

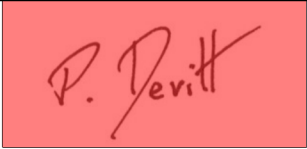


BARWELL MEDICAL CENTRE, BARWELL
REMEDICATION METHOD STATEMENT
FOR
G. F. TOMLINSON & SONS LTD.

Project Ref:
EAL.178.23.Rev1

Date:
October 2023

Prepared for:
G. F. Tomlinson & Sons Ltd.
Tomlinson House
Duffield Road
Little Eaton
Derby
DE21 5DR

Prepared and Authorised by:		Phil Devitt BSc MSc MRICS <i>Director</i>
Date:	October 2023	
Version:	2.0	

GENERAL REFERENCE DETAILS	
SITE:	Barwell Medical Centre, Barwell
CLIENT:	G. F. Tomlinson Ltd.
DATE:	October 2023
REFERENCE:	EAL.178.23.Rev1
DEVELOPEMNT PROPOSAL:	Proposed medical centre.
COMMENTS:	None.

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1.0 INTRODUCTION

1.1 PREAMBLE

Erda Associates Ltd have been instructed by G. F. Tomlinson Ltd. (hereafter referred to as 'the client') to prepare a Remediation Method Statement (RMS) for a medical centre development at their site at Land to the rear of 55-59, *High Street, Barwell*. Site location and plans are included in **Appendix A**.

The site will be redeveloped with a proposed medical centre. Although no proposed development plans have been provided, it is assumed that the development will include some soft landscaping and car parking.

1.2 PREVIOUS REPORTS

The following previous reports have been provided for the subject site;

- Terra Firma (South), Phase I Contaminated Land Desk Study Report – Proposed Barwell Medical Centre, Land Rear of 55-59, High Street, Barwell (dated March 2021, Ref: 6552).
- Terra Firma (South), Ground Investigation Report – Proposed Barwell Medical Centre, Land Rear of 55-59, High Street, Barwell (dated March 2021, Ref: 6552/GIR).

The following RMS should not be referred to in isolation and should be read in conjunction with the above referenced reports. Copies of the above reports have not been included but are available upon request.

1.3 LIMITATIONS

This report has been produced in accordance with industry best practice at the time of writing.

In the production of this report, Erda Associates Ltd., have relied upon information provided by third parties. Erda Associates Ltd cannot accept responsibility for the reliability and authenticity of this information. Erda Associates Ltd. will not be responsible for any opinions which it has expressed, or conclusions which it has drawn, in reliance upon information which is subsequently proven to be inaccurate.

This report has been prepared for the sole use of the client and shall not be relied upon or transferred to third parties without the express written consent of Erda Associates Ltd. Unauthorised third parties rely upon the information contained within this report at their own risk.

2.0 SUMMARY CONCEPTUAL SITE MODEL

Full details relating to the site setting and ground conditions encountered at the subject site are presented within the previous Terra Firma (South) Reports (as referenced in Section 1.2). The following presents a summary conceptual site model as background information to put the proposals presented in the RMS into perspective.

2.1 SOURCE

The previous Terra Firma (South) ground investigation did not identify any elevated contaminant concentrations within the shallow soils across the site. However, a watching brief was recommended during the proposed redevelopment works.

Site enabling works were commenced on site and included the breaking out and removal of a buried attenuation tank. During the removal, the shallow soils were noted to be impacted with suspected TPH contamination. As a precaution all suspected impacted soils were excavated and stockpiled on polythene sheeting. The stockpiles were also covered with polythene sheeting to prevent any leaching of contamination during periods of rainfall.

Additional sampling of the stockpiled material was then subsequently undertaken by Kiwa CMT. A sample from the former tank excavation was also retrieved. A copy of the Kiwa CMT sampling report is included in **Appendix B**, for reference. In summary the testing has identified TPH concentrations in excess of the solubility limit for certain fractions (e.g. aliphatic C10-C12). A copy of the generic screening criteria for a commercial/industrial end use are contained in **Appendix C**, for reference.

In addition, asbestos in the form of loose chrysotile bundles were identified in all samples. However, quantification analysis has confirmed that the asbestos concentration was 0.001% or less in all samples.

No other significant contamination sources have been identified during the site enabling works or previous investigations.

2.2 PATHWAY

The identified pathways for the contamination include the ingestion and inhalation of contaminated soil, dust and fibres along with dermal contact with contaminated soil and dust. There is also a potential for the infiltration of contamination into water supply pipes. In addition, there is a potential for the vertical leaching of contamination into underlying controlled waters (Secondary A Aquifer within the superficial Wigston Sand & Gravel Member).

2.3 RECEPTORS

The previously identified receptors include future users of the completed development and construction workers. It is considered that protection of buried plastic water supply services should also be utilised as a precautionary measure. The Secondary A Aquifer (Wigston Sand and Gravel Member) is also considered to be a potential receptor.

2.4 CONCLUSION

Remediation is required to protect future end users, construction workers and controlled waters on site.

3.0 REMEDIAL SCHEME

3.1 END USERS

Removal (Hydrocarbons)

It is recommended that all hydrocarbon impacted soils are excavated and removed off site as precautionary measure. A significant amount of soil has already been excavated and stockpiled ready for removal. However, a sample of the excavation has also indicated that some elevated concentrations of hydrocarbon contamination remain. Therefore, it is recommended that further excavation and removal of the impacted soils is undertaken as far as reasonably practical.

It is understood that all stockpiled soils will be removed by Midland Rock Waste Carrier (details included in **Appendix D**) and transported to Cornets End Recycling Facility operated by NRS Meriden Aggregates Ltd. (details included in **Appendix E**).

Capping (Asbestos)

The identified asbestos concentrations within the shallow soils is considered to be very low and unlikely to pose a significant risk to future end users of the site. It is assumed that the majority of the site will be capped with hardstanding and floor slabs which will also significantly reduce the risk of exposure. However, as a precautionary measure, it is recommended that any proposed soft landscaping is capped with a minimum thickness of 300mm of clean imported soils. The capping should also include a marker membrane to its base.

Importation of soil will be required for the formation of the capping layer. The testing requirements for imported soils are shown in Table 3.1 below;

Table 3.1 – Testing Requirements for Imported Soil

Type	Number of Samples	Testing Schedule
Greenfield Source	Minimum of 3 or 1 per 250m ³ (whichever is the greater)	Standard metals/metalloids, PAH and asbestos
Brownfield Source	Minimum of 6 or 1 per 100m ³ (whichever is the greater)	Standard metals/metalloids, PAH, TPH and asbestos

All made ground that is excavated will require either off-site disposal to an appropriate waste handling facility or placement beneath areas of proposed hardstanding e.g., floor slabs. In either case, care should be taken to ensure that this material is stockpiled separately from all other soils in order to prevent cross contamination.

The above measures are considered sufficient to reduce the contamination risks to acceptable levels for the proposed development.

Services

It is recommended that barrier pipe is utilised for water service pipes buried within the made ground as a precautionary measure.

The above measures with regard to shallow soils and services are considered sufficient to reduce the contamination risks for end users to acceptable levels for the proposed development.

3.2 CONSTRUCTION WORKERS

It is considered that the elevated concentrations of hydrocarbons within the shallow soils do not present a significant risk to construction workers. However, basic PPE for all workers (including overalls, gloves and dust masks) and wash facilities should be provided as a precautionary measure. Appropriate protection measures will also be required for personnel working with potential asbestos containing soils as a precaution.

Care and vigilance should be maintained throughout the removal of made ground for any further evidence of potential contamination. Should any further suspected contaminated material be encountered then appropriate safety precautions to protect site personnel will be required. Further assessment by a suitably qualified person may also be required.

3.3 CONTROLLED WATERS

Removal of the hydrocarbon impacted soils as recommended in section 3.1 above should be sufficient to protect controlled waters.

Asbestos is not considered to pose a risk to controlled waters.

4.0 VERIFICATION PLAN AND REPORTING

Removal (Hydrocarbons)

It is recommended that all hydrocarbon impacted material is excavated and removed as far as reasonably practical from the former attenuation tank. All spoil should be stockpiled on impermeable sheeting and disposed off site as soon as possible. Once all visual and olfactory evidence of contamination has been removed, the sides and base of the excavation should be sampled in order to confirm that all significant hydrocarbon contamination has been removed. At this stage, it is recommended that a minimum of six samples are retrieved for hydrocarbon analysis.

Capping (Asbestos)

As a precautionary measure, it is recommended that all proposed soft landscaping is capped to protect future site users from potential asbestos containing soils. Imported soils should be assessed as suitable for use (e.g. non-contaminated) prior to purchase. All capping materials will require validation via sampling and chemical screening by a suitably qualified environmental specialist. The final sampling requirements will depend upon the source of any imported material for the capping medium, as mentioned in Section 3.1, above.

The chemical screening criteria for imported and site won soils are included in **Appendix C** for reference.

A validation inspection of the capping layer once it has been placed will also be required to confirm that it is in accordance with the above strategy.

Additional

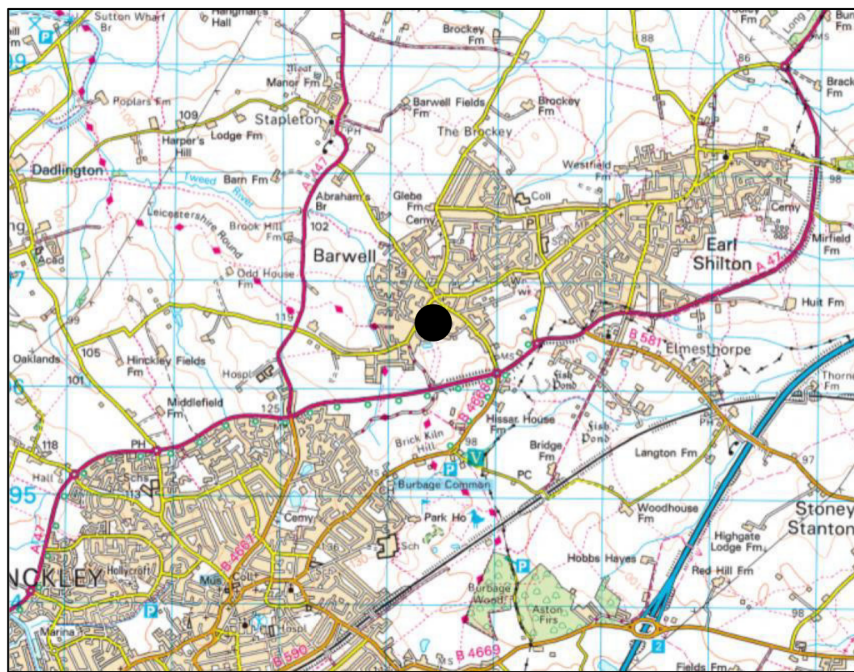
Evidence (e.g. photographs) of barrier pipe water supply systems should also be documented during these works.

