK Water Industry Research – Ref: 10/WM/03/21.'

The chemical results show exceedances of the threshold values for PE and PVC pipes. Given the exceedances, once the location and depth of any proposed water supply pipes are known, it may be prudent to undertake additional testing along the route to confirm the appropriate pipe selection. Confirmation of supply pipes should always be sought from utility providers.

5.7 Ground Gas Risk Assessment

At the time of writing, no detailed designs have been provided. However, proposals are for the receipt, storage, processing and distribution of Incinerator Bottom Ash (IBA)/Incinerator Bottom Ash Aggregates (IBAA). It should be noted that large areas of the site are to be retained in their current state. In particular, the building proposed as the main processing shed and trommel is an existing building.

Ground gas concentrations have been monitored on four occasions in order to obtain an indication of the ground gas regime at the site. The results indicate that methane has not been recorded above the monitor's limit of detection (<0.1%vol). Carbon dioxide has been recorded at a maximum concentration of 6.8% vol in air in WS08. No steady state positive gas flows have been recorded during the monitoring visits. From the results above, the maximum steady state gas screening value for the site is 0.0068l/hr.

The results have been assessed in line with the guidance provided in BS8485:2015 + A1:2019 Code of Practice of the design of protective measures for methane and carbon dioxide ground gas for new buildings (Ref 15) and CIRIA Document C665 'Assessing Risks Posed by Hazardous Ground Gases to Buildings' (Ref 16). Comparison of the steady state gas screening value with Table 8.5 of the BS8485 document indicates the site falls in a Characteristic Situation 1. However, the maximum threshold value of 5% for carbon dioxide was exceeded and therefore at this stage, it is considered that ground gas protection measures are required for any new building.

As highlighted above, the existing building in the west of the site is proposed for use as the main processing shed. It is anticipated that when available detailed drawings will exhibit large open areas to the elevations to facilitate its intended use. In addition, the client has a similar facility where the building design incorporates mechanical venting to exhaust fumes from the building associated with the operation of the site. Provision of any M&E design considerations in this regard may provide further evidence of sufficient air exchange through the building.

The certificate and summary for the gas monitoring are presented in Appendix VII.

5.8 Waste Classification

The results of the chemical testing have been assessed using web-based software for classifying hazardous waste, using HazWasteOnline™. The majority of the materials tested are likely to be classified as non-hazardous (28 samples) with the exception of twelve samples

which were classified as hazardous and finally two samples which were classified as potentially hazardous. The results are included in Appendix VI.

Please note the above classification provides an indication of how the material should be classified for removal off site; however, this should be used at your approved waste handler's discretion and further testing may be required prior to any offsite disposal.

5.9 Conceptual Site Model

Based on the findings of this site investigation and Phase I Report, a conceptual site model has been produced and is presented in the table below.

Table 8 - Updated Conceptual Site Model.

Source	Pathway	Receptor	Consequence	Probability	Risk	Comments
On site **S1:** Historical land use: Brickworks including kiln **S2:** Landfill/ infilled Land: hazardous ground gases generation	**P1:** Human uptake pathways	**R1:** End Users **R2:** Construction and maintenance workers	Mild	Unlikely	Very Low	With the exception of asbestos and nickel encountered within shallow Made Ground. The concentrations of potential contaminants recorded at the site indicates an acceptably low risk. Should hard landscaped areas be proposed for the area where the asbestos and nickel were identified, the hard cover should provide a suitable break. If this area is to remain soft landscaping then delineation and subsequent removal to a suitable licence waste disposal facility is considered appropriate at this stage, subject to EHO approval. Given the above, the risk is considered to be VERY LOW. Appropriate health and safety precautions should be adopted during any excavation works to avoid exposure to potentially contaminated soils and dust.
	P2: Horizontal and vertical migration of contaminants through potentially permeable soils and rocks. **P3:** Migration of contaminants along preferential pathways (man- made). **P4:** Surface runoff.	**R3:** Controlled Water: Groundwater & Surface Water	Mild	Unlikely	Very Low	The bedrock geology is classified as unproductive strata. However, a number of surface water features are recorded within close proximity to the site. No significant contamination was identified during the ground investigation across the site, therefore the risk to controlled water is considered to be VERY LOW.
Off Site (within 250m) **S3:** Historical land use: Brickworks including kiln **S4:** Historical and Contemporary land use: Vehicle parts and repair **S5:** Historical and Contemporary land	**P2:** Horizontal and vertical migration of contaminants through potentially permeable soils and rocks. **P3:** Migration of contaminants along preferential pathways (man- made). **P4:** Surface runoff.	**R1:** End Users **R2:** Construction and maintenance workers	Minor	Unlikely	Very Low	See comment in Row 1.
	P5: Vertical and lateral migration of ground gases and/or vapour.	**R1:** End Users	Mild	Unlikely	Low	Ground gas monitoring has confirmed a CS2 classification for the site. Ground gas mitigation will be required. The risk is considered to be LOW where gas protection measures are adopted

use: Haulage and storage.	**P2:** Horizontal and vertical migration of contaminants through potentially permeable soils and rocks. **P3:** Migration of contaminants along preferential pathways (man- made). **P4:** Surface runoff. **P5:** Vertical and lateral migration of ground gases and/or vapour.	**R4:** Property, services and substructures **R5:** Adjacent Residential Properties	Mild	Low	Low	For any concrete likely to be in contact with made ground and shallow natural materials, the chemical analysis indicates it is considered appropriate to adopt a basic Design Sulphate Class of DS-3 together with and Aggressive Chemical Environment for Concrete (ACEC) of AC-3. The chemical results show exceedances of the threshold values for PE and PVC pipes. Given the exceedance of threshold values for PE and PVC pipes, once the location and depth of any proposed water supply pipes are known, it may be prudent to undertake additional testing along the route to confirm the appropriate pipe selection. Confirmation of supply pipes should always be sought from utility providers.
	P6: Root uptake.	**R6:** Proposed Flora and fauna	Mild	Unlikely	Very Low	Extensive planting is unlikely therefore the risk of uptake to proposed flora and fauna is VERY LOW.

6. References

1. HSP Consulting Engineers Limited, Desktop Environmental Liability Review, 'IBA Site, Saxon Works'. April 2021, Ref: C3432/PI
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4. Department of the Environment Industry Profiles.
5. Site Investigation in Construction, Volume 3, Specification for Ground Investigation 2nd Edition.
6. BS 5930:2015 Code of Practice for Site Investigations.
7. BS 8576:2013 Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds (VOCs)
8. BS10175:2011 +A1:2013 Investigation of Potentially Contaminated Sites - Code of Practice.
9. NHBC Standards, Chapter 4.2, Building near trees.
10. Nathanail, C.P., McCaffrey, C., Gillett, A.G., Ogden, R.C. and Nathanail, J.F. 2015. The LQM/CIEH S4ULs for Human Health Risk Assessment. Land Quality Press, Nottingham.
11. Department for Environment, Food and Rural Affairs and Contaminated Land: Applications in Real Environments (CL:AIRE) (December 2013). SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination.
12. BRE Special Digest 1:Concrete in Aggressive Ground, 2005, Building Research Establishment.
13. CL:AIRE The definition of Waste: Development Industry Code of Practice, 2008.
14. NHBC & RSK Group Plc, March 2007. Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present. Ed 4.
15. BS8485:2015 + A1:2019 Code of Practice of the design of protective measures for methane and carbon dioxide ground gas for new buildings
16. CIRIA C665 'Assessing Risks Posed by Hazardous Ground Gases to Buildings'
17. Department for Environment, Food and Rural Affairs and Contaminated Land: Applications in Real Environments (CL:AIRE) (December 2013). SP1010: Appendix E Provisional C4SLs for Benzo(a)pyrene as a surrogate marker for PAHs.
18. www.environment-agency.gov.uk
19. Environment Agency, Freshwater Environmental Quality Standards (EQS) contained in the Hydrogeological Risk Assessment for Landfills and the Derivation of Groundwater Control and Trigger Levels, 2015.
20. HMSO, Water Supply (Water Quality) Regulations, 2002

Appendix I

DO NOT SCALE

NOTES:

- Approximate Red Line Boundary

N

hsp consulting

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Eastwood, Nottingham, NG16 3SB
Tel: 01773 535 555 Fax: 0870 600 6091
www.hspconsulting.com

CLIENT:

Johnson Aggregates and Recycling Limited

PROJECT:

IBA Site, Saxon Works, Peterborough

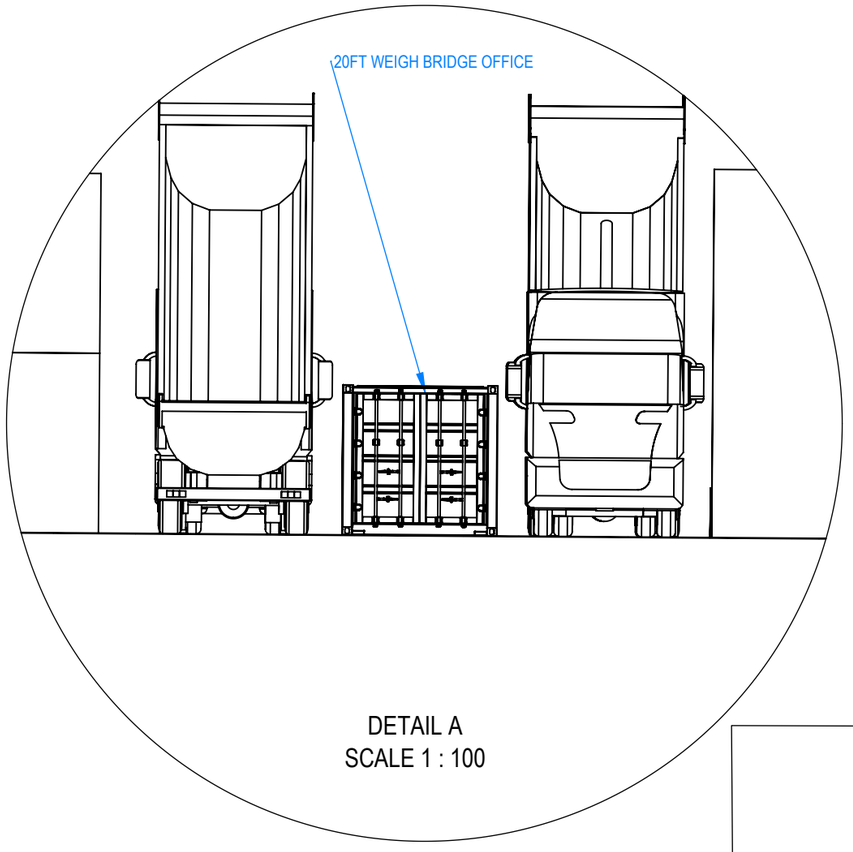
TITLE:

Site Location Plan

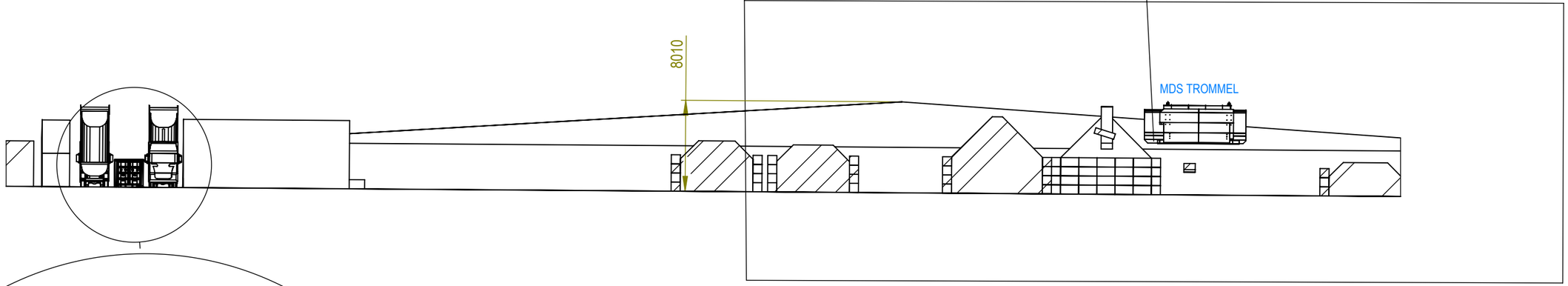
SCALE@SIZE :	ISSUE:
NTS	FINAL
DESIGN/DRAWN:	DATE:
HJD	Jan 2021
PROJECT No:	DRAWING No:
C3432	501

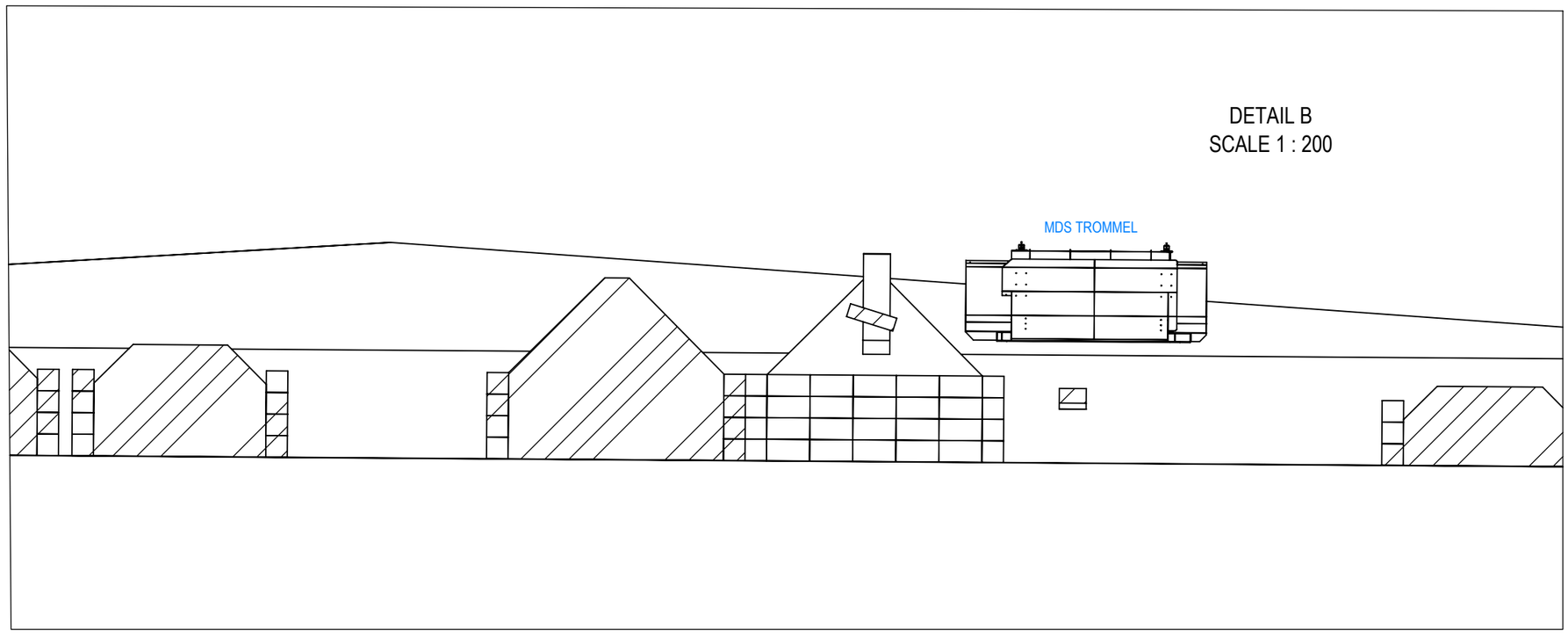
Appendix II

BAY I - 0-2 CONCRETE MIX
WEIGH BRIDGE CONTAINER (20FT)
6 QUED LORRIES
BAY H - 2-6 CONCRETE MIX
BAY G - 8-12 CONCRETE MIX
BAY E - 12-22NF AND 20-40 NF
BAY F - 12-22 CONCRETE MIX
BAY D - 6-12 NON FERROUS
BAY C - +40 NON FERROUS - INERT
BAY A - 0-40 FERROUS
BAY B - +40 FERROUS
13370
22400
23200
23200
22400
23200
5600
5600
16800
16800
13600
158400
111184
133696
11200
478 LEGO BLOCKS
PER LEVEL
(5 LEVELS = 2390)
16000
1399
123396
BAY 11 - 6-12mm INERT
BAY 13 - 12-22mm INERT
BAY 12 - 12-22mm FERRITIC ASH
84231 TONS
AT 4m HIGH (8m TO APEX)
BAY 10 - 6-12mm FERRITIC ASH
MOAT
BAY 9 - 2-6mm INERT
BAY 8 - 2-6mm FERRITIC ASH
BAY 7 - 0-2mm INERT
BAY 6 - 0-2mm FERRITIC ASH
BAY 2 - 40mm EX TROMMEL
BAY 3 - 40mm EX FERROUS
AREA = 9864m^2
OVERBAND
OVERBAND
FE CONVEYOR
MDS TROMMEL
TRS INFEED
BAY 5 - 0-40mm FERROUS SKIP
BAY 15 - 20-40mm INERT
16000
998m^2
WEDGE PIT
114851
62401
79999
64001
DRAIN WATER
TO BE PUMPED
ONTO ADJACENT
LAND
Φ 16000
857 TONS
16823
35386



DETAIL A
SCALE 1 : 100





DETAIL B
SCALE 1 : 200

Appendix III

Borehole Log

Borehole No. **WS01**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 16/11/2020 - 16/11/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.25	TJ		0.15			MADE GROUND - Dark grey sandy slightly gravelly clay. Sand is fine to coarse. Gravel is sub angular to rounded of brick, plastic, ceramics and concrete.
								MADE GROUND - Red gravelly sand. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
	▼	1.20		N=9 (0,1/2,2,2,3)				
					1.50			Firm to very stiff brown very sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub angular to rounded of mixed lithologies.
		2.00	T					
		2.00		N=12 (5,5/4,3,2,3)				
		2.00 - 3.00	B					
		3.00		N=40 (3,3/6,9,11,14)				
		3.80		50 (12,12/50 for 180mm)	3.80			End of borehole at 3.80 m

Remarks

1. Groundwater was encountered at 1.25m depth during the drilling process.
2. Borehole was terminated at 3.80m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS01A**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 16/11/2020 - 16/11/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.15			MADE GROUND - Dark grey sandy slightly gravelly clay. Sand is fine to coarse. Gravel is sub angular to rounded of brick, plastic, ceramics and concrete.
					1.00			MADE GROUND - Red gravelly sand. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
								End of borehole at 1.00 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.00m depth and backfilled with arisings.

Borehole Log

Borehole No. **WS02**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 16/11/2020 - 16/11/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.15			MADE GROUND - Reddish brown slightly clayey gravelly sand. Sand is fine to coarse. Gravel is sub angular to sub rounded of mixed lithologies.
		0.95	TJ		0.90			MADE GROUND - Dark grey sandy slightly gravelly clay. Sand is fine to coarse. Gravel is angular to sub rounded of mudstone.
					1.00			MADE GROUND - Dark brownish black sandy gravel. Sand is fine to coarse. Gravel is angular to sub rounded of wire, rubber, fabric, plastic and ceramics.
								End of borehole at 1.00 m

Remarks

1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.00m depth due to obstruction and backfilled with arisings.

Borehole Log

Borehole No. **WS02A**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 16/11/2020 - 16/11/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.15			MADE GROUND - Reddish brown slightly clayey gravelly sand. Sand is fine to coarse. Gravel is sub angular to sub rounded of mixed lithologies.
					0.90			MADE GROUND - Dark grey sandy slightly gravelly clay. Sand is fine to coarse. Gravel is angular to sub rounded of mudstone.
					1.00			MADE GROUND - Dark brownish black sandy gravel. Sand is fine to coarse. Gravel is angular to sub rounded of wire, rubber, fabric, plastic and ceramics.
								End of borehole at 1.00 m

Remarks

1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.00m begl due to obstruction and backfilled with arisings.

Borehole Log

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Borehole No. **WS03** Sheet 1 of 1
Location: Peterborough		Level:	Hole Type WS
Client: Johnson's Aggregates		Dates: 16/11/2020 - 16/11/2020	Scale 1:50
			Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.25 - 0.35	B		0.20			MADE GROUND - Concrete.
					0.21			MADE GROUND - Membrane.
					0.35			MADE GROUND - Sub base materials.
					0.60			Stiff to very stiff grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub angular to rounded of mudstone.
		1.00 1.00	T	N=50 (6,6/50 for 275mm)	1.00			Extremely weak to very weak grey MUDSTONE. End of borehole at 1.00 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.00m depth due to obstruction and backfilled with arisings.

Borehole Log

Borehole No. **WS04**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 16/11/2020 - 16/11/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20			MADE GROUND - Concrete with 2 layers of 0.08m rebar.
					0.58			MADE GROUND - Sub base.
					0.60			Firm grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub angular to rounded of mixed lithologies (Possibly Reworked).
								End of borehole at 0.60 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 0.60m depth and backfilled with arisings.

Borehole Log

Borehole No. **WS05**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 16/11/2020 - 16/11/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.13 0.20			MAD GROUND - Broken concrete. MADE GROUND - Asphalt concrete and brick work. End of borehole at 0.20 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 0.20m depth due to obstruction and backfilled with arisings.

Borehole Log

Borehole No. **WS06**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 08/12/2020 - 08/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.60	TJ					MADE GROUND - Reddish brown sandy clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick, ash and mixed lithologies. Cobbles are angular of brick.
	▼	1.00		N=10 (2,2/2,3,2,3)	1.00			MADE GROUND - Grey sandy slightly gravelly clay. Sand is fine to coarse. Gravel is sub angular to sub rounded of brick and mixed lithologies.
		2.00		50 (25 for 135mm/50 for 125mm)	1.80 1.90 2.00			MADE GROUND Reddish brown sandy gravel with medium cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick. Cobble are angular to sub rounded of brick. MADE GROUND - Brown sandy clayey gravel. Sand is fine to coarse. Gravel is angular to sub rounded of mixed lithologies. End of borehole at 2.00 m

Remarks

1. Groundwater was encountered at 1.00m depth during the drilling process.
2. Borehole was terminated at 2.00m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS07**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 08/12/2020 - 08/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.07			MADE GROUND - Asphalt concrete.
		0.40	TJ					MADE GROUND - Brown sandy clayey gravel. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
	▼				0.80			
		1.00	T					Soft to very stiff grey sandy CLAY. Sand is fine to coarse.
		1.00		N=6 (1,2/1,1,2,2)				
		1.00 - 2.00	B					
		2.00		N=8 (1,1/2,2,2,2)				
		3.00		50 (25 for 70mm/50 for 105mm)	3.00			End of borehole at 3.00 m

Remarks

1. Groundwater was encountered at 0.80m depth during the drilling process.
2. Borehole was terminated at 3.00m depth due to refusal and backfilled with arisings.

AGS

Borehole Log

Borehole No. **WS08**
Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 08/12/2020 - 08/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.07			MADE GROUND - Asphalt concrete.
		0.80	TJ					MADE GROUND - Brown sandy clayey gravel. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
		1.00		N=8 (1,2/2,2,2,2)	1.00			Firm to very stiff grey sandy CLAY. Sand is fine to coarse.
		2.00		N=9 (3,2/2,2,2,3)				
		2.00 - 3.00	B					
		3.00	T		3.00			End of borehole at 3.00 m
		3.00		50 (25 for 70mm/50 for 105mm)				

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 3.00m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS09**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 08/12/2020 - 08/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.09			MADE GROUND - Asphalt concrete.
					0.20			MADE GROUND - Concrete with one layer of 0.08m rebar.
		0.50	TJ					MADE GROUND - Reddish brown sandy clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick, ash and mixed lithologies. Cobble are angular of brick.
		1.00		N=7 (1,2/1,2,2,2)				
		1.90		50 (25 for 60mm/50 for 95mm)	1.90			End of borehole at 1.90 m

Remarks

1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.90m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS10**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 14/12/2020 - 14/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.25 0.40 - 0.80 0.60	TJ B	N=50 (5,8/50 for 255mm)	0.40 0.80			MADE GROUND - Red sandy gravel. Sand is fine to coarse. Gravel is sub angular to sub rounded of brick. Stiff to very stiff grey sandy CLAY. Sand is fine to coarse. End of borehole at 0.80 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 0.80m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS11**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 14/12/2020 - 14/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.35	TJ					MADE GROUND - Reddish brown sandy clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick, ash and mixed lithologies. Cobble are angular of brick.
		1.00 1.00 - 2.00	B	N=30 (4,4/6,8,8,8)	1.00			Stiff to very stiff grey sandy CLAY. Sand is fine to coarse.
		2.00		50 (25 for 70mm/50 for 125mm)	2.00			End of borehole at 2.00 m

Remarks

1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 2.00m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS12**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 14/12/2020 - 14/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.05	TJ		0.10			MADE GROUND - Reddish brown sandy slightly clayey gravel. Sand is fine to coarse. Gravel is angular to sub rounded of brick, plastic, rubber and mixed lithologies.
		0.80		N=16 (6,6/4,4,4,4)	0.80			MADE GROUND - Grey sandy clayey gravel. Sand is fine to coarse. Gravel is angular to sub rounded of mudstone.
								End of borehole at 0.80 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 0.80m depth due to obstruction and backfilled with arisings.

