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PLOTS 9 & 10 FIRST STREET MANCHESTER

GEOTECHNICAL AND CONTAMINATED LAND INTERPRETATIVE REPORT

Revision History

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1. INTRODUCTION

1.1. Brief

Ramboll UK Ltd was appointed by First Street (Developments) Limited to provide a range of services which include geotechnical and contaminated land consultancy for the proposed development of Plot 9, First Street, Manchester. Plot 9 is part of a larger parcel of land formerly referred to as Plots 6 and 7 which was then renamed as Plots 9 and 10. A site plan showing the proposed site boundary is provided as Fig. 1 including the former development areas.

This report is an update to the GCLIR (Geotechnical and Contaminated Land Interpretative Report) previously prepared by Ramboll (Ramboll, 2018, *Plots 6 & 7 First Street, Manchester – Geotechnical and Contaminated Land Interpretative Report*, Report Ref: 1620002943-GCLIR-02, rev. 2, March 2018).

This update includes the following changes:

1. A change of report title to reflect the change in plot naming from Plot 6/7 to Plots 9/10. Whilst the development of the site (Plot 9 and plot 10) is likely to be undertaken via separate planning applications, (i.e. Plot 9, followed by Plot 10), ground investigation and interpretative work over numerous phases has been completed for Plots 9 and 10 together. The conclusions and recommendations for each of Plots 9 and 10 individually will be the same as the combined assessment presented herein, therefore it was not considered appropriate to split the ground investigation data and discussion specifically for Plot 9.
2. Incorporation of additional geotechnical ground investigation data obtained in 2019, obtained primarily to inform basement design.
3. Incorporation of additional waste classification work completed under a separate cover (Ramboll's letter report dated 19/11/2019 'Plot 9 and Plot 10 First street, Manchester, waste classification letter report').

This report discusses the findings of ground investigation works and includes conclusions and recommendations relating to the potential risks and constraints on development at the site associated with contaminated land and geotechnics.

The additional ground investigation (GI) conducted in 2019 was primarily for the purpose of installing wells for groundwater monitoring. This became necessary for the following reasons:

- At the time of scoping and carrying out the 2017 GI, and writing the previous versions of this report, a basement was not included within the design proposals, and Ramboll's brief was only to consider the then-proposed above-ground development.
- Basement design requires additional consideration of groundwater levels, effects of temporary and permanent drawing-down, temporary works methodologies for excavation, and permanent works methodology in relation to groundwater pressures and control.
- The existing groundwater monitoring data was not sufficient for a comprehensive groundwater assessment, and furthermore the existing wells had been destroyed or were inoperable due to site construction compound activities.

The results of the 2019 GI are appended to this report. The results have been interpreted to provide a characteristic groundwater level for the site. Detailed design of basement structures is outside the scope of this report, however information has been provided regarding the likely magnitude of heave, and groundwater control to inform preliminary design, and allow detailed design, by others.

1.2. Previous Reports

This report should be read in conjunction with the following Ramboll reports:

- Ramboll, 2019, Plot 9 First Street Manchester, Contaminated Land Desk Study.
- Ramboll, 2018, *Plots 6 & 7 First Street, Manchester – Geotechnical and Contaminated Land Interpretative Report*, Report Ref: 1620002943-GCLIR-02, rev. 2, March 2018
- Ramboll, March 2017, Contaminated Land Desk Study – Plot 6/7 First Street, Report Ref: 1620002943_CLDS_01.
- Ramboll, February 2017, Ground Investigation Review, Plot 6/7 First Street, Manchester, Report Ref: 1620002943.

Previous investigations have also been undertaken designed by Cundall and Geotechnical Engineering Ltd. These are discussed further in Chapter 3.

Details from these reports are referenced as appropriate.

1.3. Proposed Development

The development of Plot 9 currently proposed comprises a ground plus 10-storey commercial development with limited soft landscaping and with a single storey basement. The proposed depth of basement (i.e. underside of basement slab) level is approximately 26.65 m AOD.

Future development of Plot 10 is expected to be of a similar nature.

1.4. Objectives

The objective of a ground contamination interpretative report is to assess the potential liabilities and risks associated with potential contaminants in the ground and groundwater in accordance with current UK legislation and guidance.

This report also provides a geotechnical interpretation of the ground conditions and provides recommendations for foundation design.

Historical maps of the area indicate that a buried channel feature may be present beneath Plots 6 and 7. In an assessment carried out by Cundall, it was recommended that additional work would be required to investigate the potential buried channel. Further to the contamination and geotechnical objectives, this report therefore specifically considers the risk to the site from the postulated buried channel feature.

1.5. Scope

The scope of works for this phase of works includes:

- Review of Preliminary Conceptual Model developed during the desk study;
- Discussion of ground conditions identified during the ground investigation works;
- A summary of the ground conditions and geotechnical parameters established from the ground investigations undertaken at the site;
- Geotechnical foundation design recommendations for the proposed development;
- Generic quantitative risk assessment as defined by UK guidance which provides an initial screen of potential ground contamination risks associated with the proposed development;

- Refinement of conceptual model in light of risk assessment and all factual site data;
- Conclusions and recommendations for any further works required in relation to the proposed development.

1.6. Constraints and Limitations

This report is intended for First Street (Developments) Limited for the purpose of assisting them in evaluating the site in the context of the potential development. This report should not be used in whole or in part by any third parties without the express permission of Ramboll in writing.

Ramboll has endeavoured to assess all information provided to them. The report includes summaries of information from external sources and cannot offer any guarantees or warranties for the completeness or accuracy of information relied upon. The proposed design options and recommendations summarised in this report relate to the feasibility of developing on the site are based on information gained at the time of writing the report. Any substantial changes to the use of the site may require a reassessment of the implications of the risks identified and a review of the design options.

The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

It should be noted that although every effort has been made to ensure the accuracy of the data obtained from the investigation, the possibility exists for variations in ground and groundwater conditions between and around the borehole locations. In addition, groundwater levels will vary seasonally and with changes in weather conditions.

A gas main passes through the western and northwestern parts of the site, close to the site boundary; refer to Drawing 1620002943-RAM-XX-XX-DR-GE-010. This area was not investigated and is excluded from the scope of this report.

2. SITE SETTING

2.1. Site Location

The site is situated on a site north of Hulme Street, Manchester, west of the junction with Wilmott Street and east of Medlock Street and may be located by its National Grid co-ordinates SJ 838 971, Figure 1.

2.2. Site Description

The site is rectangular in shape and is approximately 1.26 Ha in size. The site is situated to the east of Medlock street and is accessed through the northern site boundary via First Street and Wilmot Street.

At the time of the 2016 and 2017 site investigation, Plot 6 (western half of the site) was used for storage of building material for the Plot 5 development to the north. Plot 7 (eastern half of the site) was occupied by site cabins and car parking. At the time of writing (January 2020) the site is vacant and is intended to be used as car park / events space.

There are four access gates along the northern boundary and an automated exit gate on the southern boundary. There are intermittent areas of hardstanding (concrete/asphalt) across the site.

2.3. Anticipated Ground Conditions

The following assessment of the geology of the site and ground conditions is inferred from desk-based information sources. No assurance is given as to its accuracy.

The Geological Survey of Great Britain 1:10,000 scale map of the area (Sheet SJ89NE, 'Manchester & Salford') indicate that the east of the site lies upon drift deposits of Glacial Till that is composed of 'clay and silty clay, pebbly, reddish-brown, stiff and sandy'.

The online British Geological Survey (BGS) Geoindex 1:50,000 scale map shows the west of the site to be underlain by Glaciofluvial Sheet Deposits of sand and gravel.

The solid geology is shown to comprise Sherwood Sandstone of the Chester Pebble Beds Formation. There are no faults associated with the bedrock at the site.

The ground surface is essentially flat, with the topography ranging between 33.69m AOD and 30.89m AOD (Above Ordnance Datum).

Historical mapping indicates water channel features, crossing the site from southeast to northwest through the site. If these features represent a former tributary of the River Medlock, buried alluvial deposits could be present.

2.4. Preliminary Conceptual Model

Information presented in previous reports has been collated and evaluated to develop a preliminary conceptual model for the site.

The following potential sources of ground contamination have been identified:

- Asbestos Clad buildings north west and eastern areas of the site;
- Historical site use and development as former Rubber Works and car parking;
- Potential for infilled voids in the underlying sandstone or infilled historical river channels;
- Made Ground or natural superficial deposits; and

- Off-site sources of contamination such as Gaythorne Gas Works, rubber works, and rubber works storage buildings, timber yard and saw-mills, coal yard, engineering and printing works.

Site investigation works were designed to provide additional information on the potential risks identified within the desk study and also to incorporate these additional potential contaminant sources.

3. GROUND INVESTIGATION

3.1. Ground Investigations on Site

Three ground investigations have been undertaken within the site, as summarised below.

Cundall, 2016

A ground investigation was designed by Cundall and subsequently undertaken by Geotechnical Engineering Ltd in April-June 2016 (Report no. 1011906.RPT.GL.005) to assess the ground condition beneath Plot 6 and Plot 7 (the site) and Plot 8 (an adjacent development immediately to the south of the site). The ground investigation comprised the following;

- Nine boreholes undertaken using a geotechnical pioneer rotary rig;
- Five boreholes undertaken using a geotechnical terrier window sample rig;
- Three California Bearing Ratio tests;
- The installation of combined gas / groundwater monitoring standpipes in three boreholes;
- Chemical (contamination) testing of soil and rock samples;
- A total of seventy-four asbestos screening samples obtained by hand excavating observation pits on a nominal 3 m grid;
- Two rounds of gas and groundwater monitoring; and
- UXO (unexploded ordnance) avoidance at every intrusive position.

An exploratory hole location plan is presented in Figure 3-1 below. Asbestos analysis locations are shown on Cundall Drawing 1011906 appended.

Figure 3-1 Exploratory Hole Location Plan Beneath the Site – Cundall/Geotechnical Engineering Ltd, 2016.

Ramboll, 2017

A ground investigation was designed by Ramboll and undertaken by TerraConsult Ltd in November 2017. The purpose of this investigation was to ascertain the ground conditions in the areas within Plot 6 and Plot 7 (the site) that were previously not accessible, and to delineate the extent of any possible buried historical channels in the central area of the site. The ground investigation comprised the following;

- Twenty-one hand dug inspection pits
- Seven window sample exploratory holes
- Twenty rotary percussive probe-holes (without coring) to prove the sandstone bedrock
- Four machine excavated trial pits

A combined (GI 2016 and GI 2017) exploratory hole location plan for the site is presented in Figure 3-2. A rationale for the Ramboll 2017 ground investigation is presented in Table 3-1.

All factual ground investigation data is provided in TerraConsult Factual report 2017.

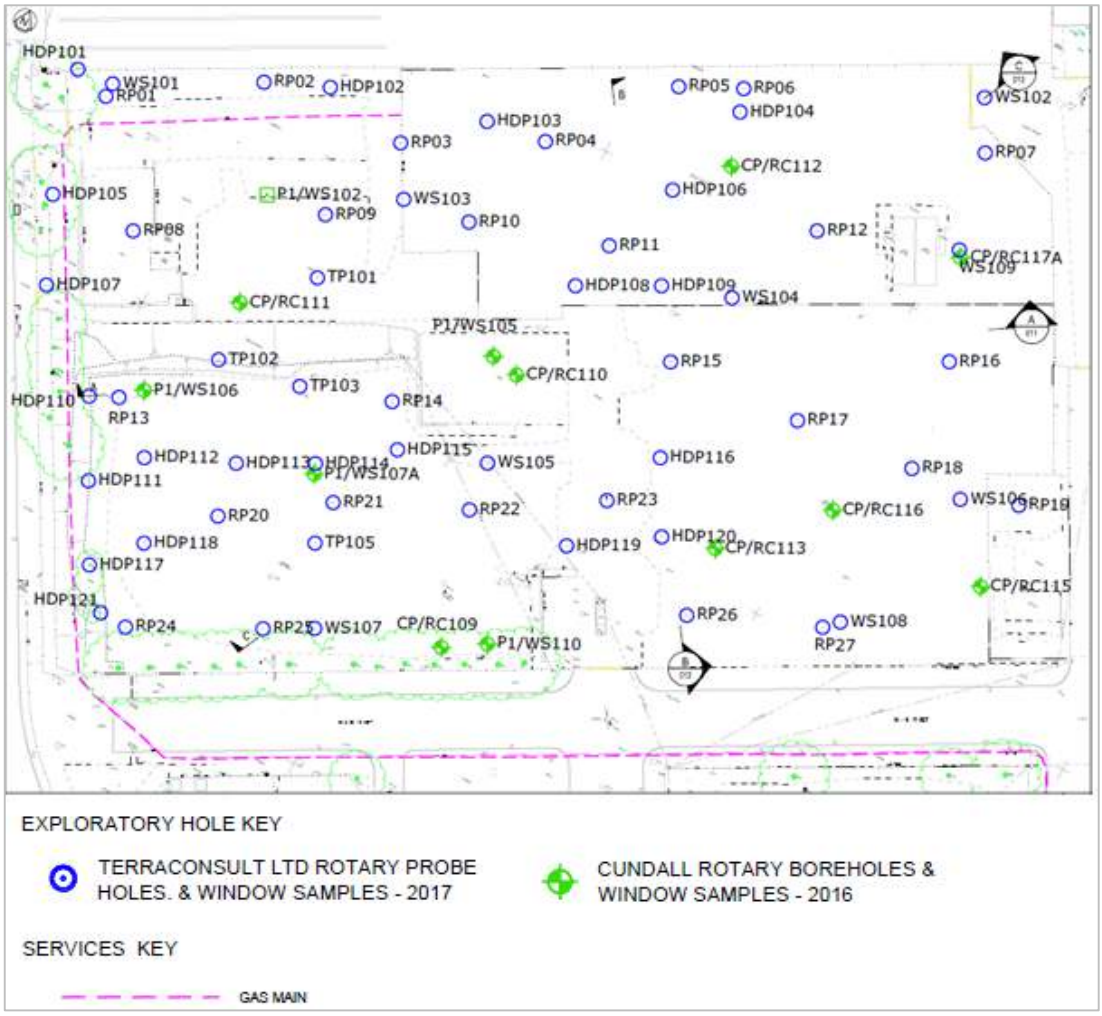

Figure 3-2 Exploratory Hole Location Plan – 2016 GI and 2017 GI

Table 3-1 Rationale for the Ramboll 2017 GI

Hole number	Anticipated Depth [m bgl]	Installation required	Purpose
RP1 to RP27	17.5m	Where specified	To establish the rockhead profile across the site and assess the presence and location of any buried channels or voids. **RP17 and RP20 Deeper wells in areas not previously investigated to determine presence of ground gas as could be potential pathway migrating up piles in location of building footprint. Installation in natural strata at approx pile depth.**
HDP101-HDP121	1.2	No	To further identify the concentrations of asbestos in shallow soils that were previously inaccessible during the ground investigation by Cundall. They are defined on the same grid spacing used by Cundall for the previous Ground Investigation.
RP8 RP9, RP10, RP11, RP12, RP13, RP14, RP24 and RP25	1.2	No	HDPs combined in the location of the RP locations to further identify the concentrations of asbestos in shallow soils that were previously inaccessible during the ground investigation by Cundall. These have been combined on the same grid spacing as Cundall previous Ground Investigation.
WS101	5	Yes	In an area not previously accessible and in an area of potentially former river channel. Potential for alluvium and peat which could give rise to ground gas. Also in the location of the building footprints. Installation in the Made Ground.
WS102	5	Yes	In an area not previously accessible and in an area of potentially former river channel. Potential for alluvium and peat which could give rise to ground gas. Also in the location of the building footprints. Installation in the Made Ground.
WS103	5	Yes	In an area not previously accessible and in an area of potentially former river channel. Potential for alluvium and peat which could give rise to ground gas. Also in the location of the building footprints. **Installation in the Alluvium/Peat.**
WS104	5	Yes	In the area of former rubber workers, potential for contamination and in an area previously inaccessible. Also in the location of the building footprint for ground gas. **Installation in the Alluvium/Peat.**
WS105	5	Yes	In an area of a former River Channel with the potential for peat which could give rise to ground gas, within the building footprint. **Installation in the Alluvium/Peat.**
WS106	5	Yes	
WS107	5	Yes	In an area previously not accessible. To gain coverage across the site and building footprint. **Installation in Made Ground.**
WS108	5	Yes	
TP101-103	4	No	In location of previously high recorded levels of asbestos and possible historical river channels.
TP104	4	No	Area of previously high asbestos concentrations
TP105	4	No	

HDP= Hand Dug Pit
WS = Window sample hole
TP= Machine excavated trial pits
RP = Rotary Probe

Ramboll, 2019

A ground investigation was designed by Ramboll and undertaken by TerraConsult Ltd in June 2019. The purpose of this investigation was to enable monitoring of levels of perched and deep groundwater to inform basement design, and to obtain additional samples from the deeper natural materials for waste classification purposes. The ground investigation comprised the following;

- Six open hole boreholes undertaken using a rotary rig;
- Five dynamic sample boreholes undertaken using a window sample rig;
- The installation of groundwater monitoring standpipes in nine boreholes;
- Chemical (contamination) testing of soil and rock samples;
- Four rounds of groundwater monitoring; and
- Rising head permeability tests.

An exploratory hole location plan is presented in Figure 3-3 below.

All factual ground investigation data is provided in the TerraConsult report 2020, Ground Investigation Report, Plot 9 & 10 First Street, Manchester, Report no. 4302R001-3, Rev 03, January 2020.

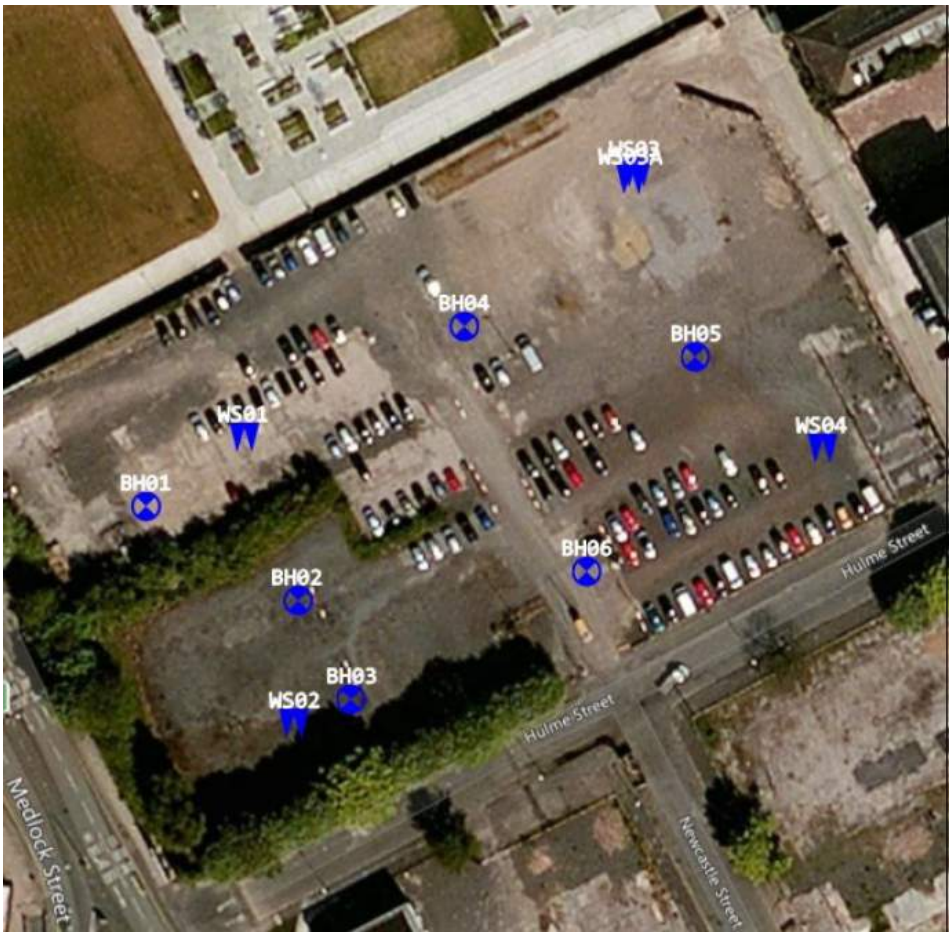

Figure 3-3 Exploratory Hole Location Plan – 2019 GI

3.2. Ground Profile

From the results of the ground investigations in 2016 and 2017, a ground profile was developed for the site, as presented in Table 3-2. Review of the results of the 2019 investigation did not result in any changes to the design ground profile.

Table 3-2 Summary of Ground Conditions.

Stratum	From (m AOD)	To (m AOD)	Thickness (m)	General Description
Hard Surfacing	GL or 30.9	30.9 to 30.5	0.1 to 0.4	Comprising concrete slab, locally reinforced or black asphalt.
Made Ground (Granular)	GL	32.8 to 27.8	0.5 to 3.7	Generally comprising either: • Grey, sandy, angular to sub rounded, fine to coarse gravel of brick, concrete and charcoal with further inclusions of clinker, ash, clay. • Slag gravel. • Crushed red brick. • Sandstone / limestone gravel.
Made Ground (Cohesive)	GL or 30.8	32.5 to 28.4	0.5 to 2.3	Generally comprising either: • Dark grey, sandy, gravelly silt. Gravel is angular and sub-rounded fine to coarse brick concrete and charcoal with flint and frequent brick cobbles. • Very soft to firm, dark brown, slightly sandy, gravelly clay with high sub-angular brick cobble content. • Dark brown and black, slightly sandy peat, with rare organic material.
Alluvium	31.6 to 28.4	30.7 to 26.4	1.3 to 3.0	Generally comprising either: • Soft grey, brown or dark brown, slightly gravelly, sandy clay. Locally mottled orange. Some inclusions of gravel. • Firm, dark brown or black, fibrous, peat with abundant roots. • Green, orange, fine and medium, clayey sand, locally mottled.
Glaciofluvial Deposits	30.7 to 26.4	29.8 to 23.9	0.8 to 4.3	Very dense, dark, or dense, dark orange / brown, light reddish grey, brown or yellowish brown, slightly gravelly, fine to coarse sand. Gravel is sub-angular to sub-rounded, fine to coarse sandstone. Siltstone, and coal. Some inclusions of clay recorded.
Glacial Till	29.8 to 25.4	28.8 to 25.3	1.0 to 2.8	Stiff, dark brown mottled dark grey and orange / brown, slightly sandy, slightly gravelly clay.

Stratum	From (m AOD)	To (m AOD)	Thickness (m)	General Description
Weathered Bedrock	25.6 to 23.8	25.2 to 21.5	0.4 to 3.0	Generally recovered as very dense, rarely slightly clayey, fine and medium sand. Locally tending to extremely weak fine to medium sandstone.
Intact Bedrock	25.2 to 21.5	8.9 to 5.9	Base not Proven	Extremely weak to weak, reddish brown fine to medium (occasionally coarse) sandstone with occasional 0.01 m to 0.50 m laterally discontinuous layers of extremely weak mudstone. Rare fine to coarse sub-angular to rounded mudstone clasts.

Geological sections of the site are presented in Drawings;

- 1620002943-RAM-XX-XX-DR-GE-010 Exploratory Hole Location Plan
- 1620002943-RAM-XX-XX-DR-GE-011 Geological Section A-A
- 1620002943-RAM-XX-XX-DR-GE-012 Geological Section B-B
- 1620002943-RAM-XX-XX-DR-GE-013 Geological Section C-C
- 1620002943-RAM-XX-XX-DR-GE-014 Rockhead Level Contour Plan

4. GROUND CONDITIONS AND MATERIAL PARAMETERS

4.1. Introduction

British Geological Survey mapping indicates the site to underlain by superficial deposits comprising Glaciofluvial Sheet Deposits (i.e. sand and gravel) overlying Glacial Till (i.e. clay, sand, gravel, cobbles and boulders). The solid geology is indicated to comprise the Chester Pebble Beds Formation (i.e. sandstone) overlying Manchester Marl Formation (i.e. mudstone). Made Ground was anticipated at the surface.

The following material descriptions and design parameters have been derived from the results of the ground investigations.

4.2. Made Ground

Made Ground (cohesive and granular) was encountered in all exploratory boreholes, with thickness ranging from 1.0 m (P1/WS106) to 5.7 m (RP17). Cohesive Made Ground generally comprised soft to firm dark grey brown, slightly sandy, gravelly clay. Gravel is angular and sub-rounded fine to coarse brick concrete and charcoal with flint and frequent brick cobbles. Granular Made Ground comprised grey sandy angular to sub-rounded, fine to coarse gravel of brick, concrete, sandstone, mudstone, and charcoal with further inclusions of clinker, ash, clay.

4.2.1. Optimum Moisture Content

Two dry density/moisture content relationship tests were carried out using a 2.5 kg rammer for samples taken from P1/WS102 and P1/WS106. A summary of results is presented in Table 4-1.

Table 4-1 Dry Density / Moisture Content for Made Ground

Sample ID	Test Depth (m bgl)	Initial Moisture Content %	Maximum Dry Density (Mg/m^3)	Optimum Moisture Content %
P1/WS102	0.6	23	1.58	20
P1/WS106	0.6	20	1.77	15

4.2.2. Density

Two tests were carried out for measuring bulk density of the Made Ground and results were 1.94 Mg/m^3 (CP/RC117A) and 1.98 Mg/m^3 (WS110). A characteristic design bulk density value of 1.96 Mg/m^3 has been considered appropriate for this stratum.

4.2.3. Particle Size Distribution (PSD)

Six particle size distribution tests were carried out on samples of the granular Made Ground. The sand and gravel content ranged from 79% (CP/RC113, depth 2.0 m bgl) to 94% (CP/RC115, depth 0.6 m bgl), with fines content ranging from 6 to 21%.

4.2.4. Standard Penetration Test 'N' value

The results of the SPTs undertaken in the Made Ground are presented in Figure 4-1. SPT N values ranged from 1 (CP/RC111, CP/RC113, CP/RC117, P1/WS107A) to 13 (CP/RC116); however, there is no appreciable increase with depth. Due to this variability in Made Ground, a characteristic SPT N value of 5 is considered appropriate for design in Made Ground.

4.2.5. Strength Parameters

Where Made Ground is cohesive, undrained shear strength can be approximated from the SPT results using the equation;

$c_u = f1 \times N$ [Stroud and Butler, 1975]

Based on f1 = 5.0, c_u can be estimated equal to 25.0 kN/m^2.

Where Made Ground is granular, the angle of internal friction has also been estimated from in-situ SPT testing using a correlation proposed by Peck, Hansen and Thornburn (1953) in Stroud (1989) for a normally consolidated soil. Based on a design SPT N value of 5, the corresponding angle of internal friction, Ø'= 28°.

Based on the SPT N results, engineering judgement and the fact that the made ground is inherently variable the following characteristic peak values are proposed for design purposes:

$\varphi' = 28°$; $c' = 1$ kN/m^2

4.2.6. California Bearing Ratio (CBR)

Three in-situ CBR tests were carried out within granular Made Ground in the Plots 6 and 7 area at shallow depths. CBR values were calculated as 17% (CBR108 at 30.6 m AOD) to 31.0% (CBR109 at 30.7 m AOD). A further three in-situ CBR tests were carried out within granular Made Ground in the Plot 8 area, and calculated CBR values were obtained from 4.1% (CBR102 at 33.3 m AOD) to 17% (CBR103 at 33.4 m AOD). One in situ CBR test was carried out within the cohesive Made Ground in the Plot 8 area, resulting in a calculated CBR value of 3.3% (CBR106 at 34.05 m AOD).

Two laboratory CBR tests were carried out using remoulded samples taken from the granular Made Ground in Plots 6 and 7. CBR values were calculated as 35% (WS110 at 30.9 m AOD) and 59% (CP/RC1117A at 30.6 m AOD).

These CBR values are likely to be representative of the granular, relatively dense components of the made ground. Because of the variability in composition, and based on experience, it is recommended that a design CBR value of 4% is adopted across the site. Cohesive areas with soft material will not achieve this and may even fall below 2.5% CBR, in which case excavate-and-replace would be required to achieve a suitable subgrade.

4.2.7. Stability during Temporary Excavation

The Made Ground comprises soft to firm cohesive strata and/or granular strata indicated to be loose to medium dense. Perched groundwater was encountered at approximately 2-3 m depth across the site. Temporary excavations in the made ground are likely to be stable at slope angles of 1(v) in 2(h) to 1 in 1 in the short term. If excavations are required to significant depth and space is not available to batter excavation slopes, or where perched groundwater is encountered, temporary support; for example, using trench sheeting or trench boxes should be considered. For temporary works the

contractor should also make his own assessment as to the safety of excavations, particularly where man access is required.

4.3. Alluvium and Peat

Alluvium of approximate thickness 950 mm was encountered in exploratory holes P1/WS106 and described as loose and medium dense dark orangish brown mottled dark grey slightly clayey slightly gravelly fine to coarse sand with rare rootlets. Gravel is sub angular fine to coarse sandstone with organic fragments and decomposed root.

Peat was encountered in exploratory hole CP/RC110 at 3.6 m bgl to 4.1 m bgl and CP/RC113 at 4.15 m bgl to 5.0 m bgl, described as soft locally firm dark brown and black fibrous Peat with abundant roots (up to 20 mm) and rootlets. Peat was also encountered in exploratory holes RP23 at 2.3 m bgl to 3.7 m bgl and in RP27 at 3.75 m bgl to 4.25 m bgl.

Drawings no. 1620002943-RAM-XX-XX-DR-GE-011 and 1620002943-RAM-XX-XX-DR-GE-012 show alluvium encountered in exploratory hole P1/WS106 and peat encountered in exploratory holes CP/RC110, RP23 and RP27.

4.4. Glaciofluvial Deposits

Glaciofluvial Deposits were encountered in most of the exploratory boreholes with thickness ranging from 0.7 m (CP/RC110) to 5.7 m (CP/RC117A). Glaciofluvial Deposits generally comprised very loose becoming medium dense with increasing depth brown slightly gravelly fine and medium Sand. The gravel is sub-angular to rounded fine rarely medium coal and sandstone.

4.4.1. Particle Size Distribution (PSD)

One particle size distribution test was carried out on a sample of the Glaciofluvial Deposits. Constituents of sand and gravel comprised 79% and silt and clay particles accounted for 21% (CP/RC112, depth 6.5 m bgl).

4.4.2. Standard Penetration Tests

SPT results in the Glaciofluvial Deposits are presented in Figure 4-1. SPT N values ranged from 3 (CP/RC117) to 49 (CP/RC111). There is no appreciable increase of SPT N with depth between 31.5 m AOD to 28.0 m AOD, and a linear increase with depth can be seen below that depth.

A characteristic SPT N value of 10 is considered appropriate from 31.5 m AOD to 28.0 m AOD, then SPT N = 10+13z with every meter increase in depth.

4.4.3. Strength Parameters

The angle of internal friction has been estimated from in-situ SPT testing using a correlation proposed by Peck, Hansen and Thornburn (1953) in Stroud (1989) for a normally consolidated soil. Based on a design SPT N value, the corresponding angle of internal friction, Ø'= 30° is appropriate from 31.5 m AOD to 28 m AOD and then internal friction increased by 3 degrees with every metre increase in depth.

4.5. Glacial Till

Glacial Till was encountered in most exploratory boreholes, with thickness ranging from 1.0 m to 2.8 m. Glacial Till generally comprised firm to stiff, dark brown mottled dark grey and orange/brown, slightly sandy, slightly gravelly clay.

4.5.1. Atterberg Limits

Two Atterberg limit tests were undertaken on samples taken from P1/WS106 and P1/WS107A. A summary of Atterberg limit tests are presented in Table 4-2.

Table 4-2 Atterberg Limits

Sample ID	Test Depth (m bgl)	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Fraction >0.425 µm (%)
P1/WS106	3.0	12.2	31	15	16	14
P1/WS107A	4.0	11.4	30	14	16	14

Plasticity Index and Liquid Limit results indicate the Glacial Till is a low plasticity clay.

4.5.2. Standard Penetration Tests

SPT results in the Glacial Till are presented in Figure 4-1. SPT N values ranged from 6 (CP/RC113) to 34 (P1/WS106), however there is no appreciable increase with depth.

A characteristic SPT N value of 17 is considered appropriate for the Glacial Till.

4.5.3. Strength Parameters

Undrained shear strength (c_u) can be approximated from the SPT results using the equation;

$$c_u = f1 \times N \qquad \text{[Stroud and Butler, 1975]}$$

Based on a Plasticity Index of 16%, f1 = 5.5, and c_u can be estimated as 90 kN/m^2.

Ten undrained triaxial compression tests were undertaken using samples from the Glacial Till taken from an adjacent site, i.e. Plot 8. The results indicated undrained shear strength for the Glacial Till ranging from 77 kPa to 234 kPa, with an average of 140 kPa. An undrained shear strength value of 90 kN/m^2 for the Glacial Till is considered appropriate for design purposes.

4.6. Sandstone

Sandstone was encountered in all deep exploratory holes. The Sandstone encountered was typically described as very weak to weak indistinctly thinly laminated reddish brown and brown fine to medium Sandstone with occasional 0.01 m to 0.50 m laterally discontinuous layers of extremely weak Mudstone.

The depth of the top of the sandstone ranged from 5.4 m bgl to 7.5 m bgl. The full extent of this stratum was not explored, but was proven to a thickness of 10 m. The upper 0.4 m to 3.0 m of the Sandstone encountered was highly weathered.

4.6.1. Strength Parameters

Twenty-Six Uniaxial Compressive Strength (UCS) tests were undertaken on core samples taken from the intact Sandstone from Plot 8, with the results ranging from 6.8 MN/m^2 to 17.7 MN/m^2.

Point load tests undertaken on samples from the Sandstone recorded $I_{s(50)}$ point load indices from 0.02 MN/m^2 to 0.68 MN/m^2.

The site-specific correlation between the results of the unconfined compressive strength and point load tests has been developed, for which a correlation factor of 40 is considered appropriate to obtain unconfined compressive strength values from point load test results. The results of the unconfined compressive strength tests and the factored point load tests are shown in Figure 4-2. The factor of 40 is high. A commonly accepted factor of 20 to 24 is often appropriate however in this case the results show good correlation.

Based upon both sets of results, a design UCS value of 1.2+0.35z MPa at rockhead (approximately 4 m bgl) is considered appropriate for the Sandstone.

The unconfined compressive strength values obtained from laboratory tests on small discrete rock samples do not consider the in-situ fracturing state of the rock mass and are closer to the strength of an unfractured intact rock. The strength of the fractured rock mass will therefore be a function of the intact rock strength and the degree of fracturing.

Values of RQD can be used to obtain a mass factor (j) by which the intact strength is then multiplied by to calculate the in-situ rock mass strength. Based upon the values of RQD recorded within the borehole logs and using the relationship developed by Farmer (1983, cited in CIRIA Report 181), the following value for mass factor is recommended:

Mass factor = 0.2

The recommended value for rock mass strength is:

Rock Mass Strength = 0.24+0.07z MPa

4.7. Summary of Material Parameters

A summary of recommended soil and rock design parameters is presented in Table 4-3.

Table 4-3 Summary of Soil Parameters

Strata Type	Unit Weight (kN/m³)	Effective Angle of Friction, φ' (°)	Apparent Cohesion c' (kN/m²)	Undrained Shear Strength, C_u, (kN/m²)	CBR (%)
Made Ground (Granular)	19.0	28	1	-	4
Made Ground (Cohesive)	19.0	-	-	25	<2.5
Glaciofluvial Deposits	20.0	30 for GL to 28 m AOD 30+3z below 28 m AOD	-		
Glacial Till	21.0	-	-	90	
Sandstone (Weathered)	22.0	UCS = 1.2 + 0.35z MPa, z = 0 at top of strata level.			
Sandstone (Intact)	22.0	UCS = 2.0 + 0.35z MPa, z = 0 at top of strata level.			

4.8. Groundwater

Groundwater was observed at shallow depth (perched) within the superficial deposits, and at greater depth within the bedrock (sandstone aquifer).

Groundwater levels were monitored in six of the 2017 boreholes and in nine of the 2019 boreholes. The monitoring period ran from November 2017 to February 2018 for the 2017 GI and from July 2019 until January 2020 for the 2019 GI. A summary of the water monitoring from the 2019 GI is presented in Table 4-4. Groundwater level data from both phases of monitoring are presented in Figure 4-1 and Figure 4-2, for Plot 9 and Plot 10 respectively.

The shallow groundwater is hosted within granular made ground and granular glacial deposits. Within Plot 9, the highest recorded water level is 28.35 m AOD. The coverage of monitoring wells across both plots indicates an elevated level to the south-east, with a highest recorded groundwater level of 29.4 m AOD in Plot 10.

A deeper body of groundwater is present within the sandstone aquifer, and this has been shown to be persistent over time with typical fluctuation within a range of one metre (25-26 m AOD).

It is recommended that a design groundwater level of 28.35 m AOD is adopted for Plot 9, and the design groundwater level for Plot 10 shall be assessed subject to the future development in due course.