4.1 ADDITIONAL INVESTIGATION

Should further suspected contamination be identified during the site works, a qualified environmental specialist should be consulted to assess the risk posed to end users and the environment. This may include scheduling of additional samples for chemical screening and modification of this Remediation Method Statement accordingly.

Appendix A

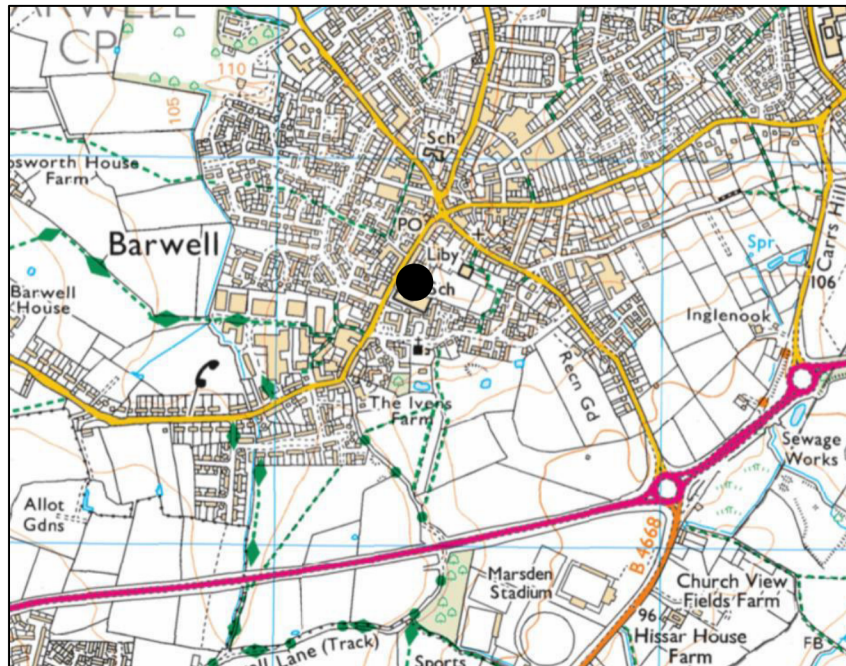




KEY:

● Approximate Site Location

DO NOT SCALE



TITLE:

Site Location Plan

PROJECT:

Barwell Medical Centre

PROJECT No:

EAL.178.23

DATE:

10/2023

SCALE:

NTS

DRAWN:

PD

DWG No:

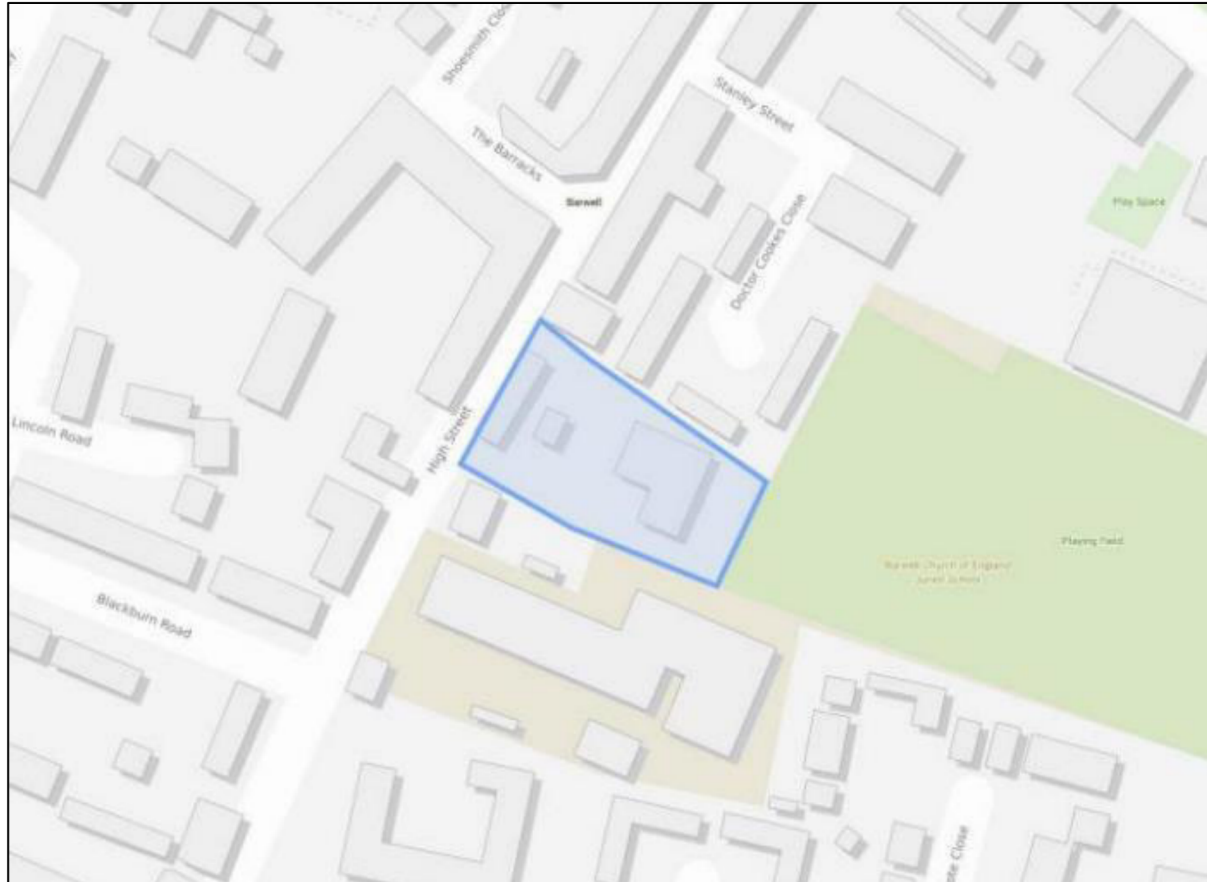
Figure 1



KEY:



Site Boundary



DO NOT SCALE



TITLE:

Site Layout

PROJECT:

Barwell Medical Centre

PROJECT No:

EAL.178.23

DATE:

10/2023

SCALE :

NTS

DRAWN :

PD

DWG No:

Figure 2

Appendix B



Kiwa CMT
WM3 EWC Report

Kiwa CMT
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Prime Enterprise Park
Derby
DE1 3QB

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E uk.cmt.enquiries@kiwa.com
www.kiwa.co.uk

CJS Construction Ltd
The Sidings
Duffield Road Industrial Estate
Little Eaton
Derbyshire
DE21 5EG



Report Number 70857-A (342458)

Site:

Barwell Medical Centre
High Street
Leicester
LE9 8DS

Date: 6th October 2023

**Partner
for
Progress**

Client Information

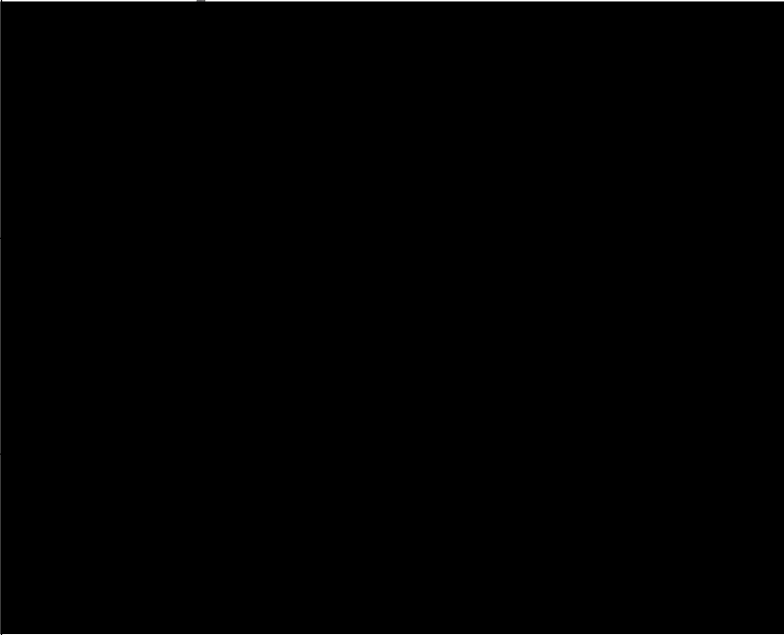
CSJ Construction Ltd
The Sidings
Duffield Road Industrial Estate
Little Eaton
Derbyshire
DE21 5EG

Date:	06.10.2023	Originator:	Ricky Croshaw
Order Ref:	1285	Our Ref:	70857

Site Location Information:

Barwell Medical Centre, High Street, Leicester, LE9 8DS.

Document Control

Document Prepared By: <i>PP</i> Lucy Griffiths Geo-Environmental Technician & Alex Fell Geo-Environmental Engineer		
Document Checked By: Matthew Cooper Senior Geo-Environmental Engineer		
Document Authorised By: Matthew Cooper Senior Geo-Environmental Engineer		
Issue Number and Date	2	06.10.2023

Client Information

CSJ Construction Ltd
The Sidings
Duffield Road Industrial Estate
Little Eaton
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Kiwa CMT

1.0 Client

1.1 The Client is CSJ Construction Ltd.

2.0 Scope of Works

2.1 To sample material on site from stockpiles and trial pitting material as directed by the client.

2.2 To analyse samples of soil-type material for a range of analytical parameters.

2.3 Waste assessment to WM3 (EA, 2021).

3.0 Site Work

3.1 Site work was carried out on the 28th September 2023 by Kiwa CMT.

3.2 3No. composite samples of soil-type material were sampled on site by Kiwa CMT.

3.3 Photographs pertaining to the site are presented in Appendix 5.

4.0 Samples

4.1 The samples obtained from the site on the 28th September 2023 are:

Kiwa CMT Reference	Client Reference/Location/Other Information
70857/1	Stockpile 1
70857/2	Stockpile 2
70857/3	Trial Pit Sample

Kiwa CMT Reference	Sample Description
70857/1	Mixed red-brown, grey and black sandy slightly cobbly slightly gravelly CLAY. Cobbles of brick. Gravels of brick, organic matter, plastic and rootlets. Odour of Hydrocarbons noted.
70857/2	Red-brown and grey slightly gravelly sandy CLAY. Gravels of brick.
70857/3	Red-brown and grey slightly gravelly sandy CLAY. Gravels of brick.