Borehole Log

Borehole No. **WS13**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 14/12/2020 - 14/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.30	TJ		0.15			MADE GROUND - Reddish brown sandy slightly clayey gravel. Sand is fine to coarse. Gravel is angular to sub rounded of brick, plastic, rubber and mixed lithologies.
		0.85	TJ		0.75			MADE GROUND - Grey sandy clayey gravel. Sand is fine to coarse. Gravel is angular to sub rounded of mudstone.
					0.85			MADE GROUND - Dark brownish black sandy gravel with slight hydrocarbon odour. Sand is fine to coarse. Gravel is angular to sub rounded of wire, rubber, fabric, plastic, ceramics. and ash.
								End of borehole at 0.85 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 0.85m depth and backfilled with arisings.

Borehole Log

hsp consulting			Borehole No. **WS14** Sheet 1 of 1
Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 14/12/2020 - 14/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.15			MADE GROUND - Asphalt concrete.
								MADE GROUND - Reddish brown sandy slightly clayey gravel. Sand is fine to coarse. Gravel is sub angular to rounded of brick.
		1.00 1.00	TJ	N=9 (2,2/2,3,2,2)	1.00			MADE GROUND - Grey sandy gravelly clay. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
		2.00		N=10 (1,1/2,2,3,3)				
					2.80			Very stiff grey sandy CLAY. Sand is fine to coarse.
		3.00 3.00	T	50 (10,14/50 for 160mm)	3.00			End of borehole at 3.00 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 3.00m depth due to refusal and backfilled with arisings.

AGS

Borehole Log

Borehole No. **WS15**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 14/12/2020 - 14/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.22			MADE GROUND - Concrete with two layers of 0.08m rebar.
					0.27			MADE GROUND - Reddish brown sandy gravel. Sand is fine to coarse. Gravel is sub angular to sub rounded of sandstone.
					0.45			MADE GROUND - Concrete.
		1.00 1.00	T	N=50 (6,6/6,6,9,29)	1.00			Weak grey MUDSTONE. End of borehole at 1.00 m

Remarks

1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.00m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS16**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 14/12/2020 - 14/12/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.40	TJ					MADE GROUND - Reddish brown sandy slightly clayey gravel. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
		0.80	T		0.75			Very stiff grey sandy CLAY. Sand is fine to coarse.
					0.95			End of borehole at 0.95 m

Remarks

1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.00m depth due to obstruction and backfilled with arisings.

Borehole Log

Borehole No. **WS101**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:35
Client: Johnson's Aggregates		Dates: 04/02/2021 - 04/02/2021	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.02			MADE GROUND - Asphalt concrete.
					0.07			MADE GROUND - Asphalt concrete.
	▼	0.60	TJ		0.65			MADE GROUND - Reddish brown sandy gravel with medium cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick. Cobbles are angular to sub angular of brick.
					0.80			Very stiff brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub rounded of mixed lithologies.
		1.00		N=50 (6,8/50 for 285mm)	0.90 1.00			Very stiff grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub rounded of mudstone.
								Extremely weak grey MUDSTONE.
								End of borehole at 1.00 m

1 2 3 4 5 6 7

Remarks

1. Groundwater was encountered at 0.60m depth during the drilling process.
2. Borehole was terminated at 1.00m depth due to refusal and backfilled with arisings.

AGS

Borehole Log

Borehole No. **WS102**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:35
Client: Johnson's Aggregates		Dates: 04/02/2021 - 04/02/2021	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10			MADE GROUND - Asphalt concrete.
	▼	1.00		N=15 (6,5/6,5,2,2)				MADE GROUND - Reddish brown sandy gravel with medium cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick. Cobbles are angular to sub angular of brick.
					1.50			Very soft brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub rounded of mixed lithologies.
		2.00		N=6 (2,0/1,1,2,2)				
					2.50			Very stiff grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub rounded of mudstone.
		3.00		N=50 (6,10/50 for 285mm)	2.90 3.00			Extremely weak grey MUDSTONE. End of borehole at 3.00 m

Remarks

1. Groundwater was encountered at 0.85m depth during the drilling process.
2. Borehole was terminated at 3.00m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS103**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:35
Client: Johnson's Aggregates		Dates: 04/02/2021 - 04/02/2021	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.09			MADE GROUND - Asphalt concrete.
	▼	0.50	TJ					MADE GROUND - Reddish brown sandy gravel with medium cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick. Cobbles are angular to sub angular of brick.
		1.00		N=12 (5,4/4,3,1,4)	1.00			No recovery.
		2.00		N=10 (5,3/2,2,3,3)	2.00			Soft brown very sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub rounded of mudstone.
		3.00		N=50 (5,6/50 for 265mm)	2.80 2.90 3.00			Very stiff brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub angular to sub rounded of mudstone. Extremely weak grey MUDSTONE. End of borehole at 3.00 m

Remarks

1. Groundwater was encountered at 0.70m depth during the drilling process.
2. Borehole was terminated at 3.00m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS104**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:35
Client: Johnson's Aggregates		Dates: 04/02/2021 - 04/02/2021	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10	TJ					MADE GROUND - Reddish brown sandy clayey gravel. Sand is fine to coarse. Gravel is sub angular to sub rounded of brick and plastic.
					0.80			
		1.00		N=8 (2,1/1,2,2,3)				MADE GROUND - Grey sandy slightly gravelly clay. Sand is fine to coarse. Gravel is angular to sub rounded of brick and mudstone.
		1.10	TJ					
		2.00		N=9 (1,2/1,2,2,4)				
					2.10			Very stiff grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub rounded of mixed lithologies.
		3.00		50 (25 for 125mm/50 for 125mm)	3.00			End of borehole at 3.00 m

Remarks

1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 3.00m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS105**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:35
Client: Johnson's Aggregates		Dates: 09/02/2021 - 09/02/2021	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.15	TJ		0.15			MADE GROUND - Concrete.
								MADE GROUND - Reddish brown slightly clayey gravelly sand. Sand is fine to coarse. Gravel is angular to sub rounded of brick, ash and mixed lithologies.
					0.80			
		1.00 1.00	TJ	N=12 (1,0/2,3,3,4)				MADE GROUND - Grey sandy gravelly clay. Sand is fine to coarse. Gravel is sub angular to sub rounded of mudstone.
					1.30			MADE GROUND - Reddish brown sandy gravel. Sand is fine to coarse. Gravel is angular to sub rounded of mixed lithologies.
					1.60			Firm to very stiff grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub angular to sub rounded of mudstone.
		2.00 2.00	T	N=50 (6,10/50 for 230mm)	2.00			End of borehole at 2.00 m

Remarks

1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 2.00m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS106**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:35
Client: Johnson's Aggregates		Dates: 09/02/2021 - 09/02/2021	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	TJ		0.05			MADE GROUND - Asphalt concrete.
								MADE GROUND - Reddish brown slightly clayey gravelly sand. Sand is fine to coarse. Gravel is angular to sub rounded of brick, ash and mixed lithologies.
		0.80	TJ					
		1.00		N=11 (2,2/2,3,3,3)				
	▼				1.30			Firm to very stiff grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub angular to sub rounded of mixed lithologies.
		2.00	T		2.00			End of borehole at 2.00 m

Remarks

1. Groundwater was encountered at 1.30m depth during the drilling process.
2. Borehole was terminated at 2.00m depth due to refusal and backfilled with arisings.

Borehole Log

Borehole No. **WS201**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 07/12/2021 - 07/12/2021	Logged By JH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		1.00		N=50 (5,7/50 for 275mm)	0.65			MADE GROUND - Dark brown very sandy gravelly clay with medium cobble content. Sand is fine to coarse. Gravel is angular to sub-rounded of brick and mudstone Cobbles are angular of brick.
					1.20			Very stiff dark grey silty sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular of mudstone.
								End of borehole at 1.20 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.20m depth.
3. Gas and water monitoring standpipe installed to 1.20m depth.

Borehole Log

Borehole No. **WS202**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 07/12/2021 - 07/12/2021	Logged By JH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.25			MADE GROUND - Dark brown very sandy gravelly clay with medium cobble content. Sand is fine to coarse. Gravel is angular to sub-rounded of brick and mudstone Cobbles are angular of brick.
		1.00		50 (7,9/50 for 225mm)	1.00			Very stiff dark grey silty sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular of mudstone.
								End of borehole at 1.00 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.00m depth.
3. Gas and water monitoring standpipe installed to 1.00m depth.

Borehole Log

Borehole No. **WS203**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 07/12/2021 - 07/12/2021	Logged By JH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		1.00		50 (10,11/50 for 115mm)	0.80			MADE GROUND - Dark brown very sandy gravelly clay with medium cobble content. Sand is fine to coarse. Gravel is angular to sub-rounded of brick and mudstone Cobbles are angular of brick.
					1.00			Very stiff dark grey silty sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular of mudstone.
								End of borehole at 1.00 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 1.00m depth.
3. Gas and water monitoring standpipe installed to 1.00m depth.

Borehole Log

Borehole No. **WS204**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 07/12/2021 - 07/12/2021	Logged By JH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.80		50 (25 for 5mm/50 for 5mm)	0.25 0.80			MADE GROUND - Brownish grey very sandy slightly gravelly clay. Sand is fine to coarse. Gravel is sub angular to angular of mudstone and brick. Very stiff dark grey silty sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular of mudstone. End of borehole at 0.80 m

Remarks
1. No groundwater was encountered during the drilling process.
2. Borehole was terminated at 0.80m depth.
3. Gas and water monitoring standpipe installed to 0.80m depth.

Borehole Log

Borehole No. **CORE1**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 16/11/2020 - 16/11/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.05			MADE GROUND - Asphalt concrete
					0.23			MADE GROUND - Concrete with a layer of 0.08m rebar situated within the middle of the core.
					0.30			MADE GROUND - Grey sandy gravelly clay. Sand is fine to coarse. Gravel is angular to sub rounded of mixed lithologies.
								End of borehole at 0.30 m

Remarks

1. No groundwater was encountered during the coring process.
2. The core was terminated at 0.30m depth and backfilled with arisings.

Borehole Log

Borehole No. **CORE6**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type WS
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 16/11/2020 - 16/11/2020	Logged By HD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.17			MADE GROUND - Asphalt concrete.
					0.25			MADE GROUND - Reddish brown sandy gravel with medium cobble content. Sand is fine to coarse. Gravel is sub angular to sub rounded of brick.
					0.35			MADE GROUND - Asphalt concrete.
					0.40			MADE GROUND - Sub base material.
								End of borehole at 0.40 m

Remarks

1. No groundwater was encountered during the coring process.
2. The core was terminated at 0.40m depth and backfilled with arisings.

Borehole Log

Borehole No. **BH01**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type CP
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 01/02/2021 - 01/02/2021	Logged By HJD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20 - 0.60	B		0.20			MADE GROUND - Reddish brown sandy slightly sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick. Cobbles are angular of brick.
					0.80			MADE GROUND - Grey sandy clay. Sand is fine to coarse.
		1.20		N=16 (3,4/4,4,4,4)				MADE GROUND - Black sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of plastic, wood, fabric, metal and metal wiring. Cobbles are angular of plastic, wood and metal.
		1.20 - 2.00	B					
		2.00		N=7 (6,7/2,1,2,2)				
		3.00		50 (6,10/50 for 210mm)	3.10			Very stiff grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub rounded of mudstone.
		3.10 - 4.00	B					
		4.00	D		4.00			End of borehole at 4.00 m
		4.00		50 (6,10/50 for 225mm)				

Remarks

1. No groundwater was encountered during the drilling process.
2. The borehole was terminated at 4.00m depth due to refusal.
3. Gas and water monitoring standpipe installed to 4.00m depth.

Borehole Log

Borehole No. **BH02**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: -	Hole Type CP
Location: Peterborough		Level:	Scale 1:50
Client: Johnson's Aggregates		Dates: 02/02/2021 - 02/02/2021	Logged By HJD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.30	D		0.30			MADE GROUND - Reddish brown sandy slightly sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick. Cobbles are angular of brick. MADE GROUND - Grey sandy clay. Sand is fine to coarse.
		1.00		N=9 (3,2/2,2,2,3)	1.00			MADE GROUND - Black sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of plastic, wood, fabric, metal and metal wiring. Cobbles are angular of plastic, wood and metal.
		2.00		N=12 (3,3/3,3,3,3)				
		3.00 3.00 - 3.90	 B	N=5 (1,1/1,1,1,2)				
		4.00 4.00	D	N=24 (4,6/6,7,6,5)	3.90			MADE GROUND - Grey sandy slightly gravelly clay with low cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded of mudstone and brick. Cobbles are sub-angular of brick.
		5.00 5.00 5.00 - 6.00	D B	N=46 (5,5/6,8,12,20)	5.00			Very stiff grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub rounded of mudstone.
		6.00 6.00	D	50 (25 for 125mm/50 for 125mm)	6.00			End of borehole at 6.00 m

Remarks

1. No groundwater was encountered during the drilling process.
2. The borehole was terminated at 6.00m depth due to refusal.
3. Gas and water monitoring standpipe installed to 6.00m depth.

Trial Pit Log

Trialpit No **TP01**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: - Level:	Date 01/02/2021
Location: Peterborough		Dimensions (m): Depth 2.20	Scale 1:25
Client: Johnson's Aggregates			Logged HD

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.10			MADE GROUND - Reddish brown sandy slightly clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
				0.45			MADE GROUND - Grey sandy clay. Sand is fine to coarse.
▼	2.00	TJV		2.10			MADE GROUND - Black sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of plastic, wood, fabric, metal and metal wiring.
				2.20			MADE GROUND - Reddish brown sandy clay. Sand is fine to coarse.
							End of pit at 2.20 m

1 2 3 4 5

Remarks: 1. Groundwater was encountered at 1.40m depth during the excavation process.
2. Trial pit was terminated at 2.20m depth and backfilled with arisings.

Stability: Sides unstable from 0.45m depth

Trial Pit Log

Trialpit No **TP02**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: - Level:	Date 01/02/2021
Location: Peterborough		Dimensions (m): Depth 1.95	Scale 1:25
Client: Johnson's Aggregates			Logged HD

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.10			MADE GROUND - Reddish brown sandy slightly clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
	0.55	TJ					MADE GROUND - Grey sandy clay with medium cobble content. Sand is fine to coarse. Cobble is angular to sub angular of mudstone.
▼	1.00	TJV		0.95			MADE GROUND - Black sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of plastic, wood, fabric, metal and metal wiring.
				1.95			End of pit at 1.95 m

1 2 3 4 5

Remarks: 1. Groundwater was encountered at 1.20m depth during the excavation process.
2. Trial pit was terminated at 1.95m depth and backfilled with arisings.

Stability: Sides unstable from 0.80m depth

AGS

Trial Pit Log

Trialpit No **TP03**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: - Level:	Date 01/02/2021
Location: Peterborough		Dimensions (m): Depth 2.15	Scale 1:25
Client: Johnson's Aggregates			Logged HD

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.10			MADE GROUND - Reddish brown sandy slightly clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
							MADE GROUND - Grey sandy clay. Sand is fine to coarse.
	0.80	TJ		0.75			MADE GROUND - Black sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of plastic, wood, fabric, metal and metal wiring.
▼				2.15			End of pit at 2.15 m

1
2
3
4
5

Remarks: 1. Groundwater was encountered at 1.50m depth during the excavation process.
2. Trial pit was terminated at 2.15m depth and backfilled with arisings.

Stability: Sides unstable from 0.60m depth

AGS

Trial Pit Log

Trialpit No **TP04**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: - Level:	Date 01/02/2021
Location: Peterborough		Dimensions (m): Depth 1.60	Scale 1:25
Client: Johnson's Aggregates			Logged HD

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.15			MADE GROUND - Reddish brown sandy slightly clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
							MADE GROUND - Grey sandy clay. Sand is fine to coarse.
▼	1.00	TJV		0.95			MADE GROUND - Black sandy gravel with medium cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of plastic, rubble, wood, metal and metal wiring.
				1.25			MADE GROUND - Reddish brown sandy gravel. Sand is fine to coarse. Gravel is angular to sub rounded of brick. *...with a slightly organic and hydrocarbon odour.*
	1.50	TJ		1.60			End of pit at 1.60 m

Remarks: 1. Groundwater was encountered at 1.00m depth during the excavation process.
2. Trial pit was terminated at 1.60m depth and backfilled with arisings.

Stability: Sides unstable from 0.95m depth

Trial Pit Log

Trialpit No **TP05**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: - Level:	Date 01/02/2021
Location: Peterborough		Dimensions (m): Depth 1.60	Scale 1:25
Client: Johnson's Aggregates			Logged HD

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.15			MADE GROUND - Reddish brown sandy slightly clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
				0.50			MADE GROUND - Grey sandy clay. Sand is fine to coarse.
▼	0.65	TJV					MADE GROUND - Black sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of plastic, wood, fabric, metal and metal wiring.
							...with a strong organic and hydrocarbon odour through out.
				1.50			MADE GROUND - Reddish brown sandy clay. Sand is fine to coarse.
	1.60	TJV		1.60			End of pit at 1.60 m

Remarks: 1. Groundwater was encountered at 1.05m depth during the excavation process.
2. Trial pit was terminated at 1.60m depth and backfilled with arisings.

Stability: Sides unstable from 0.50m depth

Trial Pit Log

Trialpit No **TP06**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: - Level:	Date 01/02/2021
Location: Peterborough		Dimensions (m): Depth 1.85	Scale 1:25
Client: Johnson's Aggregates			Logged HD

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.15			MADE GROUND - Reddish brown sandy slightly clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
	0.50	TJ					MADE GROUND - Grey sandy clay. Sand is fine to coarse.
▼	1.00	TJV		0.95			MADE GROUND - Black sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of plastic, wood, fabric, metal and metal wiring.
				1.85			End of pit at 1.85 m

1 2 3 4 5

Remarks: 1. Groundwater was encountered at 1.50m depth during the excavation process.
2. Trial pit was terminated at 1.85m depth and backfilled with arisings.

Stability: Sides unstable from 0.95m depth

AGS

Trial Pit Log

Trialpit No **TP07**

Sheet 1 of 1

Project Name: IBA Site, Peterborough	Project No. C3432	Co-ords: - Level:	Date 01/02/2021
Location: Peterborough		Dimensions (m): Depth 1.95	Scale 1:25
Client: Johnson's Aggregates			Logged

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.10			MADE GROUND - Reddish brown sandy slightly clayey gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of brick.
							MADE GROUND - Grey sandy clay. Sand is fine to coarse.
				0.80			
▼	0.90	TJV					MADE GROUND - Black sandy gravel with low cobble content. Sand is fine to coarse. Gravel is angular to sub rounded of plastic, wood, fabric, metal and metal wiring.
				1.95			End of pit at 1.95 m

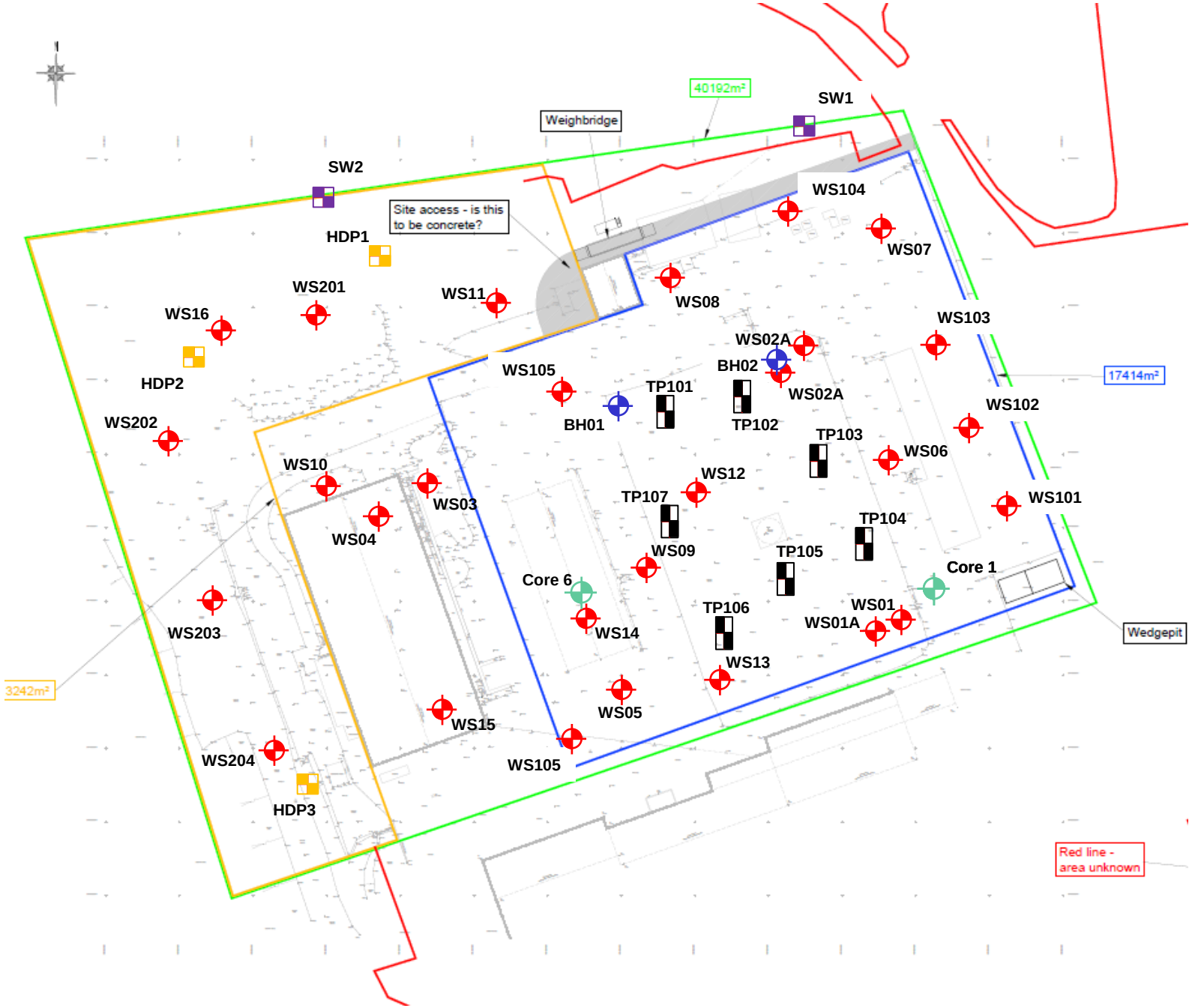
1 2 3 4 5

Remarks: 1. Groundwater was encountered at 1.20m depth during the excavation process.
2. Trial pit was terminated at 1.95m depth and backfilled with arisings.