Table 4-4 Groundwater and Perched Water Monitoring Readings for the Site (Plots 9 and 10)

Borehole ID	Top of Response Zone (m bgl)	Base of Response Zone (m bgl)	Round 1 July 2019 (m bgl)	Round 2 October 2019 (m bgl)	Round 3 December 2019 (m bgl)	Round 4 January 2020 (m bgl)
Groundwater Monitoring						
BH01	4.0	7.0	5.6	5.22	5.42	5.20
BH02	10.0	13.0	7.75	5.7	n/a	n/a
BH03	10.0	11.5	8.09	8.9	n/a	n/a
BH04	6.0	15.0	5.71	5.19	5.21	5.18
BH05	5.0	15.0	5.59	5.04	4.11	5.43
BH06	6.5	9.5	6.55	6.25	6.39	6.30
Perched Water Monitoring						
WS01	3.2	5.0	n/a	3.36	3.4	Flooded
WS02	2.5	3.5	n/a	7.55	n/a	n/a
WS04	2.8	3.8	n/a	3.44	3.47	dry
RP18	-	3.9	n/a	n/a	n/a	dry

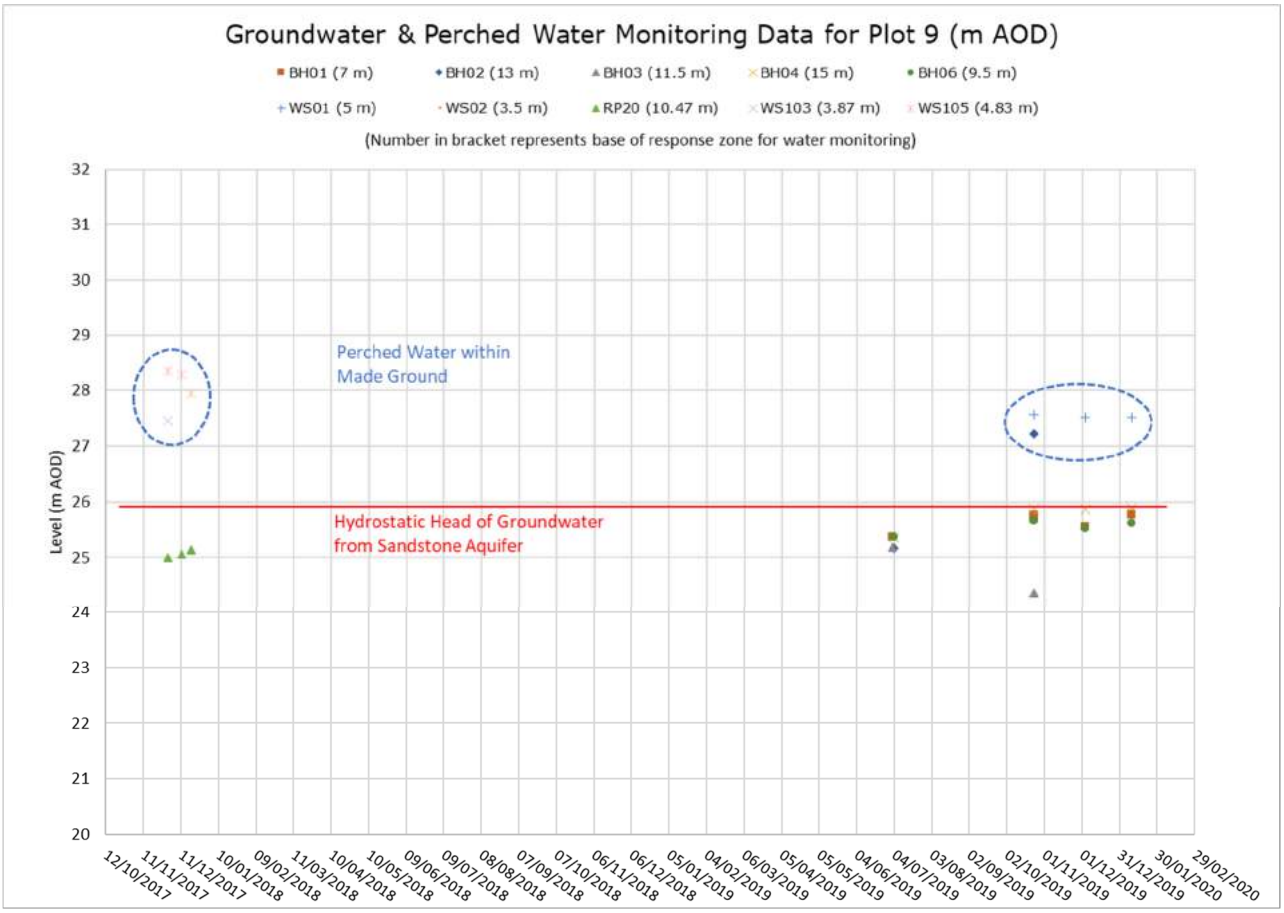

Figure 4-1 Groundwater and Perched Water Monitoring Results for Plot 9

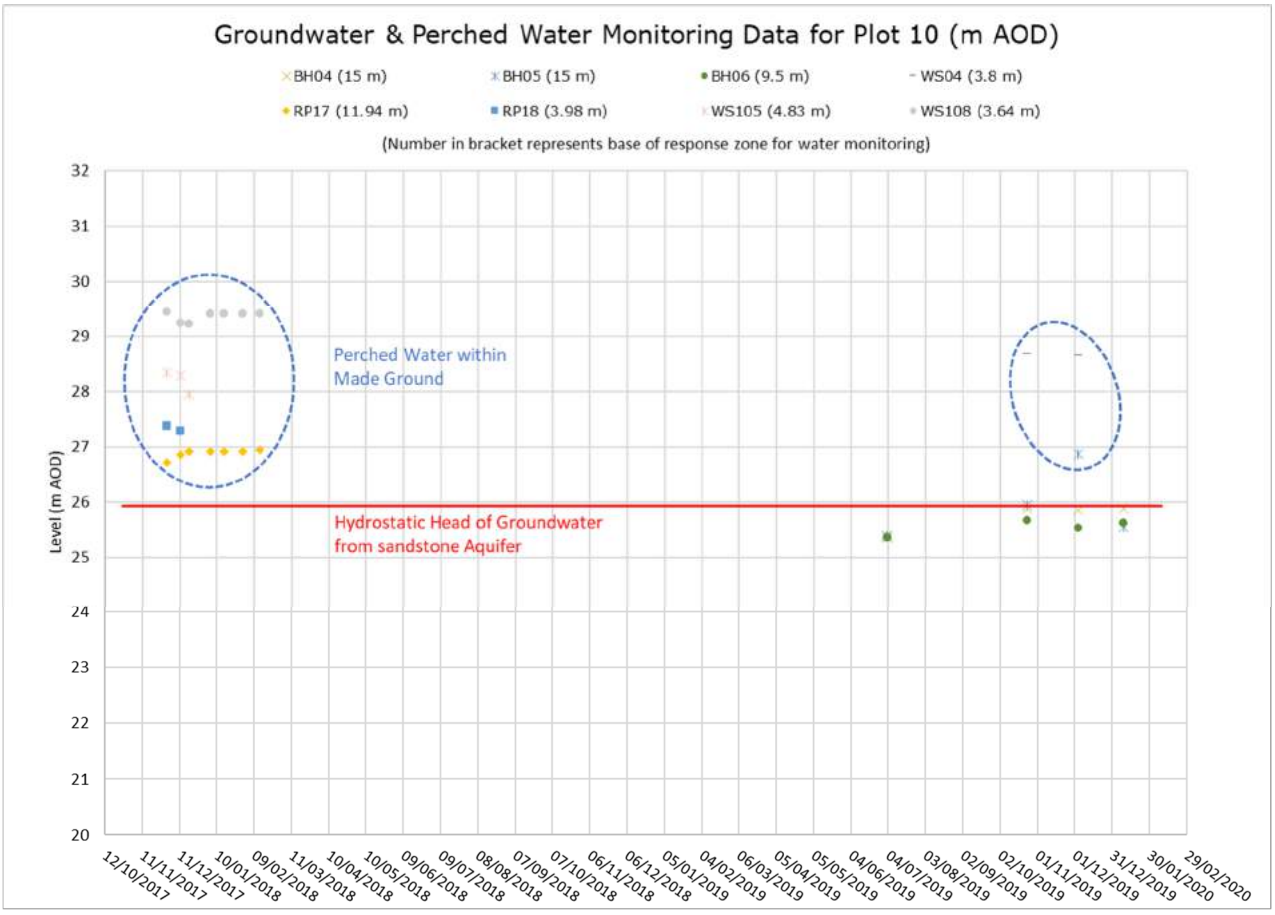

Figure 4-2 Groundwater and Perched Water Monitoring Results for Plot 10

4.9. Infiltration

Fourteen variable (i.e. rising) head infiltration (i.e. permeability) tests were undertaken within six boreholes as part of the 2019 ground investigation. Copies of the falling head infiltration test results are contained within the Factual report (TerraConsult, December 2019), and a summary of the testing is provided in Table 4-5.

Table 4-5 Summary of Falling Head Permeability Tests

Test Location	Top of Response zone (m)	Base of Response zone (m)	Soil Descriptions / Strata at the Response Zone	Infiltration Rate (m/s)
BH01 (T1)	4.0	7.0	Grey sandy Clay*	3.86E-08
BH01 (T2)	4.0	7.0	Grey sandy Clay*	4.01E-08
BH02 (T1)	10.0	13.0	Sandstone	7.55E-08
BH02 (T2)	10.0	13.0	Sandstone	5.49E-08
BH03 (T1)	10.0	11.5	Sandstone	1.12E-07

Test Location	Top of Response zone (m)	Base of Response zone (m)	Soil Descriptions / Strata at the Response Zone	Infiltration Rate (m/s)
BH03 (T2)	10.0	11.5	Sandstone	1.12E-07
BH03 (T3)	10.0	11.5	Sandstone	1.55E-08
BH04 (T1)	6.0	15.0	Sandstone	1.06E-08
BH04 (T2)	6.0	15.0	Sandstone	7.74E-09
BH05 (T1)	5.0	15.0	Sandstone	4.64E-08
BH05 (T2)	5.0	15.0	Sandstone	4.64E-08
BH05 (T3)	5.0	15.0	Sandstone	9.35E-09
BH06 (T1)	6.5	9.5	Sandy gravelly Clay* and Sandstone	4.52E-08
BH06 (T2)	6.5	9.5	Sandy gravelly Clay* and Sandstone	4.52E-08

*Because of the open-hole drilling method, interpretation of the nature of the material above bedrock is speculative; however, based on the depths we anticipate that this material is likely to constitute glacial till and weathered bedrock.

Infiltration rates obtained from tests in boreholes are often subject to local effects and should not be considered to be an accurate representation of the mass behaviour of the ground.

The bedrock permeability has recorded significant variation, ranging from 7 x 10^{-9} to 1 x 10^{-7} metres per second. For the purpose of basement design, it is recommended that a value at the high (conservative) end of this range is adopted:

Recommended design permeability of sandstone bedrock: 1 x 10^{-7} m/s.

Significant variation in permeability is likely to be experienced within the superficial deposits, particularly associated with the varying depth and composition of made ground. For the purposes of basement design, it is recommended that provision is made for dewatering measures associated with potentially substantial groundwater flows below 27.5 m AOD, i.e. approximately the lower 1 metre of the Plot 9 excavation, based on current proposals.

Testing for the purposes of soakaway design has not been conducted, and comment on suitability of the site for soakaway drainage is outside the scope of this report.

5. AGGRESSIVITY OF THE GROUND

Chemical analysis of the soil underlying the site was undertaken to establish the ground aggressivity to buried concrete. Sulphate and pH tests were carried out on soil samples from the Made Ground, in both the 2016 and 2017 ground investigations.

The range of chemical analysis results for pH and water-soluble sulphate content (2:1 water extract as SO_4) of the soil is presented in Table 5-1.

Table 5-1 pH and Sulphate results

Stratum	Exploratory hole ID	Depth of sample [m bgl]	pH	Water soluble sulphate content (2:1 extract as SO_4) [mg/l]
Made Ground	CP/RC110	0.3	8.5	130
	CP/RC111	0.3	8.5	1000
	CP/RC112	0.6	8.7	160
	CP/RC112	1.2	9.0	11
	CP/RC112	3.5	8.8	44
	CP/RC113	2.0	9.8	11
	CP/RC115	1.0	11.0	240
	CP/RC115	2.7	8.6	52
	CP/RC116	2.9	8.4	59
	CP/RC117A	0.6	8.4	61
	CP/RC117A	1.9	7.3	150
	P1/WS101	0.0	8.9	21
	P1/WS102	0.3	8.3	35
	P1/WS102	1.2	8.3	45
	P1/WS106	0.0	8.4	140
	P1/WS106	0.3	8.4	67
	P1/WS107A	1.2	8.2	55
	HDP101	0.5	8.1	50
	HDP108	0.8	7.8	200
	HDP110	0.5	8.8	60
	HDP114	1	7.9	10
	HDP117	0.6	9.8	320
	HDP121	0.5	8.7	1200
	RP01		8.4	5.3
	RP17		7.1	230

Stratum	Exploratory hole ID	Depth of sample [m bgl]	pH	Water soluble sulphate content (2:1 extract as SO_4) [mg/l]
	RP20		6.9	290
	TP101	2.6	7.9	20
	TP102	0.25	8.3	70
	TP103	1	8.2	70
	TP105	0.5	8.3	20
	WS102	4	8.2	30
	WS102		9.8	20
	WS103	0.2	10	20
	WS103		8.5	11
	WS104	3	8.6	30
	WS104		9.8	8.5
	WS105	1	7.8	70
	WS106B	0.2	9	50
	WS107	2	7.7	10
	WS107	4	8.1	50
	WS107		8.5	1.6
	WS108	0.25	8.8	10
	WS108	3	8.3	40
	WS108	4	7.9	30
	WS108		10.1	15
	WS109	0.25	9.4	40

In order to determine the ACEC class of concrete required, the pH and Sulphate tests have been interpreted following the guidelines given in BRE Special Digest 1.

Taking the perched water to be mobile, a site wide Design Sulphate Class of DS-2 and an Aggressive Concrete Environment Classification (ACEC) of AC-2 is considered appropriate.

6. UNDERGROUND AND GEOLOGICAL FEATURES

This section describes underground and geological features that have been recorded within the site footprint. Information on the underground and geological features has been taken from the GI 2016 and GI 2017.

6.1. Made Ground

A void was found within WS109 at 3.0 m bgl to 3.8 m bgl within made ground and is believed to be associated with infilled former structure foundations or a basement, and therefore localised.

Carillion (the site user throughout 2016-2017) reported buried metal and potential voids within their site cabin area of the site. Buried metals were not encountered during the 2016 and 2017 investigations and are therefore considered likely to be localised to the site cabins part of the site.

Buried concrete was encountered at CP/RC111(0.9 m) & CP/RC112(3.9 m) during the Cundall ground investigation and within HDP103, HDP108, HDP112 and WS104 during the TerraConsult 2017 investigation at 0.3 to 0.4 m bgl.

6.2. Alluvium and Peat

Thin layers of alluvium and peat were encountered in localised positions and were not persistent in thickness or extent. There is no evidence that the presence of these materials represents a buried channel within the bedrock.

6.3. Bedrock

At Plot 5 First Street, which is adjacent to the northern site boundary, investigations confirmed the presence of a buried channel feature in the sandstone, Figure 6-1. This is described in Ramboll report 610333653/Geo/MEMO/01. The presence of the void had implications for the piling methodology.

Cundall's Geo-environmental assessment highlighted the potential for buried channels beneath the site based on a direct comparison of the OS and Historic Maps (Pigot in 1821 and Swire 1824). Figure 6-2 indicates the position of the channel (highlighted in blue), adjacent to the former course of the River Medlock.

Figure 6-3 is a geological section including both Cundall GI 2016 and Ramboll GI 2017 information. Note that the Ramboll GI 2017 boreholes do not differentiate between 'weathered' rock and sandstone, because of the rotary probing technique employed.

The combined 2016 and 2017 investigation data, when combined as on Drawings 1620002943-RAM-XX-XX-DR-GE-010 and 1620002943-RAM-XX-XX-DR-GE-014 and cross sections 1620002943-RAM-XX-XX-DR-GE-011, 1620002943-RAM-XX-XX-DR-GE-012 and 1620002943-RAM-XX-XX-DR-GE-013 indicate that the depth to rockhead is relatively consistent and that the persistent channel feature(s) as shown on historical mapping have not resulted in depressions or voiding within the bedrock.

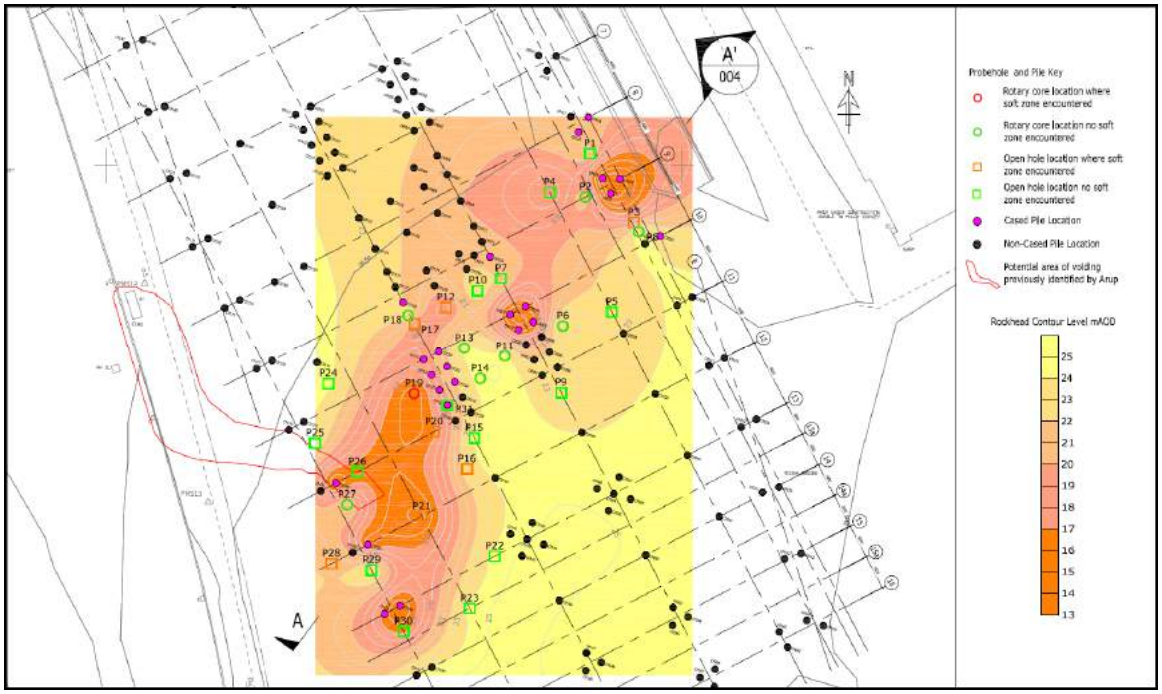

Figure 6-1 Plot 5 rockhead contour plan to delineate likely extent of buried channel/voids in the sandstone (Ref: 610333653/Geo/MEMO/01)

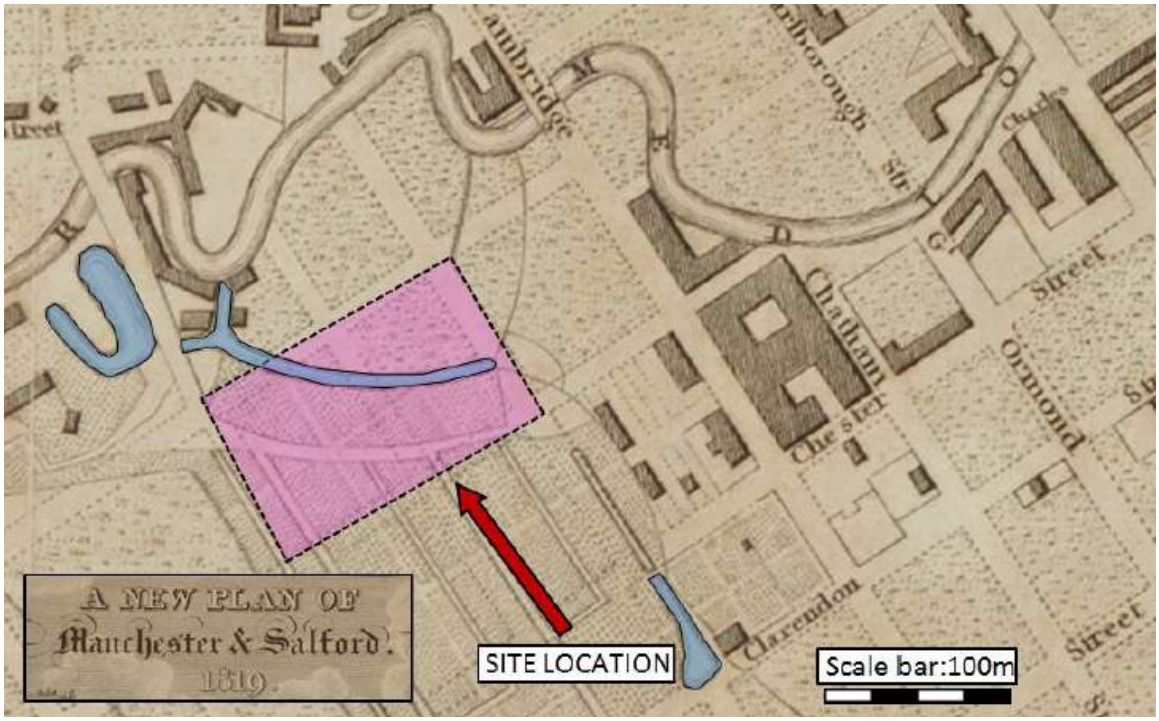

Figure 6-2 Potential Location and Extent of Historic River Channel (Ref: Cundall 2016).

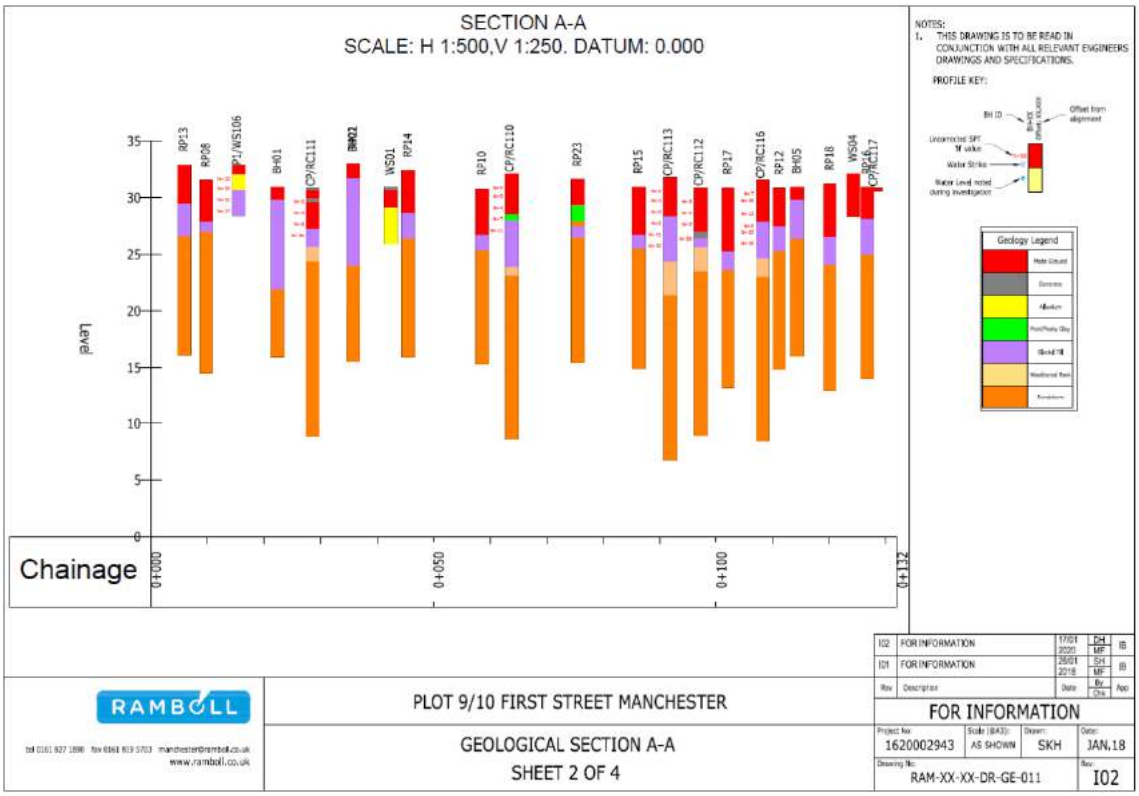

Figure 6-3 Geological Section including Cundall GI (2016) and Ramboll GI (2017 & 2019)

Note: the rotary open-hole boreholes were logged according to drilling progress and limited information from arisings from the hole. This logging is dependent on the judgement of the logging engineer. In some cases, it is difficult to distinguish glacial deposits from weathered bedrock. In the case of BH01 and BH03, the logged bedrock level differs by several metres from nearby boreholes on each side. This may be representative of a weathered zone in the bedrock, rather than a depression in rockhead level as indicated by the section and rockhead contour plot. As such, we don't consider that these apparent depressions represent features which would have a significant effect on the design or construction.

7. PILED FOUNDATION SOLUTION

Note: this section presents a nominal pile capacity based on rock socket length irrespective of the basement construction. The detailed design for the foundations and basement will be developed and reported separately.

Due to the variability in composition and thicknesses of superficial materials and the reliable frictional and end resistance available in the underlying Sherwood Sandstone bedrock it is recommended that the piles will be designed as rock-socketed, with no contribution to shaft friction being required from the superficial deposits (i.e. made ground/glacial till/alluvium). CFA piles are likely to represent the most economical and practical solution for the prevailing ground conditions at the site.

7.1. Pile Capacity

The bedrock (Sandstone) at the site is encountered typically at depth of 4.0 to 6.5 m bgl (i.e. 26.5 m AOD to 24.0 m AOD); the capacity of CFA piles is significantly increased by utilising some penetration into the bedrock. Nominal pile embedded lengths into the strata have been considered in calculating the indicative capacities.

Appropriate Eurocode material, action, and resistance factors have been used to calculate indicative pile capacities, which are presented in Table 7-1.

Table 7-1 Indicative Pile Capacity

Pile Diameter (mm)	Rock Socket Length (m)	Ultimate Capacity, Unfactored (kN)	Eurocode, Pile Capacity (kN)	
			ULS DC1	ULS DC2
600	2.0	2480	1770	1010
	3.0	3530	2520	1460
	4.0	4860	3470	2040
750	2.0	3460	2470	1380
	3.0	4810	3440	1970
	4.0	6530	4670	2710
900	2.0	4580	3270	1810
	3.0	6250	4460	2530
	4.0	8390	5990	3450

7.2. Working Platform

A working platform will be required for all piling works that are to take place across the site as well as any other works requiring tall/heavy plant. The working platform should be designed, installed, maintained and repaired in accordance with appropriate standards, such as BRE document BR470 'Working platforms for tracked plant' (2004), and comply with FPS requirements for certification.

8. PAVEMENT FOUNDATION DESIGN

A design CBR value of 4% has been adopted, although it is recommended that CBR is re-assessed during detailed design, once the design subgrade levels and pavement locations have been established.

The pavement foundation material and thickness are dependent on the foundation design class. It is recommended that this is determined by the highways/pavement engineer for the scheme.

For indicative purposes, the following, Table 8-1, foundations would be required for Class 1 and 2 foundations, according to Highways Agency standard IAN 73/06, using the 'Restricted' (i.e. prescriptive) design charts.

Table 8-1 Pavement Foundation Sizes

Foundation Class	Capping only	Sub-base only	Capping + sub-base
1	450 mm	N/A	N/A
2	N/A	360 mm	230 mm capping + 270 mm subbase

This is based on capping material and unbound subbase in accordance with Series 600 and Series 800 of the Specification for Highways Works.

The subgrade CBR should be verified at representative locations by in-situ testing, or by proof rolling to identify areas of weak, or yielding material prior to placement of the foundation materials.

Alternatively, it may be economical if the piling platform is partly or wholly incorporated into the permanent site works to provide a uniform subgrade with a high design CBR and stiffness.

9. SHALLOW FOUNDATION DESIGN

9.1. Bearing Capacity

Plot 9
Ground bearing foundation (i.e. floor slabs) are not required within Plot 9.

Plot 10
The conservatively derived CBR value of 4% for the granular Made Ground equates to a Young's Modulus of 42 MPa; subject to proof rolling and inspection of the formation, it is considered that ground bearing floor slabs are appropriate for the development.

For minor structures (i.e. benches, planters and sculptures) which will require nominal foundations, the bearing capacity of the shallow soil has been assessed as follows;

Foundation on cohesive Made Ground:
The design bearing resistance (cohesive soil) can be estimated as;

$R/A' = (\pi + 2) \times C_u \times b_c \times s_c \times i_c + q$ [EC7 Annex D]

Where
C_u = Undrained shear strength;
q = overburden or surcharge pressure at the level of the foundation base;
b_c, s_c, and i_c are base factor, shape factor and inclination factor;

The bearing resistance of the cohesive Made Ground for a square meter of effective area of a shallow foundation or ground floor slab at 1.0 m below existing ground level (at 31.0 m AOD) is approximately 80 kPa [EC7 Design Approach 1 Combination 2].

Foundation on granular Made Ground:
The bearing resistance (granular soil) can be estimated as;

$R/A' = c' N_c b_c s_c i_c + q' N_q b_q s_q i_q + 0.5 \gamma' B' N_\gamma b_\gamma s_\gamma i_\gamma$ [EC7 Annex D]

The bearing resistance for the granular Made Ground with the characteristic values of $\varphi' = 28°$; $c' = 1$ kN/m^2 and for a square meter of effective area at 1.0 m below existing ground level is approximately 100 kPa, [EC7 Design Approach 1 Combination 2].

Settlements are anticipated to be less than 25 mm.

Based on this assessment, ground bearing floor slabs and minor structure foundation are assessed to be suitable for use within Plot 10, subject to removal of areas of soft or loose material and replacement with compacted structural fill. The formation should be proof rolled to ensure that it is suitable for carrying the imposed load of the floor slabs.

9.2. Heave Assessment

The proposed SSL (Structural Slab Level) of the basement floor in Plot 9 is 26.65 m AOD. The excavation depth will be in the range of 5 to 6 m. For the purpose of the heave assessment we have considered that the rotary cored boreholes enable a more accurate estimation of rockhead level than the rotary probes. We have therefore used boreholes CP/RC109, CP/RC110 and CP/RC111 to assess the likely thickness of glacial deposits (i.e. clay) which will remain within the footprint of the basement following excavation.

We have accordingly carried out a preliminary heave calculation based on a 1.0 m thickness of clay remaining present above rockhead. This assessment indicates that long-term post-excavation heave would be unlikely to exceed 10 mm.

10. GROUND CONTAMINATION - GENERIC QUANTITATIVE RISK ASSESSMENT

This ground contamination assessment has been undertaken in accordance with the current UK framework and comprises a generic quantitative risk assessment (GQRA) as defined in CLR 11 (EA 2004). Further details of the UK legislative context are provided in Appendix B.

In order to assess the significance of the chemical concentrations reported, generic assessment criteria (GAC) must be selected based on the critical receptors identified at the site. Receptors are considered in relation to Human Health (e.g., people using the site) and the Water Environment (e.g., water resources).

Additional receptors may also require consideration e.g. building materials and flora/fauna, as appropriate to the proposed development. Quantitative assessment of these receptors is not provided at this stage; however, comment is made qualitatively in a later section. These should be considered further as the development proposals progress. A water supply pipe assessment is included in a later section.

10.1. Human Health Assessment

10.1.1. Methodology

Details of the UK framework for human health risk assessment and GAC are provided in Appendix B.

Contaminant concentrations below the adopted GAC are considered not to warrant further risk assessment. Where any concentrations are recorded above the GAC consideration of the contaminant distribution is undertaken.

Current UK guidance is provided in the DEFRA/EA CLR framework which sets out standard land uses for which GAC are derived for individual contaminants. The site use does not fall into any of the specified categories thus a commercial /industrial land use scenario has been assumed as the reasonable worst-case scenario.

10.1.2. Soil Screening Analysis

The soil analysis results are presented in comparison to the GAC in Appendix C. Data from both Ramboll and Cundall investigations have been assessed.

Alkaline conditions are recorded.

There are no exceedances of the GAC from either set of ground investigation data. The only contaminant identified of potential concern for a commercial end use is asbestos.

48 samples were analysed for asbestos, seven samples identified asbestos fibres. Asbestos quantification data from Ramboll investigation is summarised in Table 10.1 below.

Table 10.1: Summary of Asbestos Concentrations in soil from Ramboll investigation

Location	Depth	Strata	Asbestos type	Quantification
WS103	0.2m	Made ground	Chrysotile	0.001%
WS104	0.55m	Made ground	Chrysotile	0.002%
WS105	1.0m	Made ground	Chrysotile and Crocidolite	<0.001%
WS106b	0.2m	Made ground	Chrysotile	<0.001%
WS108	0.25m	Made ground	Chrysotile and Amosite	<0.001%
WS108	3.0m	Made ground	Amosite	<0.001%
WS109	0.25	Made ground	Chrysotile	0.007%

As shown in table 5.1 above, only three of the samples were recorded above the laboratory detection limit of 0.001%.

The Ramboll investigation asbestos sampling was designed to fill in gaps from the Cundall investigation and must therefore be considered alongside the existing data. A summary of sampling and results from both investigations is provided in Table 10.2 below.

Table 10.2: Summary of all asbestos results

Location	Cundall	Ramboll	Total	total as %
Number of samples analysed	85	48	133	-
Number of detects at visual ID stage	43	7	50	-
Number of detects from quantification (>0.001%)	14	3	17	12.8
Number above Hazardous Waste threshold of 0.1%	2	0	2	1.5

The Cundall ground investigation identified 14 samples with asbestos above the laboratory detection limit of 0.001%. The largest concentration was identified at 2.698% (above the hazardous waste threshold of 0.1%). There were only two samples analysed which contained concentrations above the hazardous waste threshold of 0.1%.

Asbestos has been identified (above the laboratory detection limit) across the site at varying depths within the made ground to a maximum depth of 1.0m bgl. The made ground was all similar across the site therefore it must be assumed that all made ground on site may be similarly impact with asbestos at the low levels identified.

10.2. Waters Assessment

10.2.1. Methodology

Generic assessment criteria (GAC) for waters must be selected to assess potential risks to identified human health and environmental receptors.

The site is underlain by made ground overlying Glacial Deposits (Secondary A Aquifer) and Chester Pebble Beds (Principal Aquifer). There is sufficient water resource potential beneath the site that future resource potential for potable water must be considered.

There is an east – west trending surface watercourse located approximately 80m to the north of the site boundary. Potential risks to the surface water environment must also be considered.

The GAC used to assess the leaching and groundwater data are:

- Minimum reporting values for hazardous substances to identify any input of hazardous substances to groundwater.
- Resource Protection Values (RPV) to ensure protection of the potential water supply resource in both superficial and bedrock aquifers: Drinking Water Standards (DWS) for all substances; and
- Freshwater Environmental Quality Standards (EQS) - used to assess potential risks to the surface water environment.

10.2.2. Groundwater and Leachate Screening Analysis

TerraConsult Ltd obtained groundwater samples from two wells (RP17 and RP20) and six soil samples were analysed for leachate.

The Cundall investigation provided analysis of 14 leachate samples, however no ground water samples were analysed.

The chemical analysis screening summary tables are included in Appendix C using both Ramboll and Cundall data. Measured concentrations in leachate above the recommended GAC for the surface water environment are summarised in Table 10.3 and measured concentrations in leachate above the recommended GAC for drinking water and aquifer resource protection are summarised in Table 10.4 below. Measured concentrations in groundwater are summarised in Table 10.5 below.

Table 10.3: Summary of Elevated Chemical Concentrations above EQS in leachate

Determinant	GAC	Units	No. of Exceedances (out of 20 samples tested)	Maximum	Comments
pH	<5, 9>	pH	4	10.1	Alkaline conditions as expected due to concrete and demolition rubble in made ground.
Anthracene	0.1	µg/l	6	2.1	Impacts predominantly from targeted Ramboll investigation. Distributed across site made ground.
Fluoranthene	0.0063	µg/l	7	10	
Benzo(a)Pyrene	0.0017	µg/l	7	4.9	
Benzo(b)fluoranthene	0.0017	µg/l	7	4.7	
Benzo(ghi)Perylene	0.0017	µg/l	6	3.2	
Benzo(k)fluoranthene	0.0017	µg/l	7	3.1	
Indeno(123-cd)Pyrene	0.0017	µg/l	6	2.4	
Chromium	4.7	µg/l	4	29	Minor impacts distributed through made ground
Copper	1	µg/l	19	16	Minor exceedances. Conservative assessment assuming 100% bioavailability. Unlikely to be significant given concentrations and setting.
Zinc	10.9	µg/l	3	29	
Lead	1.2	µg/l	10	31	
TPH(C10-C35)	0.01	µg/l	6	0.96	Impacts noted only in targeted Ramboll investigation. Minor impacts.

Table 10.4: Summary of Elevated Chemical Concentrations above DWS in leachate

Determinant	GAC	Units	No. of Exceedances (out of 20 samples tested)	Maximum	Comment
Arsenic	7.5	µg/l	5	19	Minor impacts distributed through made ground
Benzo(a)Pyrene	0.005	µg/l	7	4.9	Impacts predominantly from targeted Ramboll investigation. Distributed across site made ground.
Benzo(b)fluoranthene	0.075	µg/l	7	4.7	
Benzo(ghi)Perylene	0.075	µg/l	6	3.2	
Benzo(k)fluoranthene	0.05	µg/l	7	3.1	
Indeno(123-cd)Pyrene	0.05	µg/l	6	2.4	
Lead	5	µg/l	7	31	Minor impacts distributed through made ground
TPH (C10-C35)	0.09	µg/l	3	0.96	Minor impacts distributed through made ground

Table 10.5: Summary of Elevated Chemical Concentrations above EQS or DWS in Groundwater

Determinand	GAC	Units	No. of Exceedances	Maximum	Comment
	EQS				
Fluoranthene	0.0063	µg/l	2	0.01	Measured at detection limit. Minor impact.
Copper	1	µg/l	1	2.2	Worst case, assumption 100% bioavailable. Unlikely to be significant given concentrations and setting.
Nickel	4	µg/l	1	4	
	DWS				
Sulphate	250	mg/l	1	290	Trivial exceedance, no significant impact to groundwater.
TPH(C10-C35)	0.09	mg/l	2	0.32	Minor impact to groundwater.

Discussion

The pH across the site is alkaline. This is due to the made ground which includes significant concrete fragments which would raise the pH.

Risks to surface water receptors

There are exceedances of the PAHs and TPH and certain metals above the EQS. Impacts are typically low concentrations, distributed throughout the made ground. Metals and PAHs were identified at very low concentrations in the groundwater samples analysed suggesting a minor impact.

The underlying aquifer has been impacted historically around the site from the Gaythorne Gas Works to the north and other industrial activities in the area. The River Medlock is culverted approximately 230m north of the site and unlikely to be in hydraulic connectivity with the site. The impacts noted are not considered to pose a significant risk to the nearby surface water receptors.

Risks to aquifer resource and drinking water receptors

There are exceedances of the PAHs and TPH and certain metals above the DWS. Impacts are typically low concentrations, distributed throughout the made ground. Metals and PAHs were not identified in the groundwater samples analysed. TPH was identified at low concentrations. This suggests there may be a minor ongoing impact to the underlying groundwater from leaching of contaminants from the made ground.

10.3. Summary

Localised impacts have been identified in soils and groundwater which required further consideration of the potential risks in the context of the site and proposed development. This is completed in the following chapters.

11. GROUND GAS RISK ASSESSMENT

11.1. Methodology

The gas regime at the site has been characterised using current UK guidance including BS 8485: 2015, CIRIA Report C665 (2007), and RSK/NHBC (2006).

Further details of the assessment methodology are provided in Appendix B.

11.2. Ground Gas Data

The ground investigation identified deep made ground and also peat deposits which have the potential for gas generation.

Six rounds of monitoring have been completed by TerraConsult Limited which provide an appropriate number of rounds of monitoring for the proposed development (based on CIRIA C665). However, due to site conditions, RP20 was destroyed after two rounds of monitoring, WS103 was flooded for the final three rounds of monitoring and WS105 was inaccessible with a skip for the final four rounds. However, the remaining five wells were monitored on all six occasions. Monitoring data is provided in the TerraConsult Factual report.

Carbon dioxide and methane concentrations were below the 5% and 1% respective thresholds for CS1, with the exception of RP20 which recorded carbon dioxide at 9.3% and methane at 1.5% during the first monitoring visit.

11.3. Classification of Ground Gas Regime

The assessment presented in Table 11.1 below comprises a worst-case assessment using maximum methane and carbon dioxide concentrations and maximum flow rates.

Table 11.1: Worst Case Ground Gas Monitoring Record

Borehole Ref	Flow rate (l/hr)	CH_4 Peak Gas Concentration (% v/v)	CO_2 Peak Gas Concentration (% v/v)	GSV Worst case	Characteristic Situation (CIRIA C665)
Worst Case	0.1	1.5	9.3	0.0093	CS1 But likely increase to CS2 based on CO2 and CH4 thresholds.

Notes

- Peak flow and concentrations used for GSV calculation.
- Negative and zero flow rates are assumed to be at the detection limit of 0.1 l/hr for calculation of GSV, as per guidance in CIRIA C665.

A worst-case gas screening value of 0.0093 l/hr corresponds to Characteristic Situation 1 (CS1). However, as the concentration of methane exceeded 1% and carbon dioxide has exceeded 5%, consideration to increase the gas protection measures to CS2 must be undertaken.

11.4. Design of Gas Protection Measures

Design of gas protection measures should be completed using guidance provided in BS8485:2007 based on the gas monitoring results provided by TerraConsult Ltd and calculations in Table 11.1 above.

12. WATER SUPPLY PIPE MATERIAL ASSESSMENT

The assessment has been completed in accordance with the current UK Guidance for the Specification of Water Supply Pipes to be used in Brownfield Sites (UK Water Industry Research Ltd. UKWIR, 2014).

This guidance provides threshold concentrations for different pipe material for various chemical groups.

The pipeline materials considered by the guidance are PE, PVC, wrapped steel, wrapped ductile iron or copper pipe and barrier pipe. PE and PVC are assessed using threshold concentrations for various chemical groups including volatile organic compounds (VOC) with tentatively identified compounds (TICs), semi-volatile organic compounds (SVOC) with TICs, and mineral oils. Wrapped steel, wrapped ductile iron and copper pipe are assessed using corrosive properties.

Seven samples were analysed for VOCs and SVOCs across the Cundall and Ramboll investigations. Table 12.1 summarises the relevant analytical results compared to pipeline threshold concentrations.

Table 12.1: Soil data compared to pipeline threshold concentrations

Test Group	Testing Required?	PE Threshold mg/kg	Maximum measured concentration	Metal Pipes/ Barrier Pipe
Total VOCs	Where Preliminary Risk Assessment (PRA) has identified land potentially affected by contamination	0.5	<1	Pass
Total BTEX & MTBE		0.1	<0.01	Pass
Total SVOCs (excluding PAHs and those substances marked with an *)		2	19.4	Fail
EC5-EC10 aliphatic and aromatic hydrocarbons		2	<0.1	Pass
EC10-EC16 aliphatic and aromatic hydrocarbons		10	140	Fail
EC16-EC40 aliphatic and aromatic hydrocarbons		500	1640	Fail
Phenols* (from SVOC analysis) [2]		2	<0.2	Pass
Cresols and chlorinated phenols* (from SVOC analysis) [3]		2	<0.2	Pass
Ethers*	Only where identified	0.5	-	Pass
Nitrobenzene*		0.5	-	Pass
Ketones*		0.5	-	Pass
Aldehydes*		0.5	-	Pass
Amines		Fail	-	Pass
Corrosive	Conductivity, Redox and pH	Pass	pH 6.5-11	See Note [1]

Notes:

'Total' concentrations calculated as the sum of all concentrations above laboratory detection limit.

[1] Threshold: For wrapped steel, corrosive if pH<7 and conductivity > 400!S/cm. For wrapped ductile iron corrosive if pH<5, Eh not neutral and conductivity > 400uS/cm. For copper, corrosive if pH<5 or >8 and Eh positive.

[2] Phenols: Group 2e as specified in UK WIR, 2010: sum of butyl phenol, dichlorophenols, dimethyl phenol, ethyl phenol, pentachlorophenol, phenols, trichlorophenols
[3] Cresols: 2-, 3-, and 4- methylphenols

Highlighted where concentrations exceed the threshold for PE.

The available data indicates that the elevated SVOCs in TP103 (0.8 -1.0 m bgl) exceed only due to 2-methylnapthalene, dibenzofuran and carbazole. SVOCs do not exceed the threshold in the other samples analysed.