4.2 Photographs of subsamples of the materials are presented in Appendix 3.

4.3 The samples had **NO** identifiable pieces of asbestos containing materials (ACMs).

4.4 Sample 70857/1 exhibited visible oil contamination, olfactory evidence of hydrocarbon contamination, visible discolouration and visible physical contaminants (e.g., brick and plastic).

4.5 Samples 70857/2 and 70857/3 exhibited some visible discolouration and visible physical contaminants (e.g., brick).

4.6 Samples were refrigerated and delivered to the lab in suitable pots and amber glass jars.

Kiwa CMT

4.7 The scheduled analysis for each sample is:

Kiwa CMT Reference	Analysis Schedule
70857/1	Characterisation of Solid; Full Waste Acceptance Criteria
70857/2	Characterisation of Solid; Full Waste Acceptance Criteria
70857/3	Characterisation of Solid; Full Waste Acceptance Criteria

5.0 Analysis

5.1 The samples submitted have been analysed for the following components:

Characterisation Analysis

Metals/Metalloids	Antimony, Arsenic, Cadmium, Chromium, Chromium (VI), Copper, Lead, Mercury, Nickel, Selenium, Vanadium, Zinc
Inorganics/Physical	Asbestos Screen, pH, Cyanide, Moisture Content, Loss on Ignition, Total Sulfate
Organics	Petroleum Hydrocarbons, Phenols
Polyaromatic Hydrocarbons	Acenaphthene, Acenaphthylene, Anthracene, Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo(ghi)perylene, Chrysene, Dibenzo[a,h]anthracene, Fluoranthene, Fluorene, Indeno[123-cd]pyrene, Naphthalene, Phenanthrene, Pyrene

Waste Acceptance Criteria CEN 10:1 Full Solid and Leachate Analysis PrEN 12457-2

Metals/Metalloids	Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Vanadium, Zinc
Inorganics/Physical	Sulfate, pH, Moisture Content, Loss on Ignition, Chloride, Fluoride
Organics	Total Dissolved Solids, Dissolved Organic Carbon, Petroleum Hydrocarbons, PCBs, BTEX
Polyaromatic Hydrocarbons	Acenaphthene, Acenaphthylene, Anthracene, Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo(ghi)perylene, Chrysene, Dibenzo[a,h]anthracene, Fluoranthene, Fluorene, Indeno[123-cd]pyrene, Naphthalene, Phenanthrene, Pyrene

6.0 Results

6.1 The results are presented in Appendix 3.

Kiwa CMT

7.0 EWC Assessment

- 7.1 Waste Materials require classification, as per the EU Directive 2008/98/EC, excluding those wastes noted in Article 2 of that document. The Directive lays down measures to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use.

List of Waste and Waste Code Selection Information

- 7.2 Assessment of the soil based material is carried out in line with the European Waste Catalogue Code relating to Chapter 17, Sub-chapter 05 for Excavated Soils and Stones (both anthropogenic and natural) to determine the hazardous nature of the material and to classify the material as either one of the mirror entries: "Soil and Stones containing Hazardous Substances" (Hazardous Mirror Entry: 17 05 03*) or "Soil and Stones other than those mentioned in 17 05 03*" (Non-Hazardous Mirror Entry 17 05 04).
- 7.3 Due to the nature of the material a Waste Assessment and Classification is required as per the Environment Agency Document "Waste Classification: Guidance on the Classification and Assessment of Waste (v1.2.GB 2021) – Technical Guidance WM3".
- 7.4 The Assessment code and chapters have been selected from the List of Wastes as presented in WM3 v1.2.GB. General Chemical Criteria has been selected, as per section 5.0, as a baseline information for the material. POPs have not been included in this baseline analysis.
- 7.5 The Assessment procedure has been carried out using an assessment tool: HazWaste Online™ produced by One Touch Data. The information can be found in Appendix 4.
- 7.6 **Hazardous/Non-Hazardous EWC Classification (Basic Characterisation)**
- 7.7 The samples have been assessed using the tool and the assessment is presented in the appendices. The summary of the assessment is presented below:

Reference	Client Reference/Location/ Other Information	EWC Code	Classification	Hazard properties
70857/1	Stockpile 1	17 05 03*	Hazardous	HP 7 HP 11
70857/2	Stockpile 2	17 05 03*	Hazardous	HP 7 HP 11
70857/3	Trial Pit Sample	17 05 04	Non-Hazardous	-

Table 1 Non-Hazardous/Hazardous Classification to EWC

- 7.8 Samples 70857/1 and 70857/2 have been assessed as hazardous with raised levels of TPH (C6 to C40) Petroleum Group.
- 7.9 The decision of the disposal facility is final.

Kiwa CMT

7.10 Landfill Classification – WAC Testing Results with reference to EN 12457-2

7.11 With regard to the WAC Testing the Landfill Classification has been assessed in accordance with EU Council Decision 2003/33/EC:

Reference	Client Reference/Location/ Other Information	Pass/Fail
70857/1	Stockpile 1	Classify as <u>Stable Non-Reactive Hazardous</u>
70857/2	Stockpile 2	Classify as <u>Stable Non-Reactive Hazardous</u>
70857/3	Trial Pitting Material	Fail Inert Classification Classify as <u>Non-Hazardous</u> , see Table 1 Above.

Table 2 Landfill Classification

7.12 Sample 70857/3 fails the inert threshold for Mineral Oil and Antimony. Classify as Non-Hazardous only.

7.13 The decision of the disposal facility is final.

Kiwa CMT

8.0 Limitations

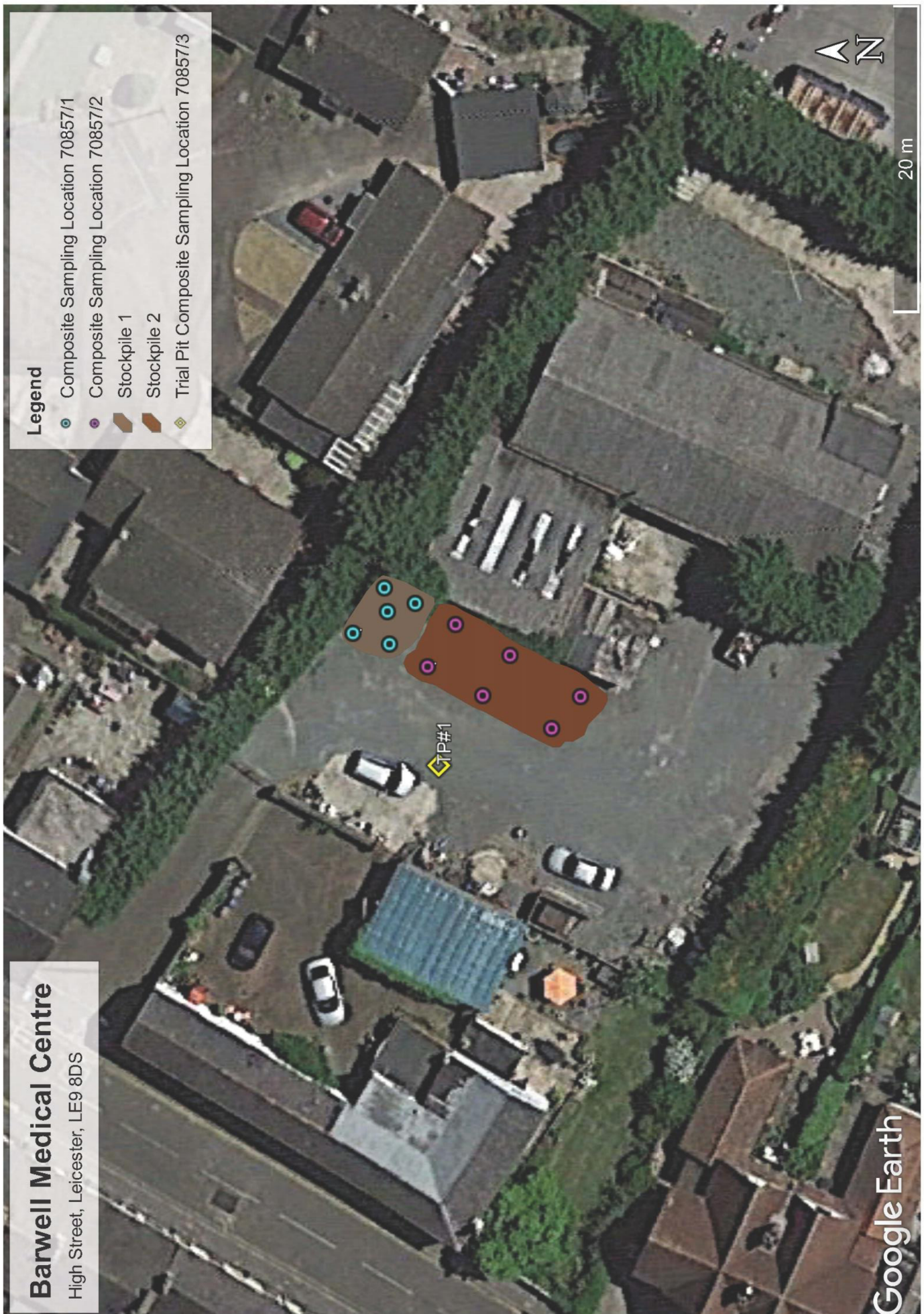
- 8.1 This report is prepared on behalf of the client and should only be used by the client and its contractors/subcontractors.
- 8.2 The use or assignment of this report, either in its entirety or in any part, is expressly prohibited unless payment is received by Kiwa CMT within the agreed credit period.
- 8.3 The report is produced solely for the benefit of the Client and their professional advisors, no liability is accepted for any reliance placed upon it by any other party unless expressly agreed in writing with Kiwa CMT.
- 8.4 The copyright of this report and relating documents prepared by Kiwa CMT are owned by them. No such report plan or document may be produced, published or altered without the written permission of Kiwa CMT.
- 8.5 The report and opinions have been prepared for the specific purpose stated within the document. The recommendations should not be extrapolated for other uses on or adjacent to the site or for other schemes without reference and agreement in writing with Kiwa CMT. Opinions and interpretations are not covered by Kiwa CMT scope of UKAS accreditation.
- 8.6 The report will be based on observations, environmental conditions and information (such as physical conditions within boreholes, monitoring results and chemical analyses) that are by their nature interpretative and interpolated. Variations are likely to be present appertaining to the site which may not be revealed by documentation and/or investigation and which, subsequently, may not be taken into account.
- 8.7 Whilst the report may express an opinion on the nature of environmental conditions provided by GIS databases and written, anecdotal, published and pictorial (cartographic, photographic, etc.) there can be no liability for accuracy accepted by Kiwa CMT.
- 8.8 Kiwa CMT have employed the HazWaste Online™ Tool to provide a level of assessment of the results, Kiwa CMT cannot take any liability for the validity of the third party assessment tool and assume that all information provided by OneTouch Data is correct.
- 8.9 If sampled by Kiwa CMT, then the sampling will be carried out with the relevant care and diligence in order to obtain a representative sample of the material.
- 8.10 If the sample is supplied, then Kiwa CMT have had little to no control over the sampling and it is assumed that the client has provided Kiwa CMT with a representative sample of the bulk material. Kiwa CMT cannot be held accountable for third party sampling and always recommend independent sampling. Where Kiwa CMT have recommended particular investigative techniques, to be supplied by the client/3rd party, and these have not been adhered to, Kiwa CMT do not take responsibility for misrepresentation of the materials.
- 8.11 Samples are stored in suitable containers for the various requirements of testing.
- 8.12 Unless otherwise directed Kiwa CMT will assume a normal scenario for the composition of the material and no consideration is given to specialist contamination unless we are aware (e.g., via provided documentation, desk study, other intrusive works, etc.) that due consideration is required for deviation from the normal expected mineralogical content of soil.
- 8.13 The assessment is carried out on the analytical results that are presented in the appendices. It is assumed that the results are representative, or as representative as possible, of the material analysed. Results may not be representative where the material may be significantly heterogeneous in nature.