Stability: Sides unstable from 0.95m depth

AGS

Appendix IV



DO NOT SCALE

NOTES:

- Window sample borehole
- Diamond Core Location Only
- Cable Percussion Boreholes
- Mechanically excavated trial pits
- Hand Dug pits
- Surface Water Sampling Locations

hsp consulting

Lawrence House, Meadowbank Way,
Eastwood, Nottingham, NG16 3SB
Tel: 01773 535 555 Fax: 0870 600 6091
www.hspconsulting.com

CLIENT:
Johnson Aggregates and Recycling Limited

PROJECT:
IBA Site, Saxon Works, Peterborough

TITLE:
Site Investigation Layout Plan

SCALE@SIZE :	ISSUE:
NTS	FINAL – REV A
DESIGN/DRAWN: HJD	DATE: December 2021
PROJECT No: C3432	DRAWING No: 502

Appendix V

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	20-33985-2		
Initial Date of Issue:	16-Dec-2020	**Date of Re-Issue:**	14-Jan-2021
Client	HSP Consulting Engineers Limited		
Client Address:	Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB		
Contact(s):	Howard Daley		
Project	C3432 – IBA Site, Saxon Works, Peterborough		
Quotation No.:		**Date Received:**	10-Dec-2020
Order No.:	SC13561	**Date Instructed:**	10-Dec-2020
No. of Samples:	8		
Turnaround (Wkdays):	5	**Results Due:**	16-Dec-2020
Date Approved:	16-Dec-2020		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: C3432 – IBA Site, Saxon Works, Peterborough

Client: HSP Consulting Engineers Limited		**Chemtest Job No.:**			20-33985	20-33985	20-33985	20-33985	20-33985	20-33985	20-33985	20-33985
Quotation No.:		**Chemtest Sample ID.:**			1111655	1111656	1111657	1111658	1111659	1111661	1111662	1111663
		Client Sample ID.:			WS06	WS07	WS07	WS08	WS08	WS10	WS11	WS11
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.60	0.40	1.00	0.80	3.00	0.25	0.35	2.00
		Date Sampled:			09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY		COVENTRY	COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A	-	-		-		Fibres/Clumps	-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		Chrysotile	No Asbestos Detected	
ACM Detection Stage	U	2192		N/A	-	-		-		Stereo Microscopy	-	
Moisture	N	2030	%	0.020	13	14	15	11	14	17	18	16
Soil Colour	N	2040		N/A	red	red	Brown	Black	red	red	Brown	Black
Other Material	N	2040		N/A	None	None	None	None	None	None	house brick and Stones	None
Soil Texture	N	2040		N/A	house brick	house brick	Clay	Clay	house brick	home brick	Clay	Clay
pH	M	2010		4.0	8.3	8.2	8.0	8.1	8.0	9.5	8.4	8.6
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	2.4	3.1		8.0		2.7	12	
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	1.7	1.7	1.3	1.7	1.8	1.8	0.75	1.8
Total Sulphur	M	2175	%	0.010			2.6		2.0			2.4
Sulphur (Elemental)	M	2180	mg/kg	1.0	< 1.0	2.3		< 1.0		1.2	7.2	
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50		< 0.50		< 0.50	< 0.50	
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50		< 0.50		< 0.50	< 0.50	
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	2.7	5.7		2.6		6.1	4.5	
Sulphate (Acid Soluble)	M	2430	%	0.010			1.8		4.9			0.27
Arsenic	M	2450	mg/kg	1.0	13	17		4.8		15	19	
Cadmium	M	2450	mg/kg	0.10	0.29	0.36		0.18		0.41	0.33	
Chromium	M	2450	mg/kg	1.0	25	41		34		50	42	
Copper	M	2450	mg/kg	0.50	13	23		22		27	25	
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Nickel	M	2450	mg/kg	0.50	20	36		41		36	39	
Lead	M	2450	mg/kg	0.50	13	17		9.4		19	17	
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20		0.94		< 0.20	< 0.20	
Zinc	M	2450	mg/kg	0.50	30	53		55		160	70	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50		< 0.50		< 0.50	< 0.50	
Organic Matter	M	2625	%	0.40	0.71					0.79		
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	

Results - Soil

Project: C3432 – IBA Site, Saxon Works, Peterborough

Client: HSP Consulting Engineers Limited		**Chemtest Job No.:**			20-33985	20-33985	20-33985	20-33985	20-33985	20-33985	20-33985	20-33985
Quotation No.:		**Chemtest Sample ID.:**			1111655	1111656	1111657	1111658	1111659	1111661	1111662	1111663
		Client Sample ID.:			WS06	WS07	WS07	WS08	WS08	WS10	WS11	WS11
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.60	0.40	1.00	0.80	3.00	0.25	0.35	2.00
		Date Sampled:			09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY		COVENTRY	COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0		< 5.0		< 5.0	< 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0		< 5.0		< 5.0	< 5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10		< 10		< 10	< 10	
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Chrysene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10		< 0.10	< 0.10	
Total Of 16 PAH's	M	2700	mg/kg	2.0	< 2.0	< 2.0		< 2.0		< 2.0	< 2.0	
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0		< 1.0	< 1.0	
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30		< 0.30		< 0.30	< 0.30	

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
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
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline 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.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
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.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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"

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 45 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

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	20-34776-2		
Initial Date of Issue:	23-Dec-2020	**Date of Re-Issue:**	14-Jan-2021
Client	HSP Consulting Engineers Limited		
Client Address:	Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB		
Contact(s):	Howard Daley		
Project	C3432 – IBA Site, Saxon Works, Peterborough.		
Quotation No.:		**Date Received:**	17-Dec-2020
Order No.:	SC13526	**Date Instructed:**	17-Dec-2020
No. of Samples:	10		
Turnaround (Wkdays):	5	**Results Due:**	23-Dec-2020
Date Approved:	23-Dec-2020		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: C3432 – IBA Site, Saxon Works, Peterborough.

Client: HSP Consulting Engineers Limited		**Chemtest Job No.:**			20-34776	20-34776	20-34776	20-34776	20-34776	20-34776	20-34776	20-34776	20-34776
Quotation No.:		**Chemtest Sample ID.:**			1115689	1115690	1115691	1115692	1115693	1115694	1115695	1115696	1115697
		Client Sample ID.:			WS01A	WS02A	WS12	WS13	WS13	WS14	WS14	WS15	WS16
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.25	0.95	0.05	0.30	0.85	1.00	3.00	1.00	0.40
		Date Sampled:			14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020
		Asbestos Lab:			DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM			DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-	-	-	-	-	-			-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected			No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-			-
Moisture	N	2030	%	0.020	14	32	19	17	38	15	14	21	12
pH	U	2010		4.0	8.2	8.3	8.3	8.3	8.6	9.9	8.6	8.4	9.5
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	14	25	5.0	7.6	24	2.3		4.5	1.4
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	1.7	0.77	1.9	0.92	0.86	1.7	0.73	1.4	1.5
Total Sulphur	U	2175	%	0.010							1.8	1.2	
Sulphur (Elemental)	U	2180	mg/kg	1.0	1.8	1000	3.5	< 1.0	2500	11		1.6	3.0
Cyanide (Free)	U	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Cyanide (Total)	U	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	6.3	70	13	7.8	39	5.6		13	21
Sulphate (Acid Soluble)	U	2430	%	0.010							0.23	1.2	
Arsenic	U	2450	mg/kg	1.0	21	6.5	15	8.6	5.1	28		9.7	26
Cadmium	U	2450	mg/kg	0.10	0.36	8.9	0.54	0.35	18	0.71		0.22	0.90
Chromium	U	2450	mg/kg	1.0	49	34	50	34	68	37		23	37
Copper	U	2450	mg/kg	0.50	34	200	30	21	630	69		16	19
Mercury	U	2450	mg/kg	0.10	< 0.10	0.10	< 0.10	< 0.10	0.39	0.12		< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	37	52	33	39	110	45		24	33
Lead	U	2450	mg/kg	0.50	28	66	24	12	380	72		11	24
Selenium	U	2450	mg/kg	0.20	< 0.20	0.23	< 0.20	0.31	0.20	< 0.20		0.36	0.85
Zinc	U	2450	mg/kg	0.50	68	520	160	84	2400	420		53	120
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	1.2	19			10	0.83			< 0.40
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	41	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	41	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		[C] < 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0

Results - Soil

Project: C3432 – IBA Site, Saxon Works, Peterborough.

Client: HSP Consulting Engineers Limited		**Chemtest Job No.:**			20-34776	20-34776	20-34776	20-34776	20-34776	20-34776	20-34776	20-34776	20-34776
Quotation No.:		**Chemtest Sample ID.:**			1115689	1115690	1115691	1115692	1115693	1115694	1115695	1115696	1115697
		Client Sample ID.:			WS01A	WS02A	WS12	WS13	WS13	WS14	WS14	WS15	WS16
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.25	0.95	0.05	0.30	0.85	1.00	3.00	1.00	0.40
		Date Sampled:			14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020
		Asbestos Lab:			DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM			DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	99	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	99	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		[C] < 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	140	< 10	< 10	< 10	< 10	< 10		[C] < 10	< 10
Naphthalene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Acenaphthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Fluorene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Fluoranthene	U	2700	mg/kg	0.10	< 0.10	0.71	< 0.10	< 0.10	< 0.10	0.60		< 0.10	< 0.10
Pyrene	U	2700	mg/kg	0.10	< 0.10	0.90	< 0.10	< 0.10	< 0.10	0.44		< 0.10	< 0.10
Benzo[a]anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Chrysene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	12	< 1.0		[C] < 1.0	< 1.0
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	30	< 1.0		[C] < 1.0	< 1.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	13	< 1.0		[C] < 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	13	< 1.0		[C] < 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	8.8	< 1.0		[C] < 1.0	< 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		[C] < 1.0	< 1.0
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	1.2	< 0.30		< 0.30	< 0.30

Results - Soil

Project: C3432 – IBA Site, Saxon Works, Peterborough.

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		20-34776
Quotation No.:			**Chemtest Sample ID.:**		1115698
			Client Sample ID.:		WS16
			Sample Type:		SOIL
			Top Depth (m):		0.80
			Date Sampled:		14-Dec-2020
			Asbestos Lab:		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
ACM Type	U	2192		N/A	
Asbestos Identification	U	2192		N/A	
ACM Detection Stage	U	2192		N/A	
Moisture	N	2030	%	0.020	33
pH	U	2010		4.0	7.9
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	1.4
Total Sulphur	U	2175	%	0.010	1.3
Sulphur (Elemental)	U	2180	mg/kg	1.0	
Cyanide (Free)	U	2300	mg/kg	0.50	
Cyanide (Total)	U	2300	mg/kg	0.50	
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	
Sulphate (Acid Soluble)	U	2430	%	0.010	1.7
Arsenic	U	2450	mg/kg	1.0	
Cadmium	U	2450	mg/kg	0.10	
Chromium	U	2450	mg/kg	1.0	
Copper	U	2450	mg/kg	0.50	
Mercury	U	2450	mg/kg	0.10	
Nickel	U	2450	mg/kg	0.50	
Lead	U	2450	mg/kg	0.50	
Selenium	U	2450	mg/kg	0.20	
Zinc	U	2450	mg/kg	0.50	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	
Organic Matter	U	2625	%	0.40	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	

Results - Soil

Project: C3432 – IBA Site, Saxon Works, Peterborough.

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		20-34776
Quotation No.:			**Chemtest Sample ID.:**		1115698
			Client Sample ID.:		WS16
			Sample Type:		SOIL
			Top Depth (m):		0.80
			Date Sampled:		14-Dec-2020
			Asbestos Lab:		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	
Naphthalene	U	2700	mg/kg	0.10	
Acenaphthylene	U	2700	mg/kg	0.10	
Acenaphthene	U	2700	mg/kg	0.10	
Fluorene	U	2700	mg/kg	0.10	
Phenanthrene	U	2700	mg/kg	0.10	
Anthracene	U	2700	mg/kg	0.10	
Fluoranthene	U	2700	mg/kg	0.10	
Pyrene	U	2700	mg/kg	0.10	
Benzo[a]anthracene	U	2700	mg/kg	0.10	
Chrysene	U	2700	mg/kg	0.10	
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	
Benzo[a]pyrene	U	2700	mg/kg	0.10	
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	
Total Of 16 PAH's	U	2700	mg/kg	2.0	
Benzene	U	2760	µg/kg	1.0	
Toluene	U	2760	µg/kg	1.0	
Ethylbenzene	U	2760	µg/kg	1.0	
m & p-Xylene	U	2760	µg/kg	1.0	
o-Xylene	U	2760	µg/kg	1.0	
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	
Total Phenols	U	2920	mg/kg	0.30	

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:
1115696		WS15		14-Dec-2020	C	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
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
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline 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.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
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.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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"

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 45 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

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-02600-1
Initial Date of Issue:	04-Feb-2021
Client	HSP Consulting Engineers Limited
Client Address:	Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB
Contact(s):	Howard Daley
Project	C3432 - Johnson Aggregates - Peterborough

Quotation No.:		**Date Received:**	29-Jan-2021
Order No.:	SC13596	**Date Instructed:**	29-Jan-2021
No. of Samples:	11		
Turnaround (Wkdays):	5	**Results Due:**	04-Feb-2021
Date Approved:	04-Feb-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited		**Chemtest Job No.:**			21-02600	21-02600	21-02600	21-02600	21-02600	21-02600	21-02600	21-02600	21-02600
Quotation No.:		**Chemtest Sample ID.:**			1132588	1132589	1132590	1132591	1132592	1132593	1132594	1132595	1132596
		Client Sample ID.:			TP01	TP02	TP02	TP03	TP04	TP04	TP05	TP05	TP06
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			2.0	0.55	1.0	0.8	1.0	1.5	0.65	1.6	0.5
		Date Sampled:			28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
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	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-	-	-	-
Moisture	N	2030	%	0.020	51	19	38	45	51	21	44	27	20
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Grey
Other Material	N	2040		N/A	matirals	Stones	matirails	matireails	matirails	Stones	materarials	Stones	None
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Clay	Clay
pH	M	2010		4.0	8.2	7.9	8.1	8.4	8.3	8.2	8.4	8.1	8.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.7	11	22	61	21	10	94	10	7.1
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.090	2.6	2.6	0.68	0.27	1.7	2.4	2.0	1.0
Sulphur (Elemental)	M	2180	mg/kg	1.0	2800	29	32	28	70	4.8	2700	14	7.3
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	0.80	< 0.50	< 0.50	< 0.50	0.70	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	46	4.6	180	4.4	30	11	51	2.9	61
Arsenic	M	2450	mg/kg	1.0	4.8	9.6	12	14	10	17	2.5	5.8	9.7
Cadmium	M	2450	mg/kg	0.10	5.3	0.43	6.1	23	16	0.53	6.9	0.32	0.28
Chromium	M	2450	mg/kg	1.0	150	63	1800	2100	130	46	54	31	38
Copper	M	2450	mg/kg	0.50	13000	230	650	3400	960	26	2600	34	280
Mercury	M	2450	mg/kg	0.10	0.27	< 0.10	0.41	1.6	1.7	< 0.10	0.51	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	41	38	130	1200	210	33	91	42	43
Lead	M	2450	mg/kg	0.50	280	17	1700	860	1000	19	260	16	13
Selenium	M	2450	mg/kg	0.20	< 0.20	0.46	0.25	< 0.20	0.21	< 0.20	0.30	0.90	0.68
Zinc	M	2450	mg/kg	0.50	1700	120	2800	6400	5700	140	3000	170	74
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	8.0	2.8	8.8	12	5.6	3.4	7.6	0.93	2.6
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	4.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	27	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	68	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	62	< 1.0	430	< 1.0	< 1.0	< 1.0	68	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	67	< 5.0	520	< 5.0	< 5.0	< 5.0	68	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		21-02600	21-02600	21-02600	21-02600	21-02600	21-02600	21-02600	21-02600	21-02600
Quotation No.:			**Chemtest Sample ID.:**		1132588	1132589	1132590	1132591	1132592	1132593	1132594	1132595	1132596
			Client Sample ID.:		TP01	TP02	TP02	TP03	TP04	TP04	TP05	TP05	TP06
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		2.0	0.55	1.0	0.8	1.0	1.5	0.65	1.6	0.5
			Date Sampled:		28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	22	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	43	< 1.0	110	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	51	< 1.0	180	< 1.0	< 1.0	< 1.0	30	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	400	< 1.0	1300	< 1.0	< 1.0	< 1.0	330	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	520	< 5.0	1500	< 5.0	< 5.0	< 5.0	360	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	590	< 10	2100	< 10	< 10	< 10	430	< 10	< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	3.9	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	4.6	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	< 2.0	< 2.0	< 2.0	8.5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	M	2760	µg/kg	1.0	63	3.4	18	14	5.1	< 1.0	20	< 1.0	3.2
Toluene	M	2760	µg/kg	1.0	18	6.1	14	49	3.3	< 1.0	3.4	< 1.0	2.6
Ethylbenzene	M	2760	µg/kg	1.0	26	< 1.0	20	40	< 1.0	< 1.0	11	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	7.6	< 1.0	4.7	11	2.1	< 1.0	3.2	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	5.7	< 1.0	3.4	13	< 1.0	< 1.0	3.4	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	2.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.30	12	2.3	13	56	4.8	21	6.0	1.4	0.46

Results - Soil

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited		**Chemtest Job No.:**			21-02600	21-02600
Quotation No.:		**Chemtest Sample ID.:**			1132597	1132598
		Client Sample ID.:			TP06	TP07
		Sample Type:			SOIL	SOIL
		Top Depth (m):			1.0	0.9
		Date Sampled:			28-Jan-2021	28-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type	U	2192		N/A	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-
Moisture	N	2030	%	0.020	40	64
Soil Colour	N	2040		N/A	Brown	Brown
Other Material	N	2040		N/A	mateirails	matierails
Soil Texture	N	2040		N/A	Sand	Sand
pH	M	2010		4.0	8.7	8.1
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	34	17
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.51	0.30
Sulphur (Elemental)	M	2180	mg/kg	1.0	160	120
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	0.60	0.60
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	86	13
Arsenic	M	2450	mg/kg	1.0	2.0	< 1.0
Cadmium	M	2450	mg/kg	0.10	2.6	4.3
Chromium	M	2450	mg/kg	1.0	130	23
Copper	M	2450	mg/kg	0.50	290	130
Mercury	M	2450	mg/kg	0.10	2.2	0.26
Nickel	M	2450	mg/kg	0.50	96	37
Lead	M	2450	mg/kg	0.50	290	170
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	1500	2700
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	21	13
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0

Results - Soil

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		21-02600	21-02600
Quotation No.:			**Chemtest Sample ID.:**		1132597	1132598
			Client Sample ID.:		TP06	TP07
			Sample Type:		SOIL	SOIL
			Top Depth (m):		1.0	0.9
			Date Sampled:		28-Jan-2021	28-Jan-2021
			Asbestos Lab:		COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	8.6	< 0.10
Anthracene	M	2700	mg/kg	0.10	3.8	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	4.7	< 0.10
Pyrene	M	2700	mg/kg	0.10	4.5	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Chrysene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	22	< 2.0
Benzene	M	2760	µg/kg	1.0	6.7	62
Toluene	M	2760	µg/kg	1.0	18	120
Ethylbenzene	M	2760	µg/kg	1.0	8.8	13
m & p-Xylene	M	2760	µg/kg	1.0	4.8	7.3
o-Xylene	M	2760	µg/kg	1.0	7.0	8.7
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.30	120	33

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline 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.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
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.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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 operation 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 45 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

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-03448-1
Initial Date of Issue:	11-Feb-2021
Client	HSP Consulting Engineers Limited
Client Address:	Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB
Contact(s):	Howard Daley
Project	C3432 - Johnson Aggregates - Peterborough

Quotation No.:		**Date Received:**	05-Feb-2021
Order No.:	SC13605	**Date Instructed:**	05-Feb-2021
No. of Samples:	4		
Turnaround (Wkdays):	5	**Results Due:**	11-Feb-2021
Date Approved:	11-Feb-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited		**Chemtest Job No.:**			21-03448	21-03448	21-03448	21-03448
Quotation No.:		**Chemtest Sample ID.:**			1136937	1136938	1136939	1136940
		Client Sample ID.:			WS101	WS103	WS104	WS104
		Sample Type:			SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.60	0.50	0.10	1.10
		Date Sampled:			04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY
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
ACM Detection Stage	U	2192		N/A	-	-	-	-
Moisture	N	2030	%	0.020	20	12	18	21
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Grey
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Clay
pH	M	2010		4.0	8.3	8.2	8.2	8.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.5	3.8	2.7	10
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	1.6	1.6	1.6	1.8
Sulphur (Elemental)	M	2180	mg/kg	1.0	1.9	< 1.0	7.3	2.9
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	8.5	2.6	10	0.70
Arsenic	M	2450	mg/kg	1.0	13	36	20	8.7
Cadmium	M	2450	mg/kg	0.10	0.30	0.27	0.30	0.13
Chromium	M	2450	mg/kg	1.0	19	32	24	24
Copper	M	2450	mg/kg	0.50	17	17	27	15
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	18	32	29	37
Lead	M	2450	mg/kg	0.50	16	20	20	8.5
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	0.43
Zinc	M	2450	mg/kg	0.50	30	81	52	47
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	1.6	0.53	2.9	4.3
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	38	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	160	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	190	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited		**Chemtest Job No.:**			21-03448	21-03448	21-03448	21-03448
Quotation No.:		**Chemtest Sample ID.:**			1136937	1136938	1136939	1136940
		Client Sample ID.:			WS101	WS103	WS104	WS104
		Sample Type:			SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.60	0.50	0.10	1.10
		Date Sampled:			04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	130	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	420	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	2100	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	2600	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	2800	< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	1.5	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	0.22	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	0.76	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	0.76	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	4.6	< 0.10
Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	1.4	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	5.1	< 0.10
Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	4.8	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	1.7	< 0.10
Chrysene	M	2700	mg/kg	0.10	< 0.10	< 0.10	1.6	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	2.4	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	1.3	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	1.7	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	1.1	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	0.38	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	1.3	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	< 2.0	< 2.0	31	< 2.0
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline 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.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
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.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
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<	"less than"
>	"greater than"
SOP	Standard operation procedure
LOD	Limit of detection

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The results relate only to the items tested
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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 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
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If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-03876-1		
Initial Date of Issue:	16-Feb-2021		
Client	HSP Consulting Engineers Limited		
Client Address:	Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB		
Contact(s):	Howard Daley		
Project	C3432 - Johnson Aggregates		
Quotation No.:		**Date Received:**	09-Feb-2021
Order No.:		**Date Instructed:**	10-Feb-2021
No. of Samples:	6		
Turnaround (Wkdays):	5	**Results Due:**	16-Feb-2021
Date Approved:	16-Feb-2021		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: C3432 - Johnson Aggregates

Client: HSP Consulting Engineers Limited				**Chemtest Job No.:**	21-03876	21-03876	21-03876	21-03876	21-03876	21-03876
Quotation No.:				**Chemtest Sample ID.:**	1138970	1138971	1138972	1138973	1138974	1138975
				Sample Location:	WS105	WS105	WS105	WS106	WS106	WS106
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.15	1.0	2.0	0.2	0.85	2.0
				Date Sampled:	09-Feb-2021	09-Feb-2021	09-Feb-2021	09-Feb-2021	09-Feb-2021	09-Feb-2021
				Asbestos Lab:	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	
ACM Detection Stage	U	2192		N/A	-	-		-	-	
Moisture	N	2030	%	0.020	17	22	22	17	19	17
Soil Colour	N	2040		N/A	Brown	Brown	Grey	Brown	Brown	Grey
Other Material	N	2040		N/A	Stones	Stones	None	Stones	Stones	None
Soil Texture	N	2040		N/A	Sand	Clay	Clay	Sand	Sand	Clay
pH	M	2010		4.0	8.5	8.1	8.1	8.2	8.2	8.1
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.4	8.7		2.5	3.7	
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	1.6	1.9	0.24	1.6	1.7	0.82
Total Sulphur	M	2175	%	0.010			2.9			2.6
Sulphur (Elemental)	M	2180	mg/kg	1.0	24	1.3		2.3	10	
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50		< 0.50	< 0.50	
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50		< 0.50	< 0.50	
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	220	6.3		29	23	
Sulphate (Acid Soluble)	M	2430	%	0.010			1.7			0.55
Arsenic	M	2450	mg/kg	1.0	17	11		21	21	
Cadmium	M	2450	mg/kg	0.10	0.23	0.15		0.26	0.66	
Chromium	M	2450	mg/kg	1.0	30	33		26	38	
Copper	M	2450	mg/kg	0.50	21	23		35	29	
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Nickel	M	2450	mg/kg	0.50	23	37		28	40	
Lead	M	2450	mg/kg	0.50	19	11		20	25	
Selenium	M	2450	mg/kg	0.20	< 0.20	0.48		< 0.20	< 0.20	
Zinc	M	2450	mg/kg	0.50	48	58		56	89	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50		< 0.50	< 0.50	
Organic Matter	M	2625	%	0.40	1.5	4.5		1.4	9.1	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	10		< 1.0	< 1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	10		< 5.0	< 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	