The elevated hydrocarbons C10-C16 are located at HDP110 at 0.5 m bgl, HDP117 at 0.6 m bgl, HDP121 at 0.5 m bgl and WS109 at 0.25 m bgl. The elevated hydrocarbons C16-C40 are located at WS102 at 1.0-1.2 m bgl (Cundall's data), HDP110 at 0.5 m bgl and HDP177 at 0.6 m bgl.

Made ground is similar across the site thus it is likely these results reflect typical made ground.

In light of these results, it is likely that barrier pipe will be required for any water supply pipes at this site.

If it is considered preferable to try and reduce the specification of the water pipes to PE instead of barrier pipe, a further review could be completed once the final position of the water supply pipes is determined with additional sampling, analysis, assessment and consultation with the regulatory authority.

13. GROUND CONTAMINATION – RISK EVALUATION

13.1. Conceptual Site Model

The information presented in the previous sections of this report have been collated and evaluated to refine the initial conceptual site model for the site.

13.1.1. Sources

The potential contamination sources are summarised in Table 13.1 based on the site investigation results.

Table 13.1: Potential Sources

Source	Comments
Soil impact	Potential risks to human health - Asbestos identified above the laboratory detection limit of <0.001% in 17 locations across site. Potential for further impacts in made ground. Elevated concentrations of hydrocarbons and SVOCs may pose a risk to buried water pipes.
Ground gas impacts	From the pseudofibrous peat identified in WS108 and deep made ground there is a potential for ground gas generation and subsequent vapour migration and risks to future site users in particular within buildings. The results from the ground gas monitoring identified slightly elevated carbon dioxide and methane indicative of Characteristic Situation 2 for new buildings.
Groundwater impacts	Hydrocarbons and metals have been identified at slightly elevated concentrations which may pose a risk to surface water receptors and drinking water/water resources.

There is also a potential risk of additional impacts in areas not accessible such as the Carillion site cabins and in the location of the gas main where access for site investigation works was restricted.

Alkaline pH was noted but is not considered further in this section. This has been considered within the geotechnical assessment.

13.1.2. Receptors

The site-specific receptors that could potentially be affected by the contamination hazards are summarised in Table 13.2.

Table 13.2: Potential Receptors

Feature	Details
ON SITE	
Future site users	Proposed use: Ground plus10 storey commercial tower block with basement
Construction workers	Any workers coming in contact with the ground or confined space in which gases may build up.
Underlying aquifer	Bedrock Sandstone aquifer classified as Principal Aquifer.
Construction materials	Buildings materials used below ground, e.g. foundations and services.
Flora/fauna	Soft landscaping will be very limited, based on current development proposals. Any planting assumed to be within e.g. tree boxes with imported topsoils.
OFF SITE	
Neighbouring properties	Neighbouring properties are commercial and residential.
Adjacent Water Courses	River Medway culverted approximately 230m north of the site.

13.1.3. Pathways

In order for the contaminants identified in this site investigation to reach potential receptors, there has to be a viable pathway for the contaminant. Potential pathways were identified within the preliminary conceptual model and are discussed further in Table 13.3 below in relation to the identified source impacts and receptors identified.

Table 13.3: Potential Pathways

Receptor	Pathway	Comments
Human health, fauna	Direct contact with contaminated soils	This will be very limited following development as hard cover is proposed across the majority of the site. Direct contact is more significant issue for construction workers.
Human health and fauna	Inhalation of dusts and vapours	Inhalation of dusts will be very limited following development as hard cover is proposed across the majority of the site. Organic material and hydrocarbon impacts identified in soils and groundwater have the potential to give off ground gases which have the potential to migrate and build up in particular in buildings and confined spaces. There is also the risk to offsite users from asbestos fibres generated during construction which may migrate offsite.
Flora	Direct contact with impacted soils and root uptake	This will be very limited following development as hard cover is proposed across the majority of the site.
Water environment	Leaching and vertical migration of soil impacts to groundwater	Potential for leaching will be limited after development due to the high percentage of the site to be covered with hardstanding. Groundwater was only identified at RP17 and RP20 within the sandstone. No significant amounts of water were identified within the wells installed within the made ground.
Water environment	Migration of contaminants via groundwater to surface water courses and underlying aquifer	No shallow groundwater was identified during the site investigation, thus there is unlikely to be a pathway via which contaminants may enter the culverted River Medway. Groundwater depths within the made ground were typically around 26.35 – 29.40 m AOD (approx. 2 to 4 m bgl). Groundwater within the deeper boreholes in the sandstone recorded levels of 25.0-26.0 m AOD (approx. 5.3-6.5 m bgl). Any infiltration of rainwater and subsequent leachate generated will ultimately reach the sandstone aquifer at depth. The predominantly low permeability of the made ground will slow any such movement.
Buildings and structures	Damage to building materials or services through direct contact with contaminants or through contaminant migration	Hydrocarbons have been identified in the soil and groundwater which may affect subsurface construction materials and in particular water supply pipes. The high pH should be considered in relation to subsurface materials.

13.1.4. Qualitative Risk Assessment

Potential pollutant linkages are identified using the source-pathway-receptor framework detailed above. An assessment of the potential significance of each linkage is then made by consideration of the likely magnitude and mobility of the source, the sensitivity of the receptor and nature of the migration/exposure pathways.

This qualitative hazard assessment has been undertaken in accordance with NHBC and Environment Agency, 2008. Further details of which are provided in Appendix B including definition of risk categories.

Table 13.4 summarises the pollutant linkages and risk ratings associated with the proposed development.

Table 13.4: Risk Assessment

Hazard / Pollutant	Pathway	Receptor	Potential Severity	Probability of Risk	Level of Risk
Hydrocarbons and SVOCs in soils	Direct contact	Water supply pipes	Medium	Likely	MODERATE. Impacts are above the water supply pipe thresholds for PE pipes. Barrier pipe recommended.
Asbestos in shallow soils	Inhalation	Future Site users Neighbouring residents	Severe	Unlikely	LOW/MODERATE. Site is to be predominantly hard standing, soft landscaped areas to have cover system in place. Very limited potential for direct contact with impacted soils.
		Neighbouring residents	Severe	Unlikely	LOW/MODERATE. During construction there is a potential risk of offsite migration of windblown fibres. Precautions to be taken during site works
		Construction workers	Severe	Low	MODERATE*. Appropriate on-site health and safety measures to be taken.
Ground gas	Inhalation	Future Site users	Medium	Likely	MODERATE. Ground gas protection measures required to Characteristic Situation 2.
Leachate and groundwater impacts of PAHs and metals	Leaching and migration	River Medlock	Medium	Unlikely	LOW. Residual impacts identified in groundwater and leachate indicating potential for further leachable contaminant source. However, groundwater was only identified within the sandstone bedrock and rose to within the depth of made ground when monitored. The made ground appears to be underlain by low permeability clay which provides some protection to the underlying sandstone aquifer. The development will comprise impermeable hard standing over the majority of the site thus significantly reducing leaching potential further from the unsaturated soils.
		Principal Aquifer	Medium	Unlikely	LOW. As above. There may however, be a potential risk of piling affecting risks to the aquifer. Further consideration of this should be undertaken e.g. in a piling risk assessment.

Notes

Should the development proposals alter significantly a review of this risk assessment may be required. In particular if wider or new areas of landscaping / open areas are planned.

* Given the use of appropriate PPE and on-site health and safety precautions, risk to site development workers would be reduced to low.

14. WASTE CLASSIFICATION

14.1. Methodology

The assessment has been undertaken using available soil chemical data and HazWasteOnline, a web-based tool for classifying waste. The software utilises Environment Agency guidance and European regulations to classify samples in line with current requirements. Further details of the waste classification methodology are provided in Appendix B.

A detailed waste assessment was provided under a separate cover and is Appended herein as Appendix D. The conclusions are summarised below.

14.2. Summary

A total of three out of 55 samples were classified as hazardous. Based on the available information, the likely waste classification of soils underlying the development are as follows:

- Localised area of elevated metals (namely copper, lead and zinc) within the Made Ground around WS106B and WS04 likely to be classified as hazardous;
- Asbestos impacted soils around AOP6-7C4 in the north-west and AOP6-7O1 in the east are likely to be classified as hazardous; there is a potential for additional asbestos impacts in particular in these areas. Material in these areas should be subject to visual inspection and impacted soils segregated;
- Remaining made ground likely to be classified non-hazardous;
- Alluvial and glacial deposits likely to be classified as non-hazardous (however this is based on only four samples);
- Alluvial deposits unlikely to be suitable for disposal at an inert landfill due to organic content; and,
- Glacial deposits likely to be suitable for disposal at an inert landfill.

If there are any previously unidentified areas of contamination noted via visual or olfactory evidence during any excavations, these will have to be stockpiled separately and analysis will be required to determine the likely nature of the material and delineate any potentially impacted areas.

In conclusion during the excavation of the basement, the hotspot areas around WS106B and WS04 will need to be segregated and resampled to confirm the waste classification. This will limit any mixing of potentially hazardous material with possibly non-hazardous material in order to keep the waste streams separate and costs for disposal down.

All the chemical data should be sent to the receiving landfill to determine if they are able to accept the waste prior to disposal.

15. CONCLUSIONS AND RECOMMENDATIONS

15.1. Geotechnical

The stratigraphy identified beneath the site comprises Made Ground over Glaciofluvial Deposits/Glacial Till over Sandstone.

A deep foundation solution i.e. rock socketed CFA piles is recommended for the proposed structures; piles founding within the Sandstone would be suitable to carry the anticipated structural column loads and to reduce settlements to within acceptable limits.

The made ground is likely to be suitable for supporting loads from ground bearing floor slabs (if applicable) for Plot 10. Localised soft material at formation level should be removed and replaced with compacted structural fill. The prepared formation should be proof rolled in accordance with a relevant specification, prior to floor slab construction. The following may be used a guide to the proof rolling requirements (taken from the Plot 5 First Street Excavation and Filling Specification, Ramboll report number 61033653 – SPEC – 04):
The foundation formation of the entire area of the development (building ground slab and external hard landscaping) shall be proof-rolled using a pneumatic-tyred roller of minimum 15,000 kg mass, or a fully loaded twin wheeled dumped truck. The proof-rolling should be directed and observed by an experienced geotechnical or civil engineer. Any areas of deformation should be reported to the Engineer and excavated until competent material is reached (minimum excavation depth 0.75 m), or to the Engineer's satisfaction. The excavated material should be replaced with suitably compacted granular fill in accordance with the specification. Alternative proof rolling proposals may be submitted to the Engineer for consideration.

A design CBR value of 4% is recommended as a provisional value for the design of pavement foundations and external areas except where soft Made Ground is encountered. It is recommended that at the formation level, if soft or uncharacteristic material is encountered, it should be replaced by suitably compacted acceptable granular material. A re-assessment of the subgrade should be made during detailed design, once pavement foundation levels and locations are proposed.

For minor structures (i.e. benches, planters and sculptures) that may form part of the external landscaping and which will require nominal foundations, a design bearing capacity of 100 kPa in ULS Combination 2 for the Made Ground is recommended. Foundation formations should be inspected to ensure the materials are in keeping with the design basis.

Based on the groundwater monitoring, a design groundwater level of 28.35 m AOD is recommended at Plot 9. These depths are based on the maximum levels of perched water identified within the Made Ground.

According to BRE Special Digest 1 – Concrete in Aggressive Ground (BRE, 2005), a design sulphate class of DS-2 and an aggressive chemical environment for concrete (ACEC) of AC-2 are considered appropriate for the site.

The investigations did not encounter any voids within the Sandstone, nor any depression associated with the postulated historical channel beneath the site. The cross sections and rockhead contour profile show that no evidence of such a feature was encountered. In the event that any unidentified channel features are present, the extent would be relatively small and localised, given the extensive borehole coverage. The risk to piling associated with buried channels or voiding within the bedrock may therefore be

considered as low. The far north-west corner of Plot 9 has not been investigated because of the presence of a gas main; the risk of unidentified features in this corner of the site is therefore slightly higher than the remainder of the site.

Buried concrete was encountered at several locations at depths above 1.0 m (RP02, RP03, RP12, TP101, HDP103, HDP108, HDP112, WS104), and in one location at 3.9 m (CP/RC112, TP103) depth. Concrete will require breaking out/removal prior to or during piling, and allowances should be made in the groundworks and piling contracts for these preparatory works, and the potential delays if unexpected obstructions are encountered. Advance pile probing would be advisable to minimise the risk.

It is also recommended that suitable allowances are to be included to identify potential obstructions (i.e. buried concrete and metals) within the upper few metres of the former site cabin area of the site which were reported by Carillion (the site user throughout 2016-2017). Trial trenching is like to be an appropriate means of identifying potential obstructions.

15.2. Contamination

Table 15.1 below summarises the pollutant linkages which require further consideration and potential remedial action.

Table 15.1: Significant Pollutant Linkages

Pollutant linkage	Additional Actions Required
Asbestos in made ground across the site.	Risk management measures required to address potential risks to human health (construction workers and off site receptors) during construction.
Hydrocarbons and SVOCs in soils above water supply pipe threshold for PE pipe.	Barrier pipe recommended.
Ground gases. Elevated methane and carbon dioxide indicate Characteristic Situation 2 is most appropriate classification.	Ground gas protection measures required.
Potential additional impacts e.g. beneath site cabins and close the gas main where site investigation access was restricted, or unexpected / unidentified contamination which may be encountered during works.	Risk management measures required in remedial strategy.

These impacts require further consideration in accordance with the methodology outlined in the CL:AIRE, 2011 Waste Code of Practice.

Impacts have been identified in the made ground which have the potential to leach and impact the groundwater directly beneath the site. The site lies on a Principal Aquifer and as such the Environment Agency may have specific requirements such as piling risk assessment. Thus, whilst it is considered that there will be limited risks to the aquifer from the identified contaminants post development due to the hardstanding and depth of groundwater limiting leaching potential, there may be a requirement for additional works in this regard.

15.2.1. Waste Classification

Based on the information available, the likely waste classification of soils underlying the development are summarised as follows:

- Localised area of elevated metals (namely copper, lead and zinc) within the Made Ground around WS106B and WS04 likely to be classified as hazardous;
- Asbestos impacted soils around AOP6-7C4 in the north-west and AOP6-7O1 in the east are likely to be classified as hazardous; there is a potential for additional asbestos impacts in particular in these areas. Material in these areas should be subject to visual inspection and impacted soils segregated;
- Remaining made ground likely to be classified non-hazardous;
- Alluvial and glacial deposits likely to be classified as non-hazardous (however this is based on only four samples);
- Alluvial deposits unlikely to be suitable for disposal at an inert landfill due to organic content; and,
- Glacial deposits likely to be suitable for disposal at an inert landfill.

If there are any previously unidentified areas of contamination noted via visual or olfactory evidence during any excavations, these will have to be stockpiled separately and analysis will be required to determine the likely nature of the material and delineate any potentially impacted areas.

In conclusion during the excavation of the basement, the hotspot areas around WS106B and WS04 will need to be segregated and resampled to confirm the waste classification. This will limit any mixing of potentially hazardous material with possibly non-hazardous material in order to keep the waste streams separate and costs for disposal down.

The classification of waste reported above must be confirmed by the receiving landfill prior to disposal, under Duty of Care. Any material to be disposed of as hazardous or inert must have WAC analysis provided to confirm appropriate class of landfill.

15.2.2. Further Works

There is likely to be a requirement for a piling risk assessment to address any potential increase in risk to the aquifer which the development may cause during works. Consultation with the Environment Agency should be undertaken to clarify expectations in this regard for this area.

A remedial strategy document for the proposed development will be required to address all remaining identified contamination issues.

Earthworks at the site are recommended to be undertaken in accordance with an appropriate Material Management Plan in accordance with the CL:AIRE, 2011 Waste Code of Practice. All material is suitable for reuse on site in accordance with an appropriately designed material management plan.

The remedial strategy and material management plan documents will include details on, inter alia:

- Site specific details relating to the asbestos impacts identified. These soils are considered unsuitable for use at shallow depth in areas of soft landscaping;
- A contingency for any additional impacts not yet identified which may be encountered during works including for consultation with an appropriately qualified environmental consultant, stockpiling and additional chemical testing / assessment prior to re-use;
- General sampling and analysis requirements for reuse of materials on site;
- Sampling and analysis requirements for waste classification of any materials to be disposed off site.

A part time watching brief by an appropriately qualified environmental consultant is recommended, with subsequent validation sampling in accordance with the methodology outlined within the Material Management Plan. This will allow an independent verification report to be prepared which will be required after works are complete.

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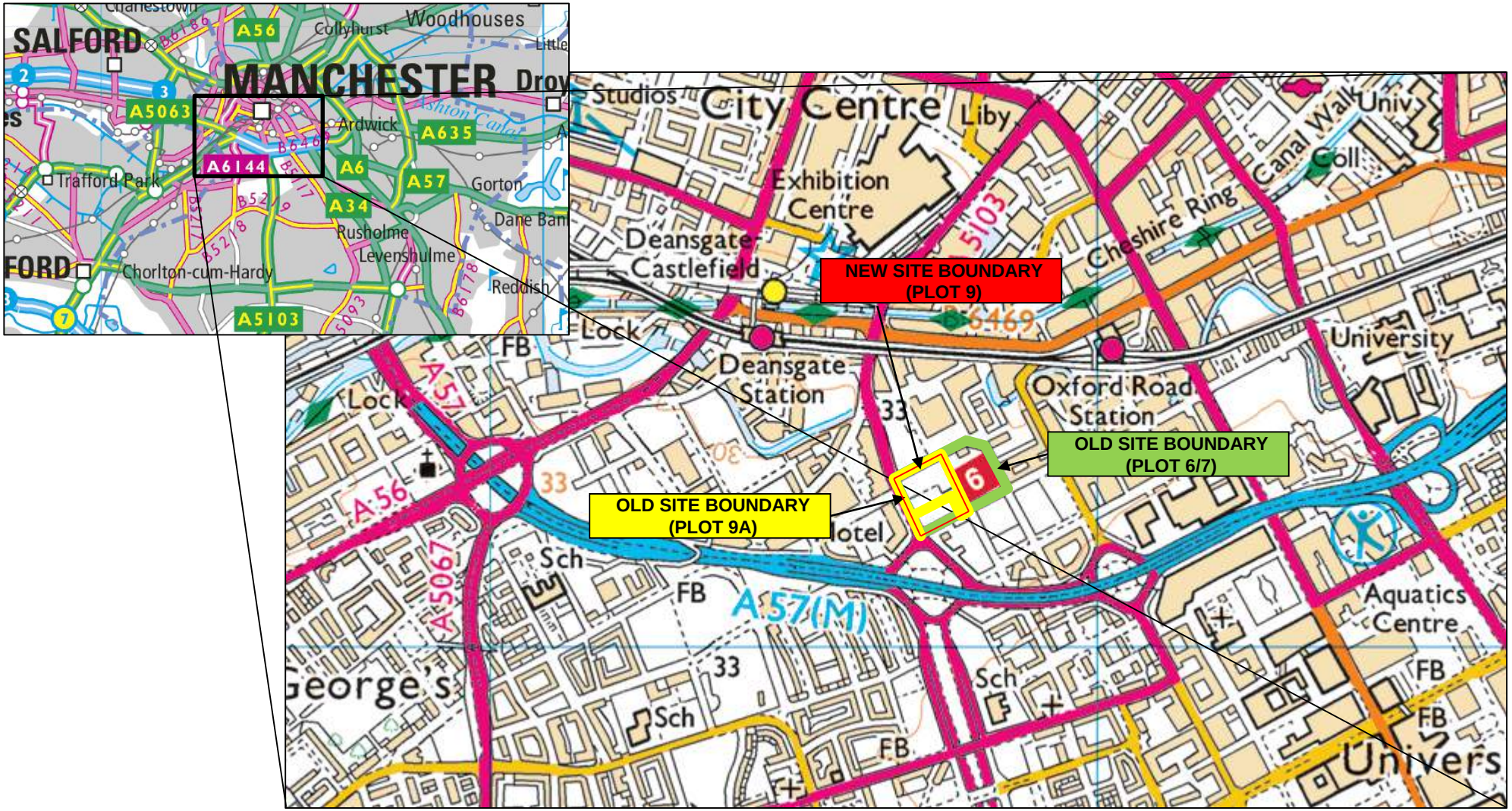
APPENDIX A



RAMBOLL
1 Broad Gate, Leeds, LS1 8EQ
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Project: **Plot 9, First Street, Manchester**	Status:	Description:		Date **19.11.2019**
Title: **Site Location Plan**	Scale: NTS	Date: **19.11 2019**	Drawn: **CC**	Checked: **HC**
	Figure No: 1			Rev:

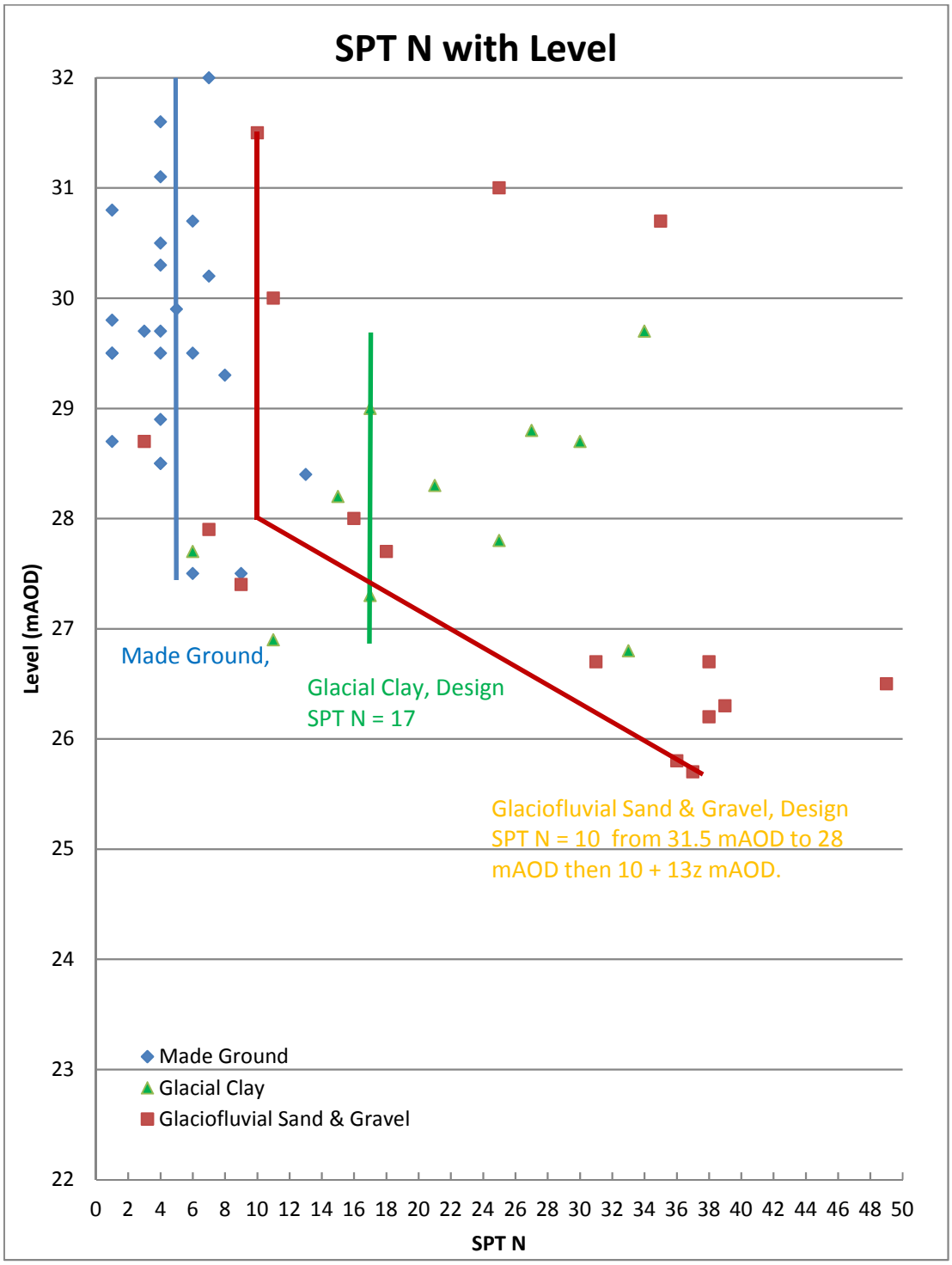

Figure 4-1 SPT N with Level

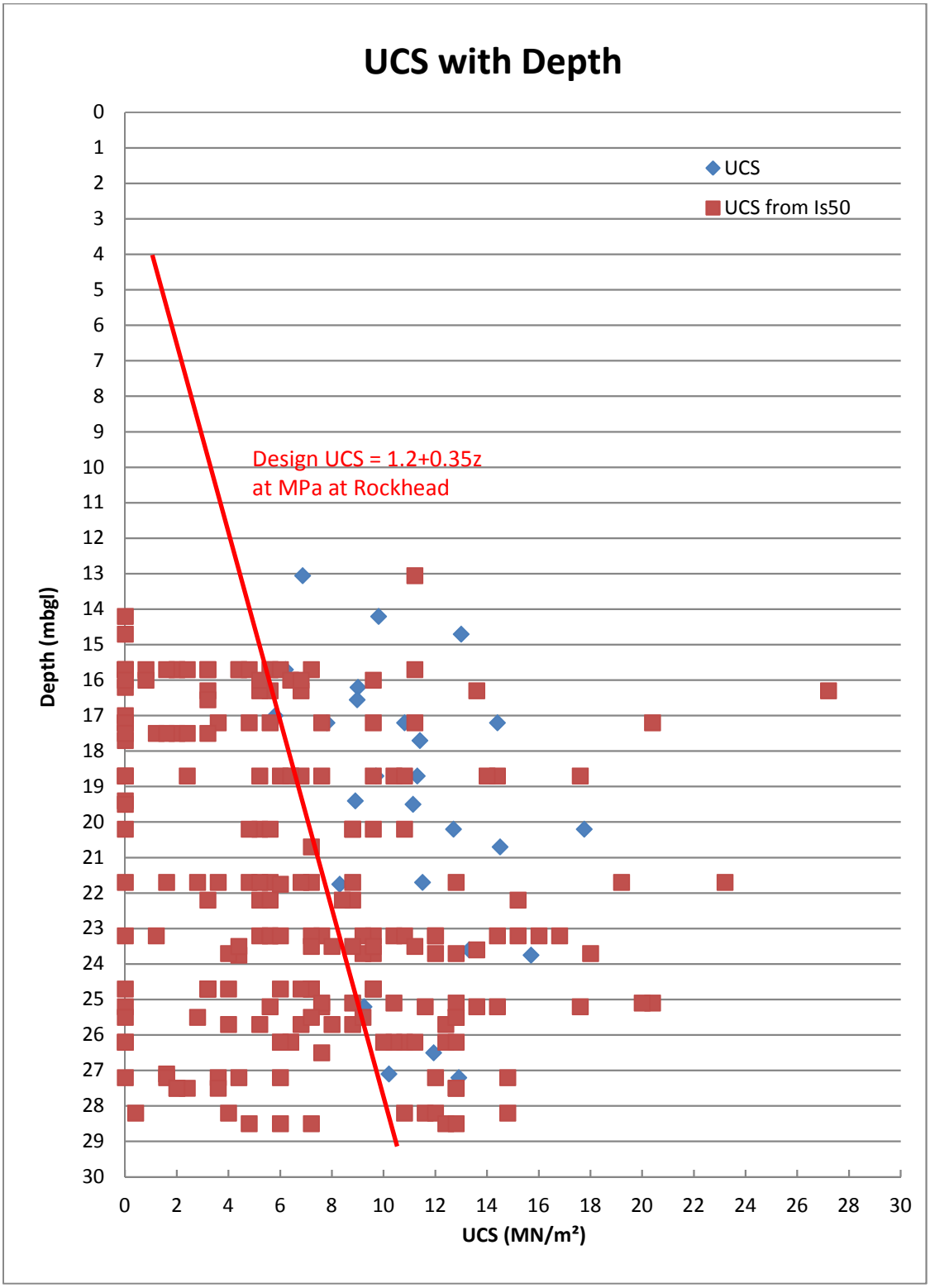

Figure 4-2 Sandstone UCS with Depth

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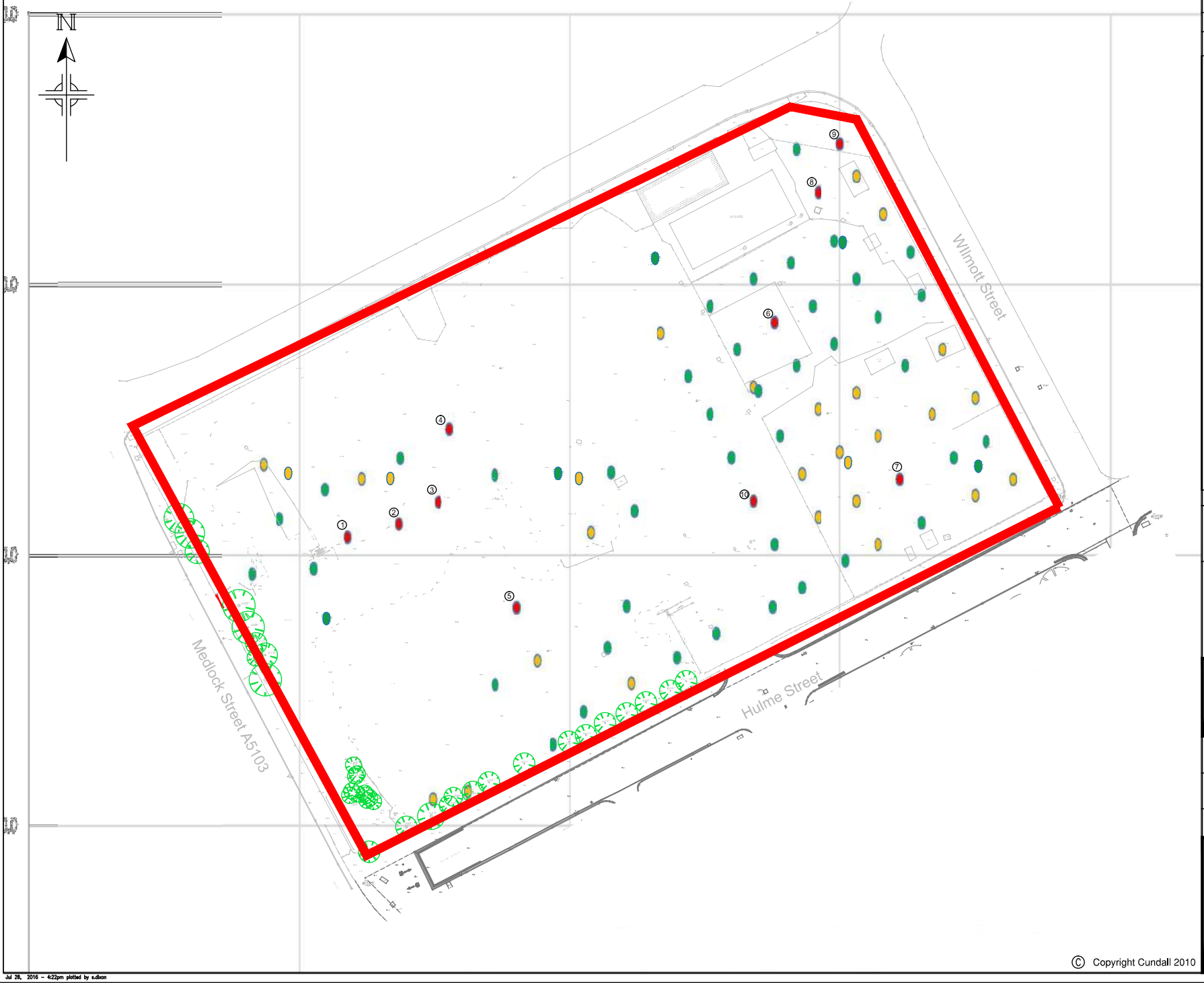

1011906 | A3

DO NOT SCALE FROM THIS DRAWING

Notes

Legend

- Not Detected
- Detected but < 0.001% Mass by Volume
- > 0.001% Mass by Volume
- 1 AOP6-7C4 Amosite & Crocidolite at 0.75m 2.698%
- 2 AOP6-7D4 Chrysotile at 0.85m 0.005%
- 3 AOP6-7E4 Chrysotile at 0.5m 0.005%
- 4 AOP6-7F3 Chrysotile at 0.4m 0.003%
- 5 AOP6-7E6 Chrysotile at 0.75m 0.004%
- 6 AOP6-7L4 Chrysotile & Amosite at 0.5m 0.004%
- 7 AOP6-7M8 Chrysotile at 0.5m 0.001%
- 8 AOP6-7N2 Chrysotile & Crocidolite at 0.8m 0.005%
- 9 AOP6-7O1 Chrysotile, Amosite & Crocidolite at 1.0m 0.677%
- 10 AOP-7J7 Chrysotile at 0.5m 0.001%
- Site Boundary

Issue	Date	Description	By	Chkd	Verfd

Project
First Street: Plots 6 and 7

Client
Ask Property Developments Ltd

Architect
RTKL

Title
Asbestos Exceedances

Drawing No.	Drawing Status
1011906.DWG.GL.021	Final
Job No. 1011906	Scale 1:500 @ A3

Originator	Checked	Verified	Issue.
SD	DM	KDM	-

CUNDALL

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NE3 3AF
Telephone +44 (0)191 213 1515
Website: www.cundall.com

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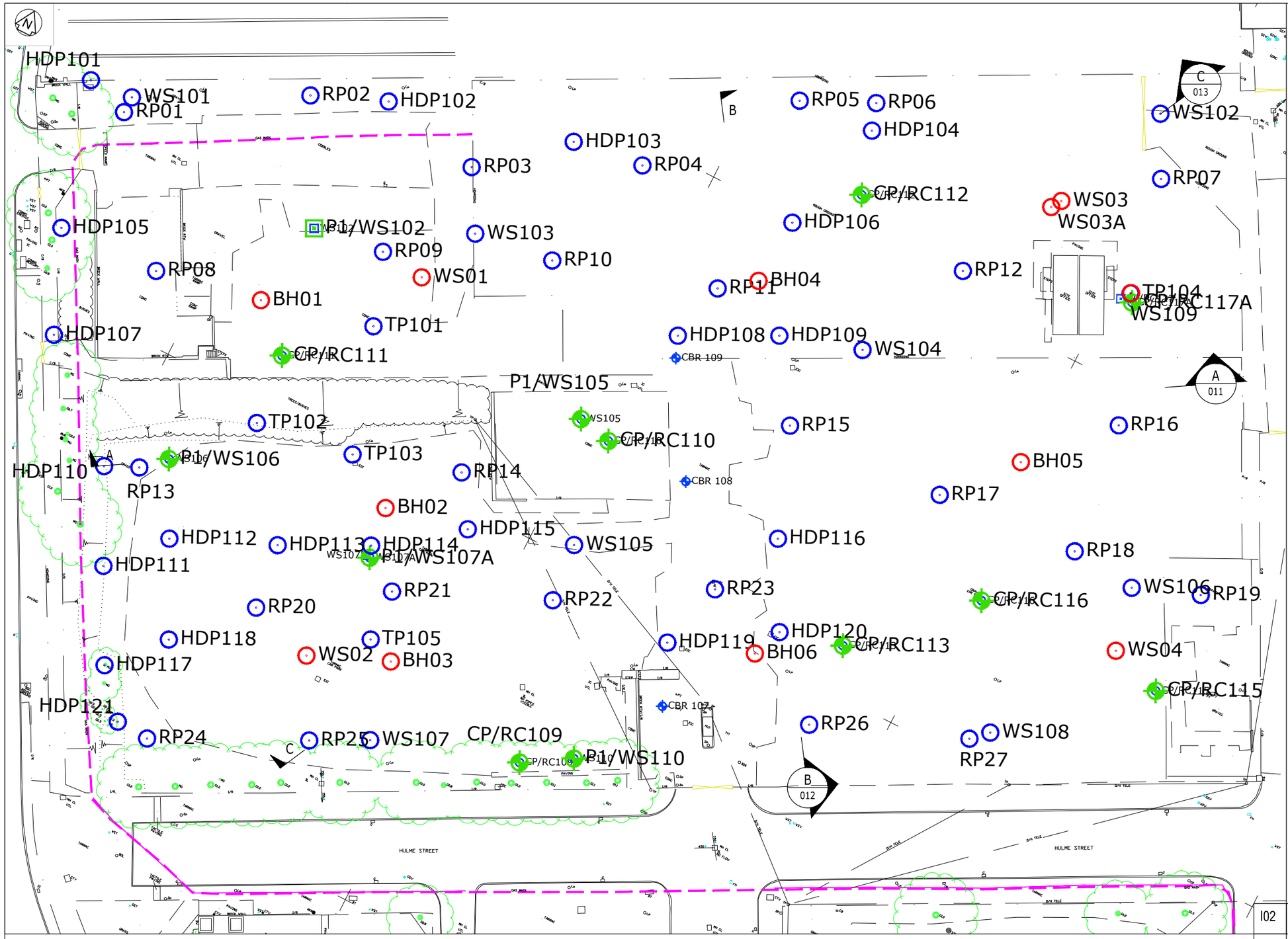
Jul 28, 2016 - 4:22pm plotted by s.dixon



NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS DRAWINGS AND SPECIFICATIONS.