Kiwa CMT

- 8.14 Assessment is not solely based on chemical criteria and further assessment of the material is likely to occur at the point of use, including visual observation and possibly the employment of validation testing.
- 8.15 All analysis is carried out in a UKAS and MCERTS accredited laboratory 4225 that comply to ISO 17025. All records are retained in our system and are available upon request.
- 8.16 Ground/stockpile conditions are highly variable and although Kiwa CMT make best efforts to obtain representative samples there is always a possibility of uncovering contamination previously unidentified. If this is the case then further testing is likely to be required on any previously undiscovered materials, e.g., such as asbestos, oil contamination, liquids, etc. This report does not include, or account for, such unidentified contamination and any additional materials will require characterising and assessing and are not covered by this report.
- 8.17 Where asbestos type minerals have been identified as free and dispersed fibres within the matrix of the soils the waste is not considered to be mixed, it is considered to be a single stream of waste with no separable components.
- 8.18 Where asbestos is in the form of ACMs (e.g., lagging, board, tile, etc.) the waste stream is considered to be a mixed waste stream and the concentration of asbestos in each ACM is considered to be >0.1%.

Appendix 1

Site Plan and Sampling Locations



Appendix 2

Client Sampling Certificates



Kiwa CMT

None Provided

Appendix 3

Certificates of Analysis

Element Materials Technology

Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell
EMT Job No: 23/16079

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-4	5-8	9-12								Please see attached notes for all abbreviations and acronyms		
Sample ID	70857/1	70857/2	70857/3										
Depth													
COC No / misc													
Containers	V J T	V J T	V J T										
Sample Date	28/09/2023	28/09/2023	28/09/2023										
Sample Type	Soil	Soil	Soil										
Batch Number	1	1	1										
Date of Receipt	29/09/2023	29/09/2023	29/09/2023								LOD/LOR	Units	Method No.
Antimony	2	2	2								<1	mg/kg	TM30/PM15
Arsenic #	5.1	5.6	5.8								<0.5	mg/kg	TM30/PM15
Cadmium #	0.3	<0.1	0.2								<0.1	mg/kg	TM30/PM15
Chromium #	75.8	89.9	77.8								<0.5	mg/kg	TM30/PM15
Copper #	34	37	24								<1	mg/kg	TM30/PM15
Lead #	37	28	22								<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM30/PM15
Nickel #	12.8	16.6	24.0								<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1								<1	mg/kg	TM30/PM15
Total Sulphate as SO ₄ #	465	255	433								<50	mg/kg	TM50/PM29
Vanadium	25	28	30								<1	mg/kg	TM30/PM15
Water Soluble Boron #	1.2	2.2	2.1								<0.1	mg/kg	TM74/PM32
Zinc #	77	77	78								<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	0.08	0.08								<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03								<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.07	<0.05	<0.05								<0.05	mg/kg	TM4/PM8
Fluorene #	0.21	0.06	0.13								<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.52	0.08	0.28								<0.03	mg/kg	TM4/PM8
Anthracene #	0.05	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.27	0.10	0.14								<0.03	mg/kg	TM4/PM8
Pyrene #	0.29	0.14	0.17								<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.13	0.08	0.09								<0.06	mg/kg	TM4/PM8
Chrysene #	0.13	0.07	0.08								<0.02	mg/kg	TM4/PM8
Benzo(b)fluoranthene #	0.21	0.16	0.14								<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.12	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	0.07	0.05								<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	0.06	0.07	0.06								<0.04	mg/kg	TM4/PM8
Coronene	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
PAH 16 Total	2.1	0.9	1.2								<0.6	mg/kg	TM4/PM8
PAH 17 Total	2.06	0.91	1.22								<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.15	0.12	0.10								<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.06	0.04	0.04								<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	92	96	92								<0	%	TM4/PM8
Mineral Oil (C10-C40) (EH_CU_1D_AL)	1397	812	699								<30	mg/kg	TM5/PM8/PM16



Kiwa CMT

Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell
EMT Job No: 23/16079

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-4	5-8	9-12								Please see attached notes for all abbreviations and acronyms		
Sample ID	70857/1	70857/2	70857/3										
Depth													
COC No / misc													
Containers	V J T	V J T	V J T										
Sample Date	28/09/2023	28/09/2023	28/09/2023										
Sample Type	Soil	Soil	Soil										
Batch Number	1	1	1										
Date of Receipt	29/09/2023	29/09/2023	29/09/2023								LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	0.6	3.1	0.6								<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	8.6	34.9	8.4								<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	50.1	152.9	66.7								<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	366	297	216								<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	719	297	332								<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	262	65	84								<7	mg/kg	TM5/PM8/PM16
>C35-C44 (EH_CU_1D_AL)	<7	<7	<7								<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-44 (EH+HS_CU_1D_AL)	1406	850	708								<26	mg/kg	TM5/PM8/PM16/PM12
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	0.2	4.1	0.8								<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	14.4	30.8	7.5								<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	180	120	75								<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	520	216	210								<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	253	60	<7								<7	mg/kg	TM5/PM8/PM16
>EC35-EC44 (EH_CU_1D_AR)	18	<7	<7								<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-44 (EH+HS_CU_1D_AR)	986	431	293								<26	mg/kg	TM5/PM8/PM16/PM12
Total aliphatics and aromatics (C5-44) (EH+HS_CU_1D_Total)	2392	1281	1001								<52	mg/kg	TM5/PM8/PM16/PM12
MTBE #	<5	10	<5								<5	ug/kg	TM36/PM12
Benzene #	<5	<5	<5								<5	ug/kg	TM36/PM12
Toluene #	<5	<5	<5								<5	ug/kg	TM36/PM12
Ethylbenzene #	61	548	103								<5	ug/kg	TM36/PM12
m/p-Xylene #	85	3091	539								<5	ug/kg	TM36/PM12
o-Xylene #	132	401	73								<5	ug/kg	TM36/PM12
PCB 28 #	<5	<5	<5								<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5								<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5								<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5								<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5								<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5								<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5								<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35								<35	ug/kg	TM17/PM8
Phenol #	0.04	<0.01	<0.01								<0.01	mg/kg	TM26/PM21B
Natural Moisture Content	17.7	16.1	28.6								<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3								<0.3	mg/kg	TM38/PM20

Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell
EMT Job No: 23/16079

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

Please see attached notes for all abbreviations and acronyms

Kiwa CMT

Mass of sample taken (kg)	0.122	Moisture Content Ratio (%) =	35.8		
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	73.6		
Particle Size <4mm =	>95%				
EMT Job No	23/16079		Landfill Waste Acceptance Criteria Limits		
Sample No	3				
Client Sample No	70857/1				
Depth/Other					
Sample Date	28/09/2023				
Batch No	1				
Solid Waste Analysis			Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non- Hazardous Landfill	Hazardous Waste Landfill
Total Organic Carbon (%)	1.11				
Loss on Ignition (%)	3.1				
Sum of BTEX (mg/kg)	0.278				
Sum of 7 PCBs (mg/kg)	<0.035				
Mineral Oil (mg/kg) (EH_CU_1D_AL)	1397				
PAH Sum of 17(mg/kg)	2.06				
pH (pH Units)	7.44				
ANC to pH 7 (mol/kg)	<0.03				
ANC to pH 4 (mol/kg)	0.54				
Eluate Analysis	10:1 conc ⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
	C ₁₀	A ₁₀			
	mg/l	mg/kg			
Arsenic	0.0047	0.047	0.5	2	25
Barium	0.021	0.21	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.023	0.23	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	0.026	0.26	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	0.006	0.06	4	50	200
Chloride	21.7	217	800	15000	25000
Fluoride	0.3	3	10	150	500
Sulphate as SO4	64.5	645	1000	20000	50000
Total Dissolved Solids	233	2331	4000	60000	100000
Phenol	0.21	2.1	1	-	-
Dissolved Organic Carbon	10	100	500	800	1000

Kiwa CMT

Mass of sample taken (kg)	0.1075	Moisture Content Ratio (%) =	19.5		
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	83.7		
Particle Size <4mm =	>95%				
EMT Job No	23/16079		Landfill Waste Acceptance Criteria Limits		
Sample No	7				
Client Sample No	70857/2				
Depth/Other					
Sample Date	28/09/2023				
Batch No	1				
Solid Waste Analysis			Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non- Hazardous Landfill	Hazardous Waste Landfill
Total Organic Carbon (%)	0.85				
Loss on Ignition (%)	2.8				
Sum of BTEX (mg/kg)	4.040				
Sum of 7 PCBs (mg/kg)	<0.035				
Mineral Oil (mg/kg) (EH_CU_1D_AL)	812				
PAH Sum of 17(mg/kg)	0.91				
pH (pH Units)	7.92				
ANC to pH 7 (mol/kg)	<0.03				
ANC to pH 4 (mol/kg)	0.06				
Eluate Analysis	10:1 conc ⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
	C ₁₀	A ₁₀			
	mg/l	mg/kg			
Arsenic	0.0036	0.036	0.5	2	25
Barium	0.021	0.21	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.009	0.09	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	0.008	0.08	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	0.004	0.04	4	50	200
Chloride	5.2	52	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	22.6	226	1000	20000	50000
Total Dissolved Solids	131	1309	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	7	70	500	800	1000