Results - Soil

Project: C3432 - Johnson Aggregates

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		21-03876	21-03876	21-03876	21-03876	21-03876	21-03876
Quotation No.:			**Chemtest Sample ID.:**		1138970	1138971	1138972	1138973	1138974	1138975
			Sample Location:		WS105	WS105	WS105	WS106	WS106	WS106
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.15	1.0	2.0	0.2	0.85	2.0
			Date Sampled:		09-Feb-2021	09-Feb-2021	09-Feb-2021	09-Feb-2021	09-Feb-2021	09-Feb-2021
			Asbestos Lab:		DURHAM	DURHAM		DURHAM	DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	53		< 1.0	< 1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	53		< 5.0	< 5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	63		< 10	< 10	
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Chrysene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	
Total Of 16 PAH's	M	2700	mg/kg	2.0	< 2.0	< 2.0		< 2.0	< 2.0	
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30		< 0.30	< 0.30	

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
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
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline 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.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
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.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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 45 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

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-04916-1
Initial Date of Issue:	24-Feb-2021
Client	HSP Consulting Engineers Limited
Client Address:	Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB
Contact(s):	Howard Daley
Project	C3432 - Johnson Aggregates - Peterborough

Quotation No.:		**Date Received:**	16-Feb-2021
Order No.:	SC13617	**Date Instructed:**	18-Feb-2021
No. of Samples:	10		
Turnaround (Wkdays):	5	**Results Due:**	24-Feb-2021
Date Approved:	24-Feb-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		21-04916	21-04916	21-04916
Quotation No.:			**Chemtest Sample ID.:**		1143913	1143914	1143915
			Client Sample ID.:		HDP1	HDP2	HDP3
			Sample Type:		SOIL	SOIL	SOIL
			Top Depth (m):		0.20	0.10	0.10
			Date Sampled:		16-Feb-2021	16-Feb-2021	16-Feb-2021
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY
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
ACM Detection Stage	U	2192		N/A	-	-	-
Moisture	N	2030	%	0.020	11	25	18
Soil Colour	N	2040		N/A	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones, Glass and waste rubbish	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand
pH	M	2010		4.0	9.1	8.0	8.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.4	4.0	3.2
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.19	1.0	1.5
Sulphur (Elemental)	M	2180	mg/kg	1.0	15	19	3.1
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	15	15	9.0
Arsenic	M	2450	mg/kg	1.0	32	18	31
Cadmium	M	2450	mg/kg	0.10	2.8	2.5	2.2
Chromium	M	2450	mg/kg	1.0	39	60	40
Copper	M	2450	mg/kg	0.50	140	510	77
Mercury	M	2450	mg/kg	0.10	0.16	0.12	< 0.10
Nickel	M	2450	mg/kg	0.50	54	62	35
Lead	M	2450	mg/kg	0.50	100	130	86
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	2.3
Zinc	M	2450	mg/kg	0.50	190	800	190
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	3.8	5.0	1.1
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	[C] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0

Results - Soil

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited		**Chemtest Job No.:**			21-04916	21-04916	21-04916
Quotation No.:		**Chemtest Sample ID.:**			1143913	1143914	1143915
		Client Sample ID.:			HDP1	HDP2	HDP3
		Sample Type:			SOIL	SOIL	SOIL
		Top Depth (m):			0.20	0.10	0.10
		Date Sampled:			16-Feb-2021	16-Feb-2021	16-Feb-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	[C] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	[C] < 10
Naphthalene	M	2700	mg/kg	0.10	0.34	0.70	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	0.18	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	0.17	0.38	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	1.8	< 0.10
Anthracene	M	2700	mg/kg	0.10	0.21	0.42	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	1.5	1.8	< 0.10
Pyrene	M	2700	mg/kg	0.10	1.6	1.6	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	1.0	1.0	< 0.10
Chrysene	M	2700	mg/kg	0.10	0.97	0.87	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	0.86	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	0.27	< 0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	1.1	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	0.86	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.32	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	1.1	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	10	8.9	< 2.0
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	[C] < 1.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30

Results - Water

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		21-04916	21-04916	21-04916	21-04916	21-04916	21-04916	21-04916
Quotation No.:			**Chemtest Sample ID.:**		1143916	1143917	1143918	1143919	1143920	1143921	1143922
			Client Sample ID.:		SW1	SW2	WS6	WS8	WS14	BH1	BH2
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled:		16-Feb-2021	16-Feb-2021	16-Feb-2021	16-Feb-2021	16-Feb-2021	16-Feb-2021	16-Feb-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
pH	U	1010		N/A	8.0	8.0	7.8	8.0	8.1	8.1	7.9
Electrical Conductivity	U	1020	µS/cm	1.0	2200	2400	4700	5000	6000	1600	5000
Suspended Solids At 105C	U	1030	mg/l	5.0	680	110	280	140	630	240	2000
Dissolved Oxygen	N	1150	mg O2/l	0.50	8.1	8.0	7.8	7.8	7.8	7.7	7.7
Redox Potential	N	1170	mV	N/A	40	74	75	76	72	0.000	0.000
Alkalinity (Total)	U	1220	mg/l	10	250	740	530	480	790	1100	960
Sulphur	N	1220	mg/l	1.0	470	700	870	930	16	29	470
Sulphate	U	1220	mg/l	1.0	1400	2100	2600	2800	49	86	1400
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cyanide (Free)	U	1300	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Sulphide	U	1325	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Total Hardness as CaCO3	U	1270	mg/l	15	1300	1600	2300	2400	2500	1200	2100
Arsenic (Dissolved)	U	1450	µg/l	1.0	2.5	1.6	6.0	2.0	2.8	1.8	4.9
Boron (Dissolved)	U	1450	µg/l	20	910	900	12000	4000	12000	3600	8400
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080	< 0.080	0.17	< 0.080	0.20	< 0.080	< 0.080
Chromium (Dissolved)	U	1450	µg/l	1.0	3.3	3.8	15	9.4	16	12	21
Copper (Dissolved)	U	1450	µg/l	1.0	2.9	< 1.0	1.5	2.9	5.0	< 1.0	4.5
Mercury (Dissolved)	U	1450	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel (Dissolved)	U	1450	µg/l	1.0	7.2	5.9	7.3	16	9.5	20	62
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.6
Selenium (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	18	3.3	14	8.6	20
Zinc (Dissolved)	U	1450	µg/l	1.0	68	62	85	100	120	5.4	67
Chromium (Hexavalent)	U	1490	µg/l	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		21-04916	21-04916	21-04916	21-04916	21-04916	21-04916	21-04916
Quotation No.:			**Chemtest Sample ID.:**		1143916	1143917	1143918	1143919	1143920	1143921	1143922
			Client Sample ID.:		SW1	SW2	WS6	WS8	WS14	BH1	BH2
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled:		16-Feb-2021	16-Feb-2021	16-Feb-2021	16-Feb-2021	16-Feb-2021	16-Feb-2021	16-Feb-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030

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:
1143915		HDP3		16-Feb-2021	C	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
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1150	Dissolved Oxygen	Dissolved Oxygen (DO)	Electrometric determination (on site preferred), using oxygen sensitive membrane electrode.
1170	Redox Potential	Redox Potential	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.
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	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).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
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
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

Test Methods

SOP	Title	Parameters included	Method summary
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline 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.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
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.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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 45 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

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	21-43816-3		
Initial Date of Issue:	17-Dec-2021	**Date of Re-Issue:**	09-Mar-2022
Client	HSP Consulting Engineers Limited		
Client Address:	Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB		
Contact(s):	Howard Daley		
Project	C3432 Johnsons Aggregates, Peterborough		
Quotation No.:		**Date Received:**	13-Dec-2021
Order No.:		**Date Instructed:**	13-Dec-2021
No. of Samples:	8		
Turnaround (Wkdays):	5	**Results Due:**	17-Dec-2021
Date Approved:	17-Dec-2021		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: C3432 Johnsons Aggregates, Peterborough

Client: HSP Consulting Engineers Limited				**Chemtest Job No.:**	21-43816	21-43816	21-43816	21-43816	21-43816	21-43816	21-43816	21-43816
Quotation No.:				**Chemtest Sample ID.:**	1338172	1338173	1338174	1338175	1338176	1338177	1338178	1338179
Order No.:				Client Sample Ref.:	1	2	1	2	1	2	1	2
				Client Sample ID.:	ES1	ES2	ES1	ES2	ES1	ES2	ES1	ES2
				Sample Location:	WS201	WS201	WS202	WS202	WS203	WS203	WS204	WS204
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.3	0.8	0.1	0.4	0.5	0.9	0.1	0.3
				Bottom Depth (m):	0.3	0.8	0.1	0.4	0.5	0.9	0.1	0.3
				Date Sampled:	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021
				Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	23	24	23	21	25	20	23	19
pH	U	2010		4.0	7.9	8.1	8.2	7.9	8.0	8.2	8.0	8.2
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	7.1	5.6	8.1	7.2	11	16	12	8.4
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	1.6	1.6	1.7	1.7	2.3	1.4	2.0	0.82
Sulphur (Elemental)	U	2180	mg/kg	1.0	2.3	2.4	6.0	2.3	17	7.8	1.7	1.7
Cyanide (Free)	U	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	U	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.60	3.5	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	8.2	6.6	4.4	13	4.5	9.6	3.4	5.3
Arsenic	U	2450	mg/kg	1.0	11	6.4	14	4.4	8.3	15	4.6	4.0
Cadmium	U	2450	mg/kg	0.10	0.24	0.21	1.4	0.50	0.22	0.32	0.21	0.12
Chromium	U	2450	mg/kg	1.0	41	31	48	34	36	39	35	35
Copper	U	2450	mg/kg	0.50	41	23	100	22	55	30	34	20
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	37	34	43	34	34	42	34	32
Lead	U	2450	mg/kg	0.50	18	13	34	9.9	15	12	12	9.0
Selenium	U	2450	mg/kg	0.20	< 0.20	1.1	< 0.20	0.96	0.61	1.6	0.69	0.66
Zinc	U	2450	mg/kg	0.50	63	60	600	82	58	49	65	46
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	4.5	7.9	8.8	7.6	6.0	11	8.5	8.5
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	140	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	140	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: C3432 Johnsons Aggregates, Peterborough

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		21-43816	21-43816	21-43816	21-43816	21-43816	21-43816	21-43816	21-43816
Quotation No.:			**Chemtest Sample ID.:**		1338172	1338173	1338174	1338175	1338176	1338177	1338178	1338179
Order No.:			Client Sample Ref.:		1	2	1	2	1	2	1	2
			Client Sample ID.:		ES1	ES2	ES1	ES2	ES1	ES2	ES1	ES2
			Sample Location:		WS201	WS201	WS202	WS202	WS203	WS203	WS204	WS204
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.3	0.8	0.1	0.4	0.5	0.9	0.1	0.3
			Bottom Depth (m):		0.3	0.8	0.1	0.4	0.5	0.9	0.1	0.3
			Date Sampled:		07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021
			Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	3500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	3500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	3600	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2700	mg/kg	0.10	< 0.10	0.51	0.23	< 0.10	< 0.10	0.17	< 0.10	< 0.10
Pyrene	U	2700	mg/kg	0.10	< 0.10	0.50	0.24	< 0.10	< 0.10	0.19	< 0.10	< 0.10
Benzo[a]anthracene	U	2700	mg/kg	0.10	< 0.10	0.93	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2700	mg/kg	0.10	< 0.10	0.64	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	< 2.0	2.6	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phenols	U	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline 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.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
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.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

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N	Unaccredited
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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

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	22-00793-8		
Initial Date of Issue:	14-Jan-2022	**Date of Re-Issue:**	09-Mar-2022
Client	HSP Consulting Engineers Limited		
Client Address:	Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB		
Contact(s):	Howard Daley		
Project	C3595 Rhine Avenue		
Quotation No.:		**Date Received:**	13-Jan-2022
Order No.:		**Date Instructed:**	13-Jan-2022
No. of Samples:	3		
Turnaround (Wkdays):	7	**Results Due:**	21-Jan-2022
Date Approved:	25-Jan-2022		
Approved By:			

Details:	Stuart Henderson, Technical Manager

Results - Water

Project: C3595 Rhine Avenue

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		22-00793	22-00793
Quotation No.:			**Chemtest Sample ID.:**		1350486	1350487
			Client Sample ID.:		WS201	WS203
			Sample Type:		WATER	WATER
			Date Sampled:		11-Jan-2022	11-Jan-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
pH	U	1010		N/A	7.7	8.3
Electrical Conductivity	U	1020	µS/cm	1.0	14000	5900
Suspended Solids At 105C	U	1030	mg/l	5.0	83	1000
Dissolved Oxygen	N	1150	mg O2/l	0.50	5.6	5.0
Redox Potential	N	1170	mV	N/A	210	170
Alkalinity (Total)	U	1220	mg/l	10	240	190
Sulphur	N	1220	mg/l	1.0	630	770
Sulphate	U	1220	mg/l	1.0	1900	2300
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050	< 0.050
Cyanide (Free)	U	1300	mg/l	0.050	< 0.050	< 0.050
Sulphide	U	1325	mg/l	0.050	< 0.050	< 0.050
Total Hardness as CaCO3	U	1270	mg/l	15	2900	1400
Arsenic (Dissolved)	U	1455	µg/l	0.20	2.5	2.0
Boron (Dissolved)	U	1455	µg/l	10.0	1700	1700
Cadmium (Dissolved)	U	1455	µg/l	0.11	2.4	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	4.5	< 0.50
Copper (Dissolved)	U	1455	µg/l	0.50	120	2.3
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05	< 0.05
Nickel (Dissolved)	U	1455	µg/l	0.50	52	9.6
Lead (Dissolved)	U	1455	µg/l	0.50	0.74	< 0.50
Selenium (Dissolved)	U	1455	µg/l	0.50	5.3	2.9
Zinc (Dissolved)	U	1455	µg/l	2.5	130	9.2
Chromium (Hexavalent)	U	1490	µg/l	20	< 20	< 20
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10

Results - Water

Project: C3595 Rhine Avenue

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		22-00793	22-00793
Quotation No.:			**Chemtest Sample ID.:**		1350486	1350487
			Client Sample ID.:		WS201	WS203
			Sample Type:		WATER	WATER
			Date Sampled:		11-Jan-2022	11-Jan-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	< 2.0	< 2.0
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	8.2	< 1.0
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030

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
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1150	Dissolved Oxygen	Dissolved Oxygen (DO)	Electrometric determination (on site preferred), using oxygen sensitive membrane electrode.
1170	Redox Potential	Redox Potential	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.
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
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).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
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.

Report Information

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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
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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)

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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

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	22-02890-3		
Initial Date of Issue:	07-Feb-2022	**Date of Re-Issue:**	09-Mar-2022
Client	HSP Consulting Engineers Limited		
Client Address:	Lawrence House Meadowbank Way Eastwood Nottinghamshire NG16 3SB		
Contact(s):	Howard Daley		
Project	C3432 - Johnson Aggregates - Peterborough		
Quotation No.:		**Date Received:**	27-Jan-2022
Order No.:		**Date Instructed:**	27-Jan-2022
No. of Samples:	2		
Turnaround (Wkdays):	10	**Results Due:**	09-Feb-2022
Date Approved:	07-Feb-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Water

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		22-02890	22-02890
Quotation No.:			**Chemtest Sample ID.:**		1360056	1360057
			Sample Location:		WS201	WS203
			Sample Type:		WATER	WATER
			Date Sampled:		25-Jan-2022	25-Jan-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
pH	U	1010		N/A	7.8	8.1
Electrical Conductivity	U	1020	µS/cm	1.0	7700	6500
Suspended Solids At 105C	U	1030	mg/l	5.0	72	93
Dissolved Oxygen	N	1150	mg O2/l	0.50	8.6	9.0
Redox Potential	N	1170	mV	N/A	8.6	9.0
Alkalinity (Total)	U	1220	mg/l	10	290	410
Sulphur	N	1220	mg/l	1.0	670	970
Sulphate	U	1220	mg/l	1.0	2000	2900
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050	< 0.050
Cyanide (Free)	U	1300	mg/l	0.050	< 0.050	< 0.050
Sulphide	U	1325	mg/l	0.050	< 0.050	< 0.050
Total Hardness as CaCO3	U	1270	mg/l	15	2200	1700
Arsenic (Dissolved)	U	1455	µg/l	0.20	3.2	1.5
Boron (Dissolved)	U	1455	µg/l	10.0	1900	2900
Cadmium (Dissolved)	U	1455	µg/l	0.11	0.79	0.26
Chromium (Dissolved)	U	1455	µg/l	0.50	< 0.50	0.77
Copper (Dissolved)	U	1455	µg/l	0.50	23	2.5
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05	< 0.05
Nickel (Dissolved)	U	1455	µg/l	0.50	35	15
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50	0.54
Selenium (Dissolved)	U	1455	µg/l	0.50	0.65	1.9
Zinc (Dissolved)	U	1455	µg/l	2.5	74	98
Chromium (Hexavalent)	U	1490	µg/l	20	< 20	< 20
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10

Results - Water

Project: C3432 - Johnson Aggregates - Peterborough

Client: HSP Consulting Engineers Limited			**Chemtest Job No.:**		22-02890	22-02890
Quotation No.:			**Chemtest Sample ID.:**		1360056	1360057
			Sample Location:		WS201	WS203
			Sample Type:		WATER	WATER
			Date Sampled:		25-Jan-2022	25-Jan-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	< 2.0	< 2.0
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030

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
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1150	Dissolved Oxygen	Dissolved Oxygen (DO)	Electrometric determination (on site preferred), using oxygen sensitive membrane electrode.
1170	Redox Potential	Redox Potential	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.
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
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).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	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-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
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.

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 VI

Kiwa CMT

Client: HSP Consulting Limited
Lawrence House
6 Meadowbank Way
Eastwood
Nottinghamshire
NG16 3SB

Date: 23rd December 2020

Lab Ref: 62553

Originator: Howard Daley

Order Ref: C3432

Site: -

Kiwa CMT Testing
Unit 5 Prime Park Way
Prime Enterprise Park
Derby
DE1 3QB

T +44 (0)1332 383333
F +44 (0)1332 602607
E uk.cmtenquiries@kiwa.com

www.kiwa.co.uk/cmt

Samples:

4No. samples weighing approximately 4kg each were sampled by the client and delivered to Kiwa CMT Testing on 9th December 2020. Sampling certificates were not provided.

Requirements:

Determine the Water Content to **BS EN ISO 17892-1:2014** and Atterberg Limits to **BS 1377-2:1990** of 4No. samples and the Particle Size Distribution in accordance with **BS 1377-2:1990** of 1No. sample.

Results:

The individual results sheets may be viewed on pages 2-3 of this report and test results relate solely to the samples as received.

Kiwa CMT Testing

Author: L. Anaz
Technical Administrator

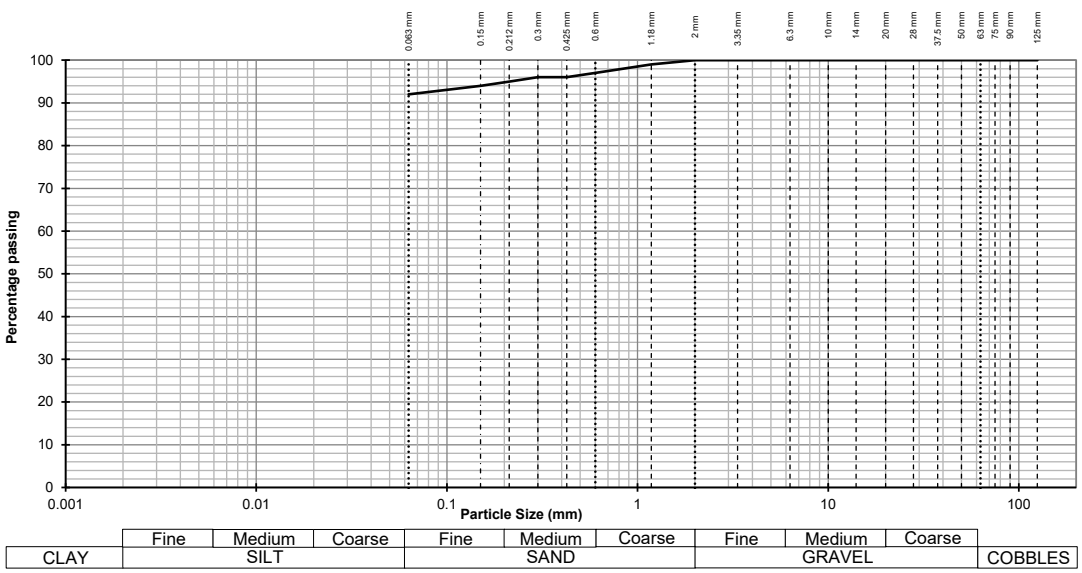
Checked and Approved by: R Cartlidge
Department Head

Kiwa CMT

Particle Size Distribution

Client:	HSP Consulting	**Sample ref:**	62553/WS08 2.00-3.00m	**Date Tested:**	12-18/12/20	**Sampled by:**	Client
Site:	C3432	**Sampling cert.:**	Not given	**Sample size:**	1kg Approx.	**Source:**	Site
		Lab ref.:	62553	**Description:**	Grey/brown CLAY/SILT		

Sieve Size (mm)	% Passing
125	100
90	100
75	100
63	100
50	100
37.5	100
28	100
20	100
14	100
10	100
6.3	100
5	100
3.35	100
2	100
1.18	99
0.6	97
0.425	96
0.3	96
0.212	95
0.15	94
0.063	92



Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	8
Silt/Clay	92

Comments: Test carried out in accordance with **BS1377: Part 2: 1990: Clause 9.2**
Uniformity coefficient = 6 (For information only)

Kiwa CMT

Certificate of Analysis for Plasticity Index & Water Content

Client: HSP Consulting Ltd. **Site**: C3432

Lab Ref: 62553 **Date of Test:** 11-23/12/20

Test Methods: BS 1377: 1990: Part 2: Clauses 4.4 and 5 - Liquid Limit/Plastic Limit/Plasticity Index
BS EN ISO 17892-1:2014 - Water Content

Results:

Sample Ref	Material Description	LL (%)	PL (%)	PI (%)	% Retained on 425µm	Modified PI (%)*	Soil Classification	WC (%)
62553/WS07 1.00-2.00m	Grey silty CLAY	52	27	25	<1	25	CH	30.5
62553/WS08 2.00-3.00m	Grey /brown CLAY and SILT	51	28	23	4	22	CH/MH	25.5
62553/WS10 0.40-0.80m	Brown silty CLAY	54	30	24	2	24	MH	27.8
62553/WS11 1.00-2.00m	Brown CLAY	59	31	28	<1	28	CH/MH	31.1

The samples tested were disturbed and in their natural condition.
* Modified plasticity index relates to BRE Digest 240.
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
WC = Water Content
BRE Digest 240 is not included in the UKAS schedule for this Laboratory.