EXPLORATORY HOLE KEY

- RAMBOLL 2019 GROUND INVESTIGATION
- TERRACONSULT LTD ROTARY PROBE HOLES. & WINDOW SAMPLES - 2017
- CUNDALL ROTARY BOREHOLES & WINDOW SAMPLES - 2016

SERVICES KEY

- GAS MAIN

Rev	Description	Date	By / Chk	App
I02	FOR INFORMATION	17/01 2020	DH / MF	IB
I01	FOR INFORMATION	26/01 2018	SH / MF	IB

FOR INFORMATION

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PLOT 9/10 FIRST STREET MANCHESTER

BOREHOLE HOLE LOCATION PLAN

SHEET 1 OF 4

Project No:	Scale (@A3):	Drawn:	Date:
1620002943	1:500	DH	JAN.18

Drawing No: RAM-XX-XX-DR-GE-010

Rev: I02

17/01/2020 12:30:03

SECTION A-A
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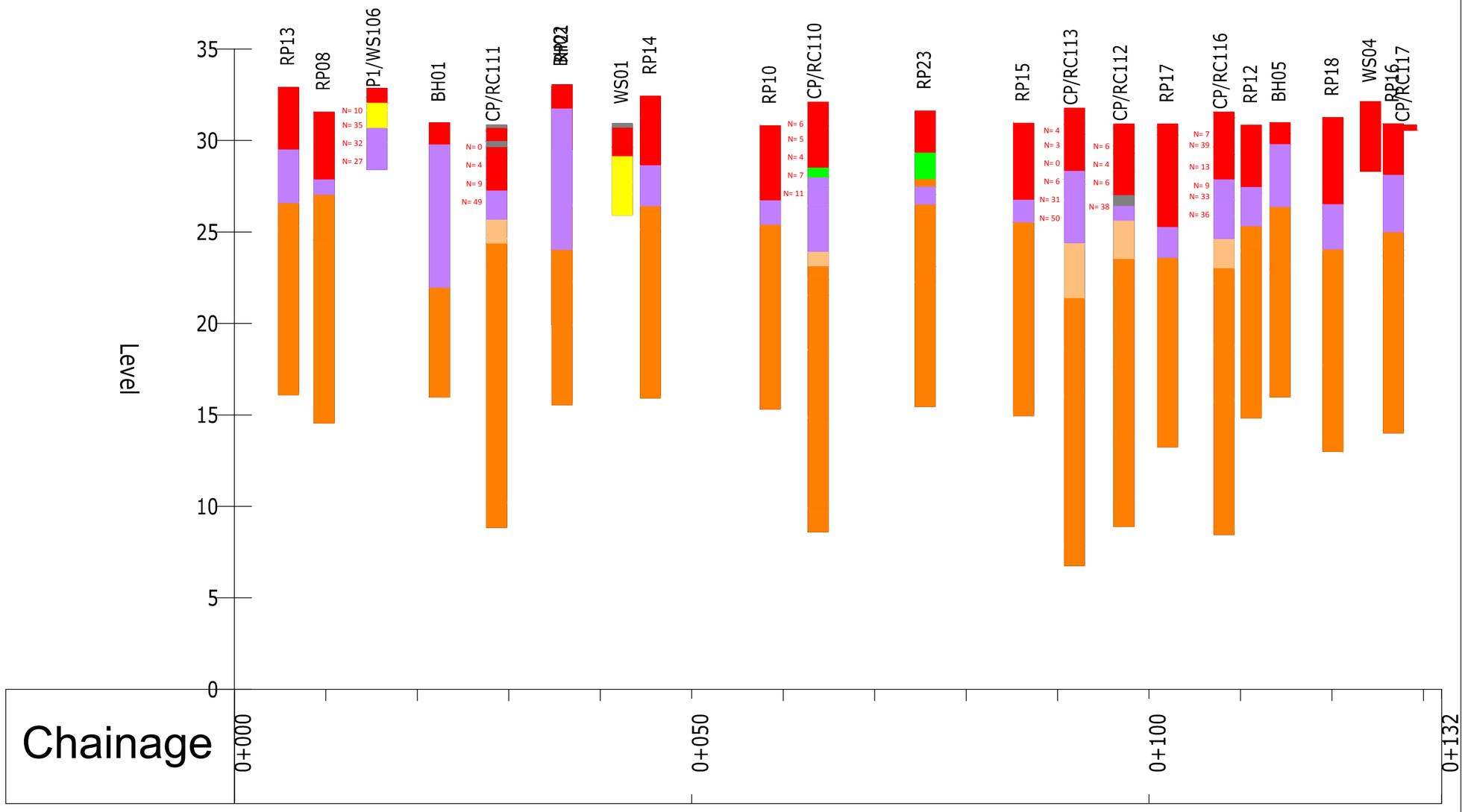

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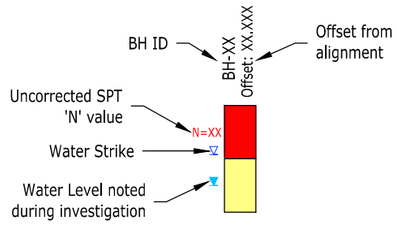

Geology Legend	
	Made Ground
	Concrete
	Alluvium
	Peat/Peaty Clay
	Glacial Till
	Weathered Rock
	Sandstone

Rev	Description	Date	By / Chk	App
I02	FOR INFORMATION	17/01 2020	DH / MF	IB
I01	FOR INFORMATION	26/01 2018	SH / MF	IB

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PLOT 9/10 FIRST STREET MANCHESTER

GEOLOGICAL SECTION A-A

SHEET 2 OF 4

Project No:	Scale (@A3):	Drawn:	Date:
1620002943	AS SHOWN	SKH	JAN.18

Drawing No:	Rev:
RAM-XX-XX-DR-GE-011	I02

17/01/2020 14:31:34

SECTION B-B
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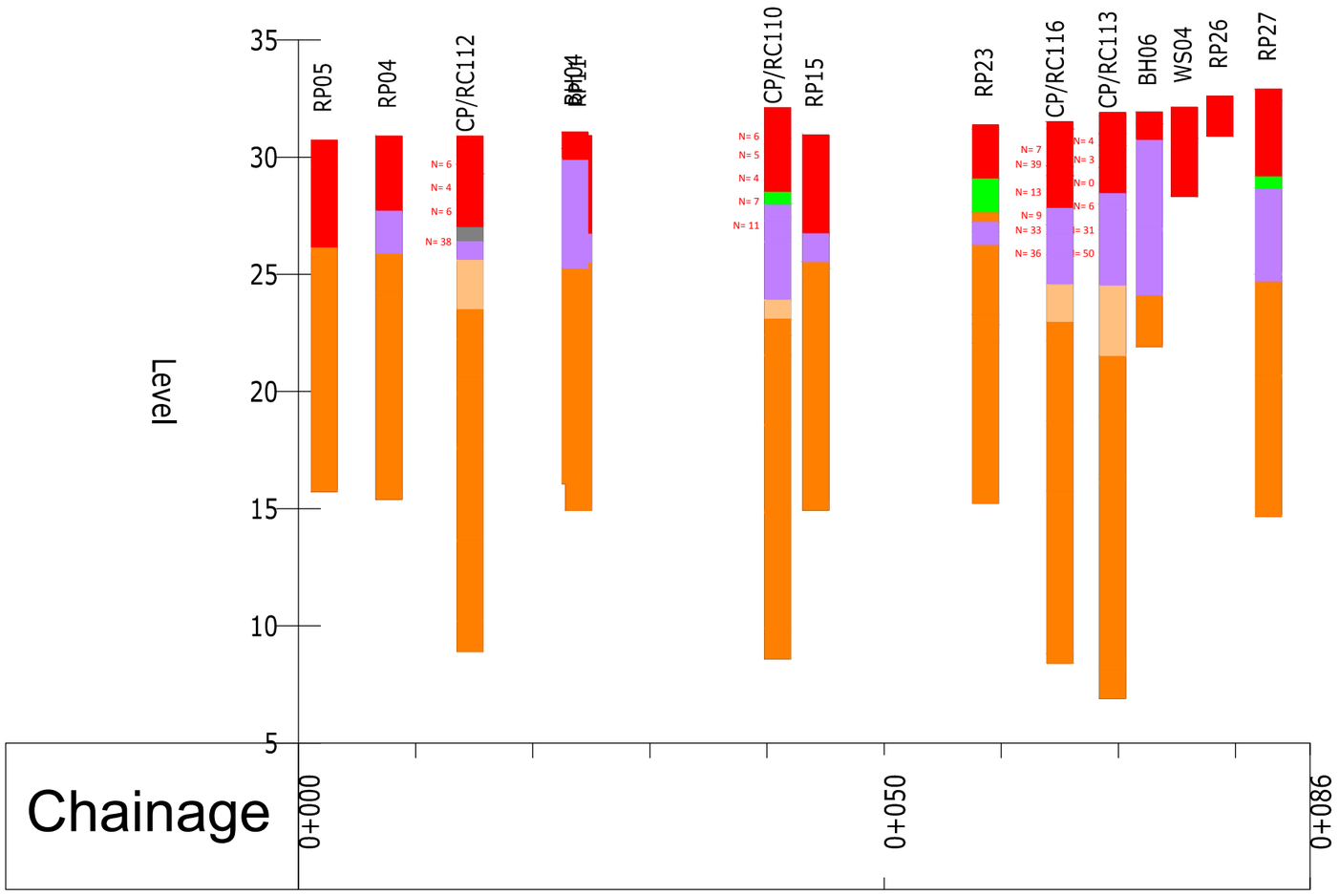

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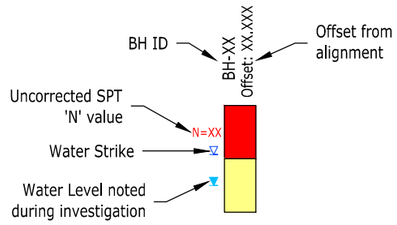

Geology Legend	
	Made Ground
	Concrete
	Alluvium
	Peat/Peaty Clay
	Glacial Till
	Weathered Rock
	Sandstone

Rev	Description	Date	By / Chk	App
I02	FOR INFORMATION	17/01 2020	DH / MF	IB
I01	FOR INFORMATION	26/01 2018	SH / MF	IB

FOR INFORMATION

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PLOT 9/10 FIRST STREET MANCHESTER

GEOLOGICAL SECTION B-B

SHEET 3 OF 4

Project No:	Scale (@A3):	Drawn:	Date:
1620002943	AS SHOWN	SKH	JAN.18

Drawing No:	Rev:
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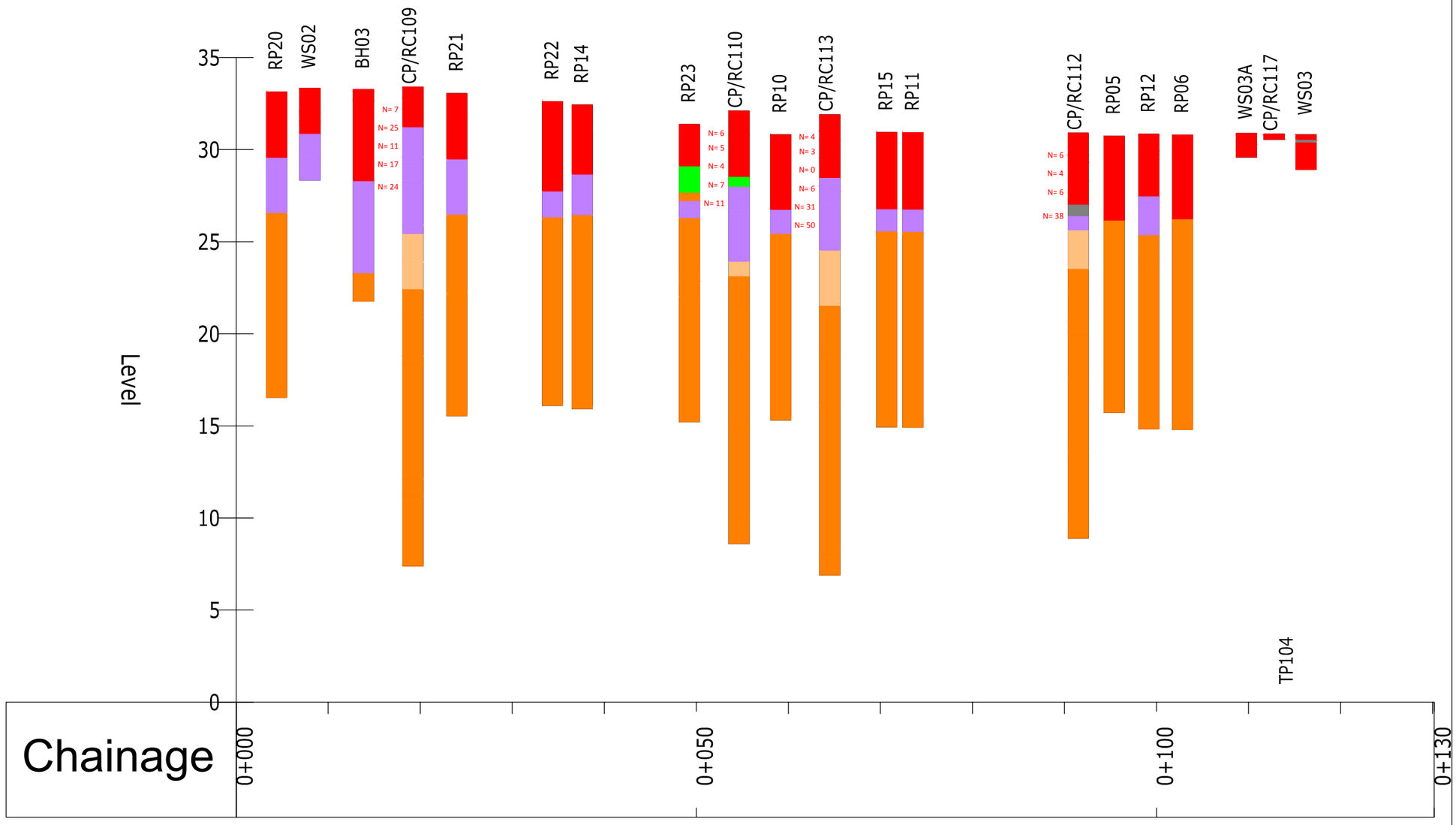

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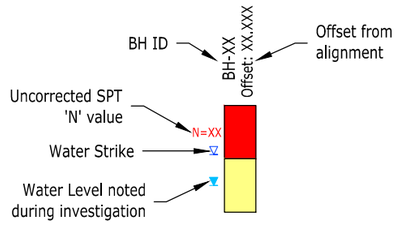

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	Made Ground
	Concrete
	Alluvium
	Peat/Peaty Clay
	Glacial Till
	Weathered Rock
	Sandstone

Rev	Description	Date	By / Chk	App
I02	FOR INFORMATION	17/01 2020	DH / MF	IB
I01	FOR INFORMATION	26/01 2018	SH / MF	IB

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PLOT 9/10 FIRST STREET MANCHESTER

GEOLOGICAL SECTION C-C

SHEET 4 OF 4

Project No:	Scale (@A3):	Drawn:	Date:
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Drawing No:	Rev:
RAM-XX-XX-DR-GE-013	I02

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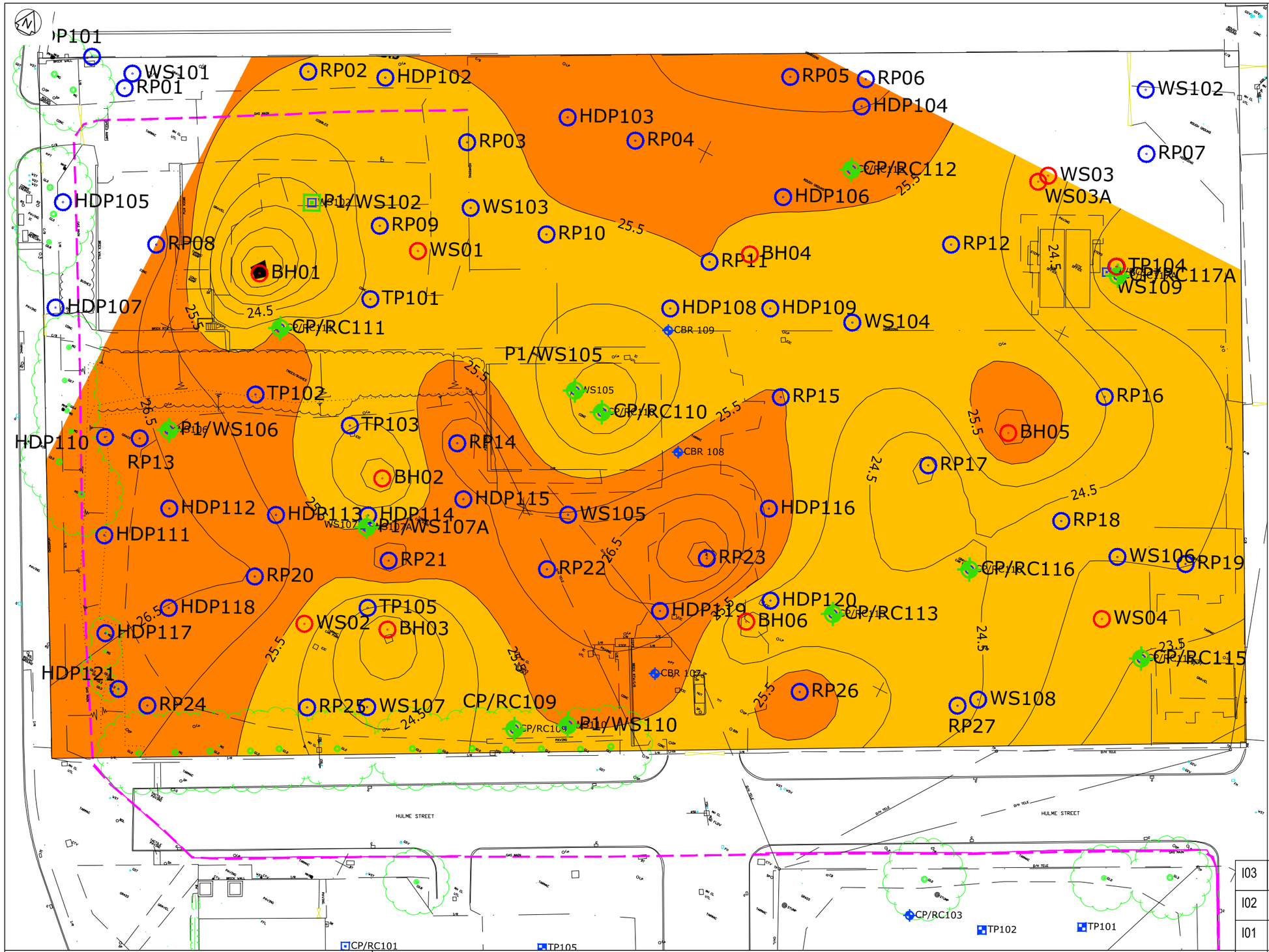

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1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS DRAWINGS AND SPECIFICATIONS.

EXPLORATORY HOLE KEY

- RAMBOLL 2019 GROUND INVESTIGATION
- TERRACONSULT LTD ROTARY PROBE HOLES. & WINDOW SAMPLES - 2017
- CUNDALL ROTARY BOREHOLES & WINDOW SAMPLES - 2016

SERVICES KEY

- GAS MAIN

KEY
ROCKHEAD
mAOD

28.5
28
27.5
27
26.5
26
25.5
25
24.5
24
23.5
23
22.5
22
21.5
21
20.5

Rev	Description	Date	By / Chk	App
I03	FOR INFORMATION	17/01 2020	DH / MF	IB
I02	FOR INFORMATION	07/01 2020	DH / MF	IB
I01	FOR INFORMATION	26/01 2018	SH / MF	IB

FOR INFORMATION

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PLOT 9/10 FIRST STREET MANCHESTER

TOP OF ROCKHEAD CONTOUR LEVEL mAOD

Project No:	Scale (@A3):	Drawn:	Date:
1620002943	1:500	SKH	JAN.18

Drawing No: RAM-XX-XX-DR-GE-014

Rev: I03

17/01/2020 13:30:04

APPENDIX B

Intended for

Project no.

Date
01 May 2016

LEGISLATIVE CONTEXT AND METHODOLOGIES

GROUND CONTAMINATION

1. LEGISLATIVE CONTEXT

1.1.1. England

The regime for contaminated land was set out in Part 2A (ss.78A-78YC) of the Environmental Protection Act 1990 (EPA), as inserted by S.57 of The Environment Act 1995 and came into effect in England on 1st April 2000 as The Contaminated Land (England) Regulations 2000 (SI 2000/227). These regulations were subsequently revoked with the provision of The Contaminated Land (England) Regulations 2006 (SI 2006/1380) (as amended), which came into force in August 2006, and consolidated the previous regulations and amendments. Revised statutory guidance ("the Guidance") for local authorities on how to implement the regime, including the decision-making process on whether land is contaminated land in the legal sense, has been published by Defra and entered into force in April 2012.

Under Part 2A of the EPA Section 78A(2), "contaminated land" is defined as "land which appears… to be in such a condition, by reason of substances in, on or under the land, that –

a) significant harm is being caused or there is a significant possibility of such harm being caused; or

b) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused".

1.1.2. Wales

The regime for contaminated land was set out in Part 2A (ss.78A-78YC) of the Environmental Protection Act 1990 (EPA), as inserted by S.57 of The Environment Act 1995 and came into effect in Wales on 1st July 2001 as The Contaminated Land (Wales) Regulations 2001 (WSI 2001/2197, W.157). These regulations were subsequently revoked with the provision of The Contaminated Land (Wales) Regulations 2006 (SI 2006/2989 W.278), which consolidated the previous regulations and amendments and added in provisions regarding radioactive contaminated land. These regulations came into force on 10th December 2006 and were accompanied by statutory guidance published by the Welsh Assembly Government in December 2006 ('the Guidance') for local authorities on how to implement the regime. The 2006 statutory guidance was replaced by the Contaminated Land Statutory Guidance - 2012 (WG19243), issued by the Welsh Government.

Under Part 2A of the EPA Section 78A(2), "contaminated land" is defined as "land which appears… to be in such a condition, by reason of substances in, on or under the land, that –

a) significant harm is being caused or there is a significant possibility of such harm being caused; or

b) pollution of controlled waters is being, or is likely to be caused" (Section 86 of the Water Act 2003 remains only partially implemented in Wales).

1.1.3. Scotland

The regime for contaminated land was set out in Part 2A (ss.78A-78YC) of the Environmental Protection Act 1990 (EPA), as inserted by S.57 of The Environment Act 1995 and came into effect in Scotland on 14th July 2000 as The Contaminated Land (Scotland) Regulations 2000 (SSI 2000/ 178). These regulations were subsequently revoked with the provision of The Contaminated Land (Scotland) Regulations 2005 (SSI 2005 /658), which came into force in April 2006 and consolidated the previous regulations and amendments and were accompanied by statutory guidance published by

the Scottish Government in May 2006 ('the Guidance') for local authorities on how to implement the regime.

Under Part 2A of the Environmental Protection Act 1990, "contaminated land" is defined in the Contaminated Land (Scotland) Regulations 2005 (as amended) as land which appears to the local authority to be in such a condition, by reason of substances in, on or under the land, that:

a) significant harm is being caused, or there is a significant possibility of such harm being caused; or

b) significant pollution of the water environment is being caused or there is a significant possibility of such pollution being caused.

1.1.4. Northern Ireland

The regime for Contaminated Land in Northern Ireland was set out in the Waste and Contaminated Land (Northern Ireland) Order 1997 (as amended). Part 3 of the Waste and Contaminated Land (Northern Ireland) Order 1997 contains the main legal provisions for the introduction of a contaminated land regime in Northern Ireland, but the regime is not yet in operation. It is noted that the Contaminated Land (Northern Ireland) Regulations 2006 and associated statutory guidance were published in draft for consultation in 2006, but have yet to be finalised. Under Part 3 of the 1997 Order, contaminated land is defined as,

"any land which appears to a district council in whose district it is situated to be in such a condition, by reason of substances in, on or under the land, that -

(a) significant harm is being caused or there is a significant possibility of such harm being caused; or

(b) pollution of waterways or underground strata is being, or is likely to be, caused.

"Significant harm" is defined in the draft guidance on risk based criteria and must be the result of a "pollutant linkage", which may be assessed using qualitative risk assessment models. The presence of a pollutant linkage relies on the Source-Pathway-Receptor concept, where all three factors must be present and potentially or actually linked for a potential risk to exist.

1.1.5. The Channel Islands

There is no formal contaminated land regime in the Channel Islands, as they are not part of the UK, and as such they usually adopt either the English or French legislation or create their own.

1.1.6. Isle of Man

There is no formal contaminated land regime in the Isle of Man, and they usually adopt a best 'practice approach' from a European country of choice on this basis.

1.1.7. Risk assessment Framework

"Significant harm" or "significant pollution of controlled waters" is defined in the Guidance on risk based criteria and must be the result of one or more relevant 'contaminant linkages' relating to the land.

The presence of a contaminant linkage relies on the Source-Pathway-Receptor concept, where all three factors must be present and potentially or actually linked for a potential risk to exist. For a risk of pollution or environmental harm to occur as a result of ground contamination, all of the following elements must be present:

- A source - a substance that is capable of causing pollution or harm;
- A receptor - something which could be adversely affected by the contaminant; and

- A pathway - a route by which the contaminant can reach the receptor.

If one of these elements is absent there can be no significant risk. If all are present then the magnitude of the risk is a function of the magnitude and mobility of the source, the sensitivity of the receptor and the nature of the migration pathway.

The Environment Agency Contaminated Land Report CLR 11 Model Procedures for the Management of Land Contamination provides the technical framework for structured decision making about land contamination. CLR 11 advocates a phased approach to risk assessment comprising:

- Preliminary Risk Assessment (PRA) – desk study and qualitative assessment
- Generic Quantitative Risk Assessment (GQRA) – assessment of contaminant concentrations against generic assessment criteria.
- Detailed Quantitative Risk Assessment (DQRA) – detailed site specific risk assessment and development of site-specific assessment criteria.

Each of these phases follows the same basic steps buts adds site specific details and further certainty into the assessment as the stages progress. The basic steps are:

- Hazard identification and hazard assessment – development or refinement of the source-pathway-receptor conceptual model, and identification of potential pollutant linkages.
- Risk Estimation – qualitative risk estimation predicting magnitude and probability of potential consequences that may arise as a result of a hazard.
- Risk Evaluation – deciding whether a risk is unacceptable.

2. RISK ESTIMATION

An assessment of environmental risks is made for each potential pollutant linkage identified.

Risk estimation has been completed in accordance with the guidance provided in:

- NHBC and Environment Agency 2008. Guidance for the Safe Development of Housing on Land Affected by Contamination. R&D Publication 66: 2008.

The following is taken directly from NHBC/EA 2008. The key to the classification is that the designation of risk is based upon the consideration of both:

a) the magnitude of the potential consequence (*i.e.*, severity) [takes into account both the potential severity of the hazard and the sensitivity of the receptor];

b) the magnitude of probability (*i.e.*, likelihood) [takes into account both the presence of the hazard and receptor and the integrity of the pathway].

Table 1: Classification of Consequence (after NHBC/EA 2008)

Category	Definition
Severe	Highly elevated concentrations **likely** to result in "significant harm" to human health as defined by the EPA 1990, Part 2A, if exposure occurs. Equivalent to EA **Category 1** pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on amenity value or major damage to agriculture or commerce. Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning or harm to a species of special interest that endangers the long-term maintenance of the population. Catastrophic damage to crops, buildings or property.
Medium	Elevated concentrations which could result in "significant harm" to human health as defined by the EPA 1990, Part 2A if exposure occurs. Equivalent to **EA Category 2** pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce. Significant damage to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population. Significant damage to crops, buildings or property.
Mild	Exposure to human health **unlikely** to lead to "significant harm". Equivalent to **EA Category 3** pollution incident including minimal or short lived effect on water quality; marginal effect on amenity value, agriculture or commerce. Minor or short lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population. Minor damage to crops, buildings or property.
Minor	No measurable effect on humans. Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems. Repairable effects of damage to buildings, structures and services.

* For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned.

The likelihood of an event (probability) takes into account both the presence of the hazard and target and the integrity of the pathway and has been assessed based on the categories given below.

Table 2: Classification of Probability (after NHBC/EA 2008)

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

The potential severity of the risk and the probability of the risk occurring have been combined in accordance with the following matrix in order to give a level of risk for each potential hazard.

Table 3: The Classification of Risk (after NHBC/EA 2008)

		Consequence			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**High Likelihood**	**Very high**	High	Moderate	Low
	Likely	High	Moderate	Moderate/ Low	Low
	Low Likelihood	Moderate	Moderate/ Low	Low	Very low
	Unlikely	Moderate/ Low	Low	Very low	Very low

Very high risk

There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without remediation action OR there is evidence that severe harm to a designated receptor is already occurring. Realisation of that risk is likely to present a substantial liability to be site owner/or occupier. Investigation is required as a matter of urgency and remediation works likely to follow in the short-term.

High risk

Harm is likely to arise to a designated receptor from an identified hazard at the site without remediation action. Realisation of the risk is likely to present a substantial liability to the site owner/or occupier. Investigation is required as a matter of urgency to clarify the risk. Remediation works may be necessary in the short-term and are likely over the longer term.

Moderate risk

It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely, that the harm would be relatively mild. Further investigative work is normally required to clarify the risk and to determine the potential liability to site owner/occupier. Some remediation works may be required in the longer term.

Low risk

It is possible that harm could arise to a designated receptor from identified hazard, but it is likely at worst, that this harm if realised would normally be mild. It is unlikely that the site owner/or occupier would face substantial liabilities from such a risk. Further investigative work (which is likely to be limited) to clarify the risk may be required. Any subsequent remediation works are likely to be relatively limited.

Very low risk

It is a low possibility that harm could arise to a designated receptor, but it is likely at worst, that this harm if realised would normally be mild or minor.

No potential risk

There is no potential risk if no pollution linkage has been established.

3. GQRA METHODOLOGIES

In order to assess the significance of the chemical concentrations recorded, generic assessment criteria (GAC) must be selected. The GAC are screening concentrations which are used initially for direct comparison to the measured site concentrations.

The GAC are defined based on the critical receptors identified at the site. Receptors are considered in relation to:

- Human health receptors (*e.g.*, site users);
- The water environment (*e.g.*, groundwater and surface water).

Potential risks to human health are considered primarily using measured concentrations of chemicals in soil. Potential risks to the water environment are considered primarily using soil leachate and groundwater concentrations as indicative of the potentially mobile fraction of any soil impact.

Additional receptors may be relevant dependent on the site *e.g.*, flora/fauna, water supply pipes, buried concrete.

3.1. Human Health Assessment

3.1.1. Initial Screening Assessment

In accordance with current UK guidance on legislation including Part 2A of the Environmental Protection Act 1990 and based on the principles of risk assessment, Ramboll Environ (REH) has derived generic assessment criteria (GAC) for interpretation of soil and groundwater chemical analysis. The Ramboll Environ GAC are considered to be threshold based screening concentrations, at which a significant risk is not considered to be present to the relevant receptors.

The Ramboll Environ REH GAC for soil assessment are based on the generic scenarios outlined in the Contaminated Land Exposure Assessment (CLEA) methodology and guidance documents (incorporating Science Reports SC050021/SR2 (January 2009), SR3 (January 2009), SR4 (September 2009) and the SGV reports (2009)). The generic scenarios include inhalation, ingestion, dermal contact of soil and dust as pathways for commercial and residential scenarios; as well as ingestion of homegrown produce for residential with gardens scenario. In addition, REH GAC have also been derived for the two Public Open Space land uses defined in C4SL guidance (outlined below).

The GAC have been calculated by use of two proprietary risk assessment models (CLEA Version 1.071 and the American Society for Testing Materials Risk Based Corrective Action RBCA Tool Kit Version 2.6 for Chemical Releases) which have been altered, where necessary, to reflect the current UK approach to human health risk assessment as set out in the Contaminated Land Report (CLR) 11 and the CLEA guidance documents. The physiochemical data has been taken from or derived using the methodology detailed in SR7 (November 2008) and SGV reports (2009), where feasible. The toxicology data has been taken from the current published EA toxicology documents. We have referred to all current publications and guidance issued up until 1st May 2016.

Reference has been made to the Defra-funded research project (SP1010), which developed a methodology to derive Category 4 Screening Levels (C4SLs) for six contaminants (benzo-a-pyrene, cadmium, arsenic, benzene, hexavalent chromium and lead). SP1010 provides technical tools and advice to be developed to help regulators and others to conform to the requirements of revised Part 2A Statutory Guidance. The C4SLs are therefore less conservative than GAC developed in accordance with published CLEA guidance as they describe a low risk as opposed to minimal risk scenario. However,

consistent with the developed GAC, sites below the C4SLs are within Category 4 (lowest risk category) and therefore considered suitable for use.

Defra's SP1010 Policy Companion document (DEFRA, Dec 2014) states that where a C4SL value has been derived for a contaminant where a Soil Guideline Value (as published by the EA 2009) exists, it is anticipated that risk assessors will use the C4SL value in line with Part 2A Statutory Guidance. In the absence of a suitable C4SL, risk assessors should identify and select appropriate GAC in accordance with established good practice. On this basis, Ramboll Environ has adopted the use of C4SLs however minimal risk assumptions have been applied in-house REH GAC for other contaminants of concern within our screening assessments.

The C4SLs for the six compounds published, are based on a sandy loam soil with 6% soil organic matter (SOM). The 6% SOM and sandy loam soil type is not considered by Ramboll Environ to be realistic of 'typical' UK soil conditions, and EA guidance ('Using Soil Guideline Values' EA, 2009) states that at 6% SOM, GAC may not be sufficiently protective (i.e. the values are too high to be sufficiently certain that they describe land where there is no risk to human health or the risk is negligible). For the Ramboll Environ GAC, all the C4SL inputs have been used apart from the SOM and soil type, which were amended to 1% and sand; thereby ensuring a suitably conservative Ramboll Environ GAC appropriate for most soils and Made Ground encountered in the UK. It is noted that none of the screening criteria used in the UK, including the C4SLs, have a statutory basis.

Ramboll Environ also attended the Land Quality Management and Chartered Institute of Environmental Health workshop for the collaborative development of 'Suitable 4 Use Levels' (S4ULs) and reference has been made to their publication 'The LQM/CIEH S4ULs for Human Health Risk Assessment, 2015'.

Review of additional UK organisation guidance including Contaminated Land: Applications in Real Environments (CL:AIRE) and partners GAC, including addendums up until 10 April 2012 has also been made. Soil Guideline Values (EA/DEFRA, 2009) may also be referred to if relevant. Finally, where necessary, other published sources of (non-UK) information, such as the RBCA V2.6 database has also been reviewed.

Contaminant concentrations below the adopted GAC are not considered to present a significant risk to identified receptors and therefore are not considered to warrant further study. Contaminants which are recorded at concentrations above their respective GAC are considered to present a potential risk to identified receptors and resultantly these determinants are subject to further assessment.

3.1.2. Contaminant Distribution Assessment

Concentrations above the GAC are considered further in relation to vertical and lateral distribution across the site and through statistical analysis, where appropriate. This analysis is used to define 'averaging areas' within which contamination concentrations and distribution are considered likely to be similar.

For each averaging area, where appropriate, statistical analysis is then used to calculate a 'representative' concentration for each contaminant within that area and identify possible outliers of the underlying distribution of contaminant concentrations. This analysis is completed in accordance with CIEH 2008 guidance.

The initial statistical tests are used to calculate the 95% probability that the true population mean falls below the critical concentration (GAC). In practise, this involves comparing the 95th Upper Confidence Limit of the true population mean with the GAC. The Maximum Value test is then used to identify whether the maximum concentration is likely to lie outside of the assumed distribution trend and as such would represent an outlier of the general population of data across the site. Outliers above the GAC may represent localised contaminant hotspots and require further consideration.

Constituent non-detects are conservatively assigned a value equal to the reported analytical laboratory limit of detection. Any identified true outliers are excluded from the datasets used in calculation of the 95%UCL value.

3.2. Assessment for the Water Environment

Assessment of risks to water resources is completed in general accordance with guidance provided in the Environment Agency 2013, Groundwater Protection Principles and Practice (GP3) for England and Wales and with reference to SEPA guidance WAT–PS-10-01 in Scotland.

Generic assessment criteria for waters must be selected to assess potential risks to the identified environmental receptors.

In the absence of relevant published water assessment criteria, the potential risk to human health from contaminated surface and groundwater and the potential risk to the aquatic environment from entry of pollutants (either directly or via a groundwater pathway) has been assessed using commonly accepted UK guidelines including the Water Supply (Water Quality) (England) Regulations 2000 (known as the Drinking Water Standards, or DWS) and the Environmental Quality Standards (EQS) defined in European legislation such as the Water Framework Directive (WFD) (2000/60/EC).

Minimum reporting values are also considered for hazardous substances for assessment of risks to groundwater resources in order to comply with the requirements of the guidance to 'prevent' input of hazardous substances to groundwater.

4. GROUND GAS RISK ASSESSMENT

Ground gas risk is characterised using guidance provided in the following:

- CIRIA C665, 2007. Assessing risks posed by hazardous ground gases to buildings. (Supersedes CIRIA 659).
- NHBC / RSK, 2007. Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present. Report Ed 4.
- BS8485: 2015 Code of practice for the characterization and remediation from ground gas in affected developments.
- BS8576:2013. Guidance on investigations for ground gas – Permanent gases and Volatile Organic Compounds (VOCs)

The risk posed by a gas regime is assessed initially by calculating a Gas Screening Value using a combination of the gas flow rate and recorded concentrations of carbon dioxide and methane. This Gas Screening Value is then used in combination with the maximum recorded gas concentrations to determine the site's Characteristic Situation (CIRIA 665 – all site uses except low rise residential) or Traffic Light Classification (NHBC/RSK 2007 low rise residential sites only). Table A below outlines the method for defining the Characteristic Situation as detailed in CIRIA 665 and Table B outlines the method for defining the Traffic Light classification as detailed in NHBC/RSK 2007.

Table A: Proposed method for classifying gassing sites (after CIRIA C665 2007)

Characteristic Situation	Risk classification	Gas screening value of CH_4 or CO_2 (l/hr)[a]	Additional limiting factors	Typical source of generation
1	Very low risk	<0.07	Typically methane ≤ 1% and/or carbon dioxide ≤ 5%. Otherwise consider increase to Situation 2	Natural soils with low organic content. "Typical" Made Ground
2	Low risk	<0.7	Borehole air flow rate not to exceed 70l/hr. Otherwise consider increase to Characteristic Situation 3	Natural soil, high peat/organic content. "Typical" Made Ground
3	Moderate risk	<3.5	-	Old landfill, inert waste, mineworking flooded
4	Moderate to high risk	<15	Quantitative risk assessment required to evaluate scope of protective measures	Mineworking -susceptible to flooding, completed landfill, inert waste (WMP 26B criteria)
5	High risk	<70	-	Mineworking unflooded inactive with shallow workings near surface
6	Very high risk	>70	-	Recent landfill site

[a] Gas screening value = gas concentration (%) x measured borehole flow rate (l/hr)

Table B: Proposed method for classifying gassing sites (after NHBC/RSK 2007)

Traffic Light	Methane1		Carbon Dioxide1	
	Typical Maximum Concentration5 (%v/v)	Gas Screening Value (GSV)2,4,6 litres per hour	Typical Maximum Concentration5	Gas Screening Value (GSV)2,3,4,5

			(%v/v)	litres per hour
Green				
Amber 1	1	0.16	5	0.78
Amber 2	5	0.63	10	1.56
Red	20	1.56	30	3.13

The CIRIA, NHBC and BS8485 guidance documents are then used to determine requirements for gas protection measures based on the site classification.

5. WATER SUPPLY PIPES

The assessment has been completed in accordance with the current UK guidance:

- Water UK. Jan 2014. Contaminated Land Assessment Guidance.
- UKWIR UK Water Industry Research Ltd, 2010. Guidance for Selection of Water Supply Pipes to be used in Brownfield Sites.

This guidance provides threshold concentrations for different pipe material for various chemical groups.

The pipeline materials considered by the guidance are PE, PVC, wrapped steel, wrapped ductile iron or copper pipe and barrier pipe. PE and PVC are assessed using threshold concentrations for various chemical groups including volatile organic compounds (VOC) with tentatively identified compounds (TICs), semi-volatile organic compounds (SVOC) with TICs, and mineral oils. Wrapped steel, wrapped ductile iron and copper pipe are assessed using corrosive properties.

Regional water companies may have adopted additional more stringent thresholds which they apply locally, thus consultation with the water authority must always be completed prior to final determination of water supply pipe materials.

6. WASTE CLASSIFICATION

The main steps in classifying waste are:

1. Is it really a waste or can it be reused, recycled or recovered?
2. If the material is not to be utilised in some way and it is waste then classify to ascertain if hazardous or non-hazardous. In order to do this, guidance regarding the definition and classification of hazardous waste is utilised, the two main documents being EA, 2015 'Technical Guidance WM3: Waste Classification - Guidance on the classification and assessment of waste' and the European Waste Catalogue (EWC 2002).
3. Use the results of this initial waste classification to follow one of the following routes:

<table>
<tr><th colspan="3">Hazardous</th><th colspan="2">Non-Hazardous</th><th></th></tr>
<tr><td colspan="3">Pre-treat the waste.</td><td colspan="2">Thought likely to be inert:
(e.g. insoluble and inorganic in nature)</td><td>Thought unlikely to be inert:
(e.g. may contain peat or other high organic content material)</td></tr>
<tr><td colspan="3">Complete WAC (Waste Acceptance Criteria) testing to determine class of landfill it can go to or any requirement for further pre-treatment if WAC fails.</td><td colspan="2">Complete WAC test to determine class of landfill it can be disposed to</td><td>-</td></tr>
<tr><td>Pass stable non-reactive hazardous WAC: dispose of at SNRHW landfill.</td><td>Pass hazardous WAC: dispose of at hazardous landfill.</td><td>Fail: further remedial action required</td><td>Pass: dispose of at inert landfill</td><td>Fail: dispose of at non-hazardous landfill</td><td>Dispose to non-hazardous landfill (no WAC testing required by WM3).</td></tr>
</table>

The landfill regulations (Environment Agency, 2011 Treatment of Waste for Landfill) prescribe that hazardous waste requires pre-treatment prior to disposal to landfill. This may include physical sorting at the point of production on site, by sorting of waste soils into separate stockpiles of eg topsoil, made ground and natural gravels.

6.1. Methodology

In terms of the EWC, the soil to be excavated from this site for disposal is classed as 'Soil and Stones containing Dangerous Substances' (EWC Code 170503) or 'Soil and Stones other than those mentioned in EWC Code 170503' (EWC Code 170504). As such it is what is known as a 'Mirror Entry waste' and needs to be assessed against Threshold Levels for certain dangerous substances in order to confirm whether it needs to be classified as hazardous (170503) or non-hazardous (170504).

Data from site soil chemical testing have been assessed to classify the site soils. The assessment has been undertaken using HazWasteOnline ™, a web-based tool for classifying waste. The software utilises Environment Agency guidance and European regulations to classify samples in line with current requirements.

The assessment provided in this report fulfils the requirement of step 2 above, and allows classification of the site soils and hazardous or non-hazardous.

Asbestos: The Hazardous Waste (England and Wales) Regulations 2005 requires that any waste having an asbestos content greater than 0.1% weight/weight (w/w) be classified as Hazardous Waste. Any waste with an asbestos content of less than 0.1% w/w can be classified as non-hazardous waste, unless there are other contaminants present which would make the waste hazardous.

Where fibrous asbestos is present at concentrations greater than 0.001%, these can be considered to pose a risk to human health and must be dealt with as hazardous soils for disposal purposes.

Where the asbestos is deemed to be of a fibrous nature the Health and Safety Executive (HSE) require that the handling of the material is undertaken by a suitably licensed company. The Carriage of Dangerous Goods (etc.) Regulations 2009 (CDG2009) applies in this instance.