Kiwa CMT

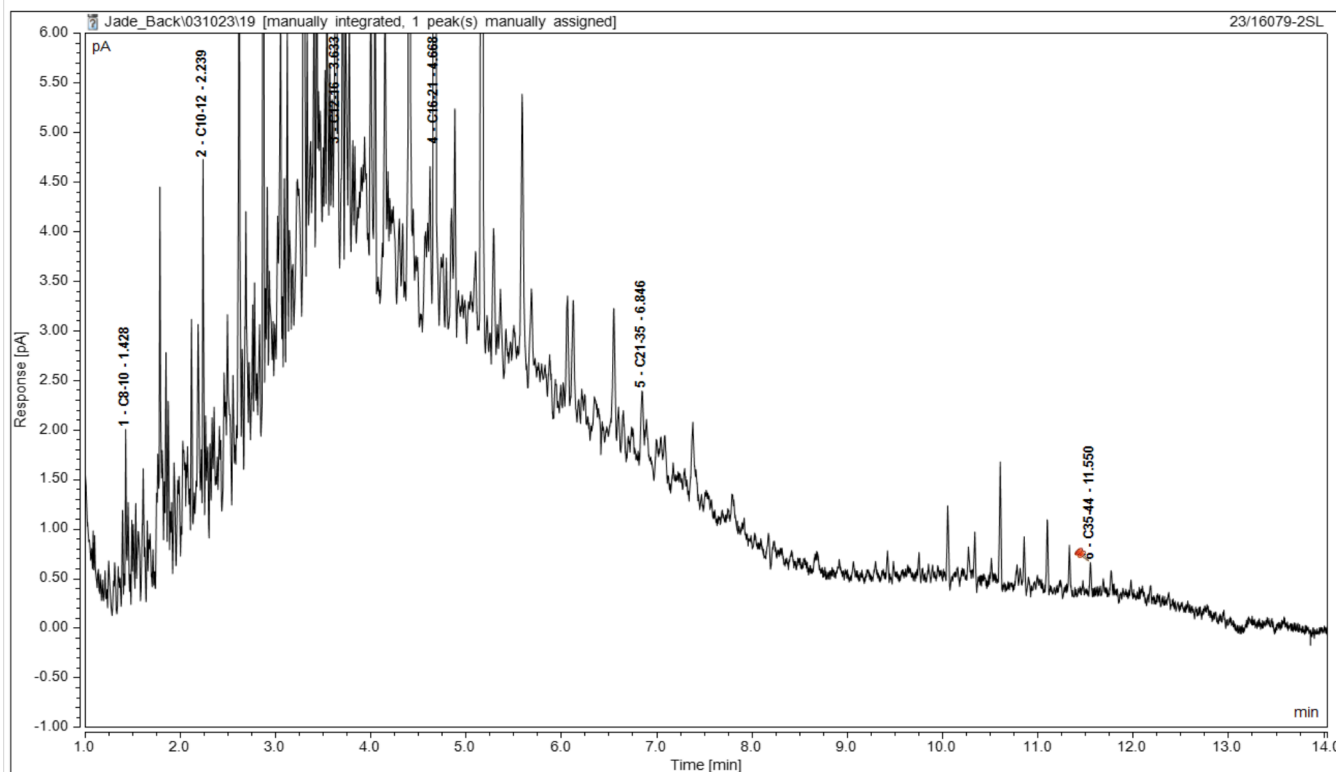
Mass of sample taken (kg)	0.1059	Moisture Content Ratio (%) =	18.3		
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	84.6		
Particle Size <4mm =	>95%				
EMT Job No	23/16079		Landfill Waste Acceptance Criteria Limits		
Sample No	11				
Client Sample No	70857/3				
Depth/Other					
Sample Date	28/09/2023				
Batch No	1				
Solid Waste Analysis			Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non- Hazardous Landfill	Hazardous Waste Landfill
Total Organic Carbon (%)	2.07				
Loss on Ignition (%)	5.0				
Sum of BTEX (mg/kg)	0.715				
Sum of 7 PCBs (mg/kg)	<0.035				
Mineral Oil (mg/kg) (EH_CU_1D_AL)	699				
PAH Sum of 17(mg/kg)	1.22				
pH (pH Units)	7.99				
ANC to pH 7 (mol/kg)	<0.03				
ANC to pH 4 (mol/kg)	0.06				
Eluate Analysis	10:1 conc ⁿ leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
	C ₁₀	A ₁₀			
	mg/l	mg/kg			
Arsenic	0.0042	0.042	0.5	2	25
Barium	0.015	0.15	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.014	0.14	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	0.006	0.06	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	0.004	0.04	4	50	200
Chloride	4.5	45	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	27.2	272	1000	20000	50000
Total Dissolved Solids	132	1321	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	8	80	500	800	1000



Kiwa CMT

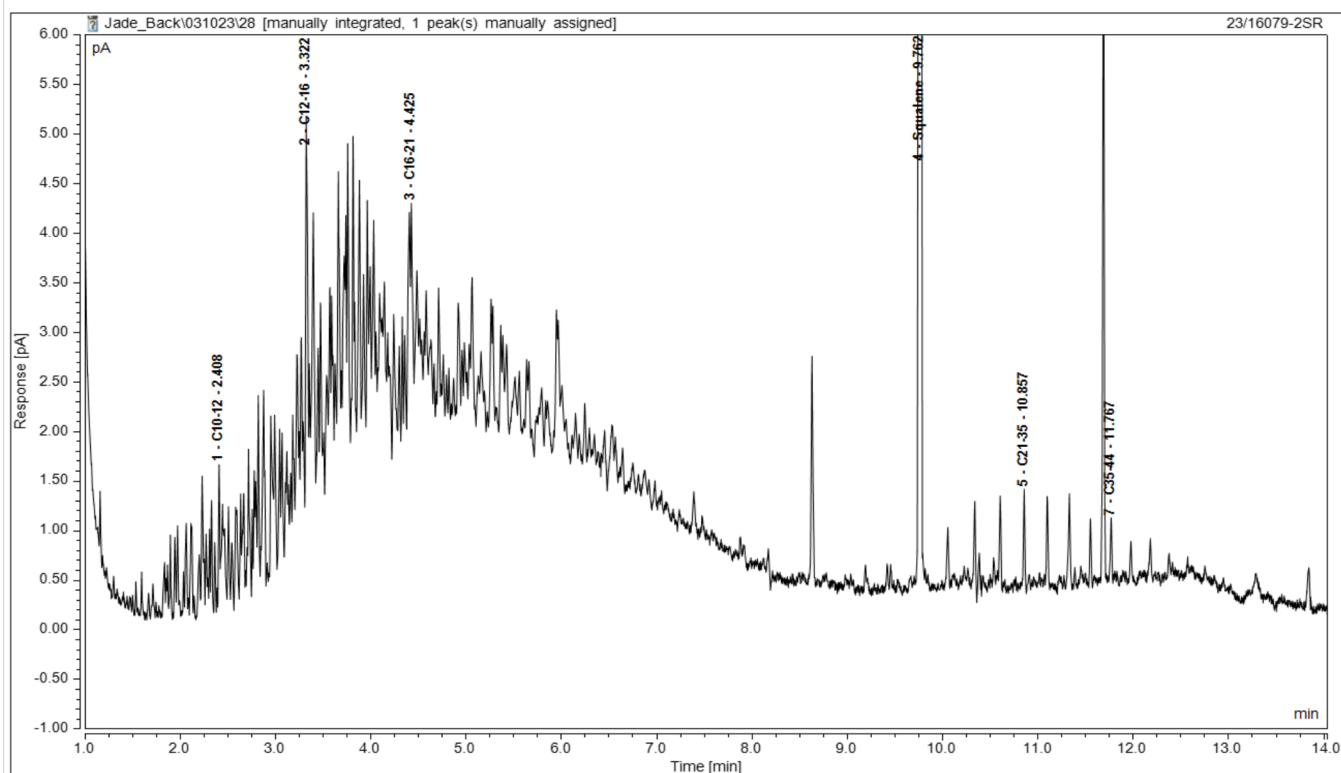
Client Name: Kiwa CMT
 Reference: 70857
 Location: Barwell Medical Centre
 Contact: Alex Fell

EMT Job No.: 23/16079
 EMT Sample No.: 2
 Sample Identity: 70857/1
 Depth:
 Matrix: Solid



Client Name: Kiwa CMT
 Reference: 70857
 Location: Barwell Medical Centre
 Contact: Alex Fell

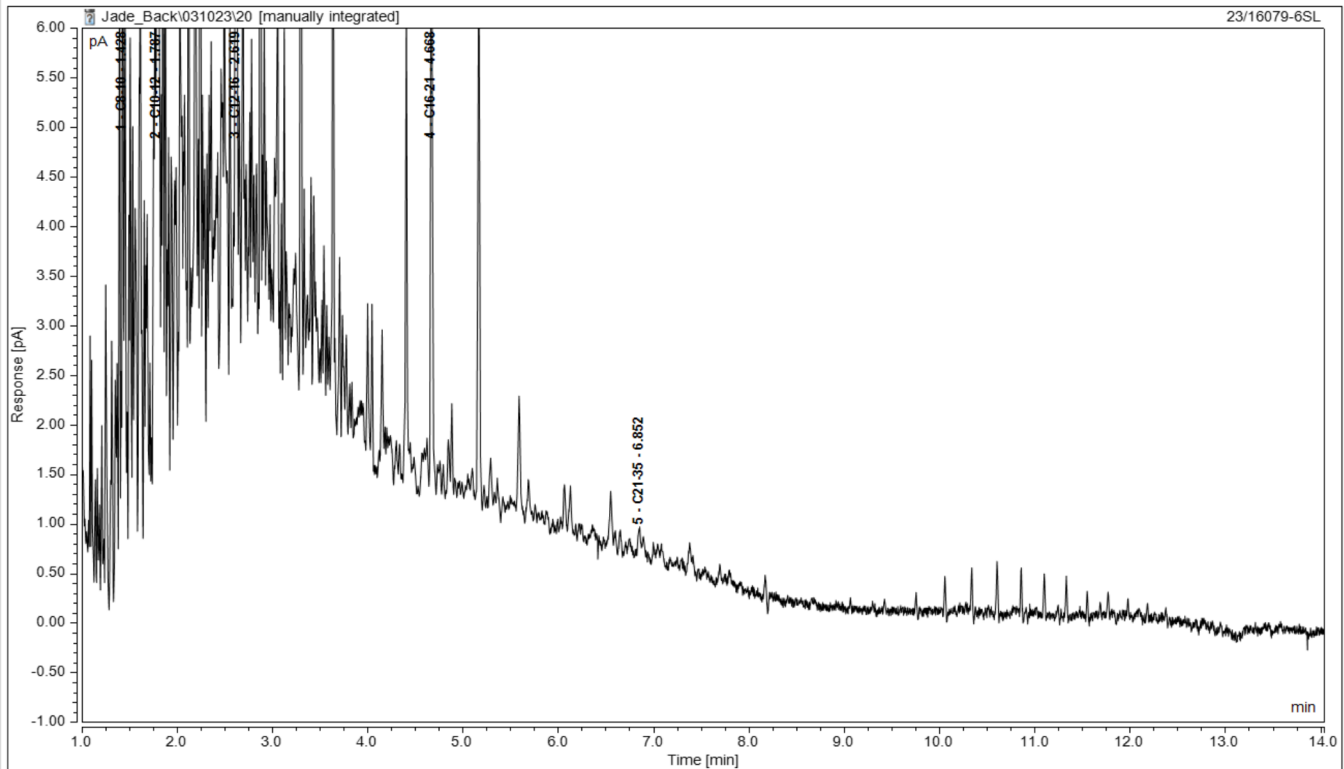
EMT Job No.: 23/16079
 EMT Sample No.: 2
 Sample Identity: 70857/1
 Depth:
 Matrix: Solid