Appendix VII

Waste Classification Report

QE72Z-Q8K52-DFGHF

Job name

C3432 - IBA Site, Saxon Works, Peterborough 1 of 6

Description/Comments

Project

C3432 - IBA Site, Saxon Works, Peterborough

Site

IBA Site, Saxon Works, Peterborough

Related Documents

#	Name	Description
1	HWOL_20-33985-20210114 091939.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Howard Daley
Date:
06 Apr 2021 20:33 GMT
Telephone:
01773 535555

Company:
HSP Consulting Engineers Limited
Lawrence House 4 Meadowbank Way
Eastwood
4 Meadowbank Way, Eastwood
Nottingham
NG16 3SB

HazWasteOnline™ Training Record:

Course	Date
Hazardous Waste Classification	11 Feb 2020
Advanced Hazardous Waste Classification	12 Feb 2020

Report

Created by: Howard Daley
Created date: 06 Apr 2021 20:33 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS06 0.60m	0.60	Non Hazardous		2
2	WS07 0.40m	0.40	Non Hazardous		5
3	WS08 0.80m	0.80	Non Hazardous		8
4	WS10 0.25m	0.25	Non Hazardous		11
5	WS11 0.35m	0.35	Non Hazardous		14

Classification of sample: WS06 0.60m

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

Sample details

Sample Name:
WS06 0.60m
Sample Depth:
0.60 m
Moisture content:
13%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 13% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		13 mg/kg	1.32	14.933 mg/kg	0.00149 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		2.4 mg/kg	3.22	6.723 mg/kg	0.000672 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.29 mg/kg	1.142	0.288 mg/kg	0.0000288 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		25 mg/kg	1.462	31.789 mg/kg	0.00318 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		13 mg/kg	1.126	12.734 mg/kg	0.00127 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	13 mg/kg	1.56	17.642 mg/kg	0.00113 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		20 mg/kg	2.976	51.787 mg/kg	0.00518 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<**LOD**
	034-002-00-8 / /							
11	zinc { zinc chromate }		30 mg/kg	2.774	72.405 mg/kg	0.00724 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.3	pH		8.3	pH	8.3 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.0217 %		

Key

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

Classification of sample: WS07 0.40m

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

Sample details

Sample Name:
WS07 0.40m
Sample Depth:
0.40 m
Moisture content:
14%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		17 mg/kg	1.32	19.303 mg/kg	0.00193 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		3.1 mg/kg	3.22	8.584 mg/kg	0.000858 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.36 mg/kg	1.142	0.354 mg/kg	0.0000354 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		41 mg/kg	1.462	51.534 mg/kg	0.00515 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23 mg/kg	1.126	22.27 mg/kg	0.00223 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	17 mg/kg	1.56	22.804 mg/kg	0.00146 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		36 mg/kg	2.976	92.145 mg/kg	0.00921 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<**LOD**
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		53 mg/kg	2.774	126.446 mg/kg	0.0126 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
18		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
19		pH			PH		8.2	pH		8.2	pH	8.2 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
36		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		2.3	mg/kg		1.978	mg/kg	0.000198 %	✓	
37		monohydric phenols			P1186		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
											Total:	0.0351 %		

Key

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

Classification of sample: WS08 0.80m

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

Sample details

Sample Name:
WS08 0.80m
Sample Depth:
0.80 m
Moisture content:
11%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 11% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		4.8 mg/kg	1.32	5.64 mg/kg	0.000564 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		8 mg/kg	3.22	22.926 mg/kg	0.00229 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.18 mg/kg	1.142	0.183 mg/kg	0.0000183 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		34 mg/kg	1.462	44.227 mg/kg	0.00442 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		22 mg/kg	1.126	22.045 mg/kg	0.0022 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	9.4 mg/kg	1.56	13.049 mg/kg	0.000837 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		41 mg/kg	2.976	108.604 mg/kg	0.0109 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		0.94 mg/kg	1.405	1.175 mg/kg	0.000118 %	✓	
	034-002-00-8 / /							
11	zinc { zinc chromate }		55 mg/kg	2.774	135.794 mg/kg	0.0136 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.1	pH		8.1	pH	8.1 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.0364 %		

Key

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

Classification of sample: WS10 0.25m

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

Sample details

Sample Name:
WS10 0.25m
Sample Depth:
0.25 m
Moisture content:
17%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		15 mg/kg	1.32	16.438 mg/kg	0.00164 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		2.7 mg/kg	3.22	7.216 mg/kg	0.000722 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.41 mg/kg	1.142	0.389 mg/kg	0.0000389 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		50 mg/kg	1.462	60.655 mg/kg	0.00607 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		27 mg/kg	1.126	25.231 mg/kg	0.00252 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	19 mg/kg	1.56	24.598 mg/kg	0.00158 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		36 mg/kg	2.976	88.931 mg/kg	0.00889 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<**LOD**
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		160 mg/kg	2.774	368.407 mg/kg	0.0368 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
18		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
19		pH			PH		9.5	pH		9.5	pH	9.5 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
36		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		1.2	mg/kg		0.996	mg/kg	0.0000996 %	✓	
37		monohydric phenols			P1186		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
											Total:	0.0598 %		

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

Classification of sample: WS11 0.35m

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

Sample details

Sample Name:
WS11 0.35m
Sample Depth:
0.35 m
Moisture content:
18%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		19 mg/kg	1.32	20.571 mg/kg	0.00206 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		12 mg/kg	3.22	31.684 mg/kg	0.00317 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.33 mg/kg	1.142	0.309 mg/kg	0.0000309 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		42 mg/kg	1.462	50.336 mg/kg	0.00503 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		25 mg/kg	1.126	23.081 mg/kg	0.00231 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	17 mg/kg	1.56	21.744 mg/kg	0.00139 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		39 mg/kg	2.976	95.181 mg/kg	0.00952 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<LOD
	034-002-00-8 / /							
11	zinc { zinc chromate }		70 mg/kg	2.774	159.236 mg/kg	0.0159 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.4	pH		8.4	pH	8.4 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				7.2	mg/kg		5.904	mg/kg	0.00059 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.0414 %		

Key

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

Appendix A: Classifier defined and non 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)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
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

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
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

pH (CAS Number: PH)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

boron {diboron trioxide; boric oxide}

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

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) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

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

lead {lead chromate}

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

mercury {mercury dichloride}

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

nickel {nickel chromate}

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

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (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)

sulfur {sulfur}

Elemental sulfur most likely to be worst case scenario hazardous

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.77.4714.9046 (18 Mar 2021)
HazWasteOnline Database: 2021.77.4714.9046 (18 Mar 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
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 2019 - UK: 2019 No. 720 of 27th March 2019
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
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report

Z4G97-7Z5KN-33CFD

Job name

C3432 - IBA Site, Saxon Works, Peterborough 2 of 6

Description/Comments

Project

C3432 - IBA Site, Saxon Works, Peterborough

Site

IBA Site, Saxon Works, Peterborough

Related Documents

#	Name	Description
1	HWOL_20-34776-20210114 091005.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Howard Daley
Date:
06 Apr 2021 20:35 GMT
Telephone:
01773 535555

Company:
HSP Consulting Engineers Limited
Lawrence House 4 Meadowbank Way
Eastwood
4 Meadowbank Way, Eastwood
Nottingham
NG16 3SB

HazWasteOnline™ Training Record:

Course	Date
Hazardous Waste Classification	11 Feb 2020
Advanced Hazardous Waste Classification	12 Feb 2020

Report

Created by: Howard Daley
Created date: 06 Apr 2021 20:35 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01A 0.25m	0.25	Non Hazardous		3
2	WS02A 0.95m	0.95	Non Hazardous		6
3	WS12 0.05m	0.05	Non Hazardous		9
4	WS13 0.30m	0.30	Non Hazardous		12
5	WS13 0.85m	0.85	Hazardous	HP 7, HP 14	15
6	WS14 1.00m	1.00	Non Hazardous		18
7	WS15 1.00m	1.00	Non Hazardous		21
8	WS16 0.40m	0.40	Non Hazardous		24

Classification of sample: WS01A 0.25m

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

Sample details

Sample Name:
WS01A 0.25m
Sample Depth:
0.25 m
Moisture content:
14%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		21 mg/kg	1.32	23.845 mg/kg	0.00238 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		14 mg/kg	3.22	38.767 mg/kg	0.00388 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.36 mg/kg	1.142	0.354 mg/kg	0.0000354 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		49 mg/kg	1.462	61.59 mg/kg	0.00616 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		34 mg/kg	1.126	32.921 mg/kg	0.00329 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	28 mg/kg	1.56	37.56 mg/kg	0.00241 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		37 mg/kg	2.976	94.705 mg/kg	0.00947 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<**LOD**
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		68 mg/kg	2.774	162.232 mg/kg	0.0162 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		140 mg/kg		120.4 mg/kg	0.012 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
18		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
19		pH			PH		8.2	pH		8.2	pH	8.2 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
36		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		1.8	mg/kg		1.548	mg/kg	0.000155 %	✓	
37		monohydric phenols			P1186		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
											Total:	0.0565 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because No Free Phase Identified

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.012%)

Classification of sample: WS02A 0.95m

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

Sample details

Sample Name:
WS02A 0.95m
Sample Depth:
0.95 m
Moisture content:
32%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 32% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.5 mg/kg	1.32	5.836 mg/kg	0.000584 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		25 mg/kg	3.22	54.738 mg/kg	0.00547 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		8.9 mg/kg	1.142	6.913 mg/kg	0.000691 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		34 mg/kg	1.462	33.791 mg/kg	0.00338 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		200 mg/kg	1.126	153.121 mg/kg	0.0153 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	66 mg/kg	1.56	70.005 mg/kg	0.00449 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.1 mg/kg	1.353	0.092 mg/kg	0.0000092 %	✓	
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		52 mg/kg	2.976	105.241 mg/kg	0.0105 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.23 mg/kg	1.405	0.22 mg/kg	0.000022 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		520 mg/kg	2.774	980.938 mg/kg	0.0981 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.3	pH		8.3	pH	8.3 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				0.71	mg/kg		0.483	mg/kg	0.0000483 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.9	mg/kg		0.612	mg/kg	0.0000612 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				1000	mg/kg		680	mg/kg	0.068 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.208 %		

Key

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

Classification of sample: WS12 0.05m

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

Sample details

Sample Name:
WS12 0.05m
Sample Depth:
0.05 m
Moisture content:
19%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		15 mg/kg	1.32	16.042 mg/kg	0.0016 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		5 mg/kg	3.22	13.041 mg/kg	0.0013 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.54 mg/kg	1.142	0.5 mg/kg	0.00005 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		50 mg/kg	1.462	59.193 mg/kg	0.00592 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		30 mg/kg	1.126	27.359 mg/kg	0.00274 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	24 mg/kg	1.56	30.323 mg/kg	0.00194 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		33 mg/kg	2.976	79.556 mg/kg	0.00796 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<**LOD**
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		160 mg/kg	2.774	359.529 mg/kg	0.036 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
18		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
19		pH			PH		8.3	pH		8.3	pH	8.3 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
36		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		3.5	mg/kg		2.835	mg/kg	0.000284 %	✓	
37		monohydric phenols			P1186		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
											Total:	0.0592 %		

Key

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

Classification of sample: WS13 0.30m

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

Sample details

Sample Name:
WS13 0.30m
Sample Depth:
0.30 m
Moisture content:
17%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		8.6 mg/kg	1.32	9.424 mg/kg	0.000942 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		7.6 mg/kg	3.22	20.311 mg/kg	0.00203 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.35 mg/kg	1.142	0.332 mg/kg	0.0000332 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		34 mg/kg	1.462	41.245 mg/kg	0.00412 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		21 mg/kg	1.126	19.624 mg/kg	0.00196 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	12 mg/kg	1.56	15.536 mg/kg	0.000996 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		39 mg/kg	2.976	96.342 mg/kg	0.00963 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		0.31 mg/kg	1.405	0.362 mg/kg	0.0000362 %	✓	
	034-002-00-8 / /							
11	zinc { zinc chromate }		84 mg/kg	2.774	193.413 mg/kg	0.0193 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.3	pH		8.3	pH	8.3 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.0406 %		

Key

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

Classification of sample: WS13 0.85m

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

Sample details

Sample Name:
WS13 0.85m
Sample Depth:
0.85 m
Moisture content:
38%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.413%)

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.413%)

Determinands

Moisture content: 38% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5.1 mg/kg	1.32	4.175 mg/kg	0.000417 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		24 mg/kg	3.22	47.912 mg/kg	0.00479 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		18 mg/kg	1.142	12.748 mg/kg	0.00127 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		68 mg/kg	1.462	61.619 mg/kg	0.00616 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		**<LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		630 mg/kg	1.126	439.772 mg/kg	0.044 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	380 mg/kg	1.56	367.492 mg/kg	0.0236 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.39 mg/kg	1.353	0.327 mg/kg	0.0000327 %	✓	

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		110	mg/kg	2.976	202.981	mg/kg	0.0203 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.2	mg/kg	1.405	0.174	mg/kg	0.0000174 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		2400	mg/kg	2.774	4127.93	mg/kg	0.413 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		0.012	mg/kg		0.0074	mg/kg	0.000000744 %	✓	
15	toluene	601-021-00-3	203-625-9	108-88-3		0.03	mg/kg		0.0186	mg/kg	0.00000186 %	✓	
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.013	mg/kg		0.008	mg/kg	0.000000806 %	✓	
17	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]		0.0218	mg/kg		0.0135	mg/kg	0.00000135 %	✓	
18	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
19	pH			PH		8.6	pH		8.6	pH	8.6 pH		
20	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
27	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29	chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
30	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
31	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
32	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
33	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
34	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
36		sulfur { sulfur }				2500	mg/kg		1550	mg/kg	0.155 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				1.2	mg/kg		0.744	mg/kg	0.0000744 %	✓	
				P1186									
										Total:	0.67 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because No Free Phase Identified

Hazard Statements hit:

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

Because of determinands:

benzene: (conc.: 7.44e-07%)
toluene: (conc.: 1.86e-06%)
ethylbenzene: (conc.: 8.06e-07%)

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

Because of determinand:

xylene: (conc.: 1.35e-06%)

Classification of sample: WS14 1.00m

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

Sample details

Sample Name:
WS14 1.00m
Sample Depth:
1.00 m
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		28 mg/kg	1.32	31.424 mg/kg	0.00314 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		2.3 mg/kg	3.22	6.295 mg/kg	0.000629 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.71 mg/kg	1.142	0.689 mg/kg	0.0000689 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		37 mg/kg	1.462	45.966 mg/kg	0.0046 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		69 mg/kg	1.126	66.033 mg/kg	0.0066 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	72 mg/kg	1.56	95.461 mg/kg	0.00612 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		0.12 mg/kg	1.353	0.138 mg/kg	0.0000138 %	✓	
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		45 mg/kg	2.976	113.842 mg/kg	0.0114 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<LOD
	034-002-00-8 / /							
11	zinc { zinc chromate }		420 mg/kg	2.774	990.37 mg/kg	0.099 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				9.9	pH		9.9	pH	9.9 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				0.6	mg/kg		0.51	mg/kg	0.000051 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.44	mg/kg		0.374	mg/kg	0.0000374 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				11	mg/kg		9.35	mg/kg	0.000935 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.134 %		

Key

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

Classification of sample: WS15 1.00m

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

Sample details

Sample Name:
WS15 1.00m
Sample Depth:
1.00 m
Moisture content:
21%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		9.7 mg/kg	1.32	10.118 mg/kg	0.00101 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		4.5 mg/kg	3.22	11.447 mg/kg	0.00114 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.22 mg/kg	1.142	0.199 mg/kg	0.0000199 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23 mg/kg	1.462	26.556 mg/kg	0.00266 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	14.231 mg/kg	0.00142 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	11 mg/kg	1.56	13.555 mg/kg	0.000869 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		24 mg/kg	2.976	56.43 mg/kg	0.00564 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.36 mg/kg	1.405	0.4 mg/kg	0.00004 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		53 mg/kg	2.774	116.154 mg/kg	0.0116 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
18		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
19		pH			PH		8.4	pH		8.4	pH	8.4 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
36		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		1.6	mg/kg		1.264	mg/kg	0.000126 %	✓	
37		monohydric phenols			P1186		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
											Total:	0.0259 %		

Key

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

Classification of sample: WS16 0.40m

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

Sample details

Sample Name:
WS16 0.40m
Sample Depth:
0.40 m
Moisture content:
12%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		26 mg/kg	1.32	30.209 mg/kg	0.00302 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		1.4 mg/kg	3.22	3.967 mg/kg	0.000397 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.9 mg/kg	1.142	0.905 mg/kg	0.0000905 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		37 mg/kg	1.462	47.588 mg/kg	0.00476 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		19 mg/kg	1.126	18.825 mg/kg	0.00188 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	24 mg/kg	1.56	32.943 mg/kg	0.00211 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		33 mg/kg	2.976	86.431 mg/kg	0.00864 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		0.85 mg/kg	1.405	1.051 mg/kg	0.000105 %	✓	
	034-002-00-8 / /							
11	zinc { zinc chromate }		120 mg/kg	2.774	292.95 mg/kg	0.0293 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				9.5	pH		9.5	pH	9.5 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				3	mg/kg		2.64	mg/kg	0.000264 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.052 %		

Key

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

Appendix A: Classifier defined and non 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)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
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

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
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

pH (CAS Number: PH)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

boron {diboron trioxide; boric oxide}

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

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) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

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

lead {lead chromate}

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

mercury {mercury dichloride}

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

nickel {nickel chromate}

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

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (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)

sulfur {sulfur}

Elemental sulfur most likely to be worst case scenario hazardous

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.77.4714.9046 (18 Mar 2021)
HazWasteOnline Database: 2021.77.4714.9046 (18 Mar 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
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 2019 - UK: 2019 No. 720 of 27th March 2019
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
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report

BC4P2-X8GV9-VPFHK

Job name

C3432 - IBA Site, Saxon Works, Peterborough 3 of 6

Description/Comments

Project

C3432 - IBA Site, Saxon Works, Peterborough

Site

C3432 - IBA Site, Saxon Works, Peterborough

Related Documents

#	Name	Description
1	HWOL_21-02600-20210204 162107.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Howard Daley
Date:
06 Apr 2021 20:42 GMT
Telephone:
01773 535555

Company:
HSP Consulting Engineers Limited
Lawrence House 4 Meadowbank Way
Eastwood
4 Meadowbank Way, Eastwood
Nottingham
NG16 3SB

HazWasteOnline™ Training Record:

Course	Date
Hazardous Waste Classification	11 Feb 2020
Advanced Hazardous Waste Classification	12 Feb 2020

Report

Created by: Howard Daley
Created date: 06 Apr 2021 20:42 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	TP01 2.00m	2.0	Hazardous	HP 3(i), HP 7, HP 14	3
2	TP02 0.55m	0.55	Potentially Hazardous	HP 3(i)	6
3	TP02 1.00m	1.0	Hazardous	HP 3(i), HP 7, HP 11, HP 14	9
4	TP03 0.80m	0.8	Hazardous	HP 3(i), HP 7, HP 14	12
5	TP04 1.00m	1.0	Hazardous	HP 3(i), HP 7, HP 14	15
6	TP04 1.50m	1.5	Non Hazardous		18
7	TP05 0.65m	0.65	Hazardous	HP 3(i), HP 7, HP 14	21
8	TP05 1.60m	1.6	Non Hazardous		24
9	TP06 0.50m	0.5	Potentially Hazardous	HP 3(i)	27
10	TP06 1.00m	1.0	Hazardous	HP 3(i), HP 7	30
11	TP07 0.90m	0.9	Hazardous	HP 3(i), HP 7, HP 14	33

Classification of sample: TP01 2.00m

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

Sample details

Sample Name:	LoW Code:	
TP01 2.00m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
2.0 m	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
Moisture content:		
51% (wet weight correction)		

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.231%)

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

Hazard Statements hit:

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

Because of determinands:

dicopper oxide; copper (I) oxide: (compound conc.: 0.717%)
zinc chromate: (compound conc.: 0.231%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

benzene: (conc.: 3.09e-06%)
toluene: (conc.: 8.82e-07%)
ethylbenzene: (conc.: 1.27e-06%)

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

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.0289%)
xylene: (conc.: 6.52e-07%)

Determinands

Moisture content: 51% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4.8	mg/kg	1.32	3.105	mg/kg	0.000311 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		1.7	mg/kg	3.22	2.682	mg/kg	0.000268 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		5.3	mg/kg	1.142	2.967	mg/kg	0.000297 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		150	mg/kg	1.462	107.424	mg/kg	0.0107 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13000	mg/kg	1.126	7171.909	mg/kg	0.717 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	280	mg/kg	1.56	214.007	mg/kg	0.0137 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.27	mg/kg	1.353	0.179	mg/kg	0.0000179 %	✓	
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		41	mg/kg	2.976	59.793	mg/kg	0.00598 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2	mg/kg	1.405	<0.281	mg/kg	<0.0000281 %		<LOD
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		1700	mg/kg	2.774	2310.864	mg/kg	0.231 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		590	mg/kg		289.1	mg/kg	0.0289 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		0.063	mg/kg		0.0309	mg/kg	0.00000309 %	✓	
15	toluene	601-021-00-3	203-625-9	108-88-3		0.018	mg/kg		0.0088	mg/kg	0.000000882 %	✓	
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.026	mg/kg		0.0127	mg/kg	0.00000127 %	✓	
17	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]		0.0133	mg/kg		0.0065	mg/kg	0.000000652 %	✓	
18	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				0.8	mg/kg	1.884	0.739	mg/kg	0.0000739 %	✓	
19	pH			PH		8.2	pH		8.2	pH	8.2 pH		
20	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
36		sulfur { sulfur }				2800	mg/kg		1372	mg/kg	0.137 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				12	mg/kg		5.88	mg/kg	0.000588 %	✓	
				P1186									
										Total:	1.147 %		

Key

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

Classification of sample: TP02 0.55m

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

Sample details

Sample Name:
TP02 0.55m
Sample Depth:
0.55 m
Moisture content:
19%
(wet weight correction)

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

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 1.7e-07%)
benzene: (conc.: 2.75e-07%)
toluene: (conc.: 4.94e-07%)

Determinands

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

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		9.6 mg/kg	1.32	10.267 mg/kg	0.00103 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		11 mg/kg	3.22	28.689 mg/kg	0.00287 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.43 mg/kg	1.142	0.398 mg/kg	0.0000398 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		63 mg/kg	1.462	74.583 mg/kg	0.00746 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		230 mg/kg	1.126	209.753 mg/kg	0.021 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	17 mg/kg	1.56	21.479 mg/kg	0.00138 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		38 mg/kg	2.976	91.609 mg/kg	0.00916 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.46	mg/kg	1.405	0.524	mg/kg	0.0000524 %	✓	
		034-002-00-8											
11		zinc { zinc chromate }				120	mg/kg	2.774	269.647	mg/kg	0.027 %	✓	
		024-007-00-3	236-878-9	13530-65-9									
12		TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
				TPH									
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				0.0021	mg/kg		0.0017	mg/kg	0.00000017 %	✓	
		603-181-00-X	216-653-1	1634-04-4									
14		benzene				0.0034	mg/kg		0.0027	mg/kg	0.000000275 %	✓	
		601-020-00-8	200-753-7	71-43-2									
15		toluene				0.0061	mg/kg		0.0049	mg/kg	0.000000494 %	✓	
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				7.9	pH		7.9	pH	7.9 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
36		sulfur { sulfur }				29	mg/kg		23.49	mg/kg	0.00235 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				2.3	mg/kg		1.863	mg/kg	0.000186 %	✓	
				P1186									
										Total:	0.0738 %		

Key

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

Classification of sample: TP02 1.00m

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

Sample details

Sample Name:	LoW Code:	
TP02 1.00m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.0 m	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
Moisture content:		
38% (wet weight correction)		

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.482%)

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

Because of determinands:

lead chromate: (Note 1 conc.: 0.105%)
TPH (C6 to C40) petroleum group: (conc.: 0.13%)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.13%)

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

Hazard Statements hit:

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

Because of determinands:

chromium(III) oxide (worst case): (compound conc.: 0.163%)
lead chromate: (Note 1 conc.: 0.105%)
zinc chromate: (compound conc.: 0.482%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

benzene: (conc.: 1.12e-06%)
toluene: (conc.: 8.68e-07%)
ethylbenzene: (conc.: 1.24e-06%)

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

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.13%)
xylene: (conc.: 5.02e-07%)

Determinands

Moisture content: 38% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		12 mg/kg	1.32	9.823 mg/kg	0.000982 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		22 mg/kg	3.22	43.919 mg/kg	0.00439 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		6.1 mg/kg	1.142	4.32 mg/kg	0.000432 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		1800 mg/kg	1.462	1631.096 mg/kg	0.163 %	✓	
	215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		650 mg/kg	1.126	453.733 mg/kg	0.0454 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	1700 mg/kg	1.56	1644.045 mg/kg	0.105 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		0.41 mg/kg	1.353	0.344 mg/kg	0.0000344 %	✓	
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		130 mg/kg	2.976	239.887 mg/kg	0.024 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		0.25 mg/kg	1.405	0.218 mg/kg	0.0000218 %	✓	
	034-002-00-8							
11	zinc { zinc chromate }		2800 mg/kg	2.774	4815.918 mg/kg	0.482 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		2100 mg/kg		1302 mg/kg	0.13 %	✓	
	TPH							
13	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							
14	benzene		0.018 mg/kg		0.0112 mg/kg	0.00000112 %	✓	
	601-020-00-8 / 200-753-7 / 71-43-2							
15	toluene		0.014 mg/kg		0.0086 mg/kg	0.000000868 %	✓	
	601-021-00-3 / 203-625-9 / 108-88-3							
16	ethylbenzene		0.02 mg/kg		0.0124 mg/kg	0.00000124 %	✓	
	601-023-00-4 / 202-849-4 / 100-41-4							
17	xylene		0.0081 mg/kg		0.005 mg/kg	0.000000502 %	✓	
	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]							
18	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		pH				8.1	pH		8.1	pH	8.1 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				32	mg/kg		19.84	mg/kg	0.00198 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				13	mg/kg		8.06	mg/kg	0.000806 %	✓	
				P1186									
										Total:	0.959 %		

Key

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

Classification of sample: TP03 0.80m

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

Sample details

Sample Name:
TP03 0.80m
Sample Depth:
0.8 m
Moisture content:
45%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.976%)

Carc. 1A; H350i "May cause cancer by inhalation."