APPENDIX C

Soil

Determinand	Units	No Samples Analysed	Positives Found	GAC Commercial/ Industrial	Mean	Max																													
						Hole ID	HDP108	HDP110	HDP114	HDP117	HDP121	TP101	TP102	TP103	TP105	WS102	WS103	WS104	WS105	WS106B	WS107	WS107	WS108	WS108	WS108	WS109	HDP101	HDP101	HDP101	RP01	RP01	RP01	RP01
						Bottom Depth	0.8	0.5	1	0.6	0.5	2.6	0.25	1	0.5	4	0.2	3	1	0.2	2	4	0.25	3	4	0.25	0.5	0.5	0.5	0.25	0.25	0.5	0.5
						AGS Sample ID	HDP108		HDP114			TP101	TP102	TP103	TP105	WS102	WS103	WS104	WS105	WS106B	WS107	WS107	WS108	WS108	WS108	WS109	HDP101	HDP101	HDP101	RP01	RP01	RP01	RP01
Acenaphthene	mg/kg	20	8	**75000**	2.07	6.5	4.4	2	<0.1	1.1	0.8	<0.1	1	<0.2	6.5	<0.1	<1.0	<0.1	0.4	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	0.4	0.2						
Acenaphthylene	mg/kg	20	6	**76000**	1.23	2.4	1.1	1.3	<0.1	1.8	0.7	<0.1	<1.0	<0.2	2.4	<0.1	<1.0	<0.1	0.1	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	<0.1	<0.1						
Anthracene	mg/kg	20	9	**520000**	3.36	12	6.4	3.7	<0.1	3.5	1.8	<0.1	1.2	<0.2	12	<0.1	<1.0	0.2	0.9	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	0.5	0.4						
Arsenic	mg/kg	20	20	**640**	22.7	220	10	17	7	18	12	5	15	31	14	3	11	7	220	16	4	7	16	11	7	23	29	-	-	-	-	-	-
Benzene	ug/kg	7		**15**				<10.0		<10.0	<10.0			<10.0							<10.0		<10.0			<10.0							
Benzo(a)Anthracene	mg/kg	20	9		6.33	19	12	7.1	<0.1	7.5	4.3	<0.1	2.1	<0.2	19	<0.1	<1.0	0.5	3.2	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	1.3	1.5						
Benzo(a)Pyrene	mg/kg	20	9	**76**	5.79	16	11	7.2	<0.1	6.9	4.1	<0.1	1.9	<0.2	16	<0.1	<1.0	0.3	3.6	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	1.1	2.1						
Benzo(b)fluoranthene	mg/kg	20	9		5.73	14	13	7	<0.1	5.6	4	<0.1	2.1	<0.2	14	<0.1	<1.0	0.4	4.3	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	1.2	2.2						
Benzo(ghi)Perylene	mg/kg	20	9		3.79	12	7.7	3.9	<0.1	3.6	2.5	<0.1	1.3	<0.2	12	<0.1	<1.0	0.1	2.3	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	0.7	1.2						
Benzo(k)fluoranthene	mg/kg	20	9		4.24	16	5.2	3.4	<0.1	5.1	2.4	<0.1	1.5	<0.2	16	<0.1	<1.0	0.2	3.8	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	0.6	1.7						
Boron (water-soluble)	mg/kg	20		**240000**			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	<1	-	-	-	-	-
Cadmium	mg/kg	20	6	**410**	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	4	2	<1.0	<1.0	2	<1.0	2	1	<1	-	-	-	-	-	
Chromium	mg/kg	20	20	**68000**	18.1	59	14	17	16	21	13	12	17	17	24	12	20	11	59	24	11	22	24	8	3	17	17	-	-	-	-	-	-
Chrysene	mg/kg	20	9		7.01	23	14	6.9	<0.1	6.8	4	<0.1	2.7	<0.2	23	<0.1	<1.0	0.6	3.8	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	1.3	1.5						
Copper	mg/kg	20	20	**68000**	60.9	330	74	59	27	55	35	24	40	110	59	10	93	12	330	70	7	23	90	10	20	69	95	-	-	-	-	-	-
Cyanide(Total)	mg/kg	20	6	**49**	7	16	<1.0	16	<1.0	6	6	<1.0	2	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11	-	<1	-	-	-	-	-
Dibenzo(ah)Anthracene	mg/kg	20	7		1.99	5	3.1	1.7	<0.1	1.6	1.2	<0.1	<1.0	<0.2	5	<0.1	<1.0	<0.1	1.1	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	0.2	0.5						
EthylBenzene	ug/kg	7		**3200**				<10.0		<10.0	<10.0			<10.0							<10.0		<10.0			<10.0							
Fluoranthene	mg/kg	20	11	**23000**	11	39	26	15	<0.1	14	8.8	<0.1	6.3	1.3	39	<0.1	1.9	0.7	5.1	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	3.2	3.2						
Fluorene	mg/kg	20	7	**60000**	2.36	7.3	4	2.1	<0.1	1.8	0.8	<0.1	<1.0	<0.2	7.3	<0.1	<1.0	<0.1	0.3	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	0.2	0.1						
Indeno(123-cd)Pyrene	mg/kg	20	9	**76**	3.4	11	6.8	3.3	<0.1	3	2.3	<0.1	1.2	<0.2	11	<0.1	<1.0	0.1	2.3	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	0.6	1.2						
Lead	mg/kg	20	20	**2300**	353	1600	150	210	86	180	92	50	120	570	340	14	320	950	600	1600	14	14	850	18	10	880	170	-	-	-	-	-	-
M/P Xylene	ug/kg	7		**3300**				<10.0		<10.0	<10.0			<10.0							<10.0		<10.0			<10.0							
Mercury	mg/kg	20	5	**1100**	3.8	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2	<1.0	<1.0	1	<1.0	1	10	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1	-	-	-	-	-	-
Methyl tert-Butyl Ether	ug/kg	7		**3800**				<10.0		<10.0	<10.0			<10.0							<10.0		<10.0			<10.0							
Moisture	%	20	20		14.7	38	12	19	8.1	15	15	26	17	16	9.6	9.5	8.9	6.9	17	13	9.9	12	13	12	38	17							
Naphthalene	mg/kg	20	8	**1100**	3.26	8.6	5.1	5	<0.1	2.7	3	<0.1	1.2	<0.2	8.6	<0.1	<1.0	<0.1	0.4	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	0.1	0.1						
Nickel	mg/kg	20	20	**980**	26	160	20	20	18	24	17	13	17	32	23	15	23	3	160	22	10	31	19	9	20	23	32	-	-	-	-	-	-
Ortho-Xylene	ug/kg	7		**3700**				<10.0		<10.0	<10.0			<10.0							<10.0		<10.0			<10.0							
PAH(total)	mg/kg	20	11		71.2	270	170	96	<0.1	91	55	<0.1	34	2.5	270	<0.1	4.6	4.6	40	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	16	21						
Phenanthrene	mg/kg	20	10	**22000**	10.7	42	24	12	<0.1	11	5.4	<0.1	5.8	<0.2	42	<0.1	1	0.7	3.3	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	2	1.3						
Phenols(Mono)	mg/kg	20		**380**			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	<1	-	-	-	-	-
Pyrene	mg/kg	20	11	**54000**	10.7	37	25	15	<0.1	15	8.6	<0.1	6	1.2	37	<0.1	1.8	0.8	4.9	<1.0	<0.1	<0.1	<1.0	<0.1	<0.1	2.8	3.2						
Retained on 10mm sieve	%	20					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1							
Soil Organic Matter	%	20	19		5.55	15	8.9	4.8	1.7	4.9	4.4	2.7	4	7	10	0.6	5.7	0.6	15	6.8	<0.1	1.9	4.6	0.2	15	6.6	-	-	-	6.8	-	-	-
Sulphate	g/l	20	19		0.123	1.2	0.2	0.06	0.01	0.32	1.2	0.02	0.07	0.07	0.02	0.03	0.02	0.03	0.07	0.05	<0.01	0.05	0.01	0.04	0.03	0.04	-	0.05	-	-	-	-	-
TPH (C10-C12 aliphatic)	mg/kg	7	2	**6100**	6.5	9		9		4	<1.0			<1.0							<1.0		<10.0			<10.0							
TPH (C10-C12 aromatic)	mg/kg	7	3	**11000**	11	18		18		12	3			<2.0							<2.0		<10.0			<10.0							
TPH (C10-C35)	mg/kg	20	14	**6100**	281	990	560	690	<1.0	990	360	98	310	<1.0	410	4	180	9	95	110	<1.0	<1.0	54	<1.0	<1.0	64	-	-	(13) 560	-	-	-	-
TPH (C12-C16 aliphatic)	mg/kg	7	4	**43000**	9.25	17		17		13	5			2							<1.0		<10.0			<10.0							
TPH (C12-C16 aromatic)	mg/kg	7	5	**35000**	38.4	96		96		40	12			5							<1.0		<10.0			39							
TPH (C16-C21 aliphatic)	mg/kg	7	4	**1000000**	9.5	16		16		16	4			2							<1.0		<10.0			<10.0							
TPH (C16-C21 aromatic)	mg/kg	7	6	**29000**	104	270		270		160	70			13							<1.0		12			98							
TPH (C21-C35 aliphatic)	mg/kg	7	5	**1000000**	44.6	110		66		110	30			6							<2.0		<10.0			11							
TPH (C21-C35 aromatic)	mg/kg	7	7	**29000**	183	470		470		330	180			25							4		30			240							
TPH (C5-C6 aliphatic)	ug/kg	7		**2400**				<100.0		<100.0	<100.0			<100.0							<100.0		<100.0			<100.0							
TPH (C6-C7 aromatic)	ug/kg	7						<100.0		<100.0	<100.0			<100.0							<100.0		<100.0			<100.0							
TPH (C6-C8 aliphatic)	ug/kg	7		**5300**				<100.0		<100.0	<100.0			<100.0							<100.0		<100.0			<100.0							
TPH (C7-C8 aromatic)	ug/kg	7						<100.0		<100.0	<100.0			<100.0							<100.0		<100.0			<100.0							
TPH (C8-C10 aliphatic)	ug/kg	7		**1300**				<100.0		<100.0	<100.0			<100.0							<100.0		<100.0			<100.0							
TPH (C8-C10 aromatic)	ug/kg	7		**2200**				<100.0		<100.0	<100.0			<100.0							<100.0		<100.0			<100.0							
Toluene	ug/kg	7		**33000**				<10.0		<10.0	<10.0			<10.0							<10.0		<10.0			<10.0							
Zinc	mg/kg	20	20	**730000**	289	1100	62	110	61	170	87	34	120	250	330	30	980	18	580	880	28	63	800	20	48	1100	250	-	-	-	-	-	-
pH		20	20		8.48	10	7.8	8.8	7.9	9.8	8.7	7.9	8.3	8.2	8.3	8.2	10	8.6	7.8	9	7.7	8.1	8.8	8.3	7.9	9.4	-	8.1	-	-	-	-	-

Cundall 2016 Laboratory Data																							
Screened for Commercial	**Sample Reference**		CP/RC101A	CP/RC105	CP/RC102	CP/RC102A	CP/RC101B	CP/RC101B	CP/RC115	CP/RC115	CP/RC101A	WS101	WS106	CP/RC117A	CP/RC117A	CP/RC107	CP/RC107	CP/RC112	CP/RC112	CP/RC110	CP/RC111	TP103	TP109
	Depth (m)		0.60	0.30	0.30	0.60	0.60	1.50-1.60	1.00	2.70	3.30	0.00	0.00	0.60	1.90	1.00	1.50	0.60	3.50	0.30	0.30	3.10-3.30	0.10-0.30
	Date Sampled		14/04/2016	14/04/2016	18/04/2016	19/04/2016	15/04/2016	15/04/2016	15/04/2016	18/04/2016	14/04/2016	18/04/2016	18/04/2016	22/04/2016	22/04/2016	20/04/2016	21/04/2016	20/04/2016	21/04/2016	27/04/2016	25/04/2016	19/04/2016	20/04/2016
Analytical Parameter (Soil Analysis)	**Units**	**Ramboll GAC Comm/Ind**																					
Stone Content	%		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	24	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%		12	15	17	16	9.7	17	10	17	13	3	12	12	21	6.8	-	13	13	10	12	13	15
Total mass of sample received	kg		1.9	2	2	1.9	1.7	1.7	1.9	2	1.9	2	2	1.1	1.2	1.4	-	1.4	1.5	1.2	1.7	0.82	1.2
Asbestos in Soil Screen / Identification Name	Type		Chrysotile	-	-	-	-	-	-	-	-	Chrysotile	-	Not-detected	Not-detected	-	Not-detected	Not-detected	-	Chrysotile & Amosite	Chrysotile	-	-
Asbestos in Soil	Type		Detected	-	-	-	-	Not-detected	Not-detected	Not-detected	Not-detected	Detected	Not-detected							Detected	Detected	-	-
Asbestos Quantification (Stage 2)	%		0.002	-	-	-	-	-	-	-	-	< 0.001	-							< 0.001	< 0.001	-	-
Asbestos Quantification Total	%		0.002	-	-	-	-	-	-	-	-	< 0.001	-							< 0.001	< 0.001	-	-
General Inorganics																							
pH	pH Units		8.4	7.2	7.4	8.1	8.6	8.3	11	8.6	9.4	8.9	8.4	8.4	7.3	8.1	-	8.7	8.8	8.5	8.5	-	6.5
Free Cyanide	mg/kg	49	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	-	< 1
Total Sulphate as SO_4	mg/kg		800	500	320	340	940	460	5500	490	3100	500	1100	1000	600	190	-	1200	180	2300	4100	-	460
Water Soluble Sulphate (2:1 Leachate Equiva	g/l		0.032	0.11	0.05	0.024	0.084	0.038	0.24	0.052	0.38	0.021	0.14	0.061	0.15	0.041	-	0.16	0.044	0.13	1.0	-	0.023
Sulphide	mg/kg		4.9	< 1.0	< 1.0	< 1.0	7.4	< 1.0	11	< 1.0	8.9	11	11	1.6	< 1.0	3.9	-	2.9	< 1.0	1.1	20	-	< 1.0
Organic Matter	%		1.4	1.3	0.6	1	1.5	1.5	0.6	0.9	0.4	7.6	4.7	1.7	1	0.3	-	2.3	0.2	2.1	1.7	-	3.5
Electrical Conductivity																							
Redox Potential																							
Speciated PAHs																							
Naphthalene	mg/kg	1100	0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.61	1.3	0.32	< 0.05	< 0.05	-	3.1	0.13	0.87	< 0.05	-	0.17
Acenaphthylene	mg/kg	76000	0.26	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.53	< 0.10	< 0.10	< 0.10	< 0.10	-	0.32	< 0.10	1.2	0.45	-	< 0.10
Acenaphthene	mg/kg	75000	0.21	< 0.10	< 0.10	< 0.10	0.19	< 0.10	< 0.10	< 0.10	< 0.10	0.48	0.37	< 0.10	< 0.10	< 0.10	-	3.5	0.98	1.3	0.2	-	< 0.10
Fluorene	mg/kg	60000	0.32	< 0.10	< 0.10	< 0.10	0.13	< 0.10	< 0.10	< 0.10	< 0.10	0.37	0.47	< 0.10	< 0.10	< 0.10	-	2.4	0.62	1	0.23	-	< 0.10
Phenanthrene	mg/kg	22000	2.8	< 0.10	< 0.10	0.27	1.6	< 0.10	0.39	1.1	< 0.10	3.4	3.7	0.82	< 0.10	1.8	-	21	6.9	7.5	1.2	-	1.1
Anthracene	mg/kg	520000	0.75	< 0.10	< 0.10	< 0.10	0.38	< 0.10	< 0.10	0.18	< 0.10	1.8	0.95	< 0.10	< 0.10	0.36	-	5.4	1.4	2.2	0.5	-	0.17
Fluoranthene	mg/kg	23000	4.5	< 0.10	< 0.10	0.42	2.9	< 0.10	0.74	1.4	< 0.10	9.8	4.6	1.6	< 0.10	1.9	-	26	8.7	15	2.6	-	2.2
Pyrene	mg/kg	54000	4.1	< 0.10	< 0.10	0.46	2.7	< 0.10	0.84	1.6	< 0.10	17	4.7	2.7	< 0.10	1.6	-	23	7.7	12	2.3	-	2.1
Benzo(a)anthracene	mg/kg		2	< 0.10	< 0.10	0.23	1.5	< 0.10	0.43	0.83	< 0.10	5.2	2.5	1.4	< 0.10	0.74	-	12	3.3	8.5	1.3	-	1.1
Chrysene	mg/kg		1.8	< 0.05	< 0.05	0.19	1.3	< 0.05	0.45	0.75	< 0.05	7.2	2.9	1.5	< 0.05	0.68	-	11	2.6	6.7	0.99	-	1.1
Benzo(b)fluoranthene	mg/kg		2.2	< 0.10	< 0.10	0.22	1.7	< 0.10	0.58	0.88	< 0.10	24	3.4	0.85	< 0.10	0.84	-	13	3.7	8.2	1.8	-	0.91
Benzo(k)fluoranthene	mg/kg		0.6	< 0.10	< 0.10	0.14	0.76	< 0.10	0.24	0.46	< 0.10	7.6	1.2	0.71	< 0.10	0.27	-	5.2	0.98	3.7	0.78	-	0.5
Benzo(a)pyrene	mg/kg	76	1.5	< 0.10	< 0.10	0.23	1.4	< 0.10	0.55	0.93	< 0.10	26	3	1.2	< 0.10	0.6	-	11	3	7	1.6	-	0.68
Indeno(1,2,3-cd)pyrene	mg/kg		0.74	< 0.10	< 0.10	< 0.10	0.7	< 0.10	0.24	0.39	< 0.10	16	1.3	0.38	< 0.10	0.37	-	5.8	1.5	3.4	0.54	-	0.33
Dibenz(a,h)anthracene	mg/kg		0.19	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	3	0.4	< 0.10	< 0.10	< 0.10	-	1.4	0.32	0.87	< 0.10	-	< 0.10
Benzo(ghi)perylene	mg/kg		0.96	< 0.05	< 0.05	< 0.05	0.95	< 0.05	0.32	0.5	< 0.05	20	1.8	0.61	< 0.05	0.38	-	7.3	1.8	3.9	0.71	-	0.52
Total PAH																							
Speciated Total EPA-16 PAHs	mg/kg		23.2	< 1.60	< 1.60	2.16	16.1	< 1.60	4.78	8.95	< 1.60	143	32.6	12	< 1.60	9.53	-	151	43.6	82.9	15.3	-	10.8
Heavy Metals / Metalloids																							
Arsenic (aqua regia extractable)	mg/kg	640	17	6.8	8.1	7	18	19	7.2	13	17	12	17	12	18	6.6	-	25	2.9	35	15	-	25
Cadmium (aqua regia extractable)	mg/kg	410	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.3	< 0.2	< 0.2	< 0.2	0.6	< 0.2	< 0.2	< 0.2	-	< 0.2	< 0.2	< 0.2	< 0.2	-	< 0.2
Chromium (hexavalent)	mg/kg	49	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	-	< 4.0	< 4.0	< 4.0	< 4.0	-	< 4.0
Chromium (III)	mg/kg	8600	23	40	27	19	29	22	28	18	32	24	51	10	12	19	-	19	11	17	20	-	19
Chromium (aqua regia extractable)	mg/kg		23	40	27	19	29	22	28	18	32	24	51	11	12	19	-	19	11	17	20	-	19
Copper (aqua regia extractable)	mg/kg	68000	91	18	25	21	160	48	47	40	200	94	82	38	53	15	-	89	23	96	83	-	71
Lead (aqua regia extractable)	mg/kg	2300	360	45	16	32	530	120	160	160	520	150	190	430	54	32	-	230	38	500	330	-	150
Mercury (aqua regia extractable)	mg/kg	1100	0.4	0.5	< 0.3	< 0.3	0.4	0.7	< 0.3	1.1	< 0.3	0.8	0.8	0.5	< 0.3	< 0.3	-	0.6	< 0.3	0.5	< 0.3	-	0.8
Nickel (aqua regia extractable)	mg/kg	980	20	25	27	15	24	23	17	17	24	22	33	15	33	20	-	31	14	64	42	-	21
Selenium (aqua regia extractable)	mg/kg	12000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	730000	180	50	75	60	230	69	250	68	210	160	350	240	170	73	-	170	59	300	130	-	99
Monoaromatics																							
Benzene	ug/kg	15																		-	< 1.0	< 1.0	-
Toluene	µg/kg	33000																		-	< 1.0	< 1.0	-
Ethylbenzene	µg/kg	3200																		-	< 1.0	< 1.0	-
p & m-xylene	µg/kg	3400																		-	< 1.0	< 1.0	-
o-xylene	µg/kg	3700																		-	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	3800																		-	< 1.0	< 1.0	-
Petroleum Hydrocarbons																							
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	2400																		-	< 0.1	< 0.1	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	5300																		-	< 0.1	< 0.1	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	1300																		-	< 0.1	< 0.1	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	6100																		-	< 1.0	< 1.0	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	43000																		-	< 2.0	< 2.0	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	1000000																		-	< 8.0	< 8.0	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	1000000																		-	< 8.0	< 8.0	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg																			-	< 10	< 10	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg																			-			-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg																			-			-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	2200																		-			-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	11000																		-			-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	35000																		-		3.3	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	29000																		-	13	14	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	29000																		-	24	17	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg																			-	38	35	-
total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		75	69.3	
Petroleum Hydrocarbons																							
Mineral Oil (C10 - C20)																							
Mineral Oil (C11 - C20)																							
Mineral Oil (C21 - C40)																							

Cundall 2016 Laboratory Data														
Screened for Commercial	**Sample I**	TP111	TP114	CP/RC116	CP/RC116	WS102	CP/RC104A	CP/RC103	CP/RC106A	CP/RC108	CP/RC101B	CP/RC107	TP103	TP112
	D	0.30-0.50	0.50-0.70	0.00	2.90	1.00-1.20	1.70-1.80	0.30	0.60	0.30	1.00	1.00	0.80-1.00	1.30-1.50
	Date	19/04/2016	20/04/2016	19/04/2016	20/04/2016	20/04/2016	11/04/2016	11/04/2016	12/04/2016	12/04/2016	15/04/2016	20/04/2016	19/04/2016	20/04/2016
Analytical Parameter (Soil Analysis)	**Units**													
Stone Content	%	< 0.1	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	16	-	-	14	19	23	7.9	9.7	7.1	10	4.7	8.4	6.3
Total mass of sample received	kg	1.3	-	-	1.5	1.2	2	2	2	2	1.6	1.4	2	1.1
Asbestos in Soil Screen / Identification Name	Type	Chrysotile	-	Chrysotile & Amosite	-	-	Not-detected	Not-detected	Not-detected	Not-detected				
Asbestos in Soil	Type	Detected	Not-detected	Detected	-	-								
Asbestos Quantification (Stage 2)	%	< 0.001	-	< 0.001	-	-								
Asbestos Quantification Total	%	< 0.001	-	< 0.001	-	-								
General Inorganics														
pH	pH Units	8.2	-	-	8.4	8.3	8.1	8.8	8	8.5	8.4	8.2	10.2	10.1
Free Cyanide	mg/kg	< 1	-	-	< 1	< 1	< 1	< 1	< 1	< 1				
Total Sulphate as SO_4	mg/kg	2200	-	-	250	2100	160	1700	1700	1200				
Water Soluble Sulphate (2:1 Leachate Equiva	g/l	0.57	-	-	0.059	0.045	0.023	0.23	0.68	0.26				
Sulphide	mg/kg	1.4	-	-	< 1.0	18	< 1.0	< 1.0	3.4	4.1				
Organic Matter	%	1.9	-	-	0.4	3.2	< 0.1	0.4	0.8	1.8				
Electrical Conductivity											180	110	310	880
Redox Potential											211.9	215	239.2	254.9
Speciated PAHs														
Naphthalene	mg/kg	0.36	-	-	< 0.05	0.47	< 0.05	< 0.05	0.44	0.93				
Acenaphthylene	mg/kg	0.19	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10				
Acenaphthene	mg/kg	0.27	-	-	< 0.10	< 0.10	< 0.10	< 0.10	0.44	0.31				
Fluorene	mg/kg	0.2	-	-	< 0.10	< 0.10	< 0.10	< 0.10	0.41	0.31				
Phenanthrene	mg/kg	2.2	-	-	< 0.10	1.5	< 0.10	0.34	4.3	3.5				
Anthracene	mg/kg	0.38	-	-	< 0.10	0.22	< 0.10	< 0.10	0.73	0.81				
Fluoranthene	mg/kg	4.4	-	-	< 0.10	2	< 0.10	0.66	5.3	5.2				
Pyrene	mg/kg	5.1	-	-	< 0.10	2	< 0.10	0.68	5.4	4.8				
Benzo(a)anthracene	mg/kg	3.6	-	-	< 0.10	1.2	< 0.10	0.5	3.1	3.3				
Chrysene	mg/kg	2.6	-	-	< 0.05	1	< 0.05	0.38	2.2	2.3				
Benzo(b)fluoranthene	mg/kg	2.7	-	-	< 0.10	1.2	< 0.10	0.62	3	3.3				
Benzo(k)fluoranthene	mg/kg	1.1	-	-	< 0.10	0.67	< 0.10	0.2	0.9	1.4				
Benzo(a)pyrene	mg/kg	2	-	-	< 0.10	1	< 0.10	0.32	1.5	1.7				
Indeno(1,2,3-cd)pyrene	mg/kg	0.85	-	-	< 0.10	0.6	< 0.10	< 0.10	0.62	0.86				
Dibenz(a,h)anthracene	mg/kg	0.2	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.22				
Benzo(ghi)perylene	mg/kg	1.2	-	-	< 0.05	0.84	< 0.05	< 0.05	0.89	1.1				
Total PAH														
Speciated Total EPA-16 PAHs	mg/kg	27.2	-	-	< 1.60	12.7	< 1.60	3.7	29.3	29.8				
Heavy Metals / Metalloids														
Arsenic (aqua regia extractable)	mg/kg	37	-	-	3.9	14	3.4	15	16	14				
Cadmium (aqua regia extractable)	mg/kg	< 0.2	-	-	< 0.2	0.9	< 0.2	0.2	< 0.2	0.2				
Chromium (hexavalent)	mg/kg	< 4.0	-	-	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0				
Chromium (III)	mg/kg	29	-	-	6.1	15	17	17	15	18				
Chromium (aqua regia extractable)	mg/kg	29	-	-	6.1	15	17	17	15	18				
Copper (aqua regia extractable)	mg/kg	140	-	-	13	78	4.8	67	63	39				
Lead (aqua regia extractable)	mg/kg	540	-	-	15	580	15	12	370	200				
Mercury (aqua regia extractable)	mg/kg	3.6	-	-	< 0.3	0.6	< 0.3	< 0.3	< 0.3	0.4				
Nickel (aqua regia extractable)	mg/kg	35	-	-	8.8	20	23	52	25	34				
Selenium (aqua regia extractable)	mg/kg	< 1.0	-	-	2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Zinc (aqua regia extractable)	mg/kg	390	-	-	25	360	46	150	170	110				
Monoaromatics														
Benzene	ug/kg	-	-	-	-	< 1.0					< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	-	-	-	-	< 1.0					< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	-	-	-	-	< 1.0					< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	-	-	-	-	< 1.0					< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	-	-	-	-	< 1.0					< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	-	-	-	-	< 1.0					< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons														
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	-	-	-	-	< 0.1								
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	-	-	-	-	< 0.1								
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	-	-	-	-	< 0.1								
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	-	-	-	-	< 1.0								
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	-	-	-	-	6.5								
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	-	-	-	-	160								
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	-	-	-	-	920								
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	-	-	-	-	1100								
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	-	-	-	-	< 0.1								
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	-	-	-	-	< 0.1								
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	-	-	-	-	< 0.1								
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	-	-	-	-	< 1.0								
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	-	-	-	-	2.7								
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	-	-	-	-	42								
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	-	-	-	-	500								
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	-	-	-	-	540								
total						1640	0	0	0	0	0	0	0	0
Petroleum Hydrocarbons														
Mineral Oil (C10 - C20)											12	< 10	< 10	43
Mineral Oil (C11 - C20)											12		< 10	43
Mineral Oil (C21 - C40)											240	<10	< 10	600

Ramboll 2017 Ground Investigation Asbestos data

Hole ID	Bottom Depth	Asbestos ID	Asbestos Quantification %
HDP102	0.3	N.D.	
HDP102	1	N.D.	
HDP103	1	N.D.	
HDP104	0.3	N.D.	
HDP106	0.2	N.D.	
HDP108	0.8	N.D.	
HDP108	0.8	N.D.	
HDP109	0.4	N.D.	
HDP110	0.5	N.D.	
HDP110	0.5	N.D.	
HDP111	0.4	N.D.	
HDP112	0.2	N.D.	
HDP113	0.5	N.D.	
HDP114	1	N.D.	
HDP115	0.3	N.D.	
HDP116	0.3	N.D.	
HDP117	0.6	N.D.	
HDP117	0.6	N.D.	
HDP119	0.6	N.D.	
HDP120	0.5	N.D.	
HDP121	0.5	N.D.	
HDP121	0.5	N.D.	
RP12	0.5	N.D.	
RP13	0.5	N.D.	
RP14	0.5	N.D.	
RP24	0.8	N.D.	
RP25	0.25	N.D.	
TP101	0.5	N.D.	
TP101	2.6	N.D.	
TP102	0.25	N.D.	
TP102	0.25	N.D.	
TP103	1	N.D.	
TP103	1	N.D.	
TP105	3	N.D.	
TP105	0.5	N.D.	
WS102	1	N.D.	
WS102	4	N.D.	
WS103	0.2		0.001, Chrysotile Detected
WS104	0.55		Chrysotile Loose Fibres Detected , 0.002
WS105	1		<0.001, Chrysotile Loose Fibres Detected
WS106B	0.2		Chrysotile Loose Fibres Detected , <0.001
WS107	0.5	N.D.	
WS107	2	N.D.	
WS107	4	N.D.	
WS108	3	Chrysotile Loose Fibres Detected	
WS108	4	N.D.	
WS108	0.25		<0.001, Amosite Loose Fibres Detected
WS109	0.25		0.007, Chrysotile Detected

Certificate of Analysis - Asbestos Quantification

CUNDALL 2016 Investigation Data

Qualitative Analysis

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
562993	CP/RC101A	0.60	130	Loose Fibres	**Chrysotile**	0.002	**0.002**
565068	WS101	0.00	160	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
568718	TP111	0.30-0.50	116	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
568720	CP/RC116	0.00	139	Loose Fibres	**Chrysotile & Amosite**	< 0.001	**< 0.001**
568649	CP/RC110	0.30	140	Loose Fibres & Insulation Lagging	**Chrysotile & Amosite**	< 0.001	**< 0.001**
568650	CP/RC111	0.30	117	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
580701	AOP6-7	0.50	140	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
580704	AOP6-7	0.50	131	Loose Fibres	**Amosite**	< 0.001	**< 0.001**
580707	AOP6-7	0.75	132	Insulation Lagging	**Amosite & Crocidolite**	2.698	2.70
580708	AOP6-7	0.50	117	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
580710	AOP6-7	0.50	142	Loose Fibres	**Chrysotile & Amosite**	< 0.001	**< 0.001**
580711	AOP6-7	0.85	115	Loose Fibres & Insulation Lagging	**Chrysotile**	0.005	**0.005**
580714	AOP6-7	0.50	141	Loose Fibres & Insulation Lagging	**Chrysotile**	0.005	**0.005**
580715	AOP6-7	0.75	136	Insulation Lagging	**Chrysotile**	0.004	**0.004**
580716	AOP6-7	0.50	156	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
580719	AOP6-7	0.40	130	Loose Fibres	**Chrysotile**	0.003	**0.003**
580721	AOP6-7	0.50	138	Loose Fibres	**Anthophyllite**	< 0.001	**< 0.001**
580723	AOP6-7	0.50	147	Loose Fibres	**Amosite**	< 0.001	**< 0.001**
580724	AOP6-7	1.00	126	Loose Fibres	**Chrysotile & Amosite & Crocidolite**	< 0.001	**< 0.001**
580731	AOP6-7	0.50	155	Loose Fibres	**Amosite**	< 0.001	**< 0.001**
580735	AOP6-7	0.50	144	Insulation Lagging & Loose Fibres	**Chrysotile**	0.001	**0.001**
580737	AOP6-7	0.50	170	Insulation Lagging & Loose Fibres	**Chrysotile & Amosite**	< 0.001	**< 0.001**
580738	AOP6-7	0.90	152	Loose Fibres	**Chrysotile & Amosite**	< 0.001	**< 0.001**
580739	AOP6-7	0.50	140	Loose fibres	**Amosite**	< 0.001	**< 0.001**
580741	AOP6-7	0.50	141	Insylation lagging	**Chrysotile, Amosite**	0.004	**0.004**
580742	AOP6-7	0.70	135	Loose fibres	**Amosite**	< 0.001	**< 0.001**
580743	AOP6-7	0.50	138	Loose fibres	**Chrysotile**	< 0.001	**< 0.001**
580744	AOP6-7	0.90	121	Insulation Lagging	**Chrysotile & Amosite**	< 0.001	**< 0.001**
580745	AOP6-7	1.00	124	Insulation Lagging	**Chrysotile**	< 0.001	**< 0.001**
580746	AOP6-7	0.50	135	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
580747	AOP6-7	0.50	123	Loose Fibres	**Chrysotile & Amosite**	< 0.001	**< 0.001**
580748	AOP6-7	0.90	137	Loose Fibres	**Chrysotile & Amosite**	< 0.001	**< 0.001**
580749	AOP6-7	0.50	134	Loose Fibres & Bitumen	**Chrysotile**	0.001	**0.001**
580752	AOP6-7	0.80	135	Loose Fibres & Insulation Lagging	**Chrysotile & Crocidolite**	0.005	**0.005**
580753	AOP6-7	0.50	132	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
580755	AOP6-7	0.50	135	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
580756	AOP6-7	1.00	126	Loose Fibres & Hard/Cement Type Material	**Chrysotile & Amosite & Crocidolite**	0.677	0.677
580757	AOP6-7	0.50	133	Loose Fibres	**Amosite & Crocidolite**	< 0.001	**< 0.001**
580758	AOP6-7	0.80	135	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
580759	AOP6-7	0.50	130	Insulation Lagging & Loose Fibres	**Chrysotile & Amosite**	0.003	**0.003**
580761	AOP6-7	0.75	141	Insulation Lagging	**Chrysotile**	< 0.001	**< 0.001**
580762	AOP6-7	0.50	130	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
580763	AOP6-7	1.00	132	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**

Water And Leachate

				Customer Sample Reference		RP17	RP20		RP01	WS102	WS103	WS104	WS107	WS108
				Type		Groundwater	Groundwater		Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Determinand	**Units**	**EQS**	**DWS**	**MRV**										
Acenaphthene	ug/l					0.01	0.02		0.27	1.4	0.07	0.19	0.02	0.12
Acenaphthylene	ug/l					<0.01	<0.01		0.27	1	0.07	0.9	0.02	0.16
Anthracene	ug/l	0.1				0.02	0.01		0.52	2.1	0.16	0.65	0.01	0.28
Arsenic	ug/l	50	7.5	5		0.4	0.4		3.6	12	2.9	4.4	<0.2	3.7
Benzo(a)Anthracene	ug/l			<0.01		0.01	0.01		1.5	5	0.47	1.5	0.01	0.87
Benzo(a)Pyrene	ug/l	0.0017	0.005	<0.01		<0.01	<0.01		2.5	4.9	0.56	2.3	0.01	1.3
Benzo(b)fluoranthene	ug/l	0.0017	0.075	<0.01		<0.01	<0.01		2.1	4.7	0.65	2.3	0.02	1.1
Benzo(ghi)Perylene	ug/l	0.0017	0.05	<0.01		<0.01	<0.01		2.3	3	0.56	3.2	0.01	1.3
Benzo(k)fluoranthene	ug/l	0.0017	0.05	<0.01		<0.01	<0.01		1.6	3.1	0.41	1.6	0.01	1.1
Boron	mg/l		0.75			0.23	0.16		0.01	0.02	0.02	0.02	0.01	0.06
Cadmium	ug/l	0.25	5	<0.05		0.09	0.05		<0.02	<0.02	0.02	<0.02	<0.02	<0.02
Chromium	ug/l	4.7	50			<1.0	<1.0		1	2	2	1	<1.0	18
Chrysene	ug/l			<0.01		<0.01	0.01		1.6	5.2	0.54	1.8	0.02	0.97
Copper	ug/l	1				2.2	<0.5		1.6	0.7	2.6	1.2	0.5	1.9
Cyanide(Total)	mg/l	1	50			0.24	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenzo(ah)Anthracene	ug/l			<0.01		<0.01	<0.01		0.32	0.6	0.09	0.53	<0.01	0.2
Fluoranthene	ug/l	0.0063				0.01	0.01		3	10	0.94	1.3	0.03	1.6
Fluorene	ug/l					0.01	0.02		0.18	1.2	0.04	0.18	0.03	0.07
Indeno(123-cd)Pyrene	ug/l	0.0017	0.05	<0.01		<0.01	<0.01		1.7	2.4	0.41	2	0.01	0.97
Lead	ug/l	1.2	5	<0.2		<0.3	<0.3		0.9	0.5	2.3	2.9	<0.3	7.4
Mercury	ug/l	0.07	1	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Naphthalene	ug/l	2				0.03	0.04		0.25	0.61	0.1	1.1	0.06	0.17
Nickel	ug/l	4				3	6		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
PAH(total)	ug/l					0.12	0.16		22	62	6.4	22	0.35	12
Phenanthrene	ug/l					0.02	0.02		1.1	6.9	0.41	1.1	0.06	0.62
Phenol	ug/l	7.7				<0.5	<0.5		<0.5	1.1	0.8	1.7	<0.5	0.7
Pyrene	ug/l					0.01	0.02		2.9	9.8	0.89	1.5	0.03	1.6
Sulphate	mg/l	400	250			230	290		5.3	20	11	8.5	1.6	15
TPH (C10-C35)	mg/l	0.01	0.09			0.32	0.27		0.96	0.14	0.05	0.06	0.03	0.21
Zinc	ug/l	10.9				5	6		6	3	4	5	3	8
pH		<5, 9>				7.1	6.9		8.4	9.8	8.5	9.8	8.5	10.1

key

blue - exceeds EQS

Green - exceeds DWS

Pink - exceeds EQS and DWS

Analytical Report Number: 16-15736

Project / Site name: Plots 6,7,8, First Street, Manchester

Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status	EQS	DWS	MRV														
Lab Sample Number							562994	565070	565071	565072	565073	565074	565075	565076	567239	567581	567582	568723	568724	568725
Sample Reference							CP/RC101A	CP/RC102	CP/RC102A	CP/RC101B	CP/RC115	CP/RC115	CP/RC101A	WS101	CP/RC117A	CP/RC107	CP/RC112	TP112	TP114	CP/RC116
Sample Number							4	2	2	3	4	7	8	1	6	3	9	3	3	None Supplied
Depth (m)							1.00	0.30	0.60	0.60	1.00	2.70	3.30	0.00	1.90	1.00	3.50	1.30-1.50	2.10-2.30	2.90
Date Sampled							14/04/2016	18/04/2016	19/04/2016	15/04/2016	15/04/2016	18/04/2016	14/04/2016	18/04/2016	22/04/2016	20/04/2016	21/04/2016	20/04/2016	20/04/2016	20/04/2016
Time Taken							1145	1050	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
General Inorganics																				
pH	pH Units	N/A	ISO 17025	<5,9>			8.3	7.6	6.8	9.1	8.9	8.6	8.5	8.4	8.7	8.6	8.4	7.3	7.3	7.2
Total Cyanide	µg/l	10	ISO 17025	1	50		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	67	< 10	< 10
Sulphate as SO_4	ug/l	0.1	ISO 17025	400000	250000		8.5	2700	8300	13300	42300	8650	20000	2190	14400	1450	6300	32900	9440	13800
Sulphide	µg/l	5	NONE				< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Phenols																				
Total Phenols (monohydric)	µg/l	10	ISO 17025	7.7			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Speciated PAHs																				
Naphthalene	µg/l	0.01	NONE	2			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	1.1	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	NONE				< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE				< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.41	< 0.01	< 0.01
Fluorene	µg/l	0.01	NONE				< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.20	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	NONE				< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.83	< 0.01	< 0.01
Anthracene	µg/l	0.01	NONE	0.1			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.21	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	0.0063			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	1.1	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE				< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	1.2	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE			<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE			<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	0.00017	0.075	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.45	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	0.0017	0.05	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.26	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	0.00017	0.005	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.35	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	0.0017	0.05	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE			<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	0.00017	0.05	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH																				
Total EPA-16 PAHs	µg/l	0.2	NONE				< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	7.2	< 0.2	< 0.2
Heavy Metals / Metalloids																				
Arsenic (dissolved)	µg/l	1.1	ISO 17025	50	7.5	5	14	< 1.1	7.5	< 1.1	1.3	9.6	12	< 1.1	< 1.1	1.6	< 1.1	19	< 1.1	< 1.1
Cadmium (dissolved)	µg/l	0.08	ISO 17025	0.25	5	<0.05	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
Chromium (dissolved)	µg/l	0.4	ISO 17025	4.7	50		14	< 0.4	3.5	< 0.4	15	2.2	29	1.1	< 0.4	1.3	1.9	2.2	< 0.4	1.2
Copper (dissolved)	µg/l	0.7	ISO 17025	1			13	2.0	6.6	1.0	6.2	2.0	11	9.9	2.4	2.1	4.5	16	7.2	1.4
Lead (dissolved)	µg/l	1	ISO 17025	1.2	5	<0.2	17	< 1.0	12	< 1.0	7.8	2.1	31	14	< 1.0	< 1.0	< 1.0	13	< 1.0	< 1.0
Mercury (dissolved)	µg/l	0.5	ISO 17025	0.07	1	<0.05	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	4			< 0.3	< 0.3	< 0.3	< 0.3	0.3	< 0.3	< 0.3	0.8	< 0.3	< 0.3	1.3	1.5	1.7	< 0.3
Selenium (dissolved)	µg/l	4	ISO 17025		7.5		< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	5.7	4.1	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	10.9			12	2.2	5.0	7.5	29	4.4	8.0	15	6.2	< 0.4	7.3	13	5.9	6.6
Petroleum Hydrocarbons																				
Petroleum Range Organics (C6 - C10)	µg/l	10	NONE	10	1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Diesel Range Organics (C10 - C25)	µg/l	10	NONE				< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Oil Range Organics (C25 - C40)	µg/l	10	NONE				< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

Exceedance of EQS

Exceedance of DWS

Exceedance of both EQS and DWS

APPENDIX D

ENVIRONMENT
& HEALTH

Chris Smith
First Street (Development) Limited
3rd Floor
Clarence House
Clarence Street
Manchester
M2 4DW

Dear Chris

Date 19/11/2019

RE: PLOT9 AND PLOT10, FIRST STREET, MANCHESTER, WASTE CLASSIFICATION LETTER REPORT

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Ref Plot 9 and Plot 10, Waste Classification Letter Report

Introduction and Background

Ramboll UK Ltd was formerly appointed by Ask (First Street) Ltd to provide a range of services which includes contaminated land consultancy for the proposed development of Plots 6 and 7, First Street, Manchester, which was subsequently renamed as 'Plots 9 & 10 First Street, Manchester', and is now referred to as 'Plot 9 and Plot 10'.