Kiwa CMT

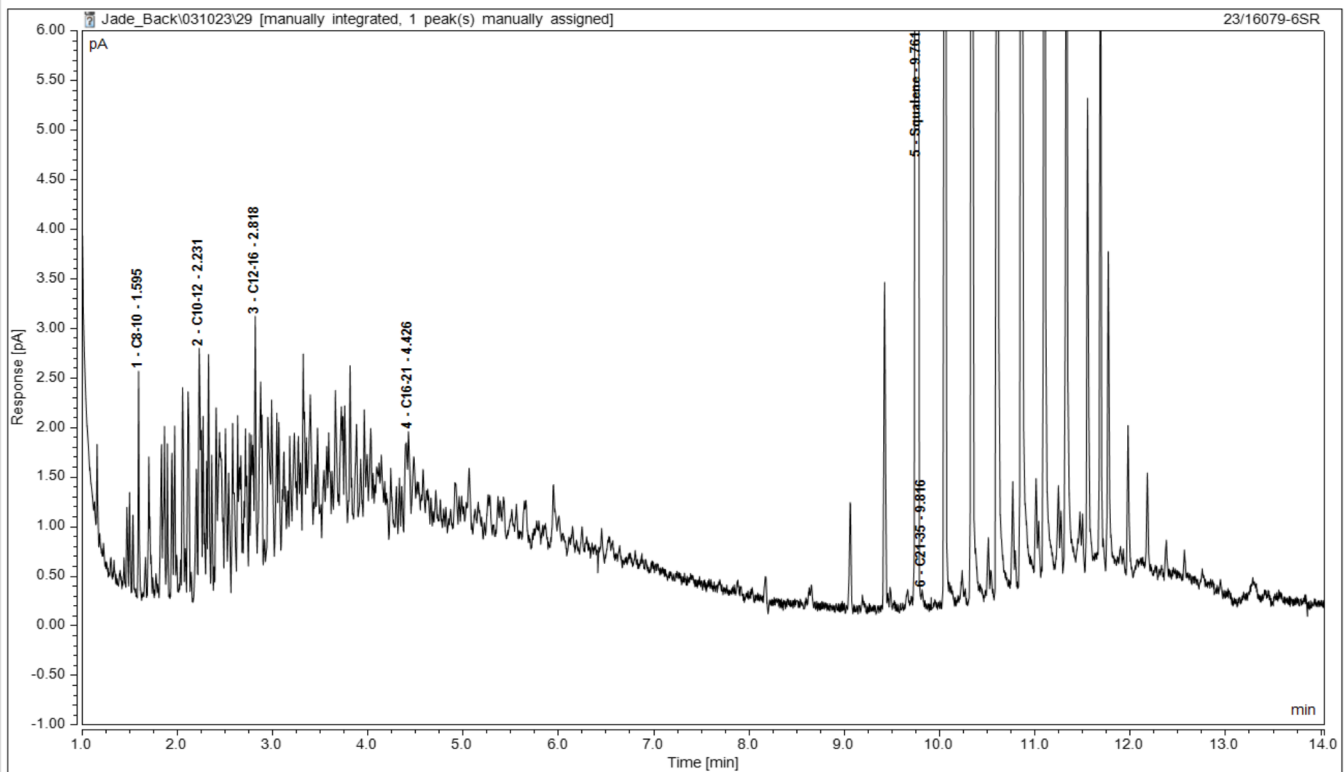
Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell

EMT Job No.: 23/16079
EMT Sample No.: 6
Sample Identity: 70857/2
Depth:
Matrix: Solid



Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell

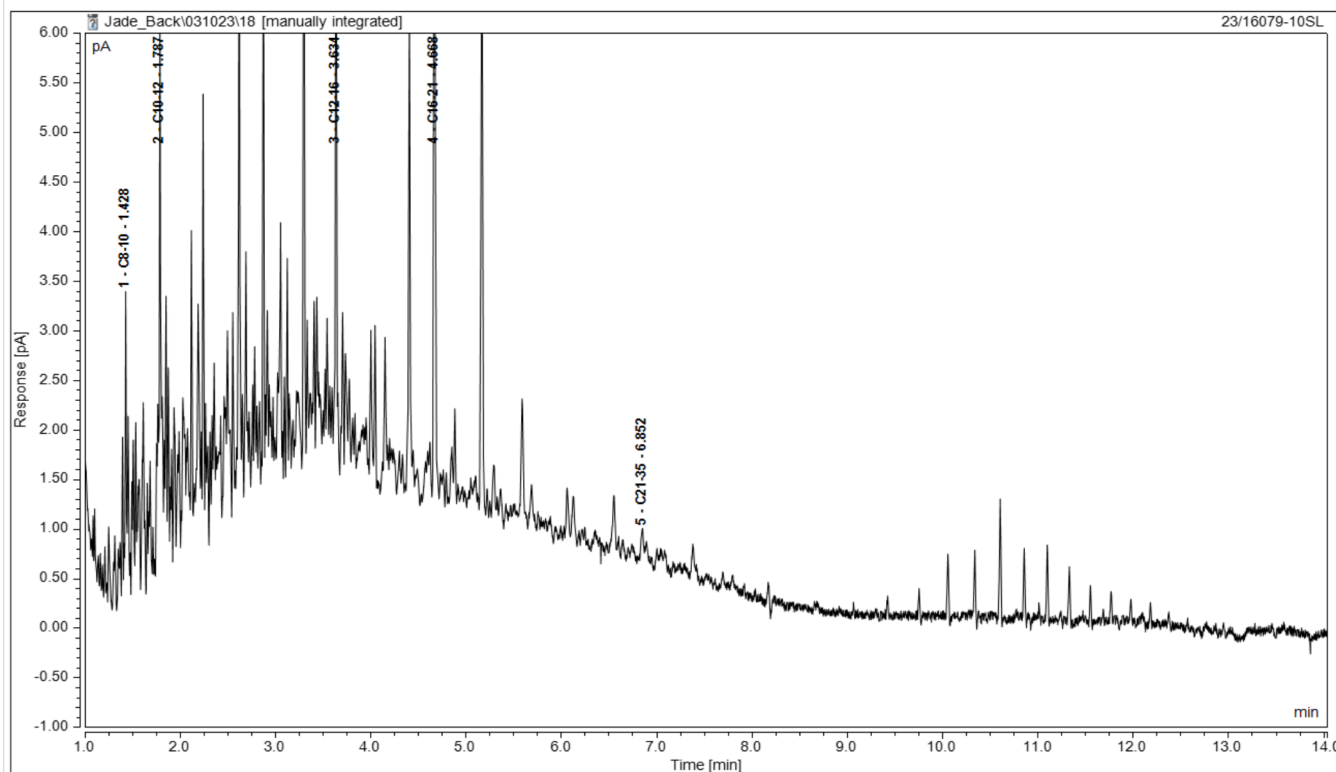
EMT Job No.: 23/16079
EMT Sample No.: 6
Sample Identity: 70857/2
Depth:
Matrix: Solid



Kiwa CMT

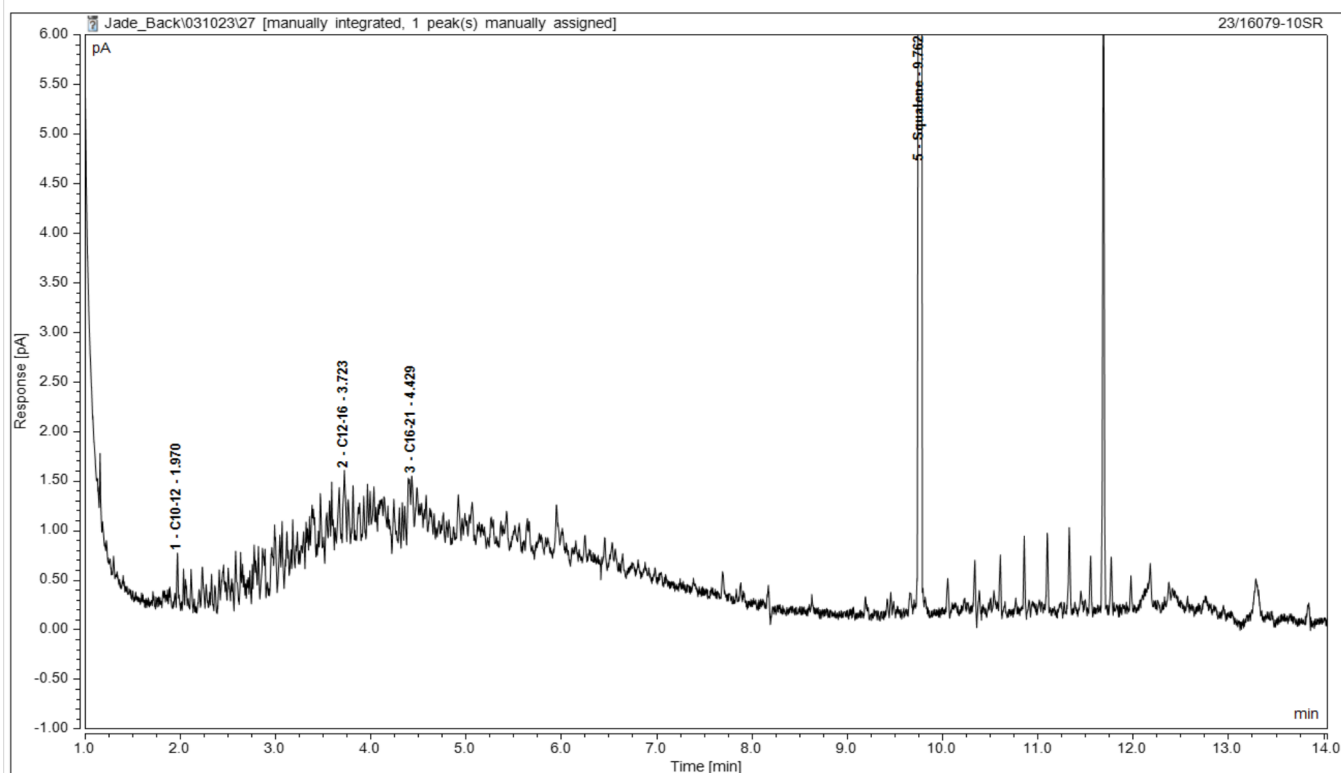
Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell

EMT Job No.: 23/16079
EMT Sample No.: 10
Sample Identity: 70857/3
Depth:
Matrix: Solid



Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell

EMT Job No.: 23/16079
EMT Sample No.: 10
Sample Identity: 70857/3
Depth:
Matrix: Solid



Kiwa CMT

Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/16079	1	70857/1		4	Matthew Turner	29/09/2023	General Description (Bulk Analysis)	Brown soil/Stone
					Matthew Turner	29/09/2023	Asbestos Fibres	Fibre Bundles
					Matthew Turner	29/09/2023	Asbestos ACM	NAD
					Remigiusz Blichowski	29/09/2023	Asbestos Type	Chrysotile
23/16079	1	70857/2		8	Matthew Turner	29/09/2023	General Description (Bulk Analysis)	Brown soil/Stone
					Matthew Turner	29/09/2023	Asbestos Fibres	Fibre Bundles
					Matthew Turner	29/09/2023	Asbestos ACM	NAD
					Remigiusz Blichowski	29/09/2023	Asbestos Type	Chrysotile
23/16079	1	70857/3		12	Matthew Turner	29/09/2023	General Description (Bulk Analysis)	Brown soil/Stone
					Matthew Turner	29/09/2023	Asbestos Fibres	Fibre Bundles
					Matthew Turner	29/09/2023	Asbestos ACM	NAD
					Remigiusz Blichowski	29/09/2023	Asbestos Type	Chrysotile

Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

[illegible]

Client Name: Kiwa CMT
Reference: 70857
Location: Barwell Medical Centre
Contact: Alex Fell

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating. Only analyses which are accredited are recorded as deviating if set criteria are not met.

It is a requirement under ISO 17025 that we inform clients if samples are deviating i.e. outside what is expected. A deviating sample indicates that the sample 'may' be compromised but not necessarily will be compromised. The result is still accredited and our analytical reports will still show accreditation on the relevant analytes.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/16079

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Laboratory records are kept for a period of no less than 6 years.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/16079

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GC/FID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GC/FID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM17	Modified US EPA method 8270D v5:2014. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3:1990/USEPA 160.1/3 (TDS/TS: 1971) Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO ₂ generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.			AD	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO ₂ generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM22	Modified BS1377-3:1990 Gravimetric determination of Loss on Ignition by temperature controlled Muffle Furnace (35C-440C). On request modified ASTM D2974-00 LOI (105C-440C)	PM0	No preparation is required.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.	Yes		AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec.1996; Modified BS EN ISO 11885:2009; SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec.1996; Modified BS EN ISO 11885:2009; SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), α-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), α-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes

EMT Job No: 23/16079

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SM5010B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM32	Hot water soluble boron is extracted from dried and ground samples using a 20:1 ratio.	Yes		AD	Yes
TM77	Modified DDCEN/TS method 15364:2006. Determination of Acid Neutralization Capacity by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	No
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.	Yes		AR	Yes
TM170	Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma – Mass Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method 6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified	Yes		AR	Yes
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 9214 - 340.2 (EPA 1998)	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.			AR	

Appendix 4

Waste Assessment Outputs



Waste Classification Report

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

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



95083-PQ3TS-SETYH

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

Job name

70857

Description/Comments

General Characterisation of Soil

Project

CSJ Construction Ltd.

Site

Barwell Medical Centre

Classified by

Name:

Alex Fell

Date:

05 Oct 2023 15:34 GMT

Telephone:

01332 383333

Company:

Kiwa CMT**Unit 5 Prime Park Way****Derby****DE1 3QB**

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

HazWasteOnline™ Certification:**CERTIFIED****Course**

Hazardous Waste Classification

Date

03 Dec 2020

Next 3 year Refresher due by Dec 2023

Purpose of classification

7 - Disposal of Waste

Address of the waste

Barwell Medical Centre, High Street, Leicester

Post Code **LE9 8DS**

SIC for the process giving rise to the waste

42990 Construction of other civil engineering projects n.e.c.

Description of industry/producer giving rise to the waste

Construction contractor.

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

Waste created in the excavation of soil.

Description of the waste

See main report.



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	70857/1-28/09/2023		Hazardous	HP 7, HP 11	3
2	70857/2-28/09/2023		Hazardous	HP 7, HP 11	6
3	70857/3-28/09/2023		Non Hazardous		9

Related documents

#	Name	Description
1	EMT-23-16079-Batch-1-Sched-A-202310051607.HWOL	Element .hwol file used to populate the Job
2	Contamination Suite	waste stream template used to create this Job

Report

Created by: Alex Fell

Created date: 05 Oct 2023 15:34 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	12
Appendix B: Rationale for selection of metal species	14
Appendix C: Version	15

Classification of sample: 70857/1-28/09/2023

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

Sample details

Sample name:	LoW Code:
70857/1-28/09/2023	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
17.7%	Entry:
(dry weight correction)	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.: 0.203%)

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.: 0.203%)

Determinands

Moisture content: 17.7% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				7.44 pH		7.44 pH	7.44 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
	006-007-00-5									
3	phenol				0.04 mg/kg		0.034 mg/kg	0.0000034 %	✓	
	604-001-00-2	203-632-7	108-95-2							
4	antimony { antimony trioxide }				2 mg/kg	1.197	2.034 mg/kg	0.000203 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
5	arsenic { arsenic trioxide }				5.1 mg/kg	1.32	5.721 mg/kg	0.000572 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
6	cadmium { cadmium oxide }				0.3 mg/kg	1.142	0.291 mg/kg	0.0000291 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
7	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				75.8 mg/kg	1.462	94.126 mg/kg	0.00941 %	✓	
		215-160-9	1308-38-9							
8	copper { copper(II) oxide }				34 mg/kg	1.252	36.16 mg/kg	0.00362 %	✓	
	029-016-00-6	215-269-1	1317-38-0							

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	37	mg/kg		31.436	mg/kg	0.00314 %	✓	
	082-001-00-6											
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	080-002-00-6											
11	nickel { nickel(II) carbonate }				12.8	mg/kg	2.022	21.994	mg/kg	0.0022 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]									
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8											
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				25	mg/kg	1.785	37.918	mg/kg	0.00379 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
14	boron { diboron trioxide; boric oxide }				1.2	mg/kg	3.22	3.283	mg/kg	0.000328 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
15	zinc { zinc oxide }				77	mg/kg	1.245	81.43	mg/kg	0.00814 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
16	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
17	TPH (C6 to C40) petroleum group				2392	mg/kg		2032.285	mg/kg	0.203 %	✓	
			TPH									
18	naphthalene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
19	acenaphthylene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8									
20	acenaphthene				0.07	mg/kg		0.0595	mg/kg	0.00000595 %	✓	
		201-469-6	83-32-9									
21	fluorene				0.21	mg/kg		0.178	mg/kg	0.0000178 %	✓	
		201-695-5	86-73-7									
22	phenanthrene				0.52	mg/kg		0.442	mg/kg	0.0000442 %	✓	
		201-581-5	85-01-8									
23	anthracene				0.05	mg/kg		0.0425	mg/kg	0.00000425 %	✓	
		204-371-1	120-12-7									
24	fluoranthene				0.27	mg/kg		0.229	mg/kg	0.0000229 %	✓	
		205-912-4	206-44-0									
25	pyrene				0.29	mg/kg		0.246	mg/kg	0.0000246 %	✓	
		204-927-3	129-00-0									
26	benzo[a]anthracene				0.13	mg/kg		0.11	mg/kg	0.000011 %	✓	
	601-033-00-9	200-280-6	56-55-3									
27	chrysene				0.13	mg/kg		0.11	mg/kg	0.000011 %	✓	
	601-048-00-0	205-923-4	218-01-9									
28	benzo[bk]fluoranthene				0.21	mg/kg		0.178	mg/kg	0.0000178 %	✓	
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
29	benzo[a]pyrene; benzo[def]chrysene				0.12	mg/kg		0.102	mg/kg	0.0000102 %	✓	
	601-032-00-3	200-028-5	50-32-8									
30	indeno[123-cd]pyrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5									
31	dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3									
32	benzo[ghi]perylene				0.06	mg/kg		0.051	mg/kg	0.0000051 %	✓	
		205-883-8	191-24-2									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
33		asbestos				100 mg/kg		84.962 mg/kg	0.0085 %	✓	
	650-013-00-6	-----	12001-28-4								
			132207-32-0								
			12172-73-5								
			77536-66-4								
			77536-68-6								
34		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
35		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
36		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
37	●	ethylbenzene				0.061 mg/kg		0.0518 mg/kg	0.00000518 %	✓	
	601-023-00-4	202-849-4	100-41-4								
38	●	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3								
39	●	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1								
40		xylene				0.217 mg/kg		0.184 mg/kg	0.0000184 %	✓	
	601-022-00-9	202-422-2 [1]	95-47-6 [1]								
		203-396-5 [2]	106-42-3 [2]								
		203-576-3 [3]	108-38-3 [3]								
		215-535-7 [4]	1330-20-7 [4]								
Total:									0.244 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<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 It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinand:

ethylbenzene: (conc.: 5.18e-06%)

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

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.203%)

xylene: (conc.: 0.00001%)

Classification of sample: 70857/2-28/09/2023

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

Sample details

Sample name:	LoW Code:
70857/2-28/09/2023	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
16.1%	Entry:
(dry weight correction)	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.: 0.11%)

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.: 0.11%)