Because of determinand:

nickel chromate: (compound conc.: 0.196%)

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

Hazard Statements hit:

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

Because of determinands:

chromium(III) oxide (worst case): (compound conc.: 0.169%)
dicopper oxide; copper (I) oxide: (compound conc.: 0.211%)
nickel chromate: (compound conc.: 0.196%)
zinc chromate: (compound conc.: 0.976%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

benzene: (conc.: 7.7e-07%)
toluene: (conc.: 2.7e-06%)
ethylbenzene: (conc.: 2.2e-06%)

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

Because of determinand:

xylene: (conc.: 1.32e-06%)

Determinands

Moisture content: 45% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		14 mg/kg	1.32	10.167 mg/kg	0.00102 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		61 mg/kg	3.22	108.027 mg/kg	0.0108 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		23 mg/kg	1.142	14.45 mg/kg	0.00145 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		2100 mg/kg	1.462	1688.097 mg/kg	0.169 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3400 mg/kg	1.126	2105.411 mg/kg	0.211 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	860 mg/kg	1.56	737.793 mg/kg	0.0473 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		1.6 mg/kg	1.353	1.191 mg/kg	0.000119 %	✓	
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		1200 mg/kg	2.976	1964.335 mg/kg	0.196 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<LOD
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		6400 mg/kg	2.774	9764.996 mg/kg	0.976 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		0.014 mg/kg		0.0077 mg/kg	0.00000077 %	✓	
15	toluene	601-021-00-3	203-625-9	108-88-3		0.049 mg/kg		0.027 mg/kg	0.00000269 %	✓	
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.04 mg/kg		0.022 mg/kg	0.0000022 %	✓	
17	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]		0.024 mg/kg		0.0132 mg/kg	0.00000132 %	✓	
18	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
19	pH			PH		8.4 pH		8.4 pH	8.4 pH		
20	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	acenaphthylene		205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	acenaphthene		201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	fluorene		201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				3.9	mg/kg		2.145	mg/kg	0.000215 %	✓	
			205-912-4	206-44-0									
27		pyrene				4.6	mg/kg		2.53	mg/kg	0.000253 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				28	mg/kg		15.4	mg/kg	0.00154 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				56	mg/kg		30.8	mg/kg	0.00308 %	✓	
				P1186									
										Total:	1.619 %		

Key

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

Classification of sample: TP04 1.00m

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

Sample details

Sample Name:	LoW Code:	
TP04 1.00m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.0 m	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
Moisture content:		
51% (wet weight correction)		

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.775%)

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.775%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

benzene: (conc.: 2.5e-07%)
toluene: (conc.: 1.62e-07%)

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

Because of determinand:

xylene: (conc.: 1.03e-07%)

Determinands

Moisture content: 51% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		10 mg/kg	1.32	6.47 mg/kg	0.000647 %	✓	

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		21	mg/kg	3.22	33.133	mg/kg	0.00331 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		16	mg/kg	1.142	8.956	mg/kg	0.000896 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		130	mg/kg	1.462	93.101	mg/kg	0.00931 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		960	mg/kg	1.126	529.618	mg/kg	0.053 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	1000	mg/kg	1.56	764.309	mg/kg	0.049 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		1.7	mg/kg	1.353	1.127	mg/kg	0.000113 %	✓	
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		210	mg/kg	2.976	306.258	mg/kg	0.0306 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.21	mg/kg	1.405	0.145	mg/kg	0.0000145 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		5700	mg/kg	2.774	7748.191	mg/kg	0.775 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		0.0051	mg/kg		0.0025	mg/kg	0.00000025 %	✓	
15	toluene	601-021-00-3	203-625-9	108-88-3		0.0033	mg/kg		0.0016	mg/kg	0.000000162 %	✓	
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
17	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]		0.0021	mg/kg		0.001	mg/kg	0.000000103 %	✓	
18	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				0.7	mg/kg	1.884	0.646	mg/kg	0.0000646 %	✓	
19	pH			PH		8.3	pH		8.3	pH	8.3 pH		
20	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
21	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
22	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
23	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
24	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
25	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
26	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
36		sulfur { sulfur }				70	mg/kg		34.3	mg/kg	0.00343 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				4.8	mg/kg		2.352	mg/kg	0.000235 %	✓	
				P1186									
										Total:	0.927 %		

Key

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

Classification of sample: TP04 1.50m

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

Sample details

Sample Name:
TP04 1.50m
Sample Depth:
1.5 m
Moisture content:
21%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		17 mg/kg	1.32	17.732 mg/kg	0.00177 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		10 mg/kg	3.22	25.437 mg/kg	0.00254 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.53 mg/kg	1.142	0.478 mg/kg	0.0000478 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		46 mg/kg	1.462	53.113 mg/kg	0.00531 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		26 mg/kg	1.126	23.126 mg/kg	0.00231 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	19 mg/kg	1.56	23.413 mg/kg	0.0015 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		33 mg/kg	2.976	77.591 mg/kg	0.00776 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<LOD
	034-002-00-8 / /							
11	zinc { zinc chromate }		140 mg/kg	2.774	306.821 mg/kg	0.0307 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				4.8	mg/kg		3.792	mg/kg	0.000379 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				21	mg/kg		16.59	mg/kg	0.00166 %	✓	
				P1186									
										Total:	0.0554 %		

Key

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

Classification of sample: TP05 0.65m

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

Sample details

Sample Name:	LoW Code:	
TP05 0.65m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.65 m	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
Moisture content:		
44% (wet weight correction)		

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.466%)

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

Hazard Statements hit:

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

Because of determinands:

dicopper oxide; copper (I) oxide: (compound conc.: 0.164%)
zinc chromate: (compound conc.: 0.466%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

benzene: (conc.: 1.12e-06%)
toluene: (conc.: 1.9e-07%)
ethylbenzene: (conc.: 6.16e-07%)

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

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.0241%)
xylene: (conc.: 3.7e-07%)

Determinands

Moisture content: 44% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2.5 mg/kg	1.32	1.848 mg/kg	0.000185 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		94 mg/kg	3.22	169.494 mg/kg	0.0169 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		6.9 mg/kg	1.142	4.414 mg/kg	0.000441 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		54 mg/kg	1.462	44.197 mg/kg	0.00442 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2600 mg/kg	1.126	1639.293 mg/kg	0.164 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	260 mg/kg	1.56	227.109 mg/kg	0.0146 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.51 mg/kg	1.353	0.387 mg/kg	0.0000387 %	✓	
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		91 mg/kg	2.976	151.67 mg/kg	0.0152 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.3 mg/kg	1.405	0.236 mg/kg	0.0000236 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		3000 mg/kg	2.774	4660.566 mg/kg	0.466 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		430 mg/kg		240.8 mg/kg	0.0241 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		0.02 mg/kg		0.0112 mg/kg	0.00000112 %	✓	
15	toluene	601-021-00-3	203-625-9	108-88-3		0.0034 mg/kg		0.0019 mg/kg	0.00000019 %	✓	
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.011 mg/kg		0.0061 mg/kg	0.000000616 %	✓	
17	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]		0.0066 mg/kg		0.0037 mg/kg	0.00000037 %	✓	
18	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
19	pH			PH		8.4 pH		8.4 pH	8.4 pH		
20	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	acenaphthylene		205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	acenaphthene		201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	fluorene		201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	phenanthrene		201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	anthracene		204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-883-8	191-24-2									
36		sulfur { sulfur }				2700	mg/kg		1512	mg/kg	0.151 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				6	mg/kg		3.36	mg/kg	0.000336 %	✓	
				P1186									
										Total:	0.858 %		

Key

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

Classification of sample: TP05 1.60m

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

Sample details

Sample Name:
TP05 1.60m
Sample Depth:
1.6 m
Moisture content:
27%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 27% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		5.8 mg/kg	1.32	5.59 mg/kg	0.000559 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		10 mg/kg	3.22	23.505 mg/kg	0.00235 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.32 mg/kg	1.142	0.267 mg/kg	0.0000267 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		31 mg/kg	1.462	33.075 mg/kg	0.00331 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		34 mg/kg	1.126	27.945 mg/kg	0.00279 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	16 mg/kg	1.56	18.219 mg/kg	0.00117 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		42 mg/kg	2.976	91.252 mg/kg	0.00913 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		0.9 mg/kg	1.405	0.923 mg/kg	0.0000923 %	✓	
	034-002-00-8 / /							
11	zinc { zinc chromate }		170 mg/kg	2.774	344.272 mg/kg	0.0344 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.1	pH		8.1	pH	8.1 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				14	mg/kg		10.22	mg/kg	0.00102 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				1.4	mg/kg		1.022	mg/kg	0.000102 %	✓	
				P1186									
										Total:	0.0563 %		

Key

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

Classification of sample: TP06 0.50m

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

Sample details

Sample Name:
TP06 0.50m
Sample Depth:
0.5 m
Moisture content:
20%
(wet weight correction)

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

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

benzene: (conc.: 2.56e-07%)
toluene: (conc.: 2.08e-07%)

Determinands

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

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		9.7 mg/kg	1.32	10.246 mg/kg	0.00102 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		7.1 mg/kg	3.22	18.289 mg/kg	0.00183 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.28 mg/kg	1.142	0.256 mg/kg	0.0000256 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		38 mg/kg	1.462	44.431 mg/kg	0.00444 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		280 mg/kg	1.126	252.199 mg/kg	0.0252 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	13 mg/kg	1.56	16.222 mg/kg	0.00104 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		43 mg/kg	2.976	102.384 mg/kg	0.0102 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.68 mg/kg	1.405	0.764 mg/kg	0.0000764 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
11		zinc { zinc chromate }				74	mg/kg	2.774	164.229	mg/kg	0.0164 %	✓	
		024-007-00-3	236-878-9	13530-65-9									
12		TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
				TPH									
13		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									
14		benzene				0.0032	mg/kg		0.0025	mg/kg	0.000000256 %	✓	
		601-020-00-8	200-753-7	71-43-2									
15		toluene				0.0026	mg/kg		0.002	mg/kg	0.000000208 %	✓	
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8	pH		8	pH	8pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				7.3	mg/kg		5.84	mg/kg	0.000584 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				0.46	mg/kg		0.368	mg/kg	0.0000368 %	✓	
				P1186									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
								Total:	0.0623 %		

Key

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

Classification of sample: TP06 1.00m

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

Sample details

Sample Name:
TP06 1.00m
Sample Depth:
1.0 m
Moisture content:
40%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.25%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

benzene: (conc.: 4.02e-07%)
toluene: (conc.: 1.08e-06%)
ethylbenzene: (conc.: 5.28e-07%)

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

Because of determinand:

xylene: (conc.: 7.08e-07%)

Determinands

Moisture content: 40% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2 mg/kg	1.32	1.584 mg/kg	0.000158 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		34 mg/kg	3.22	65.686 mg/kg	0.00657 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		2.6 mg/kg	1.142	1.782 mg/kg	0.000178 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		130	mg/kg	1.462	114.001	mg/kg	0.0114 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		290	mg/kg	1.126	195.905	mg/kg	0.0196 %	✓	
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	290	mg/kg	1.56	271.408	mg/kg	0.0174 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		2.2	mg/kg	1.353	1.787	mg/kg	0.000179 %	✓	
9		nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		96	mg/kg	2.976	171.433	mg/kg	0.0171 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2	mg/kg	1.405	<0.281	mg/kg	<0.0000281 %		<**LOD**
11		zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		1500	mg/kg	2.774	2496.732	mg/kg	0.25 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		0.0067	mg/kg		0.004	mg/kg	0.000000402 %	✓	
15		toluene	601-021-00-3	203-625-9	108-88-3		0.018	mg/kg		0.0108	mg/kg	0.00000108 %	✓	
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.0088	mg/kg		0.0052	mg/kg	0.000000528 %	✓	
17		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]		0.0118	mg/kg		0.007	mg/kg	0.000000708 %	✓	
18		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				0.6	mg/kg	1.884	0.678	mg/kg	0.0000678 %	✓	
19		pH			PH		8.7	pH		8.7	pH	8.7 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
24		phenanthrene		201-581-5	85-01-8		8.6	mg/kg		5.16	mg/kg	0.000516 %	✓	
25		anthracene		204-371-1	120-12-7		3.8	mg/kg		2.28	mg/kg	0.000228 %	✓	
26		fluoranthene		205-912-4	206-44-0		4.7	mg/kg		2.82	mg/kg	0.000282 %	✓	
27		pyrene		204-927-3	129-00-0		4.5	mg/kg		2.7	mg/kg	0.00027 %	✓	
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
36		sulfur { sulfur }				160	mg/kg		96	mg/kg	0.0096 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				120	mg/kg		72	mg/kg	0.0072 %	✓	
				P1186									
										Total:	0.342 %		

Key

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

Classification of sample: TP07 0.90m

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

Sample details

Sample Name:	LoW Code:	
TP07 0.90m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.9 m	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
Moisture content:		
64% (wet weight correction)		

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.27%)

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.27%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinands:

benzene: (conc.: 2.23e-06%)
toluene: (conc.: 4.32e-06%)
ethylbenzene: (conc.: 4.68e-07%)

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

Because of determinand:

xylene: (conc.: 5.76e-07%)

Determinands

Moisture content: 64% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		<1	mg/kg	1.32	<1.32	mg/kg	<0.000132 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		17	mg/kg	3.22	19.706	mg/kg	0.00197 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		4.3	mg/kg	1.142	1.768	mg/kg	0.000177 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23	mg/kg	1.462	12.102	mg/kg	0.00121 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		130	mg/kg	1.126	52.692	mg/kg	0.00527 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	170	mg/kg	1.56	95.461	mg/kg	0.00612 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.26	mg/kg	1.353	0.127	mg/kg	0.0000127 %	✓	
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		37	mg/kg	2.976	39.644	mg/kg	0.00396 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2	mg/kg	1.405	<0.281	mg/kg	<0.0000281 %		<LOD
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		2700	mg/kg	2.774	2696.47	mg/kg	0.27 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		0.062	mg/kg		0.0223	mg/kg	0.00000223 %	✓	
15	toluene	601-021-00-3	203-625-9	108-88-3		0.12	mg/kg		0.0432	mg/kg	0.00000432 %	✓	
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.013	mg/kg		0.0046	mg/kg	0.000000468 %	✓	
17	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]		0.016	mg/kg		0.0057	mg/kg	0.000000576 %	✓	
18	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				0.6	mg/kg	1.884	0.407	mg/kg	0.0000407 %	✓	
19	pH			PH		8.1	pH		8.1	pH	8.1 pH		
20	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-883-8	191-24-2									
36		sulfur { sulfur }				120	mg/kg		43.2	mg/kg	0.00432 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				33	mg/kg		11.88	mg/kg	0.00119 %	✓	
				P1186									
										Total:	0.295 %		

Key

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

Appendix A: Classifier defined and non 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)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
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**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
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

- **pH** (CAS Number: PH)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

monohydric phenols (CAS Number: P1186)

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

boron {diboron trioxide; boric oxide}

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

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) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

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

lead {lead chromate}

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

mercury {mercury dichloride}

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

nickel {nickel chromate}

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

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (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)

sulfur {sulfur}

Elemental sulfur most likely to be worst case scenario hazardous

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.77.4714.9046 (18 Mar 2021)
HazWasteOnline Database: 2021.77.4714.9046 (18 Mar 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
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 2019 - UK: 2019 No. 720 of 27th March 2019
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
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report

XP8HU-G4H96-HCXKK

Job name

C3432 - IBA Site, Saxon Works, Peterborough 4 of 6

Description/Comments

Project

C3432 - IBA Site, Saxon Works, Peterborough

Site

IBA Site, Saxon Works, Peterborough

Related Documents

#	Name	Description
1	HWOL_21-03448-20210211 171053.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Howard Daley
Date:
06 Apr 2021 20:45 GMT
Telephone:
01773 535555

Company:
HSP Consulting Engineers Limited
Lawrence House 4 Meadowbank Way
Eastwood
4 Meadowbank Way, Eastwood
Nottingham
NG16 3SB

HazWasteOnline™ Training Record:

Course	Date
Hazardous Waste Classification	11 Feb 2020
Advanced Hazardous Waste Classification	12 Feb 2020

Report

Created by: Howard Daley
Created date: 06 Apr 2021 20:45 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS101 0.60m	0.60	Non Hazardous		2
2	WS103 0.50m	0.50	Non Hazardous		5
3	WS104 0.10m	0.10	Hazardous	HP 3(i), HP 7, HP 11	8
4	WS104 1.10m	1.10	Non Hazardous		11

Classification of sample: WS101 0.60m

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

Sample details

Sample Name:
WS101 0.60m
Sample Depth:
0.60 m
Moisture content:
20%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		13 mg/kg	1.32	13.731 mg/kg	0.00137 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		1.5 mg/kg	3.22	3.864 mg/kg	0.000386 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.3 mg/kg	1.142	0.274 mg/kg	0.0000274 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		19 mg/kg	1.462	22.216 mg/kg	0.00222 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		17 mg/kg	1.126	15.312 mg/kg	0.00153 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	16 mg/kg	1.56	19.966 mg/kg	0.00128 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		18 mg/kg	2.976	42.858 mg/kg	0.00429 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<LOD
	034-002-00-8 / /							
11	zinc { zinc chromate }		30 mg/kg	2.774	66.58 mg/kg	0.00666 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.3	pH		8.3	pH	8.3 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				1.9	mg/kg		1.52	mg/kg	0.000152 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.0193 %		

Key

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

Classification of sample: WS103 0.50m

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

Sample details

Sample Name:
WS103 0.50m
Sample Depth:
0.50 m
Moisture content:
12%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		36 mg/kg	1.32	41.828 mg/kg	0.00418 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		3.8 mg/kg	3.22	10.767 mg/kg	0.00108 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.27 mg/kg	1.142	0.271 mg/kg	0.0000271 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		32 mg/kg	1.462	41.157 mg/kg	0.00412 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		17 mg/kg	1.126	16.843 mg/kg	0.00168 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	20 mg/kg	1.56	27.453 mg/kg	0.00176 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		32 mg/kg	2.976	83.812 mg/kg	0.00838 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<**LOD**
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		81 mg/kg	2.774	197.741 mg/kg	0.0198 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
18		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
19		pH			PH		8.2	pH		8.2	pH	8.2 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
36		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
37		monohydric phenols			P1186		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
											Total:	0.0425 %		

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

Classification of sample: WS104 0.10m

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

Sample details

Sample Name:
WS104 0.10m
Sample Depth:
0.10 m
Moisture content:
18%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.23%)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.23%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.23%)

Determinands

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

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		20 mg/kg	1.32	21.653 mg/kg	0.00217 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		2.7 mg/kg	3.22	7.129 mg/kg	0.000713 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3	mg/kg	1.142	0.281	mg/kg	0.0000281 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		24	mg/kg	1.462	28.763	mg/kg	0.00288 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		27	mg/kg	1.126	24.927	mg/kg	0.00249 %	✓	
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	20	mg/kg	1.56	25.581	mg/kg	0.00164 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<**LOD**
9		nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		29	mg/kg	2.976	70.776	mg/kg	0.00708 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2	mg/kg	1.405	<0.281	mg/kg	<0.0000281 %		<**LOD**
11		zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		52	mg/kg	2.774	118.29	mg/kg	0.0118 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		2800	mg/kg		2296	mg/kg	0.23 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<**LOD**
18		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**
19		pH			PH		8.2	pH		8.2	pH	8.2 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		1.5	mg/kg		1.23	mg/kg	0.000123 %	✓	
21		acenaphthylene		205-917-1	208-96-8		0.22	mg/kg		0.18	mg/kg	0.000018 %	✓	
22		acenaphthene		201-469-6	83-32-9		0.76	mg/kg		0.623	mg/kg	0.0000623 %	✓	
23		fluorene		201-695-5	86-73-7		0.76	mg/kg		0.623	mg/kg	0.0000623 %	✓	
24		phenanthrene		201-581-5	85-01-8		4.6	mg/kg		3.772	mg/kg	0.000377 %	✓	
25		anthracene		204-371-1	120-12-7		1.4	mg/kg		1.148	mg/kg	0.000115 %	✓	
26		fluoranthene		205-912-4	206-44-0		5.1	mg/kg		4.182	mg/kg	0.000418 %	✓	
27		pyrene		204-927-3	129-00-0		4.8	mg/kg		3.936	mg/kg	0.000394 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
28		benzo[a]anthracene				1.7	mg/kg		1.394	mg/kg	0.000139 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				1.6	mg/kg		1.312	mg/kg	0.000131 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				2.4	mg/kg		1.968	mg/kg	0.000197 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				1.3	mg/kg		1.066	mg/kg	0.000107 %	✓	
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				1.7	mg/kg		1.394	mg/kg	0.000139 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33	●	indeno[123-cd]pyrene				1.1	mg/kg		0.902	mg/kg	0.0000902 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				0.38	mg/kg		0.312	mg/kg	0.0000312 %	✓	
		601-041-00-2	200-181-8	53-70-3									
35	●	benzo[ghi]perylene				1.3	mg/kg		1.066	mg/kg	0.000107 %	✓	
			205-883-8	191-24-2									
36		sulfur { sulfur }				7.3	mg/kg		5.986	mg/kg	0.000599 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37	●	monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
				P1186									
										Total:	0.262 %		

Key

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

Classification of sample: WS104 1.10m

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

Sample details

Sample Name:
WS104 1.10m
Sample Depth:
1.10 m
Moisture content:
21%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.7 mg/kg	1.32	9.075 mg/kg	0.000907 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		10 mg/kg	3.22	25.437 mg/kg	0.00254 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.13 mg/kg	1.142	0.117 mg/kg	0.0000117 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		24 mg/kg	1.462	27.711 mg/kg	0.00277 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	13.342 mg/kg	0.00133 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	8.5 mg/kg	1.56	10.474 mg/kg	0.000672 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		37 mg/kg	2.976	86.996 mg/kg	0.0087 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.43 mg/kg	1.405	0.477 mg/kg	0.0000477 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		47 mg/kg	2.774	103.004 mg/kg	0.0103 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
18		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
19		pH			PH		8	pH		8	pH	8pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
36		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		2.9	mg/kg		2.291	mg/kg	0.000229 %	✓	
37		monohydric phenols			P1186		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
											Total:	0.0289 %		

Key

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

Appendix A: Classifier defined and non 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)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
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**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
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