Two ground investigations were previously undertaken at the site; carried out by Geotechnical Engineering Ltd[1] (under supervision of Cundall Johnson & Partners LLP) in 2016, and TerraConsult Ltd[2] (under supervision of Ramboll UK Ltd) in 2017.

Interpretation of the data from these was provided in the 'Plots 6 & 7 First Street Manchester Geotechnical and Contaminated Land Interpretative Report' (Ramboll, 2018) including an initial waste classification of soils.

[1] Plot 6,7, &8 First Street, Manchester Factual Report on Ground Investigation Ref:31847. Geotechnical, July 2017
[2] Plot 6 &7 First Street. Ref 3296R001-1. TerraConsult, February 2018

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Following the completion of the Ramboll (2018) Interpretative Report, the proposed development design was altered to include a basement.

An additional site investigation was designed by Ramboll primarily to obtain geotechnical data for the basement. Whilst returning to site it was suggested that an allowance be made to obtain samples of soils from the geotechnical boreholes to provide chemical data for deeper natural soils not previously sampled. The aim of this was to allow a greater certainty on waste classification of the deeper materials which will require disposal for the basement excavation.

Site works

The investigation was carried out by TerraConsult Ltd in June 2019 but, unfortunately, not all window sample boreholes could be excavated to the required depth for sampling the natural materials, resulting in only three of the proposed 12 samples being obtained. The factual details of the ground investigation including boreholes logs are provided in the 'Plots 9 & 10 First Street Ground Investigation Report' (TerraConsult, 2019)[3]. The TerraConsult Borehole location plan is included as Appendix A.

The three samples were obtained were from WS01 at 3.5 – 3.6 mbgl, WS02 at 2.8 mbgl and WS04 at 3.5 – 3.8 mbgl. The exploratory hole location plan and associated borehole logs are included within the TerraConsult, 2019 report. The materials sampled and their depths are summarised in Table 1 below.

Table 1: Summary of sampled material types (TerraConsult, 2019)

Stratum	Depth range (m)	Borehole ID
Made Ground (Cohesive)	3.5 – 3.8	WS04
Alluvium	3.5 – 3.6	WS01
Glaciofluvial Sheet Deposits	2.8	WS02

These three samples were analysed for a standard suite including metals, hydrocarbons and asbestos for waste classification purposes and also for WAC (waste acceptance criteria) analysis.

Geology

This report provides an overview of the data obtained for soil strata encountered during all phases of investigation and an updated waste classification.

The geological succession encountered during the ground investigations is summarised in Table 2 below.

Table 2 Summary of material types encountered during ground investigations

Stratum	Description	Depth to top of stratum (m bgl)	Depth to base of stratum (m bgl)	Typical thickness of stratum (m)
Made ground	Granular - generally grey sandy gravel of crushed red brick, concrete, charcoal, clinker, ash, sandstone and limestone. Cohesive – sandy, gravelly silt, sandy gravelly clay, slightly sandy peat.	0.0-0.20	2.10- 5.45 (base not proven in WS102, WS103)	3.90

[3] Plots 9 & 10 First Street, Manchester Ground Investigation Report, Ref: 4302R001-2. TerraConsult, October 2019

Stratum	Description	Depth to top of stratum (m bgl)	Depth to base of stratum (m bgl)	Typical thickness of stratum (m)
Alluvium and Peat	Slightly gravelly sandy clay with some inclusions of gravel. The peat is described as fibrous with abundant roots identified in four locations in the south eastern and central areas of the site thought to be in the location of a former River Channel and within the conjectured alluvium extents.	2.40-3.75	3.70- 5.45	1.5
Glacial Deposits	Granular – slightly gravelly sand. Cohesive – slightly sandy, slightly gravelly Clay.	2.6-5.45	4.0-8.2	2.0
Bedrock	Weathered - Slightly clayey sand and extremely weak fine to medium sandstone. Intact – weak to medium sandstone	4.1-8.2	Proven to between 15.5-18.25	Base not proven, thickness encountered during SI ranged between 9.9-12.5

Site data available

A total of 31 soil samples from Cundall's investigation (2016), 20 soil samples from Ramboll's investigation (2017), and 3 samples from the 2019 investigation were analysed for a range of chemical contaminants. Table 3 summarises samples and material types analysed. Additional samples were analysed for asbestos only, Table 4 summarises the asbestos data from the two ground investigations.

Table 3 Summary of soil samples 2016, 2017 and 2019

	Cundall Investigation (2016)		Ramboll Investigation (2017)		Ramboll Investigation (2019)	
Stratum	**Number of samples**	**Depth range (mbgl)**	**Number of samples**	**Depth range (mbgl)**	**Number of samples**	**Depth range (mbgl)**
Made Ground (Granular)	25	0.0 – 3.5	10	0.25 – 3.0	-	-
Made Ground (Cohesive)	6	0.3 – 3.3	8	0.5 – 4.0	1	3.5 – 3.8
Alluvium and Peat	-	-	1	2.6	1	3.5 – 3.6
Glacial Deposits	-	-	1	4.0	1	2.8

Table 4: Summary of asbestos results

Location	Cundall (2016)	Ramboll (2017)	Ramboll (2019)	Total
Number of samples analysed	85	48	3	**136**
Number of detects at visual ID stage	43	7	0	**50**
Number of detects from quantification (>0.001%)	14	3	-	**17**
Number above Hazardous Waste threshold of 0.1%	2	0	-	2

Updated Waste Classification

A waste classification assessment has been undertaken using available soil chemical data and HazWasteOnline, the results are enclosed to this letter report as Appendix B.

Table 5 summarises the number of samples which were classified as hazardous and non-hazardous for each stratum.

Table 5 Summary of Waste Classification by material type

Stratum	Total number of samples	Number of hazardous samples Location: hazardous properties	Number of non-hazardous samples
Made Ground (Granular)	35	2 WS106B at 0.2mbgl: HP14 WS102 at 1-2mbgl: HP7, HP11	33
Made Ground (Cohesive)	15	1 WS04 2019 at 3.5mbgl: HP14	14
Alluvium and Peat	2	0	2
Glacial Deposits	2	0	2

Note:
2/136 samples of made ground were also hazardous due to asbestos concentrations (From the Cundall's SI 2016 at AOP6-7C4 at 2.698% and AOP6-7O1 at 0.677%).

WS04 (Ramboll 2019 investigation) was classified as hazardous by HP14 due to combined copper, lead and zinc concentrations (1300mg/kg, 1400mg/kg and 640mg/kg, respectively). This sample was from made ground with concrete, brick and bitumen noted in the borehole log. The location of WS04 was similar to the 2017 sample WS106B which was determined hazardous due to combined elevated concentrations of lead and zinc (1600mg/kg and 880mg/kg, respectively). These results suggest a localised metals hotspot in this area.

The samples from WS01 and WS02 were both classified as non-hazardous. It should be noted, however, that high concentrations of TPH C16-C35 fractions (5800mg/kg) were noted in WS01 between 3.40-3.60m bgl within the alluvium, but no visual or olfactory evidence of hydrocarbons were noted during the ground investigation.

WS102 was determined hazardous due to elevated TPH concentrations of 1640mg/kg with associated elevated benzo(a)pyrene at a depth of between 1.0-1.20m bgl within the made ground. There is nothing to suggest a hotspot of hydrocarbon impacts in this area and this sample is considered likely to be representative of the granular made ground across the site.

A review of the borehole logs for all samples was completed and a dataset just from this granular made ground was subject to statistical analysis to determine a representative 95th percentile concentration. The 95th percentile can be used for an overall classification of heterogenous made ground materials rather than using maximum concentrations to determine risks or waste classification.

The 95th percentiles for TPH (total) and benzo(a)pyrene have been calculated using this dataset of 19 locations at similar depths and similar material. Only TPH and benzo(a)pyrene were considered as these were the compounds which trigger the hazardous classification in one sample. The 95th percentile for TPH was calculated as 995mg/kg and benzo(a)pyrene was calculated as 6.85mg/kg.

These figures have been considered as a 'representative' worst case sample in Hazwaste online to provide a waste classification for the granular made ground material across the site. The results are included within Appendix A and show that the representative concentrations are non-hazardous.

The granular made ground is therefore considered non-hazardous and the high concentration in WS102 and individual classification as hazardous can be disregarded.

WAC data

The three samples referenced in Table 1 were also analysed for Waste Acceptance Criteria (WAC).

WS01 was analysed from the cohesive alluvium. Total TPH was found to be 5800mg/kg which exceed the inert landfill limit of 500mg/kg. pH was stated to be 5.8, the limit for inert landfill is >6. It is likely that the high organic content and peat will prevent this material from being disposed of as inert.

WS02 was analysed from the glacial deposits. The concentrations did not exceed any of the inert WAC limits. It is likely that this material will be suitable for disposal at an inert landfill.

WS04 was analysed from the made ground. The only analyte to exceed the inert WAC limit was TOC at 4% (inert WAC limit 3%). Given the composition of the made ground recorded across the site it is considered unlikely that the made ground would be suitable for disposal at an inert facility.

Summary

A total of three out of 55 samples were classified as hazardous. Based on the available information, the likely waste classification of soils underlying the development are as follows:

- Localised area of elevated metals (namely copper, lead and zinc) within the Made Ground around WS106B[2] and WS04[3] likely to be classified as hazardous;
- Asbestos impacted soils around AOP6-7C4 in the north-west and AOP6-7O1 in the east are likely to be classified as hazardous; there is a potential for additional asbestos impacts in particular in these areas. Material in these areas should be subject to visual inspection and impacted soils segregated;
- Remaining made ground likely to be classified non-hazardous;
- Alluvial and glacial deposits likely to be classified as non-hazardous (however this is based on only four samples);
- Alluvial deposits unlikely to be suitable for disposal at an inert landfill due to organic content; and,
- Glacial deposits likely to be suitable for disposal at an inert landfill.

If there are any previously unidentified areas of contamination noted via visual or olfactory evidence during any excavations, these will have to be stockpiled separately and as noted above, analysis will be required to determine the likely nature of the material and delineate any potentially impacted areas.

In conclusion during the excavation of the basement, the hotspot areas around WS106B[2] and WS04[3] will need to be segregated and resampled to confirm the waste classification. This will limit any mixing of potentially hazardous material with possibly non-hazardous material in order to keep the waste streams separate and costs for disposal down.

All the chemical data should be sent to the receiving landfill to determine if they are able to accept the waste prior to disposal.

This report and any future material chemical analysis and assessments will need to be included within the site Material Management Plan (MMP) and Remedial Strategy which will form part of the Construction Environmental Management Plan (CEMP) and form the basis for Validation of ground works as part of the site planning conditions.

Yours sincerely

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enclosed-
Appendix A – TerraConsult Borehole Location Plan
Appendix B – Hazwaste Online Assessments

Exploratory Hole Location Plan

TerraConsult

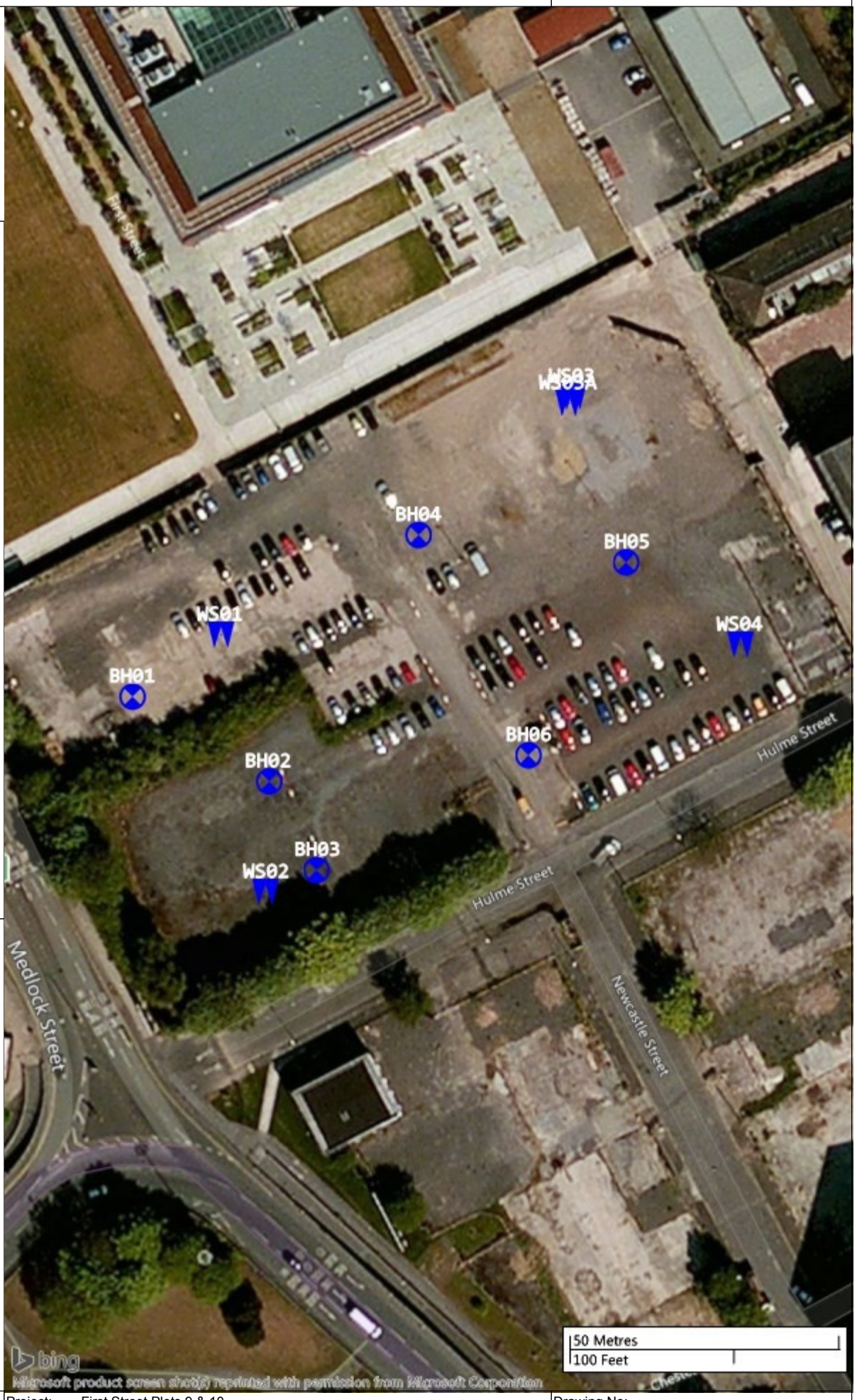
N

Legend Key

- Locations By Type - RC
- Locations By Type - WLS

Remarks:

None



Issue:	DRAFT	Project: First Street Plots 9 & 10	Drawing No:
Scale:	1:1000	Project No: 4302	4302D002-1
		Client: ASK Property Developments	

Waste Classification Report

A4JPJ-J3TQX-G8DD7

Job name

Plot 6 and 7 First Street

Description/Comments

Project

Site

Waste Stream Template

Ramboll Generic Waste Stream

Classified by

Name:
Hazel Comyn
Date:
13/10/2017 09:05:29 UTC
Telephone:
01132 458812

Company:
Ramboll UK Ltd
3rd Floor, Halsbury House, Chancellor Court
21 The Calls
Leeds
LS2 7EH

Report

Created by: Hazel Comyn
Created date: 13/10/2017 09:05 UTC

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	CP/RC101A	0.6	Non Hazardous		3
2	CP/RC105	0.3	Non Hazardous		5
3	CP/RC102	0.3	Non Hazardous		7
4	CP/RC102A	0.6	Non Hazardous		9
5	CP/RC101B	0.6	Non Hazardous		11
6	CP/RC101B[1]	1.50-1.60	Non Hazardous		13
7	CP/RC115	1	Non Hazardous		15
8	CP/RC115[1]	2.7	Non Hazardous		17
9	CP/RC101A[1]	3.3	Non Hazardous		19
10	WS101		Non Hazardous		21
11	WS106		Non Hazardous		23
12	CP/RC117A	0.6	Non Hazardous		25
13	CP/RC117A[1]	1.9	Non Hazardous		27
14	CP/RC107	1	Non Hazardous		29
15	CP/RC112	0.6	Non Hazardous		31
16	CP/RC112[1]	3.5	Non Hazardous		33

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
17	CP/RC110	0.3	Non Hazardous		35
18	CP/RC111	0.3	Non Hazardous		37
19	TP103	3.10-3.30	Non Hazardous		39
20	TP109	0.10-0.30	Non Hazardous		40
21	TP111	0.30-0.50	Non Hazardous		42
22	CP/RC116	2.9	Non Hazardous		44
23	WS102	1.00-1.20	Hazardous	HP 7, HP 11	46
24	CP/RC104A	1.70-1.80	Non Hazardous		49
25	CP/RC103	0.3	Non Hazardous		51
26	CP/RC106A	0.6	Non Hazardous		53
27	CP/RC108	0.3	Non Hazardous		55
28	CP/RC101B[2]	1	Non Hazardous		57
29	CP/RC107[1]	1	Non Hazardous		58
30	TP103[1]	0.80-1.00	Non Hazardous		59
31	TP112	1.30-1.50	Non Hazardous		60

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Classification of sample: CP/RC101A

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

Sample details

Sample Name:
CP/RC101A
Sample Depth:
0.6 m
Moisture content:
12%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		0.21	mg/kg		0.188	mg/kg	0.0000187 %	✓	
2		acenaphthylene		205-917-1	208-96-8		0.26	mg/kg		0.232	mg/kg	0.0000232 %	✓	
3		anthracene		204-371-1	120-12-7		0.75	mg/kg		0.67	mg/kg	0.000067 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		17	mg/kg	1.32	20.041	mg/kg	0.002 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		2	mg/kg		1.786	mg/kg	0.000179 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.5	mg/kg		1.339	mg/kg	0.000134 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		2.2	mg/kg		1.964	mg/kg	0.000196 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		0.96	mg/kg		0.857	mg/kg	0.0000857 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.6	mg/kg		0.536	mg/kg	0.0000536 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		23	mg/kg	1.462	30.014	mg/kg	0.003 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		1.8	mg/kg		1.607	mg/kg	0.000161 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		91	mg/kg	1.126	91.478	mg/kg	0.00915 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.19	mg/kg		0.17	mg/kg	0.000017 %	✓	
16	•	fluoranthene		205-912-4	206-44-0		4.5	mg/kg		4.018	mg/kg	0.000402 %	✓	
17	•	fluorene		201-695-5	86-73-7		0.32	mg/kg		0.286	mg/kg	0.0000286 %	✓	
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		0.74	mg/kg		0.661	mg/kg	0.0000661 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	360	mg/kg		321.429	mg/kg	0.0321 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.4	mg/kg	1.353	0.483	mg/kg	0.0000483 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		0.2	mg/kg		0.179	mg/kg	0.0000179 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		20	mg/kg	1.579	28.205	mg/kg	0.00282 %	✓	
23	•	pH			PH		8.4	pH		8.4	pH	8.4 pH		
24	•	phenanthrene		201-581-5	85-01-8		2.8	mg/kg		2.5	mg/kg	0.00025 %	✓	
25	•	pyrene		204-927-3	129-00-0		4.1	mg/kg		3.661	mg/kg	0.000366 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		180	mg/kg	2.469	396.851	mg/kg	0.0397 %	✓	
											Total:	0.0914 %		

Key

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

Classification of sample: CP/RC105

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

Sample details

Sample Name:
CP/RC105
Sample Depth:
0.3 m
Moisture content:
15%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.8	mg/kg	1.32	7.807	mg/kg	0.000781 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
6		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**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		40	mg/kg	1.462	50.837	mg/kg	0.00508 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		18	mg/kg	1.126	17.623	mg/kg	0.00176 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	45	mg/kg		39.13	mg/kg	0.00391 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.5	mg/kg	1.353	0.588	mg/kg	0.0000588 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		25	mg/kg	1.579	34.337	mg/kg	0.00343 %	✓	
23	•	pH			PH		7.2	pH		7.2	pH	7.2 pH		
24	•	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
25	•	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		50	mg/kg	2.469	107.361	mg/kg	0.0107 %	✓	
											Total:	0.0264 %		

Key

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

Classification of sample: CP/RC102

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

Sample details

Sample Name:
CP/RC102
Sample Depth:
0.3 m
Moisture content:
17%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.1	mg/kg	1.32	9.141	mg/kg	0.000914 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
6		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**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		27	mg/kg	1.462	33.728	mg/kg	0.00337 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		25	mg/kg	1.126	24.057	mg/kg	0.00241 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16	mg/kg		13.675	mg/kg	0.00137 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		27	mg/kg	1.579	36.45	mg/kg	0.00364 %	✓	
23	•	pH			PH		7.4	pH		7.4	pH	7.4 pH		
24	•	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
25	•	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		75	mg/kg	2.469	158.288	mg/kg	0.0158 %	✓	
											Total:	0.0282 %		

Key

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

Classification of sample: CP/RC102A

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

Sample details

Sample Name:
CP/RC102A
Sample Depth:
0.6 m
Moisture content:
16%
(dry 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: 16% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7	mg/kg	1.32	7.967	mg/kg	0.000797 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.23	mg/kg		0.198	mg/kg	0.0000198 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.23	mg/kg		0.198	mg/kg	0.0000198 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.22	mg/kg		0.19	mg/kg	0.000019 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.14	mg/kg		0.121	mg/kg	0.0000121 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		19	mg/kg	1.462	23.939	mg/kg	0.00239 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		0.19	mg/kg		0.164	mg/kg	0.0000164 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		21	mg/kg	1.126	20.382	mg/kg	0.00204 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		0.42	mg/kg		0.362	mg/kg	0.0000362 %	✓	
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	32	mg/kg		27.586	mg/kg	0.00276 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		15	mg/kg	1.579	20.425	mg/kg	0.00204 %	✓	
23	•	pH			PH		8.1	pH		8.1	pH	8.1 pH		
24	•	phenanthrene		201-581-5	85-01-8		0.27	mg/kg		0.233	mg/kg	0.0000233 %	✓	
25	•	pyrene		204-927-3	129-00-0		0.46	mg/kg		0.397	mg/kg	0.0000397 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		60	mg/kg	2.469	127.722	mg/kg	0.0128 %	✓	
											Total:	0.0236 %		

Key

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

Classification of sample: CP/RC101B

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

Sample details

Sample Name:
CP/RC101B
Sample Depth:
0.6 m
Moisture content:
9.7%
(dry weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 9.7% Dry 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		acenaphthene		201-469-6	83-32-9		0.19	mg/kg		0.173	mg/kg	0.0000173 %	✓	
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		0.38	mg/kg		0.346	mg/kg	0.0000346 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		18	mg/kg	1.32	21.664	mg/kg	0.00217 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.5	mg/kg		1.367	mg/kg	0.000137 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.4	mg/kg		1.276	mg/kg	0.000128 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.7	mg/kg		1.55	mg/kg	0.000155 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		0.95	mg/kg		0.866	mg/kg	0.0000866 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.76	mg/kg		0.693	mg/kg	0.0000693 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		29	mg/kg	1.462	38.637	mg/kg	0.00386 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		1.3	mg/kg		1.185	mg/kg	0.000119 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		160	mg/kg	1.126	164.213	mg/kg	0.0164 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		2.9	mg/kg		2.644	mg/kg	0.000264 %	✓	
17	•	fluorene		201-695-5	86-73-7		0.13	mg/kg		0.119	mg/kg	0.0000119 %	✓	
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		0.7	mg/kg		0.638	mg/kg	0.0000638 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	530	mg/kg		483.136	mg/kg	0.0483 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.4	mg/kg	1.353	0.494	mg/kg	0.0000494 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		24	mg/kg	1.579	34.556	mg/kg	0.00346 %	✓	
23	•	pH			PH		8.6	pH		8.6	pH	8.6 pH		
24	•	phenanthrene		201-581-5	85-01-8		1.6	mg/kg		1.459	mg/kg	0.000146 %	✓	
25	•	pyrene		204-927-3	129-00-0		2.7	mg/kg		2.461	mg/kg	0.000246 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		230	mg/kg	2.469	517.719	mg/kg	0.0518 %	✓	
											Total:	0.128 %		

Key

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

Classification of sample: CP/RC101B[1]

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

Sample details

Sample Name:
CP/RC101B[1]
Sample Depth:
1.50-1.60 m
Moisture content:
17%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		19	mg/kg	1.32	21.441	mg/kg	0.00214 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
6		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**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		22	mg/kg	1.462	27.482	mg/kg	0.00275 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		48	mg/kg	1.126	46.19	mg/kg	0.00462 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	120	mg/kg		102.564	mg/kg	0.0103 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.7	mg/kg	1.353	0.81	mg/kg	0.000081 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		23	mg/kg	1.579	31.05	mg/kg	0.0031 %	✓	
23	•	pH			PH		8.3	pH		8.3	pH	8.3 pH		
24	•	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
25	•	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		69	mg/kg	2.469	145.625	mg/kg	0.0146 %	✓	
											Total:	0.0381 %		

Key

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

Classification of sample: CP/RC115

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

Sample details

Sample Name:
CP/RC115
Sample Depth:
1 m
Moisture content:
10%
(dry 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: 10% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7.2	mg/kg	1.32	8.642	mg/kg	0.000864 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.43	mg/kg		0.391	mg/kg	0.0000391 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.55	mg/kg		0.5	mg/kg	0.00005 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.58	mg/kg		0.527	mg/kg	0.0000527 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		0.32	mg/kg		0.291	mg/kg	0.0000291 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.24	mg/kg		0.218	mg/kg	0.0000218 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.3	mg/kg	1.285	0.351	mg/kg	0.0000273 %	✓	
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		28	mg/kg	1.462	37.203	mg/kg	0.00372 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		0.45	mg/kg		0.409	mg/kg	0.0000409 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		47	mg/kg	1.126	48.106	mg/kg	0.00481 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		0.74	mg/kg		0.673	mg/kg	0.0000673 %	✓	
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		0.24	mg/kg		0.218	mg/kg	0.0000218 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	160	mg/kg		145.455	mg/kg	0.0145 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		17	mg/kg	1.579	24.41	mg/kg	0.00244 %	✓	
23	•	pH			PH		11	pH		11	pH	11pH		
24	•	phenanthrene		201-581-5	85-01-8		0.39	mg/kg		0.355	mg/kg	0.0000355 %	✓	
25	•	pyrene		204-927-3	129-00-0		0.84	mg/kg		0.764	mg/kg	0.0000764 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		250	mg/kg	2.469	561.204	mg/kg	0.0561 %	✓	
											Total:	0.0835 %		

Key

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

Classification of sample: CP/RC115[1]

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

Sample details

Sample Name:
CP/RC115[1]
Sample Depth:
2.7 m
Moisture content:
17%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		0.18	mg/kg		0.154	mg/kg	0.0000154 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		13	mg/kg	1.32	14.67	mg/kg	0.00147 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.83	mg/kg		0.709	mg/kg	0.0000709 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.93	mg/kg		0.795	mg/kg	0.0000795 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.88	mg/kg		0.752	mg/kg	0.0000752 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		0.5	mg/kg		0.427	mg/kg	0.0000427 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.46	mg/kg		0.393	mg/kg	0.0000393 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		18	mg/kg	1.462	22.485	mg/kg	0.00225 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		0.75	mg/kg		0.641	mg/kg	0.0000641 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		40	mg/kg	1.126	38.492	mg/kg	0.00385 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		1.4	mg/kg		1.197	mg/kg	0.00012 %	✓	
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		0.39	mg/kg		0.333	mg/kg	0.0000333 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	160	mg/kg		136.752	mg/kg	0.0137 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		1.1	mg/kg	1.353	1.273	mg/kg	0.000127 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		17	mg/kg	1.579	22.95	mg/kg	0.00229 %	✓	
23	•	pH			PH		8.6	pH		8.6	pH	8.6 pH		
24	•	phenanthrene		201-581-5	85-01-8		1.1	mg/kg		0.94	mg/kg	0.000094 %	✓	
25	•	pyrene		204-927-3	129-00-0		1.6	mg/kg		1.368	mg/kg	0.000137 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		68	mg/kg	2.469	143.515	mg/kg	0.0144 %	✓	
											Total:	0.0393 %		

Key

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

Classification of sample: CP/RC101A[1]

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

Sample details

Sample Name:
CP/RC101A[1]
Sample Depth:
3.3 m
Moisture content:
13%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		17	mg/kg	1.32	19.863	mg/kg	0.00199 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
6		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**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		32	mg/kg	1.462	41.389	mg/kg	0.00414 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		200	mg/kg	1.126	199.272	mg/kg	0.0199 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	520	mg/kg		460.177	mg/kg	0.046 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		24	mg/kg	1.579	33.547	mg/kg	0.00335 %	✓	
23	•	pH			PH		9.4	pH		9.4	pH	9.4 pH		
24	•	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
25	•	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		210	mg/kg	2.469	458.896	mg/kg	0.0459 %	✓	
											Total:	0.122 %		

Key

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

Classification of sample: WS101

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

Sample details

Sample Name:
WS101
Moisture content:
3%
(dry weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 3% Dry 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		acenaphthene		201-469-6	83-32-9		0.48	mg/kg		0.466	mg/kg	0.0000466 %	✓	
2		acenaphthylene		205-917-1	208-96-8		0.53	mg/kg		0.515	mg/kg	0.0000515 %	✓	
3		anthracene		204-371-1	120-12-7		1.8	mg/kg		1.748	mg/kg	0.000175 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		12	mg/kg	1.32	15.382	mg/kg	0.00154 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		5.2	mg/kg		5.049	mg/kg	0.000505 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		26	mg/kg		25.243	mg/kg	0.00252 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		24	mg/kg		23.301	mg/kg	0.00233 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		20	mg/kg		19.417	mg/kg	0.00194 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		7.6	mg/kg		7.379	mg/kg	0.000738 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		24	mg/kg	1.462	34.056	mg/kg	0.00341 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		7.2	mg/kg		6.99	mg/kg	0.000699 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		94	mg/kg	1.126	102.751	mg/kg	0.0103 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
15		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		3	mg/kg		2.913	mg/kg	0.000291 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
16	•	fluoranthene		205-912-4	206-44-0		9.8	mg/kg		9.515	mg/kg	0.000951 %	✓	
17	•	fluorene		201-695-5	86-73-7		0.37	mg/kg		0.359	mg/kg	0.0000359 %	✓	
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		16	mg/kg		15.534	mg/kg	0.00155 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	150	mg/kg		145.631	mg/kg	0.0146 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.8	mg/kg	1.353	1.051	mg/kg	0.000105 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		0.61	mg/kg		0.592	mg/kg	0.0000592 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		22	mg/kg	1.579	33.737	mg/kg	0.00337 %	✓	
23	•	pH			PH		8.9	pH		8.9	pH	8.9 pH		
24	•	phenanthrene		201-581-5	85-01-8		3.4	mg/kg		3.301	mg/kg	0.00033 %	✓	
25	•	pyrene		204-927-3	129-00-0		17	mg/kg		16.505	mg/kg	0.00165 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		160	mg/kg	2.469	383.58	mg/kg	0.0384 %	✓	
											Total:	0.086 %		

Key

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

Classification of sample: WS106

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

Sample details

Sample Name:
WS106
Moisture content:
12%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		0.37	mg/kg		0.33	mg/kg	0.000033 %	✓	
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		0.95	mg/kg		0.848	mg/kg	0.0000848 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		17	mg/kg	1.32	20.041	mg/kg	0.002 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		2.5	mg/kg		2.232	mg/kg	0.000223 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		3	mg/kg		2.679	mg/kg	0.000268 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		3.4	mg/kg		3.036	mg/kg	0.000304 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		1.8	mg/kg		1.607	mg/kg	0.000161 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.2	mg/kg		1.071	mg/kg	0.000107 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.6	mg/kg	1.285	0.689	mg/kg	0.0000536 %	✓	
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		51	mg/kg	1.462	66.553	mg/kg	0.00666 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		2.9	mg/kg		2.589	mg/kg	0.000259 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		82	mg/kg	1.126	82.431	mg/kg	0.00824 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
15		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.4	mg/kg		0.357	mg/kg	0.0000357 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
16	•	fluoranthene		205-912-4	206-44-0		4.6	mg/kg		4.107	mg/kg	0.000411 %	✓	
17	•	fluorene		201-695-5	86-73-7		0.47	mg/kg		0.42	mg/kg	0.000042 %	✓	
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		1.3	mg/kg		1.161	mg/kg	0.000116 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	190	mg/kg		169.643	mg/kg	0.017 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.8	mg/kg	1.353	0.967	mg/kg	0.0000967 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		1.3	mg/kg		1.161	mg/kg	0.000116 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		33	mg/kg	1.579	46.539	mg/kg	0.00465 %	✓	
23	•	pH			PH		8.4	pH		8.4	pH	8.4 pH		
24	•	phenanthrene		201-581-5	85-01-8		3.7	mg/kg		3.304	mg/kg	0.00033 %	✓	
25	•	pyrene		204-927-3	129-00-0		4.7	mg/kg		4.196	mg/kg	0.00042 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		350	mg/kg	2.469	771.655	mg/kg	0.0772 %	✓	
											Total:	0.119 %		

Key

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

Classification of sample: CP/RC117A

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

Sample details

Sample Name:
CP/RC117A
Sample Depth:
0.6 m
Moisture content:
12%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		12	mg/kg	1.32	14.146	mg/kg	0.00141 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.4	mg/kg		1.25	mg/kg	0.000125 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.2	mg/kg		1.071	mg/kg	0.000107 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.85	mg/kg		0.759	mg/kg	0.0000759 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		0.61	mg/kg		0.545	mg/kg	0.0000545 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.71	mg/kg		0.634	mg/kg	0.0000634 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		10	mg/kg	1.462	13.05	mg/kg	0.0013 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		1.5	mg/kg		1.339	mg/kg	0.000134 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		38	mg/kg	1.126	38.2	mg/kg	0.00382 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		1.6	mg/kg		1.429	mg/kg	0.000143 %	✓	
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		0.38	mg/kg		0.339	mg/kg	0.0000339 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	430	mg/kg		383.929	mg/kg	0.0384 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.5	mg/kg	1.353	0.604	mg/kg	0.0000604 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		0.32	mg/kg		0.286	mg/kg	0.0000286 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		15	mg/kg	1.579	21.154	mg/kg	0.00212 %	✓	
23	•	pH			PH		8.4	pH		8.4	pH	8.4 pH		
24	•	phenanthrene		201-581-5	85-01-8		0.82	mg/kg		0.732	mg/kg	0.0000732 %	✓	
25	•	pyrene		204-927-3	129-00-0		2.7	mg/kg		2.411	mg/kg	0.000241 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		240	mg/kg	2.469	529.135	mg/kg	0.0529 %	✓	
											Total:	0.102 %		

Key

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

Classification of sample: CP/RC117A[1]

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

Sample details

Sample Name:
CP/RC117A[1]
Sample Depth:
1.9 m
Moisture content:
21%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		18	mg/kg	1.32	19.641	mg/kg	0.00196 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
6		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**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		12	mg/kg	1.462	14.495	mg/kg	0.00145 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		53	mg/kg	1.126	49.316	mg/kg	0.00493 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	54	mg/kg		44.628	mg/kg	0.00446 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		33	mg/kg	1.579	43.077	mg/kg	0.00431 %	✓	
23	•	pH			PH		7.3	pH		7.3	pH	7.3 pH		
24	•	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
25	•	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		170	mg/kg	2.469	346.926	mg/kg	0.0347 %	✓	
											Total:	0.0525 %		

Key

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

Classification of sample: CP/RC107

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

Sample details

Sample Name:
CP/RC107
Sample Depth:
1 m
Moisture content:
6.8%
(dry 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: 6.8% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		0.36	mg/kg		0.337	mg/kg	0.0000337 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.6	mg/kg	1.32	8.159	mg/kg	0.000816 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.74	mg/kg		0.693	mg/kg	0.0000693 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.6	mg/kg		0.562	mg/kg	0.0000562 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.84	mg/kg		0.787	mg/kg	0.0000787 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		0.38	mg/kg		0.356	mg/kg	0.0000356 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.27	mg/kg		0.253	mg/kg	0.0000253 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		19	mg/kg	1.462	26.001	mg/kg	0.0026 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		0.68	mg/kg		0.637	mg/kg	0.0000637 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15	mg/kg	1.126	15.813	mg/kg	0.00158 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		1.9	mg/kg		1.779	mg/kg	0.000178 %	✓	
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		0.37	mg/kg		0.346	mg/kg	0.0000346 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	32	mg/kg		29.963	mg/kg	0.003 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		20	mg/kg	1.579	29.579	mg/kg	0.00296 %	✓	
23	•	pH			PH		8.1	pH		8.1	pH	8.1 pH		
24	•	phenanthrene		201-581-5	85-01-8		1.8	mg/kg		1.685	mg/kg	0.000169 %	✓	
25	•	pyrene		204-927-3	129-00-0		1.6	mg/kg		1.498	mg/kg	0.00015 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		73	mg/kg	2.469	168.781	mg/kg	0.0169 %	✓	
											Total:	0.0293 %		

Key

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

Classification of sample: CP/RC112

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

Sample details

Sample Name:
CP/RC112
Sample Depth:
0.6 m
Moisture content:
13%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		3.5	mg/kg		3.097	mg/kg	0.00031 %	✓	
2		acenaphthylene		205-917-1	208-96-8		0.32	mg/kg		0.283	mg/kg	0.0000283 %	✓	
3		anthracene		204-371-1	120-12-7		5.4	mg/kg		4.779	mg/kg	0.000478 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		25	mg/kg	1.32	29.211	mg/kg	0.00292 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		12	mg/kg		10.619	mg/kg	0.00106 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		11	mg/kg		9.735	mg/kg	0.000973 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		13	mg/kg		11.504	mg/kg	0.00115 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		7.3	mg/kg		6.46	mg/kg	0.000646 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		5.2	mg/kg		4.602	mg/kg	0.00046 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		19	mg/kg	1.462	24.575	mg/kg	0.00246 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		11	mg/kg		9.735	mg/kg	0.000973 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		89	mg/kg	1.126	88.676	mg/kg	0.00887 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.4	mg/kg		1.239	mg/kg	0.000124 %	✓	
16	•	fluoranthene		205-912-4	206-44-0		26	mg/kg		23.009	mg/kg	0.0023 %	✓	
17	•	fluorene		201-695-5	86-73-7		2.4	mg/kg		2.124	mg/kg	0.000212 %	✓	
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		5.8	mg/kg		5.133	mg/kg	0.000513 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	230	mg/kg		203.54	mg/kg	0.0204 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.6	mg/kg	1.353	0.719	mg/kg	0.0000719 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		3.1	mg/kg		2.743	mg/kg	0.000274 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		31	mg/kg	1.579	43.331	mg/kg	0.00433 %	✓	
23	•	pH			PH		8.7	pH		8.7	pH	8.7 pH		
24	•	phenanthrene		201-581-5	85-01-8		21	mg/kg		18.584	mg/kg	0.00186 %	✓	
25	•	pyrene		204-927-3	129-00-0		23	mg/kg		20.354	mg/kg	0.00204 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		170	mg/kg	2.469	371.487	mg/kg	0.0371 %	✓	
											Total:	0.09 %		

Key

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

Classification of sample: CP/RC112[1]

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

Sample details

Sample Name:
CP/RC112[1]
Sample Depth:
3.5 m
Moisture content:
13%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		0.98	mg/kg		0.867	mg/kg	0.0000867 %	✓	
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		1.4	mg/kg		1.239	mg/kg	0.000124 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2.9	mg/kg	1.32	3.388	mg/kg	0.000339 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		3.3	mg/kg		2.92	mg/kg	0.000292 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		3	mg/kg		2.655	mg/kg	0.000265 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		3.7	mg/kg		3.274	mg/kg	0.000327 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		1.8	mg/kg		1.593	mg/kg	0.000159 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.98	mg/kg		0.867	mg/kg	0.0000867 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		11	mg/kg	1.462	14.228	mg/kg	0.00142 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		2.6	mg/kg		2.301	mg/kg	0.00023 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23	mg/kg	1.126	22.916	mg/kg	0.00229 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.32	mg/kg		0.283	mg/kg	0.0000283 %	✓	
16	•	fluoranthene		205-912-4	206-44-0		8.7	mg/kg		7.699	mg/kg	0.00077 %	✓	
17	•	fluorene		201-695-5	86-73-7		0.62	mg/kg		0.549	mg/kg	0.0000549 %	✓	
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		1.5	mg/kg		1.327	mg/kg	0.000133 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	38	mg/kg		33.628	mg/kg	0.00336 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		0.13	mg/kg		0.115	mg/kg	0.0000115 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		14	mg/kg	1.579	19.569	mg/kg	0.00196 %	✓	
23	•	pH			PH		8.8	pH		8.8	pH	8.8 pH		
24	•	phenanthrene		201-581-5	85-01-8		6.9	mg/kg		6.106	mg/kg	0.000611 %	✓	
25	•	pyrene		204-927-3	129-00-0		7.7	mg/kg		6.814	mg/kg	0.000681 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		59	mg/kg	2.469	128.928	mg/kg	0.0129 %	✓	
											Total:	0.0266 %		

Key

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

Classification of sample: CP/RC110

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

Sample details

Sample Name:
CP/RC110
Sample Depth:
0.3 m
Moisture content:
10%
(dry 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: 10% Dry 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		acenaphthene		201-469-6	83-32-9		1.3	mg/kg		1.182	mg/kg	0.000118 %	✓	
2		acenaphthylene		205-917-1	208-96-8		1.2	mg/kg		1.091	mg/kg	0.000109 %	✓	
3		anthracene		204-371-1	120-12-7		2.2	mg/kg		2	mg/kg	0.0002 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		35	mg/kg	1.32	42.01	mg/kg	0.0042 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		8.5	mg/kg		7.727	mg/kg	0.000773 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		7	mg/kg		6.364	mg/kg	0.000636 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		8.2	mg/kg		7.455	mg/kg	0.000745 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		3.9	mg/kg		3.545	mg/kg	0.000355 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		3.7	mg/kg		3.364	mg/kg	0.000336 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		17	mg/kg	1.462	22.588	mg/kg	0.00226 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		6.7	mg/kg		6.091	mg/kg	0.000609 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		96	mg/kg	1.126	98.259	mg/kg	0.00983 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.87	mg/kg		0.791	mg/kg	0.0000791 %	✓	
16	•	fluoranthene		205-912-4	206-44-0		15	mg/kg		13.636	mg/kg	0.00136 %	✓	
17	•	fluorene		201-695-5	86-73-7		1	mg/kg		0.909	mg/kg	0.0000909 %	✓	
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		3.4	mg/kg		3.091	mg/kg	0.000309 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	500	mg/kg		454.545	mg/kg	0.0455 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.5	mg/kg	1.353	0.615	mg/kg	0.0000615 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		0.87	mg/kg		0.791	mg/kg	0.0000791 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		64	mg/kg	1.579	91.898	mg/kg	0.00919 %	✓	
23	•	pH			PH		8.5	pH		8.5	pH	8.5 pH		
24	•	phenanthrene		201-581-5	85-01-8		7.5	mg/kg		6.818	mg/kg	0.000682 %	✓	
25	•	pyrene		204-927-3	129-00-0		12	mg/kg		10.909	mg/kg	0.00109 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		300	mg/kg	2.469	673.444	mg/kg	0.0673 %	✓	
											Total:	0.146 %		

Key

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

Classification of sample: CP/RC111

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

Sample details

Sample Name:
CP/RC111
Sample Depth:
0.3 m
Moisture content:
12%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		0.2	mg/kg		0.179	mg/kg	0.0000179 %	✓	
2		acenaphthylene		205-917-1	208-96-8		0.45	mg/kg		0.402	mg/kg	0.0000402 %	✓	
3		anthracene		204-371-1	120-12-7		0.5	mg/kg		0.446	mg/kg	0.0000446 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		15	mg/kg	1.32	17.683	mg/kg	0.00177 %	✓	
5		benzene	601-020-00-8	200-753-7	71-43-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
6		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.3	mg/kg		1.161	mg/kg	0.000116 %	✓	
7		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.6	mg/kg		1.429	mg/kg	0.000143 %	✓	
8		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.8	mg/kg		1.607	mg/kg	0.000161 %	✓	
9		benzo[ghi]perylene		205-883-8	191-24-2		0.71	mg/kg		0.634	mg/kg	0.0000634 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.78	mg/kg		0.696	mg/kg	0.0000696 %	✓	
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		20	mg/kg	1.462	26.099	mg/kg	0.00261 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		0.99	mg/kg		0.884	mg/kg	0.0000884 %	✓	
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		83	mg/kg	1.126	83.436	mg/kg	0.00834 %	✓	
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,					<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<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
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5											
16		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**
17	•	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
18	•	fluoranthene		205-912-4	206-44-0		2.6	mg/kg		2.321	mg/kg	0.000232 %	✓	
19	•	fluorene		201-695-5	86-73-7		0.23	mg/kg		0.205	mg/kg	0.0000205 %	✓	
20	•	indeno[123-cd]pyrene		205-893-2	193-39-5		0.54	mg/kg		0.482	mg/kg	0.0000482 %	✓	
21		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	330	mg/kg		294.643	mg/kg	0.0295 %	✓	
22		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
23		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
24		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		42	mg/kg	1.579	59.231	mg/kg	0.00592 %	✓	
25	•	pH			PH		8.5	pH		8.5	pH	8.5 pH		
26	•	phenanthrene		201-581-5	85-01-8		1.2	mg/kg		1.071	mg/kg	0.000107 %	✓	
27	•	pyrene		204-927-3	129-00-0		2.3	mg/kg		2.054	mg/kg	0.000205 %	✓	
28		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
29		toluene	601-021-00-3	203-625-9	108-88-3		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
30	•	TPH (C6 to C40) petroleum group			TPH		75	mg/kg		66.964	mg/kg	0.0067 %	✓	
31		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]		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
32		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		130	mg/kg	2.469	286.615	mg/kg	0.0287 %	✓	
											Total:	0.0857 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: TP103

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

Sample details

Sample Name:
TP103
Sample Depth:
3.10-3.30 m
Moisture content:
13%
(dry 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% Dry 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		benzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
2	•	ethylbenzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
3		toluene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
4	•	TPH (C6 to C40) petroleum group				69.3	mg/kg		61.327	mg/kg	0.00613 %	✓	
				TPH									
5		xylene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.00653 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: TP109

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

Sample details

Sample Name:
TP109
Sample Depth:
0.10-0.30 m
Moisture content:
15%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
3		anthracene		204-371-1	120-12-7		0.17	mg/kg		0.148	mg/kg	0.0000148 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		25	mg/kg	1.32	28.703	mg/kg	0.00287 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.1	mg/kg		0.957	mg/kg	0.0000957 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.68	mg/kg		0.591	mg/kg	0.0000591 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.91	mg/kg		0.791	mg/kg	0.0000791 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		0.52	mg/kg		0.452	mg/kg	0.0000452 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.5	mg/kg		0.435	mg/kg	0.0000435 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		19	mg/kg	1.462	24.147	mg/kg	0.00241 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		1.1	mg/kg		0.957	mg/kg	0.0000957 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		71	mg/kg	1.126	69.511	mg/kg	0.00695 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16		fluoranthene		205-912-4	206-44-0		2.2	mg/kg		1.913	mg/kg	0.000191 %	✓	
17		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18		indeno[123-cd]pyrene		205-893-2	193-39-5		0.33	mg/kg		0.287	mg/kg	0.0000287 %	✓	
19		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	150	mg/kg		130.435	mg/kg	0.013 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.8	mg/kg	1.353	0.942	mg/kg	0.0000942 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		0.17	mg/kg		0.148	mg/kg	0.0000148 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		21	mg/kg	1.579	28.843	mg/kg	0.00288 %	✓	
23		pH			PH		6.5	pH		6.5	pH	6.5 pH		
24		phenanthrene		201-581-5	85-01-8		1.1	mg/kg		0.957	mg/kg	0.0000957 %	✓	
25		pyrene		204-927-3	129-00-0		2.1	mg/kg		1.826	mg/kg	0.000183 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		99	mg/kg	2.469	212.574	mg/kg	0.0213 %	✓	
											Total:	0.051 %		

Key

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

Classification of sample: TP111

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

Sample details

Sample Name:
TP111
Sample Depth:
0.30-0.50 m
Moisture content:
16%
(dry 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: 16% Dry 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		acenaphthene		201-469-6	83-32-9		0.27	mg/kg		0.233	mg/kg	0.0000233 %	✓	
2		acenaphthylene		205-917-1	208-96-8		0.19	mg/kg		0.164	mg/kg	0.0000164 %	✓	
3		anthracene		204-371-1	120-12-7		0.38	mg/kg		0.328	mg/kg	0.0000328 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		37	mg/kg	1.32	42.114	mg/kg	0.00421 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		3.6	mg/kg		3.103	mg/kg	0.00031 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		2	mg/kg		1.724	mg/kg	0.000172 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		2.7	mg/kg		2.328	mg/kg	0.000233 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		1.2	mg/kg		1.034	mg/kg	0.000103 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.1	mg/kg		0.948	mg/kg	0.0000948 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		29	mg/kg	1.462	36.539	mg/kg	0.00365 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		2.6	mg/kg		2.241	mg/kg	0.000224 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		140	mg/kg	1.126	135.883	mg/kg	0.0136 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
15		dibenz[a,h]anthracene				0.2	mg/kg		0.172	mg/kg	0.0000172 %	✓	
		601-041-00-2	200-181-8	53-70-3									
16		fluoranthene				4.4	mg/kg		3.793	mg/kg	0.000379 %	✓	
			205-912-4	206-44-0									
17		fluorene				0.2	mg/kg		0.172	mg/kg	0.0000172 %	✓	
			201-695-5	86-73-7									
18		indeno[123-cd]pyrene				0.85	mg/kg		0.733	mg/kg	0.0000733 %	✓	
			205-893-2	193-39-5									
19		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	540	mg/kg		465.517	mg/kg	0.0466 %	✓	
		082-001-00-6											
20		mercury { mercury dichloride }				3.6	mg/kg	1.353	4.2	mg/kg	0.00042 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
21		naphthalene				0.36	mg/kg		0.31	mg/kg	0.000031 %	✓	
		601-052-00-2	202-049-5	91-20-3									
22		nickel { nickel dihydroxide }				35	mg/kg	1.579	47.657	mg/kg	0.00477 %	✓	
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
23		pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
24		phenanthrene				2.2	mg/kg		1.897	mg/kg	0.00019 %	✓	
			201-581-5	85-01-8									
25		pyrene				5.1	mg/kg		4.397	mg/kg	0.00044 %	✓	
			204-927-3	129-00-0									
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
		034-002-00-8											
27		zinc { zinc sulphate }				390	mg/kg	2.469	830.194	mg/kg	0.083 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
										Total:	0.159 %		

Key

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

Classification of sample: CP/RC116

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

Sample details

Sample Name:
CP/RC116
Sample Depth:
2.9 m
Moisture content:
14%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3.9	mg/kg	1.32	4.517	mg/kg	0.000452 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
6		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
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		6.1	mg/kg	1.462	7.821	mg/kg	0.000782 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13	mg/kg	1.126	12.839	mg/kg	0.00128 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
17		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	15	mg/kg		13.158	mg/kg	0.00132 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		8.8	mg/kg	1.579	12.193	mg/kg	0.00122 %	✓	
23		pH			PH		8.4	pH		8.4	pH	8.4 pH		
24		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
25		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				2.5	mg/kg	2.554	5.6	mg/kg	0.00056 %	✓	
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		25	mg/kg	2.469	54.151	mg/kg	0.00542 %	✓	
											Total:	0.0114 %		

Key

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

Classification of sample: WS102

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

Sample details

Sample Name:
WS102
Sample Depth:
1.00-1.20 m
Moisture content:
19%
(dry 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.: 0.138%)

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.: 0.138%)

Determinands

Moisture content: 19% Dry 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		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-469-6	83-32-9									
2		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-917-1	208-96-8									
3		anthracene				0.22	mg/kg		0.185	mg/kg	0.0000185 %	✓	
			204-371-1	120-12-7									
4		arsenic { arsenic trioxide }				14	mg/kg	1.32	15.533	mg/kg	0.00155 %	✓	
		033-003-00-0	215-481-4	1327-53-3									
5		benzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
6		benzo[a]anthracene				1.2	mg/kg		1.008	mg/kg	0.000101 %	✓	
		601-033-00-9	200-280-6	56-55-3									
7		benzo[a]pyrene; benzo[def]chrysene				1	mg/kg		0.84	mg/kg	0.000084 %	✓	
		601-032-00-3	200-028-5	50-32-8									
8		benzo[b]fluoranthene				1.2	mg/kg		1.008	mg/kg	0.000101 %	✓	
		601-034-00-4	205-911-9	205-99-2									

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
9		benzo[ghi]perylene		205-883-8	191-24-2		0.84	mg/kg		0.706	mg/kg	0.0000706 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.67	mg/kg		0.563	mg/kg	0.0000563 %	✓	
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.9	mg/kg	1.285	0.972	mg/kg	0.0000756 %	✓	
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		15	mg/kg	1.462	18.423	mg/kg	0.00184 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		1	mg/kg		0.84	mg/kg	0.000084 %	✓	
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		78	mg/kg	1.126	73.798	mg/kg	0.00738 %	✓	
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
16		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**
17		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
18		fluoranthene		205-912-4	206-44-0		2	mg/kg		1.681	mg/kg	0.000168 %	✓	
19		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
20		indeno[123-cd]pyrene		205-893-2	193-39-5		0.6	mg/kg		0.504	mg/kg	0.0000504 %	✓	
21		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	580	mg/kg		487.395	mg/kg	0.0487 %	✓	
22		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.6	mg/kg	1.353	0.682	mg/kg	0.0000682 %	✓	
23		naphthalene	601-052-00-2	202-049-5	91-20-3		0.47	mg/kg		0.395	mg/kg	0.0000395 %	✓	
24		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		20	mg/kg	1.579	26.546	mg/kg	0.00265 %	✓	
25		pH			PH		8.3	pH		8.3	pH	8.3 pH		
26		phenanthrene		201-581-5	85-01-8		1.5	mg/kg		1.261	mg/kg	0.000126 %	✓	
27		pyrene		204-927-3	129-00-0		2	mg/kg		1.681	mg/kg	0.000168 %	✓	
28		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
29		toluene	601-021-00-3	203-625-9	108-88-3		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
30		TPH (C6 to C40) petroleum group			TPH		1640	mg/kg		1378.151	mg/kg	0.138 %	✓	
31		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]		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
32		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		360	mg/kg	2.469	747.014	mg/kg	0.0747 %	✓	
											Total:	0.277 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: CP/RC104A

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

Sample details

Sample Name:
CP/RC104A
Sample Depth:
1.70-1.80 m
Moisture content:
23%
(dry 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: 23% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3.4	mg/kg	1.32	3.65	mg/kg	0.000365 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
6		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**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		17	mg/kg	1.462	20.2	mg/kg	0.00202 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4.8	mg/kg	1.126	4.394	mg/kg	0.000439 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	15	mg/kg		12.195	mg/kg	0.00122 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		23	mg/kg	1.579	29.535	mg/kg	0.00295 %	✓	
23	•	pH			PH		8.1	pH		8.1	pH	8.1 pH		
24	•	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
25	•	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		46	mg/kg	2.469	92.348	mg/kg	0.00923 %	✓	
											Total:	0.0169 %		

Key

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

Classification of sample: CP/RC103

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

Sample details

Sample Name:
CP/RC103
Sample Depth:
0.3 m
Moisture content:
7.9%
(dry 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: 7.9% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		15	mg/kg	1.32	18.355	mg/kg	0.00184 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.5	mg/kg		0.463	mg/kg	0.0000463 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.32	mg/kg		0.297	mg/kg	0.0000297 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.62	mg/kg		0.575	mg/kg	0.0000575 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.2	mg/kg		0.185	mg/kg	0.0000185 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.2	mg/kg	1.285	0.238	mg/kg	0.0000185 %	✓	
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		17	mg/kg	1.462	23.027	mg/kg	0.0023 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		0.38	mg/kg		0.352	mg/kg	0.0000352 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		67	mg/kg	1.126	69.912	mg/kg	0.00699 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		0.66	mg/kg		0.612	mg/kg	0.0000612 %	✓	
17	•	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12	mg/kg		11.121	mg/kg	0.00111 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		52	mg/kg	1.579	76.12	mg/kg	0.00761 %	✓	
23	•	pH			PH		8.8	pH		8.8	pH	8.8 pH		
24	•	phenanthrene		201-581-5	85-01-8		0.34	mg/kg		0.315	mg/kg	0.0000315 %	✓	
25	•	pyrene		204-927-3	129-00-0		0.68	mg/kg		0.63	mg/kg	0.000063 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		150	mg/kg	2.469	343.276	mg/kg	0.0343 %	✓	
											Total:	0.0551 %		

Key

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

Classification of sample: CP/RC106A

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

Sample details

Sample Name:
CP/RC106A
Sample Depth:
0.6 m
Moisture content:
9.7%
(dry weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 9.7% Dry 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		acenaphthene		201-469-6	83-32-9		0.44	mg/kg		0.401	mg/kg	0.0000401 %	✓	
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		0.73	mg/kg		0.665	mg/kg	0.0000665 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		16	mg/kg	1.32	19.257	mg/kg	0.00193 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		3.1	mg/kg		2.826	mg/kg	0.000283 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.5	mg/kg		1.367	mg/kg	0.000137 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		3	mg/kg		2.735	mg/kg	0.000273 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		0.89	mg/kg		0.811	mg/kg	0.0000811 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.9	mg/kg		0.82	mg/kg	0.000082 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		**<LOD**
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		15	mg/kg	1.462	19.985	mg/kg	0.002 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		2.2	mg/kg		2.005	mg/kg	0.000201 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		63	mg/kg	1.126	64.659	mg/kg	0.00647 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		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**
16	•	fluoranthene		205-912-4	206-44-0		5.3	mg/kg		4.831	mg/kg	0.000483 %	✓	
17	•	fluorene		201-695-5	86-73-7		0.41	mg/kg		0.374	mg/kg	0.0000374 %	✓	
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		0.62	mg/kg		0.565	mg/kg	0.0000565 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	370	mg/kg		337.284	mg/kg	0.0337 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
21		naphthalene	601-052-00-2	202-049-5	91-20-3		0.44	mg/kg		0.401	mg/kg	0.0000401 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		25	mg/kg	1.579	35.996	mg/kg	0.0036 %	✓	
23	•	pH			PH		8	pH		8	pH	8pH		
24	•	phenanthrene		201-581-5	85-01-8		4.3	mg/kg		3.92	mg/kg	0.000392 %	✓	
25	•	pyrene		204-927-3	129-00-0		5.4	mg/kg		4.923	mg/kg	0.000492 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		170	mg/kg	2.469	382.662	mg/kg	0.0383 %	✓	
											Total:	0.0892 %		

Key

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

Classification of sample: CP/RC108

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

Sample details

Sample Name:
CP/RC108
Sample Depth:
0.3 m
Moisture content:
7.1%
(dry 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: 7.1% Dry 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		acenaphthene		201-469-6	83-32-9		0.31	mg/kg		0.289	mg/kg	0.0000289 %	✓	
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		0.81	mg/kg		0.756	mg/kg	0.0000756 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		14	mg/kg	1.32	17.259	mg/kg	0.00173 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		3.3	mg/kg		3.081	mg/kg	0.000308 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.7	mg/kg		1.587	mg/kg	0.000159 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		3.3	mg/kg		3.081	mg/kg	0.000308 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		1.1	mg/kg		1.027	mg/kg	0.000103 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.4	mg/kg		1.307	mg/kg	0.000131 %	✓	
10		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.2	mg/kg	1.285	0.24	mg/kg	0.0000187 %	✓	
11		chromium { chromium(III) oxide }		215-160-9	1308-38-9		18	mg/kg	1.462	24.564	mg/kg	0.00246 %	✓	
12		chrysene	601-048-00-0	205-923-4	218-01-9		2.3	mg/kg		2.148	mg/kg	0.000215 %	✓	
13		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		39	mg/kg	1.126	40.999	mg/kg	0.0041 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.22	mg/kg		0.205	mg/kg	0.0000205 %	✓	
16	•	fluoranthene		205-912-4	206-44-0		5.2	mg/kg		4.855	mg/kg	0.000486 %	✓	
17	•	fluorene		201-695-5	86-73-7		0.31	mg/kg		0.289	mg/kg	0.0000289 %	✓	
18	•	indeno[123-cd]pyrene		205-893-2	193-39-5		0.86	mg/kg		0.803	mg/kg	0.0000803 %	✓	
19		lead { • lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	200	mg/kg		186.741	mg/kg	0.0187 %	✓	
20		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.4	mg/kg	1.353	0.506	mg/kg	0.0000506 %	✓	
21		naphthalene	601-052-00-2	202-049-5	91-20-3		0.93	mg/kg		0.868	mg/kg	0.0000868 %	✓	
22		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		34	mg/kg	1.579	50.143	mg/kg	0.00501 %	✓	
23	•	pH			PH		8.5	pH		8.5	pH	8.5 pH		
24	•	phenanthrene		201-581-5	85-01-8		3.5	mg/kg		3.268	mg/kg	0.000327 %	✓	
25	•	pyrene		204-927-3	129-00-0		4.8	mg/kg		4.482	mg/kg	0.000448 %	✓	
26		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
27		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		110	mg/kg	2.469	253.616	mg/kg	0.0254 %	✓	
											Total:	0.0607 %		

Key

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

Classification of sample: CP/RC101B[2]

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

Sample details

Sample Name:
CP/RC101B[2]
Sample Depth:
1 m
Moisture content:
10%
(dry 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: 10% Dry 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		benzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
2	•	ethylbenzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
3	•	pH				8.4	pH		8.4	pH	8.4 pH		
				PH									
4		toluene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
5	•	TPH (C6 to C40) petroleum group				264	mg/kg		240	mg/kg	0.024 %	✓	
				TPH									
6		xylene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0244 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: CP/RC107[1]

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

Sample details

Sample Name:
CP/RC107[1]
Sample Depth:
1 m
Moisture content:
4.7%
(dry 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: 4.7% Dry 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		benzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
2	•	ethylbenzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
3	•	pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
4		toluene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
5	•	TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
				TPH									
6		xylene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0014 %		

Key

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

Classification of sample: TP103[1]

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

Sample details

Sample Name:
TP103[1]
Sample Depth:
0.80-1.00 m
Moisture content:
8.4%
(dry 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: 8.4% Dry 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		benzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
2	•	ethylbenzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
3	•	pH				10.2	pH		10.2	pH	10.2 pH		
				PH									
4		toluene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
5	•	TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
				TPH									
6		xylene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0014 %		

Key

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

Classification of sample: TP112

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

Sample details

Sample Name:
TP112
Sample Depth:
1.30-1.50 m
Moisture content:
6.3%
(dry 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: 6.3% Dry 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		benzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
2	•	ethylbenzene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
3	•	pH				10.1	pH		10.1	pH	10.1 pH		
				PH									
4		toluene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
5	•	TPH (C6 to C40) petroleum group				686	mg/kg		645.343	mg/kg	0.0645 %	✓	
				TPH									
6		xylene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0649 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Appendix A: Classifier defined and non CLP determinands

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: 17/07/2015
Risk Phrases: R36 , R37 , R38 , N R50/53 , N R51/53
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17/07/2015
Risk Phrases: R22 , R26 , R27 , R36 , R37 , R38
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17/07/2015
Risk Phrases: R36 , R37 , R38 , R43 , N R50/53
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23/07/2015
Risk Phrases: N R50/53
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Conversion factor: 1.462
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: 17/07/2015
Risk Phrases: R20 , R22 , R36 , R37 , R38 , R42 , R43 , R50/53 , R60 , R61
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

dicopper oxide; copper (I) oxide (EC Number: 215-270-7, CAS Number: 1317-39-1)

CLP index number: 029-002-00-X
Data source: Regulation (EU) 2016/1179 of 19 July 2016 (ATP9)
Additional Risk Phrases: N R50/53 , N R50/53 >= 0.25 %
Additional Hazard Statement(s): None.
Reason for additional Hazards Statement(s)/Risk Phrase(s):
10/10/2016 - N R50/53 risk phrase sourced from: WM3 v1 still uses ecotoxic risk phrases
10/10/2016 - N R50/53 >= 0.25 % risk phrase sourced from: WM3 v1 still uses ecotoxic risk phrases

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
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Risk Phrases: None.
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s)/Risk Phrase(s):
14/12/2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

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: 21/08/2015
Risk Phrases: Xn R22 , N R50/53
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06/08/2015
Risk Phrases: N R50/53
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06/08/2015
Risk Phrases: R40
Hazard Statements: Carc. 2 H351

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

CLP index number: 082-001-00-6
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Risk Phrases: None.
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03/06/2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

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

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25/05/2015
Risk Phrases: None.
Hazard Statements: None.

- **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: 06/08/2015
Risk Phrases: R22 , R36 , R37 , R38 , R40 , R43 , N R50/53
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21/08/2015
Risk Phrases: Xi R36/37/38 , N R50/53
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

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

CLP index number: 601-023-00-4
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Risk Phrases: None.
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03/06/2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **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: 25/05/2015
Risk Phrases: R10 , R45 , R46 , R51/53 , R63 , R65
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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on risk phrases

cadmium {cadmium sulfide}

Worst case species based on risk phrases

chromium {chromium(III) oxide}

Worst case species based on risk phrases

copper {dicopper oxide; copper (I) oxide}

Most likely common species

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

Worst case species

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

Worst case species based on risk phrases

mercury {mercury dichloride}

Worst case species based on risk phrases

nickel {nickel dihydroxide}

Worst case species based on risk phrases

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

Worst case species based on risk phrases

zinc {zinc sulphate}

Worst case species based on risk phrases

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition, May 2015
HazWasteOnline Classification Engine Version: 2017.269.3405.6897 (26 Sep 2017)
HazWasteOnline Database: 2017.270.3406.6898 (28 Sep 2017)

This classification utilises the following guidance and legislation:
WM3 - Waste Classification - May 2015
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 Wastes 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
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010

Waste Classification Report

6B2KX-V829M-7U4TT

Job name

First Street Plot 6 and 7 Dec17v2

Description/Comments

Project

Site

Waste Stream Template

Ramboll Generic Waste Stream

Classified by

Name:
Hazel Comyn
Date:
16/01/2018 10:35:24 UTC
Telephone:
01132 458812

Company:
Ramboll UK Ltd
3rd Floor, Halsbury House, Chancellor Court
21 The Calls
Leeds
LS2 7EH

Report

Created by: Hazel Comyn
Created date: 16/01/2018 10:35 UTC

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	HDP108	0.8	Non Hazardous		3
2	HDP110	0.5	Non Hazardous		5
3	HDP114	1	Non Hazardous		8
4	HDP117	0.6	Non Hazardous		10
5	HDP121	0.5	Non Hazardous		13
6	TP101	2.6	Non Hazardous		16
7	TP102	0.25	Non Hazardous		18
8	TP103	1	Non Hazardous		20
9	TP105	0.5	Non Hazardous		23
10	WS102	4	Non Hazardous		25
11	WS103	0.2	Non Hazardous		27
12	WS104	3	Non Hazardous		29
13	WS105	1	Non Hazardous		31
14	WS106B	0.2	Hazardous	HP 14	33
15	WS107	2	Non Hazardous		35
16	WS107[1]	4	Non Hazardous		38

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
17	WS108	0.25	Non Hazardous		40
18	WS108[1]	3	Non Hazardous		43
19	WS108[2]	4	Non Hazardous		45
20	WS109	0.25	Non Hazardous		47

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	50
Appendix B: Rationale for selection of metal species	52
Appendix C: Version	52

Classification of sample: HDP108

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

Sample details

Sample Name:
HDP108
Sample Depth:
0.8 m
Moisture content:
12%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		4.4	mg/kg		3.929	mg/kg	0.000393 %	✓	
2		acenaphthylene		205-917-1	208-96-8		1.1	mg/kg		0.982	mg/kg	0.0000982 %	✓	
3		anthracene		204-371-1	120-12-7		6.4	mg/kg		5.714	mg/kg	0.000571 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		10	mg/kg	1.32	11.789	mg/kg	0.00118 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		12	mg/kg		10.714	mg/kg	0.00107 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		11	mg/kg		9.821	mg/kg	0.000982 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		13	mg/kg		11.607	mg/kg	0.00116 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		7.7	mg/kg		6.875	mg/kg	0.000688 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		5.2	mg/kg		4.643	mg/kg	0.000464 %	✓	
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		14	mg/kg	1.462	18.269	mg/kg	0.00183 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		14	mg/kg		12.5	mg/kg	0.00125 %	✓	
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		74	mg/kg	1.126	74.389	mg/kg	0.00744 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
16		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		3.1	mg/kg		2.768	mg/kg	0.000277 %	✓	
17		fluoranthene		205-912-4	206-44-0		26	mg/kg		23.214	mg/kg	0.00232 %	✓	
18		fluorene		201-695-5	86-73-7		4	mg/kg		3.571	mg/kg	0.000357 %	✓	
19		indeno[123-cd]pyrene		205-893-2	193-39-5		6.8	mg/kg		6.071	mg/kg	0.000607 %	✓	
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	150	mg/kg		133.929	mg/kg	0.0134 %	✓	
21		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
22		naphthalene	601-052-00-2	202-049-5	91-20-3		5.1	mg/kg		4.554	mg/kg	0.000455 %	✓	
23		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		20	mg/kg	1.579	28.205	mg/kg	0.00282 %	✓	
24		pH			PH		7.8	pH		7.8	pH	7.8 pH		
25		phenanthrene		201-581-5	85-01-8		24	mg/kg		21.429	mg/kg	0.00214 %	✓	
26		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
27		pyrene		204-927-3	129-00-0		25	mg/kg		22.321	mg/kg	0.00223 %	✓	
28		TPH (C6 to C40) petroleum group			TPH		560	mg/kg		500	mg/kg	0.05 %	✓	
29		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		62	mg/kg	2.469	136.693	mg/kg	0.0137 %	✓	
											Total:	0.107 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: HDP110

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

Sample details

Sample Name:
HDP110
Sample Depth:
0.5 m
Moisture content:
19%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		2	mg/kg		1.681	mg/kg	0.000168 %	✓	
2		acenaphthylene		205-917-1	208-96-8		1.3	mg/kg		1.092	mg/kg	0.000109 %	✓	
3		anthracene		204-371-1	120-12-7		3.7	mg/kg		3.109	mg/kg	0.000311 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		17	mg/kg	1.32	18.862	mg/kg	0.00189 %	✓	
5		benzene	601-020-00-8	200-753-7	71-43-2		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
6		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		7.1	mg/kg		5.966	mg/kg	0.000597 %	✓	
7		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		7.2	mg/kg		6.05	mg/kg	0.000605 %	✓	
8		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		7	mg/kg		5.882	mg/kg	0.000588 %	✓	
9		benzo[ghi]perylene		205-883-8	191-24-2		3.9	mg/kg		3.277	mg/kg	0.000328 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		3.4	mg/kg		2.857	mg/kg	0.000286 %	✓	
11		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
12		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
13		chromium { chromium(III) oxide }		215-160-9	1308-38-9		17	mg/kg	1.462	20.879	mg/kg	0.00209 %	✓	
14		chrysene	601-048-00-0	205-923-4	218-01-9		6.9	mg/kg		5.798	mg/kg	0.00058 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		59	mg/kg	1.126	55.821	mg/kg	0.00558 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				16	mg/kg	1.884	25.331	mg/kg	0.00253 %	✓	
17		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.7	mg/kg		1.429	mg/kg	0.000143 %	✓	
18		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
19		fluoranthene		205-912-4	206-44-0		15	mg/kg		12.605	mg/kg	0.00126 %	✓	
20		fluorene		201-695-5	86-73-7		2.1	mg/kg		1.765	mg/kg	0.000176 %	✓	
21		indeno[123-cd]pyrene		205-893-2	193-39-5		3.3	mg/kg		2.773	mg/kg	0.000277 %	✓	
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	210	mg/kg		176.471	mg/kg	0.0176 %	✓	
23		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
24		naphthalene	601-052-00-2	202-049-5	91-20-3		5	mg/kg		4.202	mg/kg	0.00042 %	✓	
25		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		20	mg/kg	1.579	26.546	mg/kg	0.00265 %	✓	
26		pH			PH		8.8	pH		8.8	pH	8.8 pH		
27		phenanthrene		201-581-5	85-01-8		12	mg/kg		10.084	mg/kg	0.00101 %	✓	
28		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
29		pyrene		204-927-3	129-00-0		15	mg/kg		12.605	mg/kg	0.00126 %	✓	
30		toluene	601-021-00-3	203-625-9	108-88-3		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
31		TPH (C6 to C40) petroleum group			TPH		962	mg/kg		808.403	mg/kg	0.0808 %	✓	
32		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]		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
33		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		110	mg/kg	2.469	228.254	mg/kg	0.0228 %	✓	
											Total:	0.15 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: HDP114

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

Sample details

Sample Name:
HDP114
Sample Depth:
1 m
Moisture content:
8.1%
(dry 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: 8.1% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7	mg/kg	1.32	8.55	mg/kg	0.000855 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
6		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
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		<LOD
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		<LOD
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		16	mg/kg	1.462	21.633	mg/kg	0.00216 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		27	mg/kg	1.126	28.121	mg/kg	0.00281 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
		006-007-00-5											
16		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									
17		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-912-4	206-44-0									
18		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-695-5	86-73-7									
19		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-893-2	193-39-5									
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	86	mg/kg		79.556	mg/kg	0.00796 %	✓	
		082-001-00-6											
21		mercury { mercury dichloride }				<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
		080-010-00-X	231-299-8	7487-94-7									
22		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
23		nickel { nickel dihydroxide }				18	mg/kg	1.579	26.301	mg/kg	0.00263 %	✓	
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
24		pH				7.9	pH		7.9	pH	7.9 pH		
				PH									
25		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-581-5	85-01-8									
26		phenol				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			204-927-3	129-00-0									
28		zinc { zinc sulphate }				61	mg/kg	2.469	139.341	mg/kg	0.0139 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
										Total:	0.0324 %		

Key

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

Classification of sample: HDP117

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

Sample details

Sample Name:
HDP117
Sample Depth:
0.6 m
Moisture content:
15%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		1.1	mg/kg		0.957	mg/kg	0.0000957 %	✓	
2		acenaphthylene		205-917-1	208-96-8		1.8	mg/kg		1.565	mg/kg	0.000157 %	✓	
3		anthracene		204-371-1	120-12-7		3.5	mg/kg		3.043	mg/kg	0.000304 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		18	mg/kg	1.32	20.666	mg/kg	0.00207 %	✓	
5		benzene	601-020-00-8	200-753-7	71-43-2		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
6		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		7.5	mg/kg		6.522	mg/kg	0.000652 %	✓	
7		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		6.9	mg/kg		6	mg/kg	0.0006 %	✓	
8		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		5.6	mg/kg		4.87	mg/kg	0.000487 %	✓	
9		benzo[ghi]perylene		205-883-8	191-24-2		3.6	mg/kg		3.13	mg/kg	0.000313 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		5.1	mg/kg		4.435	mg/kg	0.000443 %	✓	
11		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
12		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
13		chromium { chromium(III) oxide }		215-160-9	1308-38-9		21	mg/kg	1.462	26.689	mg/kg	0.00267 %	✓	
14		chrysene	601-048-00-0	205-923-4	218-01-9		6.8	mg/kg		5.913	mg/kg	0.000591 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		55	mg/kg	1.126	53.847	mg/kg	0.00538 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				6	mg/kg	1.884	9.83	mg/kg	0.000983 %	✓	
17		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.6	mg/kg		1.391	mg/kg	0.000139 %	✓	
18		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
19		fluoranthene		205-912-4	206-44-0		14	mg/kg		12.174	mg/kg	0.00122 %	✓	
20		fluorene		201-695-5	86-73-7		1.8	mg/kg		1.565	mg/kg	0.000157 %	✓	
21		indeno[123-cd]pyrene		205-893-2	193-39-5		3	mg/kg		2.609	mg/kg	0.000261 %	✓	
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	180	mg/kg		156.522	mg/kg	0.0157 %	✓	
23		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
24		naphthalene	601-052-00-2	202-049-5	91-20-3		2.7	mg/kg		2.348	mg/kg	0.000235 %	✓	
25		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		24	mg/kg	1.579	32.963	mg/kg	0.0033 %	✓	
26		pH			PH		9.8	pH		9.8	pH	9.8 pH		
27		phenanthrene		201-581-5	85-01-8		11	mg/kg		9.565	mg/kg	0.000957 %	✓	
28		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
29		pyrene		204-927-3	129-00-0		15	mg/kg		13.043	mg/kg	0.0013 %	✓	
30		toluene	601-021-00-3	203-625-9	108-88-3		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
31		TPH (C6 to C40) petroleum group			TPH		990	mg/kg		860.87	mg/kg	0.0861 %	✓	
32		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]		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
33		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		170	mg/kg	2.469	365.026	mg/kg	0.0365 %	✓	
											Total:	0.166 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: HDP121

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

Sample details

Sample Name:
HDP121
Sample Depth:
0.5 m
Moisture content:
15%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		0.8	mg/kg		0.696	mg/kg	0.0000696 %	✓	
2		acenaphthylene		205-917-1	208-96-8		0.7	mg/kg		0.609	mg/kg	0.0000609 %	✓	
3		anthracene		204-371-1	120-12-7		1.8	mg/kg		1.565	mg/kg	0.000157 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		12	mg/kg	1.32	13.777	mg/kg	0.00138 %	✓	
5		benzene	601-020-00-8	200-753-7	71-43-2		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
6		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		4.3	mg/kg		3.739	mg/kg	0.000374 %	✓	
7		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		4.1	mg/kg		3.565	mg/kg	0.000357 %	✓	
8		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		4	mg/kg		3.478	mg/kg	0.000348 %	✓	
9		benzo[ghi]perylene		205-883-8	191-24-2		2.5	mg/kg		2.174	mg/kg	0.000217 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		2.4	mg/kg		2.087	mg/kg	0.000209 %	✓	
11		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
12		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
13		chromium { chromium(III) oxide }		215-160-9	1308-38-9		13	mg/kg	1.462	16.522	mg/kg	0.00165 %	✓	
14		chrysene	601-048-00-0	205-923-4	218-01-9		4	mg/kg		3.478	mg/kg	0.000348 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		35	mg/kg	1.126	34.266	mg/kg	0.00343 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				6	mg/kg	1.884	9.83	mg/kg	0.000983 %	✓	
17		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.2	mg/kg		1.043	mg/kg	0.000104 %	✓	
18		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
19		fluoranthene		205-912-4	206-44-0		8.8	mg/kg		7.652	mg/kg	0.000765 %	✓	
20		fluorene		201-695-5	86-73-7		0.8	mg/kg		0.696	mg/kg	0.0000696 %	✓	
21		indeno[123-cd]pyrene		205-893-2	193-39-5		2.3	mg/kg		2	mg/kg	0.0002 %	✓	
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	92	mg/kg		80	mg/kg	0.008 %	✓	
23		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
24		naphthalene	601-052-00-2	202-049-5	91-20-3		3	mg/kg		2.609	mg/kg	0.000261 %	✓	
25		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		17	mg/kg	1.579	23.349	mg/kg	0.00233 %	✓	
26		pH			PH		8.7	pH		8.7	pH	8.7 pH		
27		phenanthrene		201-581-5	85-01-8		5.4	mg/kg		4.696	mg/kg	0.00047 %	✓	
28		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
29		pyrene		204-927-3	129-00-0		8.6	mg/kg		7.478	mg/kg	0.000748 %	✓	
30		toluene	601-021-00-3	203-625-9	108-88-3		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
31		TPH (C6 to C40) petroleum group			TPH		360	mg/kg		313.043	mg/kg	0.0313 %	✓	
32		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]		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
33		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		87	mg/kg	2.469	186.808	mg/kg	0.0187 %	✓	
											Total:	0.0782 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: TP101

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

Sample details

Sample Name:
TP101
Sample Depth:
2.6 m
Moisture content:
26%
(dry 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: 26% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5	mg/kg	1.32	5.239	mg/kg	0.000524 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
6		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
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		<LOD
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		<LOD
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		12	mg/kg	1.462	13.92	mg/kg	0.00139 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		24	mg/kg	1.126	21.445	mg/kg	0.00214 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
		006-007-00-5											
16		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									
17		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-912-4	206-44-0									
18		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-695-5	86-73-7									
19		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-893-2	193-39-5									
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	50	mg/kg		39.683	mg/kg	0.00397 %	✓	
		082-001-00-6											
21		mercury { mercury dichloride }				<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
		080-010-00-X	231-299-8	7487-94-7									
22		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
23		nickel { nickel dihydroxide }				13	mg/kg	1.579	16.296	mg/kg	0.00163 %	✓	
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
24		pH				7.9	pH		7.9	pH	7.9 pH		
				PH									
25		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-581-5	85-01-8									
26		phenol				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
27		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			204-927-3	129-00-0									
28		TPH (C6 to C40) petroleum group				98	mg/kg		77.778	mg/kg	0.00778 %	✓	
				TPH									
29		zinc { zinc sulphate }				34	mg/kg	2.469	66.632	mg/kg	0.00666 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
										Total:	0.0261 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: TP102