- **pH** (CAS Number: PH)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

boron {diboron trioxide; boric oxide}

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

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) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

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

lead {lead chromate}

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

mercury {mercury dichloride}

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

nickel {nickel chromate}

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

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (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)

sulfur {sulfur}

Elemental sulfur most likely to be worst case scenario hazardous

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.77.4714.9046 (18 Mar 2021)
HazWasteOnline Database: 2021.77.4714.9046 (18 Mar 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
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 2019 - UK: 2019 No. 720 of 27th March 2019
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
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

HazWasteOnline™

Waste Classification Report

W4ZRE-XET6M-J2VUL

Job name

C3432 - IBA Site, Saxon Works, Peterborough 5 of 6[2]

Description/Comments

Project

C3432 - IBA Site, Saxon Works, Peterborough

Site

IBA Site, Saxon Works, Peterborough

Related Documents

#	Name	Description
1	HWOL_21-03876-20210216 135241.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Howard Daley
Date:
06 Apr 2021 20:52 GMT
Telephone:
01773 535555

Company:
HSP Consulting Engineers Limited
Lawrence House 4 Meadowbank Way
Eastwood
4 Meadowbank Way, Eastwood
Nottingham
NG16 3SB

HazWasteOnline™ Training Record:

Course	Date
Hazardous Waste Classification	11 Feb 2020
Advanced Hazardous Waste Classification	12 Feb 2020

Report

Created by: Howard Daley
Created date: 06 Apr 2021 20:52 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS105 0.15m	0.15	Non Hazardous		2
2	WS105 1.00m	1.0	Non Hazardous		5
3	WS106 0.20m	0.2	Non Hazardous		8
4	WS106 0.85m	0.85	Non Hazardous		11

Classification of sample: WS105 0.15m

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

Sample details

Sample Name:
WS105 0.15m
Sample Depth:
0.15 m
Moisture content:
17%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		17 mg/kg	1.32	18.63 mg/kg	0.00186 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		1.4 mg/kg	3.22	3.741 mg/kg	0.000374 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.23 mg/kg	1.142	0.218 mg/kg	0.0000218 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		30 mg/kg	1.462	36.393 mg/kg	0.00364 %	✓	
	215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		21 mg/kg	1.126	19.624 mg/kg	0.00196 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	19 mg/kg	1.56	24.598 mg/kg	0.00158 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		23 mg/kg	2.976	56.817 mg/kg	0.00568 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<**LOD**
	034-002-00-8							
11	zinc { zinc chromate }		48 mg/kg	2.774	110.522 mg/kg	0.0111 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
	TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.5	pH		8.5	pH	8.5 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				24	mg/kg		19.92	mg/kg	0.00199 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.0296 %		

Key

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

Classification of sample: WS105 1.00m

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

Sample details

Sample Name:
WS105 1.00m
Sample Depth:
1.0 m
Moisture content:
22%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 22% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		11 mg/kg	1.32	11.328 mg/kg	0.00113 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		8.7 mg/kg	3.22	21.85 mg/kg	0.00219 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.15 mg/kg	1.142	0.134 mg/kg	0.0000134 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		33 mg/kg	1.462	37.62 mg/kg	0.00376 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23 mg/kg	1.126	20.198 mg/kg	0.00202 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	11 mg/kg	1.56	13.383 mg/kg	0.000858 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		37 mg/kg	2.976	85.895 mg/kg	0.00859 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.48 mg/kg	1.405	0.526 mg/kg	0.0000526 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		58 mg/kg	2.774	125.502 mg/kg	0.0126 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		63 mg/kg		49.14 mg/kg	0.00491 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<**LOD**
18		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**
19		pH			PH		8.1	pH		8.1	pH	8.1 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
36		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		1.3	mg/kg		1.014	mg/kg	0.000101 %	✓	
37		monohydric phenols			P1186		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
											Total:	0.0366 %		

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because No Free Phase Identified

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00491%)

Classification of sample: WS106 0.20m

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

Sample details

Sample Name:
WS106 0.20m
Sample Depth:
0.2 m
Moisture content:
17%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		21 mg/kg	1.32	23.013 mg/kg	0.0023 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		2.5 mg/kg	3.22	6.681 mg/kg	0.000668 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		0.26 mg/kg	1.142	0.247 mg/kg	0.0000247 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		26 mg/kg	1.462	31.54 mg/kg	0.00315 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		35 mg/kg	1.126	32.707 mg/kg	0.00327 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	20 mg/kg	1.56	25.893 mg/kg	0.00166 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		28 mg/kg	2.976	69.168 mg/kg	0.00692 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<LOD
	034-002-00-8 / /							
11	zinc { zinc chromate }		56 mg/kg	2.774	128.942 mg/kg	0.0129 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				2.3	mg/kg		1.909	mg/kg	0.000191 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.0325 %		

Key

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

Classification of sample: WS106 0.85m

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

Sample details

Sample Name:
WS106 0.85m
Sample Depth:
0.85 m
Moisture content:
19%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		21 mg/kg	1.32	22.459 mg/kg	0.00225 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		3.7 mg/kg	3.22	9.65 mg/kg	0.000965 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.66 mg/kg	1.142	0.611 mg/kg	0.0000611 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		38 mg/kg	1.462	44.987 mg/kg	0.0045 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		29 mg/kg	1.126	26.447 mg/kg	0.00264 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	25 mg/kg	1.56	31.586 mg/kg	0.00202 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		40 mg/kg	2.976	96.431 mg/kg	0.00964 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<**LOD**
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		89 mg/kg	2.774	199.988 mg/kg	0.02 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<**LOD**
18		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**
19		pH			PH		8.2	pH		8.2	pH	8.2 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
36		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		10	mg/kg		8.1	mg/kg	0.00081 %	✓	
37		monohydric phenols			P1186		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
											Total:	0.0443 %		

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

Appendix A: Classifier defined and non 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)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
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**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
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

- **pH** (CAS Number: PH)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

boron {diboron trioxide; boric oxide}

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

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) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

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

lead {lead chromate}

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

mercury {mercury dichloride}

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

nickel {nickel chromate}

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

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (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)

sulfur {sulfur}

Elemental sulfur most likely to be worst case scenario hazardous

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.77.4714.9046 (18 Mar 2021)
HazWasteOnline Database: 2021.77.4714.9046 (18 Mar 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
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 2019 - UK: 2019 No. 720 of 27th March 2019
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
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report

ZDFSS-UTRF5-QGAFC

Job name

C3432 - IBA Site, Saxon Works, Peterborough 6 of 6

Description/Comments

Project

C3432 - IBA Site, Saxon Works, Peterborough

Site

IBA Site, Saxon Works, Peterborough

Related Documents

#	Name	Description
1	HWOL_21-04916-20210224 162827.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Howard Daley
Date:
06 Apr 2021 20:54 GMT
Telephone:
01773 535555

Company:
HSP Consulting Engineers Limited
Lawrence House 4 Meadowbank Way
Eastwood
4 Meadowbank Way, Eastwood
Nottingham
NG16 3SB

HazWasteOnline™ Training Record:

Course	Date
Hazardous Waste Classification	11 Feb 2020
Advanced Hazardous Waste Classification	12 Feb 2020

Report

Created by: Howard Daley
Created date: 06 Apr 2021 20:54 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	HDP1 0.20m	0.20	Non Hazardous		2
2	HDP2 0.10m	0.10	Hazardous	HP 7	5
3	HDP3 0.10m	0.10	Non Hazardous		8

Classification of sample: HDP1 0.20m

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

Sample details

Sample Name:
HDP1 0.20m
Sample Depth:
0.20 m
Moisture content:
11%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 11% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic trioxide }		32 mg/kg	1.32	37.603 mg/kg	0.00376 %	✓	
	033-003-00-0 / 215-481-4 / 1327-53-3							
2	boron { diboron trioxide; boric oxide }		1.4 mg/kg	3.22	4.012 mg/kg	0.000401 %	✓	
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		2.8 mg/kg	1.142	2.847 mg/kg	0.000285 %	✓	
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		39 mg/kg	1.462	50.731 mg/kg	0.00507 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		140 mg/kg	1.126	140.286 mg/kg	0.014 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead chromate }	1	100 mg/kg	1.56	138.824 mg/kg	0.0089 %	✓	
	082-004-00-2 / 231-846-0 / 7758-97-6							
8	mercury { mercury dichloride }		0.16 mg/kg	1.353	0.193 mg/kg	0.0000193 %	✓	
	080-010-00-X / 231-299-8 / 7487-94-7							
9	nickel { nickel chromate }		54 mg/kg	2.976	143.039 mg/kg	0.0143 %	✓	
	028-035-00-7 / 238-766-5 / 14721-18-7							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		<LOD
	034-002-00-8 / /							
11	zinc { zinc chromate }		190 mg/kg	2.774	469.108 mg/kg	0.0469 %	✓	
	024-007-00-3 / 236-878-9 / 13530-65-9							
12	TPH (C6 to C40) petroleum group		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	/ / TPH							
13	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							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				9.1	pH		9.1	pH	9.1 pH		
				PH									
20		naphthalene				0.34	mg/kg		0.303	mg/kg	0.0000303 %	✓	
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				0.17	mg/kg		0.151	mg/kg	0.0000151 %	✓	
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				0.21	mg/kg		0.187	mg/kg	0.0000187 %	✓	
			204-371-1	120-12-7									
26		fluoranthene				1.5	mg/kg		1.335	mg/kg	0.000133 %	✓	
			205-912-4	206-44-0									
27		pyrene				1.6	mg/kg		1.424	mg/kg	0.000142 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				1	mg/kg		0.89	mg/kg	0.000089 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.97	mg/kg		0.863	mg/kg	0.0000863 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.86	mg/kg		0.765	mg/kg	0.0000765 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				0.27	mg/kg		0.24	mg/kg	0.000024 %	✓	
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				1.1	mg/kg		0.979	mg/kg	0.0000979 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.86	mg/kg		0.765	mg/kg	0.0000765 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				0.32	mg/kg		0.285	mg/kg	0.0000285 %	✓	
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				1.1	mg/kg		0.979	mg/kg	0.0000979 %	✓	
			205-883-8	191-24-2									
36		sulfur { sulfur }				15	mg/kg		13.35	mg/kg	0.00134 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.0972 %		

Key

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

Classification of sample: HDP2 0.10m

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

Sample details

Sample Name:
HDP2 0.10m
Sample Depth:
0.10 m
Moisture content:
25%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.166%)

Determinands

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

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		18 mg/kg	1.32	17.824 mg/kg	0.00178 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		4 mg/kg	3.22	9.66 mg/kg	0.000966 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		2.5 mg/kg	1.142	2.142 mg/kg	0.000214 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		60 mg/kg	1.462	65.77 mg/kg	0.00658 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		**<LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		510 mg/kg	1.126	430.652 mg/kg	0.0431 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	130 mg/kg	1.56	152.082 mg/kg	0.00975 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.12 mg/kg	1.353	0.122 mg/kg	0.0000122 %	✓	
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		62 mg/kg	2.976	138.396 mg/kg	0.0138 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2 mg/kg	1.405	<0.281 mg/kg	<0.0000281 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
11		zinc { zinc chromate }				800	mg/kg	2.774	1664.488	mg/kg	0.166 %	✓	
		024-007-00-3	236-878-9	13530-65-9									
12		TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
				TPH									
13		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									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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	0.706	mg/kg	0.0000706 %	✓	
		006-007-00-5											
19		pH				8	pH		8	pH	8pH		
				PH									
20		naphthalene				0.7	mg/kg		0.525	mg/kg	0.0000525 %	✓	
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				0.18	mg/kg		0.135	mg/kg	0.0000135 %	✓	
			205-917-1	208-96-8									
22		acenaphthene				0.1	mg/kg		0.075	mg/kg	0.0000075 %	✓	
			201-469-6	83-32-9									
23		fluorene				0.38	mg/kg		0.285	mg/kg	0.0000285 %	✓	
			201-695-5	86-73-7									
24		phenanthrene				1.8	mg/kg		1.35	mg/kg	0.000135 %	✓	
			201-581-5	85-01-8									
25		anthracene				0.42	mg/kg		0.315	mg/kg	0.0000315 %	✓	
			204-371-1	120-12-7									
26		fluoranthene				1.8	mg/kg		1.35	mg/kg	0.000135 %	✓	
			205-912-4	206-44-0									
27		pyrene				1.6	mg/kg		1.2	mg/kg	0.00012 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				1	mg/kg		0.75	mg/kg	0.000075 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.87	mg/kg		0.653	mg/kg	0.0000653 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				19	mg/kg		14.25	mg/kg	0.00143 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
								Total:	0.246 %		

Key

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

Classification of sample: HDP3 0.10m

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

Sample details

Sample Name:
HDP3 0.10m
Sample Depth:
0.10 m
Moisture content:
18%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		31 mg/kg	1.32	33.563 mg/kg	0.00336 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		3.2 mg/kg	3.22	8.449 mg/kg	0.000845 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		2.2 mg/kg	1.142	2.061 mg/kg	0.000206 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		40 mg/kg	1.462	47.939 mg/kg	0.00479 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		77 mg/kg	1.126	71.089 mg/kg	0.00711 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	86 mg/kg	1.56	109.998 mg/kg	0.00705 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		35 mg/kg	2.976	85.419 mg/kg	0.00854 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				2.3 mg/kg	1.405	2.65 mg/kg	0.000265 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		190 mg/kg	2.774	432.212 mg/kg	0.0432 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
14		benzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8	pH		8	pH	8pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		sulfur { sulfur }				3.1	mg/kg		2.542	mg/kg	0.000254 %	✓	
		016-094-00-1	231-722-6	7704-34-9									
37		monohydric phenols				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
				P1186									
										Total:	0.077 %		

Key

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

Appendix A: Classifier defined and non 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)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
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

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
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

pH (CAS Number: PH)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

boron {diboron trioxide; boric oxide}

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

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) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

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

lead {lead chromate}

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

mercury {mercury dichloride}

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

nickel {nickel chromate}

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

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (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)

sulfur {sulfur}

Elemental sulfur most likely to be worst case scenario hazardous

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.77.4714.9046 (18 Mar 2021)
HazWasteOnline Database: 2021.77.4714.9046 (18 Mar 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
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 2019 - UK: 2019 No. 720 of 27th March 2019
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
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

HazWasteOnline™

Waste Classification Report

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

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

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

F43AI-IXOXE-AYY7O

Job name

C3424 Johnson Aggregates, Peterborough - 2022

Description/Comments

Project

C3424 Johnson Aggregates, Peterborough

Site

Johnson Aggregates, Peterborough

Classified by

Name:
Howard Daley
Date:
18 Feb 2022 10:18 GMT
Telephone:
01773 535555

Company:
HSP Consulting Engineers Limited
Lawrence House
4 Meadowbank Way
Nottingham
NG16 3SB

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

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	12 Feb 2020

Next 3 year Refresher due by Feb 2023

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS201 0.30m	0.3-0.3	Hazardous	HP 3(i), HP 7, HP 11	2
2	WS201 0.80m	0.8-0.8	Non Hazardous		5
3	WS202 0.10m		Hazardous	HP 7	7
4	WS202 0.40m	0.4-0.4	Non Hazardous		10
5	WS203 0.50m	0.5-0.5	Non Hazardous		12
6	WS203 0.90m	0.9-0.9	Non Hazardous		14
7	WS204 0.30m	0.3-0.3	Non Hazardous		16

Related documents

#	Name	Description
1	HWOL_21-43816-20211217 161433.hwol	.hwol file used to create the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Howard Daley

Created date: 18 Feb 2022 10:18 GMT

Classification of sample: WS201 0.30m

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

Sample details

Sample name:
WS201 0.30m
Sample Depth:
0.3-0.3 m
Moisture content:
23%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.277%)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.277%)

Hazard properties (substances considered hazardous until shown otherwise)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.277%)

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		11 mg/kg	1.32	11.183 mg/kg	0.00112 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		7.1 mg/kg	3.22	17.603 mg/kg	0.00176 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.24 mg/kg	1.142	0.211 mg/kg	0.0000211 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		41	mg/kg	1.462	46.141	mg/kg	0.00461 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		41	mg/kg	1.126	35.544	mg/kg	0.00355 %	✓	
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	18	mg/kg	1.56	21.619	mg/kg	0.00139 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
9		nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		37	mg/kg	2.976	84.794	mg/kg	0.00848 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2	mg/kg	1.405	<0.281	mg/kg	<0.0000281 %		<LOD
11		zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		63	mg/kg	2.774	134.574	mg/kg	0.0135 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		3600	mg/kg		2772	mg/kg	0.277 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		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]		<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
18		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
19		pH			PH		7.9	pH		7.9	pH	7.9 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
36		monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
				P1186									
										Total:	0.312 %		

Key

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

Classification of sample: WS201 0.80m

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

Sample details

Sample name:
WS201 0.80m
Sample Depth:
0.8-0.8 m
Moisture content:
24%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 24% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.4 mg/kg	1.32	6.422 mg/kg	0.000642 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		5.6 mg/kg	3.22	13.704 mg/kg	0.00137 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.21 mg/kg	1.142	0.182 mg/kg	0.0000182 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		31 mg/kg	1.462	34.434 mg/kg	0.00344 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23 mg/kg	1.126	19.681 mg/kg	0.00197 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	13 mg/kg	1.56	15.411 mg/kg	0.000988 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		34 mg/kg	2.976	76.907 mg/kg	0.00769 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				1.1 mg/kg	1.405	1.175 mg/kg	0.000117 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		60 mg/kg	2.774	126.501 mg/kg	0.0127 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.1	pH		8.1	pH	8.1 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				0.51	mg/kg		0.388	mg/kg	0.0000388 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.5	mg/kg		0.38	mg/kg	0.000038 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.93	mg/kg		0.707	mg/kg	0.0000707 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.64	mg/kg		0.486	mg/kg	0.0000486 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
				P1186									
										Total:	0.0304 %		

Key

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

Classification of sample: WS202 0.10m

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

Sample details

Sample name:
WS202 0.10m
Moisture content:
23%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc chromate: (compound conc.: 0.128%)

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		14 mg/kg	1.32	14.233 mg/kg	0.00142 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		12 mg/kg	3.22	29.752 mg/kg	0.00298 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.4 mg/kg	1.142	1.231 mg/kg	0.000123 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		<3 mg/kg	1.462	<4.385 mg/kg	<0.000438 %		<LOD
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		100 mg/kg	1.126	86.693 mg/kg	0.00867 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	34 mg/kg	1.56	40.836 mg/kg	0.00262 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		43 mg/kg	2.976	98.544 mg/kg	0.00985 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.69 mg/kg	1.405	0.746 mg/kg	0.0000746 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		600 mg/kg	2.774	1281.656 mg/kg	0.128 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17		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]		<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
18		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				3.5	mg/kg	1.884	5.077	mg/kg	0.000508 %	✓	
19		pH			PH		8.2	pH		8.2	pH	8.2 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		fluoranthene		205-912-4	206-44-0		0.23	mg/kg		0.177	mg/kg	0.0000177 %	✓	
27		pyrene		204-927-3	129-00-0		0.24	mg/kg		0.185	mg/kg	0.0000185 %	✓	
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
36		monohydric phenols			P1186		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
											Total:	0.156 %		

Key

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

Classification of sample: WS202 0.40m

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

Sample details

Sample name:
WS202 0.40m
Sample Depth:
0.4-0.4 m
Moisture content:
21%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4.4 mg/kg	1.32	4.589 mg/kg	0.000459 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		7.2 mg/kg	3.22	18.315 mg/kg	0.00183 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.451 mg/kg	0.0000451 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		34 mg/kg	1.462	39.257 mg/kg	0.00393 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		22 mg/kg	1.126	19.568 mg/kg	0.00196 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	9.9 mg/kg	1.56	12.199 mg/kg	0.000782 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		34 mg/kg	2.976	79.942 mg/kg	0.00799 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.96 mg/kg	1.405	1.066 mg/kg	0.000107 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		82 mg/kg	2.774	179.709 mg/kg	0.018 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				7.9	pH		7.9	pH	7.9 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
36		monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
				P1186									
										Total:	0.0364 %		

Key

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

Classification of sample: WS203 0.50m

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

Sample details

Sample name:
WS203 0.50m
Sample Depth:
0.5-0.5 m
Moisture content:
25%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.3 mg/kg	1.32	8.219 mg/kg	0.000822 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		11 mg/kg	3.22	26.564 mg/kg	0.00266 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.22 mg/kg	1.142	0.188 mg/kg	0.0000188 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		36 mg/kg	1.462	39.462 mg/kg	0.00395 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		55 mg/kg	1.126	46.443 mg/kg	0.00464 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	15 mg/kg	1.56	17.548 mg/kg	0.00112 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		34 mg/kg	2.976	75.895 mg/kg	0.00759 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.61 mg/kg	1.405	0.643 mg/kg	0.0000643 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		58 mg/kg	2.774	120.675 mg/kg	0.0121 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8	pH		8	pH	8pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
				P1186									
										Total:	0.0343 %		

Key

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

Classification of sample: WS203 0.90m

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

Sample details

Sample name:
WS203 0.90m
Sample Depth:
0.9-0.9 m
Moisture content:
20%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		15 mg/kg	1.32	15.844 mg/kg	0.00158 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		16 mg/kg	3.22	41.214 mg/kg	0.00412 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.32 mg/kg	1.142	0.292 mg/kg	0.0000292 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		39 mg/kg	1.462	45.601 mg/kg	0.00456 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		30 mg/kg	1.126	27.021 mg/kg	0.0027 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	12 mg/kg	1.56	14.974 mg/kg	0.00096 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		42 mg/kg	2.976	100.002 mg/kg	0.01 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				1.6 mg/kg	1.405	1.798 mg/kg	0.00018 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		49 mg/kg	2.774	108.747 mg/kg	0.0109 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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 }				0.6	mg/kg	1.884	0.904	mg/kg	0.0000904 %	✓	
		006-007-00-5											
19		pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				0.17	mg/kg		0.136	mg/kg	0.0000136 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.19	mg/kg		0.152	mg/kg	0.0000152 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
				P1186									
										Total:	0.0364 %		

Key

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

Classification of sample: WS204 0.30m

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

Sample details

Sample name:
WS204 0.30m
Sample Depth:
0.3-0.3 m
Moisture content:
19%
(wet weight correction)

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

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4 mg/kg	1.32	4.278 mg/kg	0.000428 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		8.4 mg/kg	3.22	21.908 mg/kg	0.00219 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.12 mg/kg	1.142	0.111 mg/kg	0.0000111 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		35 mg/kg	1.462	41.435 mg/kg	0.00414 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		20 mg/kg	1.126	18.239 mg/kg	0.00182 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	9 mg/kg	1.56	11.371 mg/kg	0.000729 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		32 mg/kg	2.976	77.145 mg/kg	0.00771 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.66 mg/kg	1.405	0.751 mg/kg	0.0000751 %	✓	
11	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		46 mg/kg	2.774	103.365 mg/kg	0.0103 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		ethylbenzene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		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											
19		pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
20		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
36		monohydric phenols				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
				P1186									
										Total:	0.0288 %		

Key

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

Appendix A: Classifier defined and non GB MCL determinands

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

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

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

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

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

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

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

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

- **pH** (CAS Number: PH)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

boron {diboron trioxide; boric oxide}

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

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) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

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

lead {lead chromate}

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

mercury {mercury dichloride}

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

nickel {nickel chromate}

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

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (edit as required)

zinc {zinc chromate}

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

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

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

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2022.25.4995.9469 (25 Jan 2022)
HazWasteOnline Database: 2022.25.4995.9469 (25 Jan 2022)