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

Sample details

Sample Name:
TP102
Sample Depth:
0.25 m
Moisture content:
17%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		1	mg/kg		0.855	mg/kg	0.0000855 %	✓	
2		acenaphthylene		205-917-1	208-96-8		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		1.2	mg/kg		1.026	mg/kg	0.000103 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		15	mg/kg	1.32	16.927	mg/kg	0.00169 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		2.1	mg/kg		1.795	mg/kg	0.000179 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.9	mg/kg		1.624	mg/kg	0.000162 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		2.1	mg/kg		1.795	mg/kg	0.000179 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		1.3	mg/kg		1.111	mg/kg	0.000111 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.5	mg/kg		1.282	mg/kg	0.000128 %	✓	
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		17	mg/kg	1.462	21.236	mg/kg	0.00212 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		2.7	mg/kg		2.308	mg/kg	0.000231 %	✓	
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		40	mg/kg	1.126	38.492	mg/kg	0.00385 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
15		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 }				2	mg/kg	1.884	3.221	mg/kg	0.000322 %	✓	
		006-007-00-5											
16		dibenz[a,h]anthracene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
17		fluoranthene				6.3	mg/kg		5.385	mg/kg	0.000538 %	✓	
			205-912-4	206-44-0									
18		fluorene				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
			201-695-5	86-73-7									
19		indeno[123-cd]pyrene				1.2	mg/kg		1.026	mg/kg	0.000103 %	✓	
			205-893-2	193-39-5									
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	120	mg/kg		102.564	mg/kg	0.0103 %	✓	
		082-001-00-6											
21		mercury { mercury dichloride }				<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
		080-010-00-X	231-299-8	7487-94-7									
22		naphthalene				1.2	mg/kg		1.026	mg/kg	0.000103 %	✓	
		601-052-00-2	202-049-5	91-20-3									
23		nickel { nickel dihydroxide }				17	mg/kg	1.579	22.95	mg/kg	0.00229 %	✓	
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
24		pH				8.3	pH		8.3	pH	8.3 pH		
				PH									
25		phenanthrene				5.8	mg/kg		4.957	mg/kg	0.000496 %	✓	
			201-581-5	85-01-8									
26		phenol				<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
27		pyrene				6	mg/kg		5.128	mg/kg	0.000513 %	✓	
			204-927-3	129-00-0									
28		TPH (C6 to C40) petroleum group				310	mg/kg		264.957	mg/kg	0.0265 %	✓	
				TPH									
29		zinc { zinc sulphate }				120	mg/kg	2.469	253.261	mg/kg	0.0253 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
										Total:	0.0773 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: TP103

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

Sample details

Sample Name:
TP103
Sample Depth:
1 m
Moisture content:
16%
(dry 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: 16% Dry 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		acenaphthene		201-469-6	83-32-9		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
2		acenaphthylene		205-917-1	208-96-8		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
3		anthracene		204-371-1	120-12-7		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		31	mg/kg	1.32	35.285	mg/kg	0.00353 %	✓	
5		benzene	601-020-00-8	200-753-7	71-43-2		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
6		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
7		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
8		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
9		benzo[ghi]perylene		205-883-8	191-24-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
11		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		<LOD
12		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	1	mg/kg	1.285	1.108	mg/kg	0.0000862 %	✓	
13		chromium { chromium(III) oxide }		215-160-9	1308-38-9		17	mg/kg	1.462	21.419	mg/kg	0.00214 %	✓	
14		chrysene	601-048-00-0	205-923-4	218-01-9		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<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
15		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		110	mg/kg	1.126	106.765	mg/kg	0.0107 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
17		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
18		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
19		fluoranthene		205-912-4	206-44-0		1.3	mg/kg		1.121	mg/kg	0.000112 %	✓	
20		fluorene		201-695-5	86-73-7		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
21		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	570	mg/kg		491.379	mg/kg	0.0491 %	✓	
23		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		2	mg/kg	1.353	2.334	mg/kg	0.000233 %	✓	
24		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
25		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		32	mg/kg	1.579	43.572	mg/kg	0.00436 %	✓	
26		pH			PH		8.2	pH		8.2	pH	8.2 pH		
27		phenanthrene		201-581-5	85-01-8		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
28		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
29		pyrene		204-927-3	129-00-0		1.2	mg/kg		1.034	mg/kg	0.000103 %	✓	
30		toluene	601-021-00-3	203-625-9	108-88-3		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
31		TPH (C6 to C40) petroleum group			TPH		53	mg/kg		45.69	mg/kg	0.00457 %	✓	
32		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]		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
33		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		250	mg/kg	2.469	532.176	mg/kg	0.0532 %	✓	
											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
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: TP105

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

Sample details

Sample Name:
TP105
Sample Depth:
0.5 m
Moisture content:
9.6%
(dry weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 9.6% Dry 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		acenaphthene		201-469-6	83-32-9		6.5	mg/kg		5.931	mg/kg	0.000593 %	✓	
2		acenaphthylene		205-917-1	208-96-8		2.4	mg/kg		2.19	mg/kg	0.000219 %	✓	
3		anthracene		204-371-1	120-12-7		12	mg/kg		10.949	mg/kg	0.00109 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		14	mg/kg	1.32	16.865	mg/kg	0.00169 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		19	mg/kg		17.336	mg/kg	0.00173 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		16	mg/kg		14.599	mg/kg	0.00146 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		14	mg/kg		12.774	mg/kg	0.00128 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		12	mg/kg		10.949	mg/kg	0.00109 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		16	mg/kg		14.599	mg/kg	0.00146 %	✓	
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		24	mg/kg	1.462	32.005	mg/kg	0.0032 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		23	mg/kg		20.985	mg/kg	0.0021 %	✓	
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		59	mg/kg	1.126	60.609	mg/kg	0.00606 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				1	mg/kg	1.884	1.719	mg/kg	0.000172 %	✓	
16		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		5	mg/kg		4.562	mg/kg	0.000456 %	✓	
17		fluoranthene		205-912-4	206-44-0		39	mg/kg		35.584	mg/kg	0.00356 %	✓	
18		fluorene		201-695-5	86-73-7		7.3	mg/kg		6.661	mg/kg	0.000666 %	✓	
19		indeno[123-cd]pyrene		205-893-2	193-39-5		11	mg/kg		10.036	mg/kg	0.001 %	✓	
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	340	mg/kg		310.219	mg/kg	0.031 %	✓	
21		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
22		naphthalene	601-052-00-2	202-049-5	91-20-3		8.6	mg/kg		7.847	mg/kg	0.000785 %	✓	
23		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		23	mg/kg	1.579	33.146	mg/kg	0.00331 %	✓	
24		pH			PH		8.3	pH		8.3	pH	8.3 pH		
25		phenanthrene		201-581-5	85-01-8		42	mg/kg		38.321	mg/kg	0.00383 %	✓	
26		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
27		pyrene		204-927-3	129-00-0		37	mg/kg		33.759	mg/kg	0.00338 %	✓	
28		TPH (C6 to C40) petroleum group			TPH		410	mg/kg		374.088	mg/kg	0.0374 %	✓	
29		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		330	mg/kg	2.469	743.493	mg/kg	0.0743 %	✓	
											Total:	0.184 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: WS102

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

Sample details

Sample Name:
WS102
Sample Depth:
4 m
Moisture content:
9.5%
(dry weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 9.5% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3	mg/kg	1.32	3.617	mg/kg	0.000362 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
6		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**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		12	mg/kg	1.462	16.017	mg/kg	0.0016 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10	mg/kg	1.126	10.282	mg/kg	0.00103 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
16		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**
17		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
18		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14	mg/kg		12.785	mg/kg	0.00128 %	✓	
21		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
22		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
23		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		15	mg/kg	1.579	21.637	mg/kg	0.00216 %	✓	
24		pH			PH		8.2	pH		8.2	pH	8.2 pH		
25		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
26		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
28		TPH (C6 to C40) petroleum group			TPH		4	mg/kg		3.653	mg/kg	0.000365 %	✓	
29		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		30	mg/kg	2.469	67.652	mg/kg	0.00677 %	✓	
											Total:	0.0156 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: WS103

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

Sample details

Sample Name:
WS103
Sample Depth:
0.2 m
Moisture content:
8.9%
(dry 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: 8.9% Dry 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		acenaphthene		201-469-6	83-32-9		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		11	mg/kg	1.32	13.337	mg/kg	0.00133 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		20	mg/kg	1.462	26.842	mg/kg	0.00268 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		93	mg/kg	1.126	96.15	mg/kg	0.00962 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
16		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
17		fluoranthene		205-912-4	206-44-0		1.9	mg/kg		1.745	mg/kg	0.000174 %	✓	
18		fluorene		201-695-5	86-73-7		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
19		indeno[123-cd]pyrene		205-893-2	193-39-5		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	320	mg/kg		293.848	mg/kg	0.0294 %	✓	
21		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		1	mg/kg	1.353	1.243	mg/kg	0.000124 %	✓	
22		naphthalene	601-052-00-2	202-049-5	91-20-3		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
23		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		23	mg/kg	1.579	33.359	mg/kg	0.00334 %	✓	
24		pH			PH		10	pH		10	pH	10pH		
25		phenanthrene		201-581-5	85-01-8		1	mg/kg		0.918	mg/kg	0.0000918 %	✓	
26		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
27		pyrene		204-927-3	129-00-0		1.8	mg/kg		1.653	mg/kg	0.000165 %	✓	
28		TPH (C6 to C40) petroleum group			TPH		180	mg/kg		165.289	mg/kg	0.0165 %	✓	
29		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		980	mg/kg	2.469	2222.14	mg/kg	0.222 %	✓	
											Total:	0.289 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: WS104

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

Sample details

Sample Name:
WS104
Sample Depth:
3 m
Moisture content:
6.9%
(dry 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: 6.9% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		0.2	mg/kg		0.187	mg/kg	0.0000187 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7	mg/kg	1.32	8.646	mg/kg	0.000865 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.5	mg/kg		0.468	mg/kg	0.0000468 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.3	mg/kg		0.281	mg/kg	0.0000281 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.4	mg/kg		0.374	mg/kg	0.0000374 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		0.1	mg/kg		0.0935	mg/kg	0.00000935 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.2	mg/kg		0.187	mg/kg	0.0000187 %	✓	
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		11	mg/kg	1.462	15.039	mg/kg	0.0015 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		0.6	mg/kg		0.561	mg/kg	0.0000561 %	✓	
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12	mg/kg	1.126	12.639	mg/kg	0.00126 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
16		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**
17		fluoranthene		205-912-4	206-44-0		0.7	mg/kg		0.655	mg/kg	0.0000655 %	✓	
18		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
19		indeno[123-cd]pyrene		205-893-2	193-39-5		0.1	mg/kg		0.0935	mg/kg	0.00000935 %	✓	
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	950	mg/kg		888.681	mg/kg	0.0889 %	✓	
21		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
22		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
23		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		3	mg/kg	1.579	4.433	mg/kg	0.000443 %	✓	
24		pH			PH		8.6	pH		8.6	pH	8.6 pH		
25		phenanthrene		201-581-5	85-01-8		0.7	mg/kg		0.655	mg/kg	0.0000655 %	✓	
26		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
27		pyrene		204-927-3	129-00-0		0.8	mg/kg		0.748	mg/kg	0.0000748 %	✓	
28		TPH (C6 to C40) petroleum group			TPH		9	mg/kg		8.419	mg/kg	0.000842 %	✓	
29		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		18	mg/kg	2.469	41.578	mg/kg	0.00416 %	✓	
											Total:	0.1 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: WS105

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

Sample details

Sample Name:
WS105
Sample Depth:
1 m
Moisture content:
17%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		0.4	mg/kg		0.342	mg/kg	0.0000342 %	✓	
2		acenaphthylene		205-917-1	208-96-8		0.1	mg/kg		0.0855	mg/kg	0.00000855 %	✓	
3		anthracene		204-371-1	120-12-7		0.9	mg/kg		0.769	mg/kg	0.0000769 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		220	mg/kg	1.32	248.266	mg/kg	0.0248 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		3.2	mg/kg		2.735	mg/kg	0.000274 %	✓	
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		3.6	mg/kg		3.077	mg/kg	0.000308 %	✓	
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		4.3	mg/kg		3.675	mg/kg	0.000368 %	✓	
8		benzo[ghi]perylene		205-883-8	191-24-2		2.3	mg/kg		1.966	mg/kg	0.000197 %	✓	
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		3.8	mg/kg		3.248	mg/kg	0.000325 %	✓	
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	4	mg/kg	1.285	4.394	mg/kg	0.000342 %	✓	
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		59	mg/kg	1.462	73.702	mg/kg	0.00737 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		3.8	mg/kg		3.248	mg/kg	0.000325 %	✓	
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		330	mg/kg	1.126	317.558	mg/kg	0.0318 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
16		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.1	mg/kg		0.94	mg/kg	0.000094 %	✓	
17		fluoranthene		205-912-4	206-44-0		5.1	mg/kg		4.359	mg/kg	0.000436 %	✓	
18		fluorene		201-695-5	86-73-7		0.3	mg/kg		0.256	mg/kg	0.0000256 %	✓	
19		indeno[123-cd]pyrene		205-893-2	193-39-5		2.3	mg/kg		1.966	mg/kg	0.000197 %	✓	
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	600	mg/kg		512.821	mg/kg	0.0513 %	✓	
21		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		1	mg/kg	1.353	1.157	mg/kg	0.000116 %	✓	
22		naphthalene	601-052-00-2	202-049-5	91-20-3		0.4	mg/kg		0.342	mg/kg	0.0000342 %	✓	
23		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		160	mg/kg	1.579	216	mg/kg	0.0216 %	✓	
24		pH			PH		7.8	pH		7.8	pH	7.8 pH		
25		phenanthrene		201-581-5	85-01-8		3.3	mg/kg		2.821	mg/kg	0.000282 %	✓	
26		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
27		pyrene		204-927-3	129-00-0		4.9	mg/kg		4.188	mg/kg	0.000419 %	✓	
28		TPH (C6 to C40) petroleum group			TPH		95	mg/kg		81.197	mg/kg	0.00812 %	✓	
29		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		580	mg/kg	2.469	1224.096	mg/kg	0.122 %	✓	
											Total:	0.273 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: WS106B

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

Sample details

Sample Name:
WS106B
Sample Depth:
0.2 m
Moisture content:
13%
(dry 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 14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment"

Risk phrases hit:

R50/53 "Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment"

Because of determinands:

lead compounds with the exception of those specified elsewhere in this Annex: (Note 1 conc.: 0.142%)
zinc sulphate: (compound conc.: 0.192%)

Determinands

Moisture content: 13% Dry 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		acenaphthene		201-469-6	83-32-9		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		16	mg/kg	1.32	18.695	mg/kg	0.00187 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	2	mg/kg	1.285	2.275	mg/kg	0.000177 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		24	mg/kg	1.462	31.042	mg/kg	0.0031 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		70	mg/kg	1.126	69.745	mg/kg	0.00697 %	✓	
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
16		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
17		fluoranthene		205-912-4	206-44-0		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
18		fluorene		201-695-5	86-73-7		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
19		indeno[123-cd]pyrene		205-893-2	193-39-5		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	1600	mg/kg		1415.929	mg/kg	0.142 %	✓	
21		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		10	mg/kg	1.353	11.978	mg/kg	0.0012 %	✓	
22		naphthalene	601-052-00-2	202-049-5	91-20-3		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
23		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		22	mg/kg	1.579	30.751	mg/kg	0.00308 %	✓	
24		pH			PH		9	pH		9	pH	9pH		
25		phenanthrene		201-581-5	85-01-8		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
26		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
27		pyrene		204-927-3	129-00-0		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
28		TPH (C6 to C40) petroleum group			TPH		110	mg/kg		97.345	mg/kg	0.00973 %	✓	
29		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		880	mg/kg	2.469	1922.992	mg/kg	0.192 %	✓	
											Total:	0.363 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: WS107

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

Sample details

Sample Name:
WS107
Sample Depth:
2 m
Moisture content:
9.9%
(dry weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 9.9% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4	mg/kg	1.32	4.806	mg/kg	0.000481 %	✓	
5		benzene	601-020-00-8	200-753-7	71-43-2		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
6		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
7		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**
8		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
9		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
11		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
12		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
13		chromium { chromium(III) oxide }		215-160-9	1308-38-9		11	mg/kg	1.462	14.629	mg/kg	0.00146 %	✓	
14		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<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
15		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7	mg/kg	1.126	7.171	mg/kg	0.000717 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
17		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**
18		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
19		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
20		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
21		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14	mg/kg		12.739	mg/kg	0.00127 %	✓	
23		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
24		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
25		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		10	mg/kg	1.579	14.372	mg/kg	0.00144 %	✓	
26		pH			PH		7.7	pH		7.7	pH	7.7 pH		
27		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
28		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
29		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
30		toluene	601-021-00-3	203-625-9	108-88-3		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
31		TPH (C6 to C40) petroleum group			TPH		4	mg/kg		3.64	mg/kg	0.000364 %	✓	
32		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]		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
33		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		28	mg/kg	2.469	62.912	mg/kg	0.00629 %	✓	
											Total:	0.0181 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: WS107[1]

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

Sample details

Sample Name:
WS107[1]
Sample Depth:
4 m
Moisture content:
12%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7	mg/kg	1.32	8.252	mg/kg	0.000825 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
6		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
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		<LOD
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		<LOD
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		22	mg/kg	1.462	28.709	mg/kg	0.00287 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23	mg/kg	1.126	23.121	mg/kg	0.00231 %	✓	

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		**<LOD**
		006-007-00-5									
16		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							
17		fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			205-912-4	206-44-0							
18		fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			201-695-5	86-73-7							
19		indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			205-893-2	193-39-5							
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	14 mg/kg		12.5 mg/kg	0.00125 %	✓	
		082-001-00-6									
21		mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		**<LOD**
		080-010-00-X	231-299-8	7487-94-7							
22		naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
23		nickel { nickel dihydroxide }				31 mg/kg	1.579	43.718 mg/kg	0.00437 %	✓	
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
24		pH				8.1 pH		8.1 pH	8.1 pH		
				PH							
25		phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			201-581-5	85-01-8							
26		phenol				<1 mg/kg		<1 mg/kg	<0.0001 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
27		pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			204-927-3	129-00-0							
28		zinc { zinc sulphate }				63 mg/kg	2.469	138.898 mg/kg	0.0139 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]							
								Total:	0.0275 %		

Key

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

Classification of sample: WS108

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

Sample details

Sample Name:
WS108
Sample Depth:
0.25 m
Moisture content:
13%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		acenaphthylene		205-917-1	208-96-8		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
3		anthracene		204-371-1	120-12-7		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		16	mg/kg	1.32	18.695	mg/kg	0.00187 %	✓	
5		benzene	601-020-00-8	200-753-7	71-43-2		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
6		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
7		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
8		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
9		benzo[ghi]perylene		205-883-8	191-24-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
11		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		<LOD
12		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	2	mg/kg	1.285	2.275	mg/kg	0.000177 %	✓	
13		chromium { chromium(III) oxide }		215-160-9	1308-38-9		24	mg/kg	1.462	31.042	mg/kg	0.0031 %	✓	
14		chrysene	601-048-00-0	205-923-4	218-01-9		<1	mg/kg		<1	mg/kg	<0.0001 %		<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
15		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		90	mg/kg	1.126	89.673	mg/kg	0.00897 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
17		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
18		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
19		fluoranthene		205-912-4	206-44-0		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
20		fluorene		201-695-5	86-73-7		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
21		indeno[123-cd]pyrene		205-893-2	193-39-5		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	850	mg/kg		752.212	mg/kg	0.0752 %	✓	
23		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
24		naphthalene	601-052-00-2	202-049-5	91-20-3		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
25		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		19	mg/kg	1.579	26.558	mg/kg	0.00266 %	✓	
26		pH			PH		8.8	pH		8.8	pH	8.8 pH		
27		phenanthrene		201-581-5	85-01-8		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
28		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
29		pyrene		204-927-3	129-00-0		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
30		toluene	601-021-00-3	203-625-9	108-88-3		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
31		TPH (C6 to C40) petroleum group			TPH		54	mg/kg		47.788	mg/kg	0.00478 %	✓	
32		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]		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
33		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		800	mg/kg	2.469	1748.174	mg/kg	0.175 %	✓	
											Total:	0.279 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Classification of sample: WS108[1]

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

Sample details

Sample Name:
WS108[1]
Sample Depth:
3 m
Moisture content:
12%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		11	mg/kg	1.32	12.967	mg/kg	0.0013 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
6		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**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		8	mg/kg	1.462	10.44	mg/kg	0.00104 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10	mg/kg	1.126	10.053	mg/kg	0.00101 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
16		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
17		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
18		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
19		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18	mg/kg		16.071	mg/kg	0.00161 %	✓	
21		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		<LOD
22		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		9	mg/kg	1.579	12.692	mg/kg	0.00127 %	✓	
24		pH			PH		8.3	pH		8.3	pH	8.3 pH		
25		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		TPH (C6 to C40) petroleum group			TPH		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		20	mg/kg	2.469	44.095	mg/kg	0.00441 %	✓	
											Total:	0.0127 %		

Key

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

Classification of sample: WS108[2]

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

Sample details

Sample Name:
WS108[2]
Sample Depth:
4 m
Moisture content:
38%
(dry 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: 38% Dry 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		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7	mg/kg	1.32	6.697	mg/kg	0.00067 %	✓	
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
6		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**
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
8		benzo[ghi]perylene		205-883-8	191-24-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
9		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
10		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
11		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	2	mg/kg	1.285	1.863	mg/kg	0.000145 %	✓	
12		chromium { chromium(III) oxide }		215-160-9	1308-38-9		3	mg/kg	1.462	3.177	mg/kg	0.000318 %	✓	
13		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
14		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		20	mg/kg	1.126	16.317	mg/kg	0.00163 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
16		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
17		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
18		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
19		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
20		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10	mg/kg		7.246	mg/kg	0.000725 %	✓	
21		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		<LOD
22		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
23		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		20	mg/kg	1.579	22.891	mg/kg	0.00229 %	✓	
24		pH			PH		7.9	pH		7.9	pH	7.9 pH		
25		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
28		TPH (C6 to C40) petroleum group			TPH		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
29		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		48	mg/kg	2.469	85.889	mg/kg	0.00859 %	✓	
											Total:	0.0163 %		

Key

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

Classification of sample: WS109

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

Sample details

Sample Name:
WS109
Sample Depth:
0.25 m
Moisture content:
17%
(dry 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% Dry 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		acenaphthene		201-469-6	83-32-9		0.4	mg/kg		0.342	mg/kg	0.0000342 %	✓	
2		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
3		anthracene		204-371-1	120-12-7		0.5	mg/kg		0.427	mg/kg	0.0000427 %	✓	
4		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		23	mg/kg	1.32	25.955	mg/kg	0.0026 %	✓	
5		benzene	601-020-00-8	200-753-7	71-43-2		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
6		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		1.3	mg/kg		1.111	mg/kg	0.000111 %	✓	
7		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		1.1	mg/kg		0.94	mg/kg	0.000094 %	✓	
8		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.2	mg/kg		1.026	mg/kg	0.000103 %	✓	
9		benzo[ghi]perylene		205-883-8	191-24-2		0.7	mg/kg		0.598	mg/kg	0.0000598 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.6	mg/kg		0.513	mg/kg	0.0000513 %	✓	
11		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
12		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	1	mg/kg	1.285	1.099	mg/kg	0.0000855 %	✓	
13		chromium { chromium(III) oxide }		215-160-9	1308-38-9		17	mg/kg	1.462	21.236	mg/kg	0.00212 %	✓	
14		chrysene	601-048-00-0	205-923-4	218-01-9		1.3	mg/kg		1.111	mg/kg	0.000111 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		69	mg/kg	1.126	66.399	mg/kg	0.00664 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				11	mg/kg	1.884	17.713	mg/kg	0.00177 %	✓	
17		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.2	mg/kg		0.171	mg/kg	0.0000171 %	✓	
18		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
19		fluoranthene		205-912-4	206-44-0		3.2	mg/kg		2.735	mg/kg	0.000274 %	✓	
20		fluorene		201-695-5	86-73-7		0.2	mg/kg		0.171	mg/kg	0.0000171 %	✓	
21		indeno[123-cd]pyrene		205-893-2	193-39-5		0.6	mg/kg		0.513	mg/kg	0.0000513 %	✓	
22		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	880	mg/kg		752.137	mg/kg	0.0752 %	✓	
23		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		5	mg/kg	1.353	5.784	mg/kg	0.000578 %	✓	
24		naphthalene	601-052-00-2	202-049-5	91-20-3		0.1	mg/kg		0.0855	mg/kg	0.00000855 %	✓	
25		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		23	mg/kg	1.579	31.05	mg/kg	0.0031 %	✓	
26		pH			PH		9.4	pH		9.4	pH	9.4 pH		
27		phenanthrene		201-581-5	85-01-8		2	mg/kg		1.709	mg/kg	0.000171 %	✓	
28		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
29		pyrene		204-927-3	129-00-0		2.8	mg/kg		2.393	mg/kg	0.000239 %	✓	
30		toluene	601-021-00-3	203-625-9	108-88-3		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
31		TPH (C6 to C40) petroleum group			TPH		388	mg/kg		331.624	mg/kg	0.0332 %	✓	
32		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]		<10	mg/kg		<10	mg/kg	<0.001 %		**<LOD**
33		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		1100	mg/kg	2.469	2321.561	mg/kg	0.232 %	✓	
											Total:	0.364 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because TPH composition and concentration under site conditions make hazard unlikely

Appendix A: Classifier defined and non CLP determinands

- **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: 17/07/2015
Risk Phrases: N R51/53 , N R50/53 , R38 , R37 , R36
Hazard Statements: Aquatic Chronic 2 H411 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

- **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: 17/07/2015
Risk Phrases: R38 , R37 , R36 , R27 , R26 , R22
Hazard Statements: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 1 H310 , Acute Tox. 1 H330 , Acute Tox. 4 H302

- **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: 17/07/2015
Risk Phrases: N R50/53 , R43 , R38 , R37 , R36
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

- **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: 23/07/2015
Risk Phrases: N R50/53
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

- **boron tribromide/trichloride/trifluoride (combined)** (CAS Number: 10294-33-4, 10294-34-5, 7637-07-2)

Conversion factor: 13.43
Description/Comments: Combines the hazard statements and the average of the conversion factors for boron tribromide, boron trichloride and boron trifluoride
Data source: N/A
Data source date: 06/08/2015
Risk Phrases: C R35 , C R34 , T+ R26/28 , R14
Hazard Statements: Skin Corr. 1B H314 , Skin Corr. 1A H314 , Acute Tox. 2 H300 , Acute Tox. 2 H330 , EUH014

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

Conversion factor: 1.462
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: 17/07/2015
Risk Phrases: R61 , R60 , R50/53 , R43 , R42 , R38 , R37 , R36 , R22 , R20
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Repr. 1B H360FD , Skin Sens. 1 H317 , Resp. Sens. 1 H334 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302 , Acute Tox. 4 H332

- **dicopper oxide; copper (I) oxide** (EC Number: 215-270-7, CAS Number: 1317-39-1)

CLP index number: 029-002-00-X
Description/Comments: M-factor for long-term aquatic hazard not included as per paragraph (5), ATP9
Data source: Regulation (EU) 2016/1179 of 19 July 2016 (ATP9)
Additional Risk Phrases: N R50/53 >= 0.25 %, N R50/53
Additional Hazard Statement(s): None.
Reason for additional Hazards Statement(s)/Risk Phrase(s):
10/10/2016 - N R50/53 >= 0.25 % risk phrase sourced from: WM3 v1 still uses ecotoxic risk phrases
10/10/2016 - N R50/53 risk phrase sourced from: WM3 v1 still uses ecotoxic risk phrases

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 Risk Phrases: None.
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s)/Risk Phrase(s):
14/12/2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

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 Risk Phrases: None.
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03/06/2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

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: 21/08/2015
Risk Phrases: N R50/53 , Xn R22
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

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: 06/08/2015
Risk Phrases: N R50/53
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

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: 06/08/2015
Risk Phrases: R40
Hazard Statements: Carc. 2 H351

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

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: Lead REACH Consortium considers some lead compounds Carcinogenic category 2B
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Risk Phrases: None.
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03/06/2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25/05/2015
Risk Phrases: None.
Hazard Statements: None.

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: 06/08/2015
Risk Phrases: N R50/53 , R43 , R40 , R38 , R37 , R36 , R22
Hazard Statements: Skin Irrit. 2 H315 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Carc. 2 H351 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302

- **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: 21/08/2015
Risk Phrases: N R50/53 , Xi R36/37/38
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

- **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: 25/05/2015
Risk Phrases: R65 , R63 , R51/53 , R46 , R45 , R10
Hazard Statements: Aquatic Chronic 2 H411 , Repr. 2 H361d , Carc. 1B H350 , Muta. 1B H340 , STOT RE 2 H373 , Asp. Tox. 1 H304 , Flam. Liq. 3 H226

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on risk phrases

boron {boron tribromide/trichloride/trifluoride (combined)}

Worst case species based on risk phrases

cadmium {cadmium sulfide}

Worst case species based on risk phrases

chromium {chromium(III) oxide}

Worst case species based on risk phrases

copper {dicopper oxide; copper (I) oxide}

Most likely common species

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

Worst case species

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

Worst case species based on risk phrases

mercury {mercury dichloride}

Worst case species based on risk phrases

nickel {nickel dihydroxide}

Worst case species based on risk phrases

zinc {zinc sulphate}

Worst case species based on risk phrases

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition, May 2015
HazWasteOnline Classification Engine Version: 2018.11.3477.7113 (11 Jan 2018)
HazWasteOnline Database: 2018.11.3477.7113 (11 Jan 2018)

This classification utilises the following guidance and legislation:
WM3 - Waste Classification - May 2015
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 Wastes 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
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010

Waste Classification Report

LRQ57-ZC4M7-GUME2

Job name

Plot 9 First Street 1620002943

Description/Comments

Project

Site

Related Documents

#	Name	Description
None		

Waste Stream Template

Ramboll typical metals, hydrocarbons and misc

Classified by

Name:
Hazel Comyn
Date:
23 Oct 2019 11:42 GMT
Telephone:
07870 809 789

Company:
Ramboll UK Ltd
1 Broad Gate
The Headrow
Leeds
LS1 8EQ

Report

Created by: Hazel Comyn
Created date: 23 Oct 2019 11:42 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01	3.50	Non Hazardous		2
2	WS02	2.80	Non Hazardous		5
3	WS04	3.50	Hazardous	HP 14	8

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	11
Appendix B: Rationale for selection of metal species	12
Appendix C: Version	13

Classification of sample: WS01

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

Sample details

Sample Name:
WS01
Sample Depth:
3.50 m
Moisture content:
5.8%
(dry 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: 5.8% Dry 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		pH			PH		5.8	pH		5.8	pH	5.8 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		<2	mg/kg	1.32	<2.641	mg/kg	<0.000264 %		**<LOD**
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		11	mg/kg	1.462	15.196	mg/kg	0.00152 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12	mg/kg	1.126	12.77	mg/kg	0.00128 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7	mg/kg		6.616	mg/kg	0.000662 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		13	mg/kg	1.579	19.408	mg/kg	0.00194 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<3	mg/kg	2.554	<7.661	mg/kg	<0.000766 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		38	mg/kg	2.469	88.689	mg/kg	0.00887 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,					<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<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							
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }									
		006-007-00-5									
13		phenol				<1 mg/kg		<1 mg/kg	<0.0001 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
14	•	acenaphthene				0.1 mg/kg		0.0945 mg/kg	0.00000945 %	✓	
			201-469-6	83-32-9							
15	•	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			205-917-1	208-96-8							
16	•	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			204-371-1	120-12-7							
17		benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3							
18		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							
19		benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2							
20	•	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			205-883-8	191-24-2							
21		benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9							
22		chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9							
23		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							
24	•	fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			205-912-4	206-44-0							
25	•	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			201-695-5	86-73-7							
26	•	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			205-893-2	193-39-5							
27		naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
28	•	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			201-581-5	85-01-8							
29	•	pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
			204-927-3	129-00-0							
30	•	confirm TPH has NOT arisen from diesel or petrol				☑					
31	•	TPH (C6 to C40) petroleum group				5800 mg/kg		5482.042 mg/kg	0.548 %	✓	
				TPH							
								Total:	0.566 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Hazard unlikely given composition and site conditions

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.548%)

Classification of sample: WS02

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

Sample details

Sample Name:
WS02
Sample Depth:
2.80 m
Moisture content:
8.3%
(dry 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: 8.3% Dry 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		pH			PH		7.7	pH		7.7	pH	7.7 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6	mg/kg	1.32	7.315	mg/kg	0.000731 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<1	mg/kg	1.285	<1.285	mg/kg	<0.0001 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		21	mg/kg	1.462	28.34	mg/kg	0.00283 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		22	mg/kg	1.126	22.871	mg/kg	0.00229 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11	mg/kg		10.157	mg/kg	0.00102 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		31	mg/kg	1.579	45.212	mg/kg	0.00452 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<3	mg/kg	2.554	<7.661	mg/kg	<0.000766 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		55	mg/kg	2.469	125.403	mg/kg	0.0125 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides,					<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<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
		ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5									
13		phenol	604-001-00-2	203-632-7	108-95-2		<1 mg/kg		<1 mg/kg	<0.0001 %		**<LOD**
14	•	acenaphthene		201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
15	•	acenaphthylene		205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
16	•	anthracene		204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
17		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
18		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**
19		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
20	•	benzo[ghi]perylene		205-883-8	191-24-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
21		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
22		chrysene	601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
23		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**
24	•	fluoranthene		205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
25	•	fluorene		201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
26	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
27		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
28	•	phenanthrene		201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
29	•	pyrene		204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		**<LOD**
30	•	confirm TPH has NOT arisen from diesel or petrol					☑					
31	•	TPH (C6 to C40) petroleum group			TPH		7 mg/kg		6.464 mg/kg	0.000646 %	✓	
									Total:	0.0274 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Hazard unlikely given composition and site conditions

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00064%)

Classification of sample: WS04

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

Sample details

Sample Name:
WS04
Sample Depth:
3.50 m
Moisture content:
19%
(dry 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 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.: 0.123%)
lead compounds with the exception of those specified elsewhere in this Annex: (Note 1 conc.: 0.118%)
zinc sulphate: (compound conc.: 0.133%)

Determinands

Moisture content: 19% Dry 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		pH			PH		8.2	pH		8.2	pH	8.2 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		25	mg/kg	1.32	27.738	mg/kg	0.00277 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	1	mg/kg	1.285	1.08	mg/kg	0.000084 %	✓	
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		15	mg/kg	1.462	18.423	mg/kg	0.00184 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		1300	mg/kg	1.126	1229.962	mg/kg	0.123 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	1400	mg/kg		1176.471	mg/kg	0.118 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		5	mg/kg	1.353	5.687	mg/kg	0.000569 %	✓	
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		21	mg/kg	1.579	27.874	mg/kg	0.00279 %	✓	

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<3	mg/kg	2.554	<7.661	mg/kg	<0.000766 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		640	mg/kg	2.469	1328.025	mg/kg	0.133 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
13		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
14		acenaphthene		201-469-6	83-32-9		0.4	mg/kg		0.336	mg/kg	0.0000336 %	✓	
15		acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
16		anthracene		204-371-1	120-12-7		1.2	mg/kg		1.008	mg/kg	0.000101 %	✓	
17		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		4	mg/kg		3.361	mg/kg	0.000336 %	✓	
18		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		2.9	mg/kg		2.437	mg/kg	0.000244 %	✓	
19		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		2.6	mg/kg		2.185	mg/kg	0.000218 %	✓	
20		benzo[ghi]perylene		205-883-8	191-24-2		2	mg/kg		1.681	mg/kg	0.000168 %	✓	
21		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		2.1	mg/kg		1.765	mg/kg	0.000176 %	✓	
22		chrysene	601-048-00-0	205-923-4	218-01-9		4.1	mg/kg		3.445	mg/kg	0.000345 %	✓	
23		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.5	mg/kg		0.42	mg/kg	0.000042 %	✓	
24		fluoranthene		205-912-4	206-44-0		7.1	mg/kg		5.966	mg/kg	0.000597 %	✓	
25		fluorene		201-695-5	86-73-7		0.3	mg/kg		0.252	mg/kg	0.0000252 %	✓	
26		indeno[123-cd]pyrene		205-893-2	193-39-5		1.5	mg/kg		1.261	mg/kg	0.000126 %	✓	
27		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
28		phenanthrene		201-581-5	85-01-8		5.7	mg/kg		4.79	mg/kg	0.000479 %	✓	
29		pyrene		204-927-3	129-00-0		6.4	mg/kg		5.378	mg/kg	0.000538 %	✓	
30		confirm TPH has NOT arisen from diesel or petrol					☑							
31		TPH (C6 to C40) petroleum group			TPH		79	mg/kg		66.387	mg/kg	0.00664 %	✓	
											Total:	0.394 %		

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
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 Hazard unlikely given composition and site conditions

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00664%)

Appendix A: Classifier defined and non CLP determinands

pH (CAS Number: PH)

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

boron tribromide/trichloride/trifluoride (combined) (CAS Number: 10294-33-4, 10294-34-5, 7637-07-2)

Conversion factor: 13.43
Description/Comments: Combines the hazard statements and the average of the conversion factors for boron tribromide, boron trichloride and boron trifluoride
Data source: N/A
Data source date: 06 Aug 2015
Hazard Statements: Skin Corr. 1B H314 , Skin Corr. 1A H314 , Acute Tox. 2 H300 , Acute Tox. 2 H330 , EUH014

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

Conversion factor: 1.462
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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Repr. 1B H360FD , Skin Sens. 1 H317 , Resp. Sens. 1 H334 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302 , Acute Tox. 4 H332

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

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: Lead REACH Consortium considers some lead compounds Carcinogenic category 2B
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

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)/Risk Phrase(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

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

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

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

- **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 Chronic 1 H410 , Aquatic Acute 1 H400

- **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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

- **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 Chronic 1 H410 , Aquatic Acute 1 H400

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

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

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

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

- **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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

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

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on risk phrases

boron {boron tribromide/trichloride/trifluoride (combined)}

Worst case species based on risk phrases

cadmium {cadmium sulfide}

Worst case species based on risk phrases

chromium {chromium(III) oxide}

Worst case species based on risk phrases

copper {dicopper oxide; copper (I) oxide}

Most likely common species

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

Worst case species based on risk phrases

mercury {mercury dichloride}

Worst case species based on risk phrases

nickel {nickel dihydroxide}

Worst case species based on risk phrases

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

Worst case species based on risk phrases

zinc {zinc sulphate}

Worst case species based on risk phrases

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}

Worst case species

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2019.256.4006.8076 (13 Sep 2019)
HazWasteOnline Database: 2019.256.4006.8076 (13 Sep 2019)

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 Wastes 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
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010

Waste Classification Report

TJVXV-89JLU-B39GN

Job name

Representative Granular MG sample 95th percentile

Description/Comments

Project

Site

Related Documents

#	Name	Description
None		

Waste Stream Template

Ramboll typical metals, hydrocarbons and misc

Classified by

Name:
Hazel Comyn
Date:
12 Nov 2019 12:24 GMT
Telephone:
07870 809 789

Company:
Ramboll UK Ltd
1 Broad Gate
The Headrow
Leeds
LS1 8EQ

Report

Created by: Hazel Comyn
Created date: 12 Nov 2019 12:24 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	Sample 1		Non Hazardous		2

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	3
Appendix B: Rationale for selection of metal species	3
Appendix C: Version	3

Classification of sample: Sample 1

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

Sample details

Sample Name:
Sample 1

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: 0% Dry 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		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		6.85 mg/kg		6.85 mg/kg	0.000685 %	✓	
2	•	confirm TPH has NOT arisen from diesel or petrol					☑					
3	•	TPH (C6 to C40) petroleum group			TPH		994.95 mg/kg		994.95 mg/kg	0.0995 %	✓	
									Total:	0.1 %		

Key

	User supplied data
•	Determinand defined or amended by HazWasteOnline (see Appendix A)

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 TPH unlikely to be flammable under site conditions

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0995%)

Appendix A: Classifier defined and non CLP determinands

confirm TPH has NOT arisen from diesel or petrol

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

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

Appendix B: Rationale for selection of metal species

None used in this classification

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2019.312.4049.8147 (08 Nov 2019)
HazWasteOnline Database: 2019.312.4049.8147 (08 Nov 2019)

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 Wastes 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
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010