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

Appendix VIII

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS06

		Detection Limit								
		<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm)	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	0.0	<0.1	<0.1	20.6	<0.1	<1	<1		2.04	0.85
00:15	0.0	<0.1	<0.1	19.1	0.3	<1	<1			
00:30	0.0	<0.1	<0.1	18.8	0.3	<1	<1			
00:45	0.0	<0.1	<0.1	19.2	0.2	<1	<1			
01:00	0.0	<0.1	<0.1	19.4	0.2	<1	<1			
01:15	0.0	<0.1	<0.1	19.5	0.2	<1	<1			
01:30	0.0	<0.1	<0.1	19.6	0.2	<1	3			
01:45	0.0	<0.1	<0.1	19.6	0.2	1	3			
02:00	0.0	<0.1	<0.1	20.0	0.1	<1	3			
02:15	0.0	<0.1	<0.1	19.8	0.1	<1	<1			
02:30	0.0	<0.1	<0.1	19.9	0.1	1	<1			
02:45	0.0	<0.1	<0.1	20.0	0.1	<1	<1			
03:00	0.0	<0.1	<0.1	20.1	0.1	<1	<1			
03:15		<0.1	<0.1	20.1	0.1	<1	<1			
03:30		<0.1	<0.1	20.1	0.1	<1	<1			
03:45		<0.1	<0.1	20.2	0.1	<1	<1			
04:00		<0.1	<0.1	20.2	0.1	<1	<1			
04:15		<0.1	<0.1	20.2	0.1	<1	<1			
04:30		<0.1	<0.1	20.3	0.1	<1	<1			
04:45		<0.1	<0.1	19.7	0.1	<1	<1			
05:00		<0.1	<0.1	19.8	0.1	<1	<1			
Steady	**0.0**	**<0.1**	**<0.1**	**19.8**	**0.1**	**<1**	**<1**	**#####**	**2.04**	**0.85**
Peak	**0.0**	**0.0**	**0.0**	**20.6**	**0.3**	**1.0**	**3.0**	**0.0**	**2.04**	**0.85**

Date	Notes:			1022
04.01.2021	Engineer	DRS	Barometric Pressure, mbar	
			Pressure Trend	Steady
	Equipment	GFM430	Air Temp (˚C)	5

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS08

		Detection Limit								
		<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm)	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	0.0	<0.1	<0.1	20.7	<0.1	<1	<1		3.00	0.70
00:15	0.0	<0.1	<0.1	20.1	0.9	<1	<1			
00:30	0.0	<0.1	<0.1	19.9	0.9	<1	3			
00:45	0.0	<0.1	<0.1	19.9	0.8	<1	<1			
01:00	0.0	<0.1	<0.1	19.9	0.7	<1	<1			
01:15	0.0	<0.1	<0.1	20.1	0.7	<1	<1			
01:30	0.0	<0.1	<0.1	20.2	0.6	<1	<1			
01:45	0.0	<0.1	<0.1	20.2	0.6	<1	<1			
02:00	0.0	<0.1	<0.1	20.3	0.5	<1	<1			
02:15	0.0	<0.1	<0.1	20.4	0.4	<1	<1			
02:30	0.0	<0.1	<0.1	20.4	0.4	<1	<1			
02:45	0.0	<0.1	<0.1	20.2	0.5	<1	<1			
03:00	0.0	<0.1	<0.1	20.3	0.5	<1	<1			
03:15		<0.1	<0.1	20.3	0.4	<1	<1			
03:30		<0.1	<0.1	20.2	0.6	<1	<1			
03:45		<0.1	<0.1	20.2	0.5	<1	<1			
04:00		<0.1	<0.1	20.3	0.4	<1	<1			
04:15		<0.1	<0.1	20.5	0.3	2	<1			
04:30		<0.1	<0.1	20.5	0.2	<1	<1			
04:45		<0.1	<0.1	20.5	0.3	2	<1			
05:00		<0.1	<0.1	20.5	0.3	<1	<1			
Steady	**0.0**	**<0.1**	**<0.1**	**20.5**	**0.3**	**<1**	**<1**	#####	**3.00**	**0.70**
Peak	**0.0**	**0.0**	**0.0**	**20.7**	**0.9**	**2.0**	**3.0**	**0.0**	**3.00**	**0.70**

Date	Notes:			
04.01.2021	Engineer	DRS	Barometric Pressure, mbar	1022
			Pressure Trend	Steady
	Equipment	GFM430	Air Temp (˚C)	5

Gas Monitoring Certificate

hsp consulting

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS14

		Detection Limit								
		<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	0.0	<0.1	<0.1	20.6	<0.1	<1	<1		2.65	0.94
00:15	0.0	<0.1	<0.1	20.9	<0.1	<1	<1			
00:30	0.0	<0.1	<0.1	20.8	<0.1	<1	<1			
00:45	0.0	<0.1	<0.1	20.7	<0.1	<1	<1			
01:00	0.0	<0.1	<0.1	20.8	<0.1	<1	3			
01:15	0.0	<0.1	<0.1	20.8	<0.1	<1	<1			
01:30	0.0	<0.1	<0.1	20.8	<0.1	<1	<1			
01:45	0.0	<0.1	<0.1	20.7	<0.1	<1	<1			
02:00	0.0	<0.1	<0.1	20.7	<0.1	<1	3			
02:15	0.0	<0.1	<0.1	20.7	<0.1	<1	<1			
02:30	0.0	<0.1	<0.1	20.7	<0.1	<1	<1			
02:45	0.0	<0.1	<0.1	20.7	<0.1	<1	<1			
03:00	0.0	<0.1	<0.1	20.7	<0.1	<1	<1			
03:15										
03:30										
03:45										
04:00										
04:15										
04:30										
04:45										
05:00										
Steady	**0.0**	**<0.1**	**<0.1**	**20.7**	**<0.1**	**<1**	**<1**	**#####**	**2.65**	**0.94**
Peak	**0.0**	**0.0**	**0.0**	**20.9**	**0.0**	**0.0**	**3.0**	**0.0**	**2.65**	**0.94**

Date	Notes:			
04.01.2021	Engineer	DRS	Barometric Pressure, mbar	1022
			Pressure Trend	Steady
	Equipment	GFM430	Air Temp (˚C)	5

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS06

		Detection Limit								
		<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm)	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	0.0	<0.1	<0.1	20.4	<0.1	<1	<1		2.04	0.88
00:15	0.0	<0.1	<0.1	19.8	1.5	<1	<1			
00:30	0.0	<0.1	<0.1	19.6	1.5	<1	<1			
00:45	-0.7	<0.1	<0.1	19.4	1.7	<1	<1			
01:00	0.0	<0.1	<0.1	19.6	1.4	<1	<1			
01:15	0.9	<0.1	<0.1	19.6	1.3	<1	<1			
01:30	-0.7	<0.1	<0.1	19.7	1.1	<1	<1			
01:45	1.7	<0.1	<0.1	19.8	1.1	<1	<1			
02:00	-0.7	<0.1	<0.1	19.9	0.9	<1	<1			
02:15	0.9	<0.1	<0.1	20.0	0.9	<1	<1			
02:30	0.9	<0.1	<0.1	20.1	0.8	<1	<1			
02:45	0.0	<0.1	<0.1	20.1	0.8	<1	<1			
03:00	0.0	<0.1	<0.1	20.2	0.7	<1	<1			
03:15	-0.7	<0.1	<0.1	20.2	0.6	<1	<1			
03:30	0.0	<0.1	<0.1	20.4	0.6	<1	<1			
03:45	0.0	<0.1	<0.1	20.4	0.5	<1	<1			
04:00	0.0	<0.1	<0.1	20.5	0.5	<1	<1			
04:15	1.7	<0.1	<0.1	20.5	0.5	<1	<1			
04:30	0.0	<0.1	<0.1	20.5	0.4	<1	<1			
04:45	0.0	<0.1	<0.1	20.5	0.4	<1	<1			
05:00	-0.7	<0.1	<0.1	20.6	0.3	<1	<1			
Steady	**-0.7**	**<0.1**	**<0.1**	**20.6**	**0.3**	**<1**	**<1**	#####	**2.04**	**0.88**
Peak	**1.7**	**0.0**	**0.0**	**20.6**	**1.7**	**0.0**	**0.0**	**0.0**	**2.04**	**0.88**

Date	Notes:			
11.01.2021	Engineer	DRS	Barometric Pressure, mbar	1015
			Pressure Trend	Falling
	Equipment	GFM430	Air Temp (˚C)	7

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS08

	Detection Limit								
	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm)	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	-6.4	<0.1	<0.1	20.7	<0.1	<1	<1		3.02	0.74
00:15	-2.5	<0.1	<0.1	18.5	4.4	<1	<1			
00:30	-2.5	<0.1	<0.1	17.8	4.5	<1	<1			
00:45	-1.7	<0.1	<0.1	17.8	4.4	<1	<1			
01:00	-1.7	<0.1	<0.1	17.9	4.1	<1	<1			
01:15	-1.7	<0.1	<0.1	18.1	3.9	<1	3			
01:30	-1.7	<0.1	<0.1	18.2	3.7	<1	<1			
01:45	-2.5	<0.1	<0.1	18.5	3.2	<1	<1			
02:00	-0.8	<0.1	<0.1	18.6	3.2	1	4			
02:15	-1.7	<0.1	<0.1	18.7	2.9	<1	<1			
02:30	-2.5	<0.1	<0.1	18.8	2.6	<1	<1			
02:45	2.5	<0.1	<0.1	19.0	2.2	<1	<1			
03:00	-2.5	<0.1	<0.1	19.2	2.1	<1	<1			
03:15	-2.5	<0.1	<0.1	19.2	2.0	<1	<1			
03:30	-0.8	<0.1	<0.1	19.3	1.9	<1	<1			
03:45	0.0	<0.1	<0.1	19.4	1.8	<1	<1			
04:00	-0.8	<0.1	<0.1	19.5	1.8	<1	<1			
04:15	-2.5	<0.1	<0.1	19.5	1.8	<1	<1			
04:30	-2.5	<0.1	<0.1	19.5	1.8	<1	<1			
04:45	-2.5	<0.1	<0.1	19.7	1.2	<1	<1			
05:00	-2.5	<0.1	<0.1	19.9	1.1	<1	<1			
Steady	**-2.5**	**<0.1**	**<0.1**	**19.9**	**1.1**	**<1**	**<1**	#####	**3.02**	**0.74**
Peak	**2.5**	**0.0**	**0.0**	**20.7**	**4.5**	**1.0**	**4.0**	**0.0**	**3.02**	**0.74**

Date	Notes:			
11.01.2021	Engineer	DRS	Barometric Pressure, mbar	1015
			Pressure Trend	Falling
	Equipment	GFM430	Air Temp (˚C)	7

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS14

		Detection Limit								
		<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00		Unable to locate BH due to demo rubble								
00:15										
00:30										
00:45										
01:00										
01:15										
01:30										
01:45										
02:00										
02:15										
02:30										
02:45										
03:00										
03:15										
03:30										
03:45										
04:00										
04:15										
04:30										
04:45										
05:00										
Steady	#####	**e BH du**	#####	#####	#####	#####	#####	#####	#####	#####
Peak	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.00**	**0.00**

Date	Notes:			
11.01.2021	Engineer	DRS	Barometric Pressure, mbar	1015
			Pressure Trend	Falling
	Equipment	GFM430	Air Temp (˚C)	7

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS06

		Detection Limit								
		<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm)	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	0.0	<0.1	<0.1	20.4	<0.1	<1	<1		2.04	0.77
00:15	0.0	<0.1	<0.1	19.6	0.9	<1	<1			
00:30	0.7	<0.1	<0.1	19.4	0.80.8	<1	<1			
00:45	0.0	<0.1	<0.1	19.5	0.7	<1	<1			
01:00	0.0	<0.1	<0.1	19.6	0.7	<1	3			
01:15	0.0	<0.1	<0.1	19.7	0.6	<1	<1			
01:30	0.7	<0.1	<0.1	19.9	0.6	<1	3			
01:45	1.6	<0.1	<0.1	20.0	0.5	<1	<1			
02:00	0.0	<0.1	<0.1	20.1	0.5	<1	<1			
02:15	0.0	<0.1	<0.1	20.1	0.4	<1	<1			
02:30	0.7	<0.1	<0.1	20.2	0.4	<1	<1			
02:45	0.7	<0.1	<0.1	20.2	0.4	<1	<1			
03:00	0.0	<0.1	<0.1	20.3	0.4	<1	<1			
03:15	1.6	<0.1	<0.1	20.3	0.3	<1	<1			
03:30	0.9	<0.1	<0.1	20.3	0.3	<1	<1			
03:45	0.7	<0.1	<0.1	20.3	0.3	<1	<1			
04:00	0.7	<0.1	<0.1	20.3	0.3	<1	<1			
04:15	0.0	<0.1	<0.1	20.4	0.3	<1	<1			
04:30	0.0	<0.1	<0.1	20.4	0.3	<1	<1			
04:45	0.0	<0.1	<0.1	20.4	0.3	<1	<1			
05:00	0.0	<0.1	<0.1	20.5	0.3	<1	<1			
Steady	**0.0**	**<0.1**	**<0.1**	**20.5**	**0.3**	**<1**	**<1**	**#####**	**2.04**	**0.77**
Peak	**1.6**	**0.0**	**0.0**	**20.5**	**0.9**	**0.0**	**3.0**	**0.0**	**2.04**	**0.77**

Date	Notes:			
18.01.2021	Engineer	DRS	Barometric Pressure, mbar	1020
			Pressure Trend	Falling
	Equipment	GFM430	Air Temp (˚C)	6

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS08

	Detection Limit								
	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm)	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	47.2	<0.1	<0.1	17.8	0.0	<1	<1		3.02	0.63
00:15	8.4	<0.1	<0.1	19.1	3.0	<1	<1			
00:30	4.0	<0.1	<0.1	19.1	2.7	<1	<1			
00:45	3.3	<0.1	<0.1	19.3	2.2	<1	<1			
01:00	3.0	<0.1	<0.1	19.5	1.9	<1	<1			
01:15	2.8	<0.1	<0.1	19.7	1.7	<1	<1			
01:30	2.8	<0.1	<0.1	19.7	1.6	<1	<1			
01:45	2.7	<0.1	<0.1	19.9	1.3	<1	<1			
02:00	2.6	<0.1	<0.1	20.0	1.1	<1	<1			
02:15	2.5	<0.1	<0.1	20.1	0.9	<1	<1			
02:30	2.6	<0.1	<0.1	20.1	0.9	<1	<1			
02:45	2.5	<0.1	<0.1	20.2	0.8	<1	<1			
03:00	2.5	<0.1	<0.1	20.2	0.8	<1	<1			
03:15	1.6	<0.1	<0.1	20.3	0.7	<1	<1			
03:30	1.6	<0.1	<0.1	20.3	0.7	<1	<1			
03:45	2.5	<0.1	<0.1	20.4	0.6	<1	<1			
04:00	0.7	<0.1	<0.1	20.4	0.6	<1	<1			
04:15	1.6	<0.1	<0.1	20.5	0.4	<1	<1			
04:30	1.6	<0.1	<0.1	20.5	0.4	<1	<1			
04:45	0.0	<0.1	<0.1	20.5	0.5	<1	<1			
05:00	0.7	<0.1	<0.1	20.5	0.4	<1	<1			
Steady	**0.7**	**<0.1**	**<0.1**	**20.5**	**0.4**	**<1**	**<1**	#####	**3.02**	**0.63**
Peak	**47.2**	**0.0**	**0.0**	**20.5**	**3.0**	**0.0**	**0.0**	**0.0**	**3.02**	**0.63**

Date	Notes:			
18.01.2021	Engineer	DRS	Barometric Pressure, mbar	1020
			Pressure Trend	Falling
	Equipment	GFM430	Air Temp (˚C)	6

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS14

	Detection Limit								
	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	0.8	<0.1	<0.1	20.4	<0.1	<1	<1		2.64	0.83
00:15	0.0	<0.1	<0.1	20.5	<0.1	<1	<1			
00:30	-1.6	<0.1	<0.1	20.3	<0.1	<1	21			
00:45	-1.6	<0.1	<0.1	20.3	<0.1	2	28			
01:00	-1.6	<0.1	<0.1	20.3	<0.1	1	31			
01:15	-1.6	<0.1	<0.1	20.4	<0.1	3	33			
01:30	-0.9	<0.1	<0.1	20.4	<0.1	3	28			
01:45	0.0	<0.1	<0.1	20.4	<0.1	3	28			
02:00	-0.9	<0.1	<0.1	20.4	<0.1	4	26			
02:15	0.0	<0.1	<0.1	20.4	<0.1	3	26			
02:30	-0.9	<0.1	<0.1	20.4	<0.1	3	23			
02:45	0.0	<0.1	<0.1	20.5	<0.1	3	21			
03:00	0.0	<0.1	<0.1	20.4	<0.1	6	24			
03:15	-0.9	<0.1	<0.1	20.5	<0.1	4	21			
03:30	-0.9	<0.1	<0.1	20.5	<0.1	3	19			
03:45	-1.6	<0.1	<0.1	20.5	<0.1	3	21			
04:00	0.0	<0.1	<0.1	20.5	<0.1	3	19			
04:15	-1.6	<0.1	<0.1	20.5	<0.1	3	19			
04:30	-0.9	<0.1	<0.1	20.5	<0.1	2	16			
04:45	-1.6	<0.1	<0.1	20.5	<0.1	2	16			
05:00	0.0	<0.1	<0.1	20.5	<0.1	2	16			
Steady	**0.0**	**<0.1**	**<0.1**	**20.5**	**<0.1**	**2.0**	**16.0**	**#####**	**2.64**	**0.83**
Peak	**0.8**	**0.0**	**0.0**	**20.5**	**0.0**	**6.0**	**33.0**	**0.0**	**2.64**	**0.83**

Date	Notes:			
18.01.2021	Engineer	DRS	Barometric Pressure, mbar	1020
			Pressure Trend	Falling
	Equipment	GFM430	Air Temp (˚C)	6

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS06

		Detection Limit								
		<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm)	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	0.0	<0.1	<0.1	20.5	<0.1	<1	<1		2.07	0.88
00:15	-1.8	<0.1	<0.1	20.0	0.3	<1	<1			
00:30	0.0	<0.1	<0.1	20.0	0.3	<1	<1			
00:45	0.0	<0.1	<0.1	20.1	0.2	<1	<1			
01:00	0.0	<0.1	<0.1	20.2	0.2	<1	<1			
01:15	0.0	<0.1	<0.1	20.2	0.2	<1	<1			
01:30	0.0	<0.1	<0.1	20.2	0.2	<1	<1			
01:45	0.0	<0.1	<0.1	20.1	0.2	<1	<1			
02:00	0.0	<0.1	<0.1	20.2	0.2	<1	<1			
02:15	0.0	<0.1	<0.1	20.3	0.2	<1	<1			
02:30	0.0	<0.1	<0.1	20.3	0.2	<1	<1			
02:45	0.0	<0.1	<0.1	20.3	0.1	<1	<1			
03:00	0.0	<0.1	<0.1	20.3	0.1	<1	<1			
03:15		<0.1	<0.1	20.3	0.1	<1	<1			
03:30		<0.1	<0.1	20.4	0.1	<1	<1			
03:45		<0.1	<0.1	20.4	0.1	<1	<1			
04:00		<0.1	<0.1	20.4	0.1	<1	<1			
04:15		<0.1	<0.1	20.4	0.1	<1	<1			
04:30		<0.1	<0.1	20.4	0.1	<1	<1			
04:45		<0.1	<0.1	20.4	0.1	<1	<1			
05:00		<0.1	<0.1	20.4	0.1	<1	<1			
Steady	**0.0**	**<0.1**	**<0.1**	**20.4**	**0.1**	**<1**	**<1**	**#####**	**2.07**	**0.88**
Peak	**0.0**	**0.0**	**0.0**	**20.5**	**0.3**	**0.0**	**0.0**	**0.0**	**2.07**	**0.88**

Date	Notes:			
25.01.2021	Engineer	DRS	Barometric Pressure, mbar	1009
			Pressure Trend	Rising
	Equipment	GFM430	Air Temp (˚C)	4

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS08

	Detection Limit								
	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm)	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	-31.7	<0.1	<0.1	20.5	<0.1	<1	<1		3.10	0.73
00:15	-5.7	<0.1	<0.1	17.5	6.6	<1	<1			
00:30	-0.7	<0.1	<0.1	16.6	6.8	1	1			
00:45	-0.7	<0.1	<0.1	16.5	6.9	2	1			
01:00	-0.7	<0.1	<0.1	16.5	6.9	1	1			
01:15	-0.7	<0.1	<0.1	16.4	7.0	1	1			
01:30	-0.7	<0.1	<0.1	16.4	7.0	<1	1			
01:45	-0.7	<0.1	<0.1	16.4	7.0	1	<1			
02:00	-0.7	<0.1	<0.1	16.4	6.9	1	<1			
02:15	-0.7	<0.1	<0.1	16.4	6.9	1	<1			
02:30	-0.7	<0.1	<0.1	16.4	6.9	<1	<1			
02:45	-0.7	<0.1	<0.1	16.4	6.9	1	<1			
03:00	-0.7	<0.1	<0.1	16.5	6.9	<1	<1			
03:15		<0.1	<0.1	16.5	6.9	<1	1			
03:30		<0.1	<0.1	16.5	6.9	1	<1			
03:45		<0.1	<0.1	16.5	6.8	<1	<1			
04:00		Stopped due to water in pipe								
04:15										
04:30										
04:45										
05:00										
Steady	**-0.7**	**lue to w**	**<0.1**	**16.5**	**6.8**	**<1**	**<1**	**#####**	**3.10**	**0.73**
Peak	**-0.7**	**0.0**	**0.0**	**20.5**	**7.0**	**2.0**	**1.0**	**0.0**	**3.10**	**0.73**

Date	Notes:			
25.01.2021	Engineer	DRS	Barometric Pressure, mbar	1009
			Pressure Trend	Rising
	Equipment	GFM430	Air Temp (˚C)	4

Gas Monitoring Certificate

Project Number	C3432
Project Name	Peterborough Rd, Whittlesey
Client	Johnson Aggregates

WS14

		Detection Limit								
		<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1		
Time	Gas Flow Rate. (l/hr)	Methane. (%LEL)	Methane. (%vol)	Oxygen. (%vol)	Carbon Dioxide. (%vol)	Hydrogen Sulphide. (ppm)	Carbon Monoxide. (ppm)	Volatile Organic Carbon (ppm	Depth of Installation. (mbgl)	Depth of Groundwater (mbgl)
00:00	0.0	<0.1	<0.1	20.3	<0.1	<1	<1		2.70	0.97
00:15	0.8	<0.1	<0.1	20.4	0.1	<1	11			
00:30	0.8	<0.1	<0.1	20.4	0.1	2	36			
00:45	0.0	<0.1	<0.1	20.4	0.1	2	42			
01:00	0.0	<0.1	<0.1	20.4	0.1	4	41			
01:15	0.8	<0.1	<0.1	20.4	0.1	6	42			
01:30	0.8	<0.1	<0.1	20.4	0.1	6	41			
01:45	0.0	<0.1	<0.1	20.4	0.1	4	43			
02:00	0.8	<0.1	<0.1	20.5	0.1	4	36			
02:15	0.0	<0.1	<0.1	20.5	0.1	6	33			
02:30	1.6	<0.1	<0.1	20.5	0.1	4	33			
02:45	0.0	<0.1	<0.1	20.5	0.1	3	31			
03:00	0.0	<0.1	<0.1	20.5	0.1	4	31			
03:15	0.0	<0.1	<0.1	20.6	0.1	4	29			
03:30	0.0	<0.1	<0.1	20.6	0.1	4	26			
03:45	0.8	<0.1	<0.1	20.6	0.1	6	24			
04:00	0.8	<0.1	<0.1	20.6	0.1	6	24			
04:15	0.8	<0.1	<0.1	20.6	0.1	4	19			
04:30	-0.7	<0.1	<0.1	20.7	0.1	4	21			
04:45	0.0	<0.1	<0.1	20.7	0.1	6	19			
05:00	0.0	<0.1	<0.1	20.7	0.1	4	19			
Steady	**0.0**	**<0.1**	**<0.1**	**20.7**	**0.1**	**4.0**	**19.0**	**#####**	**2.70**	**0.97**
Peak	**1.6**	**0.0**	**0.0**	**20.7**	**0.1**	**6.0**	**43.0**	**0.0**	**2.70**	**0.97**

Date	Notes:			
25.01.2021	Engineer	DRS	Barometric Pressure, mbar	1009
			Pressure Trend	Rising
	Equipment	GFM430	Air Temp (˚C)	4

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