Determinands

Moisture content: 16.1% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	pH				7.92	pH		7.92	pH	7.92 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
	006-007-00-5											
3	phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	604-001-00-2	203-632-7	108-95-2									
4	antimony { antimony trioxide }				2	mg/kg	1.197	2.062	mg/kg	0.000206 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
5	arsenic { arsenic trioxide }				5.6	mg/kg	1.32	6.368	mg/kg	0.000637 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
6	cadmium { cadmium oxide }				<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0									
7	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				89.9	mg/kg	1.462	113.173	mg/kg	0.0113 %	✓	
		215-160-9	1308-38-9									
8	copper { copper(II) oxide }				37	mg/kg	1.252	39.893	mg/kg	0.00399 %	✓	
	029-016-00-6	215-269-1	1317-38-0									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	28 mg/kg		24.117 mg/kg		0.00241 %	✓	
	082-001-00-6										
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.1 mg/kg		<0.1 mg/kg		<0.00001 %		<LOD
	080-002-00-6										
11	nickel { nickel(II) carbonate }				16.6 mg/kg	2.022	28.917 mg/kg		0.00289 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg		<0.000141 %		<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				28 mg/kg	1.785	43.054 mg/kg		0.00431 %	✓	
	023-001-00-8	215-239-8	1314-62-1								
14	boron { diboron trioxide; boric oxide }				2.2 mg/kg	3.22	6.101 mg/kg		0.00061 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
15	zinc { zinc oxide }				77 mg/kg	1.245	82.552 mg/kg		0.00826 %	✓	
	030-013-00-7	215-222-5	1314-13-2								
16	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg		<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
17	TPH (C6 to C40) petroleum group				1281 mg/kg		1103.359 mg/kg		0.11 %	✓	
			TPH								
18	naphthalene				0.08 mg/kg		0.0689 mg/kg		0.00000689 %	✓	
	601-052-00-2	202-049-5	91-20-3								
19	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg		<0.000003 %		<LOD
		205-917-1	208-96-8								
20	acenaphthene				<0.05 mg/kg		<0.05 mg/kg		<0.000005 %		<LOD
		201-469-6	83-32-9								
21	fluorene				0.06 mg/kg		0.0517 mg/kg		0.00000517 %	✓	
		201-695-5	86-73-7								
22	phenanthrene				0.08 mg/kg		0.0689 mg/kg		0.00000689 %	✓	
		201-581-5	85-01-8								
23	anthracene				<0.04 mg/kg		<0.04 mg/kg		<0.000004 %		<LOD
		204-371-1	120-12-7								
24	fluoranthene				0.1 mg/kg		0.0861 mg/kg		0.00000861 %	✓	
		205-912-4	206-44-0								
25	pyrene				0.14 mg/kg		0.121 mg/kg		0.0000121 %	✓	
		204-927-3	129-00-0								
26	benzo[a]anthracene				0.08 mg/kg		0.0689 mg/kg		0.00000689 %	✓	
	601-033-00-9	200-280-6	56-55-3								
27	chrysene				0.07 mg/kg		0.0603 mg/kg		0.00000603 %	✓	
	601-048-00-0	205-923-4	218-01-9								
28	benzo[bk]fluoranthene				0.16 mg/kg		0.138 mg/kg		0.0000138 %	✓	
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
29	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg		<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8								
30	indeno[123-cd]pyrene				0.07 mg/kg		0.0603 mg/kg		0.00000603 %	✓	
		205-893-2	193-39-5								
31	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg		<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3								
32	benzo[ghi]perylene				0.07 mg/kg		0.0603 mg/kg		0.00000603 %	✓	
		205-883-8	191-24-2								

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
33		asbestos				<100 mg/kg		<100 mg/kg	<0.01 %		<LOD
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5								
34		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				0.01 mg/kg		0.0086 mg/kg	0.000000861 %	✓	
	603-181-00-X	216-653-1	1634-04-4								
35		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
36		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
37	●	ethylbenzene				0.548 mg/kg		0.472 mg/kg	0.0000472 %	✓	
	601-023-00-4	202-849-4	100-41-4								
38	●	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3								
39	●	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1								
40		xylene				3.492 mg/kg		3.008 mg/kg	0.000301 %	✓	
	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:									0.156 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinands:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 8.61e-07%)

ethylbenzene: (conc.: 0.00004%)

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

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.11%)

xylene: (conc.: 0.0003%)

Classification of sample: 70857/3-28/09/2023

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

Sample details

Sample name:	LoW Code:
70857/3-28/09/2023	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
28.6%	Entry:
(dry weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 28.6% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	pH				7.99	pH		7.99	pH	7.99 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
	006-007-00-5											
3	phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	604-001-00-2	203-632-7	108-95-2									
4	antimony { antimony trioxide }				2	mg/kg	1.197	1.862	mg/kg	0.000186 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
5	arsenic { arsenic trioxide }				5.8	mg/kg	1.32	5.955	mg/kg	0.000595 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
6	cadmium { cadmium oxide }				0.2	mg/kg	1.142	0.178	mg/kg	0.0000178 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
7	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				77.8	mg/kg	1.462	88.421	mg/kg	0.00884 %	✓	
		215-160-9	1308-38-9									
8	copper { copper(II) oxide }				24	mg/kg	1.252	23.361	mg/kg	0.00234 %	✓	
	029-016-00-6	215-269-1	1317-38-0									
9	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	22	mg/kg		17.107	mg/kg	0.00171 %	✓	
	082-001-00-6											
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	080-002-00-6											
11	nickel { nickel(II) carbonate }				24	mg/kg	2.022	37.743	mg/kg	0.00377 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]									
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8											



#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
13	 vanadium {  divanadium pentaoxide; vanadium pentoxide }				30	mg/kg	1.785	41.645	mg/kg	0.00416 %	✓		
	023-001-00-8	215-239-8	1314-62-1										
14	 boron { diboron trioxide; boric oxide }				2.1	mg/kg	3.22	5.258	mg/kg	0.000526 %	✓		
	005-008-00-8	215-125-8	1303-86-2										
15	 zinc { zinc oxide }				78	mg/kg	1.245	75.496	mg/kg	0.00755 %	✓		
	030-013-00-7	215-222-5	1314-13-2										
16	 chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD	
	024-001-00-0	215-607-8	1333-82-0										
17	 TPH (C6 to C40) petroleum group		TPH		1001	mg/kg		778.383	mg/kg	0.0778 %	✓		
18	naphthalene				0.08	mg/kg		0.0622	mg/kg	0.00000622 %	✓		
	601-052-00-2	202-049-5	91-20-3										
19	 acenaphthylene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD	
		205-917-1	208-96-8										
20	 acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD	
		201-469-6	83-32-9										
21	 fluorene				0.13	mg/kg		0.101	mg/kg	0.0000101 %	✓		
		201-695-5	86-73-7										
22	 phenanthrene				0.28	mg/kg		0.218	mg/kg	0.0000218 %	✓		
		201-581-5	85-01-8										
23	 anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD	
		204-371-1	120-12-7										
24	 fluoranthene				0.14	mg/kg		0.109	mg/kg	0.0000109 %	✓		
		205-912-4	206-44-0										
25	 pyrene				0.17	mg/kg		0.132	mg/kg	0.0000132 %	✓		
		204-927-3	129-00-0										
26	benzo[a]anthracene				0.09	mg/kg		0.07	mg/kg	0.000007 %	✓		
	601-033-00-9	200-280-6	56-55-3										
27	chrysene				0.08	mg/kg		0.0622	mg/kg	0.00000622 %	✓		
	601-048-00-0	205-923-4	218-01-9										
28	 benzo[bk]fluoranthene				0.14	mg/kg		0.109	mg/kg	0.0000109 %	✓		
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9										
29	benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD	
	601-032-00-3	200-028-5	50-32-8										
30	 indeno[123-cd]pyrene				0.05	mg/kg		0.0389	mg/kg	0.00000389 %	✓		
		205-893-2	193-39-5										
31	dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD	
	601-041-00-2	200-181-8	53-70-3										
32	 benzo[ghi]perylene				0.06	mg/kg		0.0467	mg/kg	0.00000467 %	✓		
		205-883-8	191-24-2										
33	asbestos				100	mg/kg		77.76	mg/kg	0.00778 %	✓		
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5										
34	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
	603-181-00-X	216-653-1	1634-04-4										
35	benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
	601-020-00-8	200-753-7	71-43-2										
36	toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
	601-021-00-3	203-625-9	108-88-3										
37	 ethylbenzene				0.103	mg/kg		0.0801	mg/kg	0.00000801 %	✓		
	601-023-00-4	202-849-4	100-41-4										

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
38	●	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
		602-039-00-4	215-648-1	1336-36-3							
39	●	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
			205-881-7	191-07-1							
40		xylene				0.612 mg/kg		0.476 mg/kg	0.0000476 %	✓	
		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: 0.116 %											

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because It is highly unlikely that soils (generally a refractory matrix) will be classified as flammable at concentrations of 1.00% or less. (AGS, 2019). This property is thus disregarded as potentially flammable.

Hazard Statements hit:

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

Because of determinand:

ethylbenzene: (conc.: 8.01e-06%)

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

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.0778%)

xylene: (conc.: 0.00004%)

Appendix A: Classifier defined and non GB MCL determinands

• pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

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

GB MCL index number: 006-007-00-5

Description/Comments: Conversion factor based on a worst case compound: sodium cyanide

Additional Hazard Statement(s): EUH032 >= 0.2 %

Reason for additional Hazards Statement(s):

20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

• lead compounds with the exception of those specified elsewhere in this Annex (worst case)

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

Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A

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

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

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

GB MCL index number: 023-001-00-8

Description/Comments: Hazard statements H301, H330, H350 added by HazWasteOnline due to ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be Carc. 1B; H350. The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List]. Substance has therefore been self-classified.

Additional Hazard Statement(s): Carc. 1B; H350 , Acute Tox. 3; H301 , Acute Tox. 2; H330

Reason for additional Hazards Statement(s):

20 Sep 2022 - Carc. 1B; H350 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be Carc. 1B; H350. The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 3; H301 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 3; H301". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 2; H330 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 2; H330". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

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

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

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 21 Aug 2015

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

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

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

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

Data source date: 21 Aug 2015

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

• **benzo[bk]fluoranthene** (EC Number: [1] 205-911-9 [2] 205-916-6, CAS Number: [1] 205-99-2 [2] 207-08-9)

Description/Comments: Combined data from harmonised entries in CLP for benzo[b] and benzo[k]fluoranthene; C&L Inventory Database

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

Data source date: 02 Mar 2017

Hazard Statements: Carc. 1B; H350 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

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

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

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

Data source date: 23 Jul 2015

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

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

GB MCL index number: 601-023-00-4

Description/Comments:

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

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

GB MCL index number: 602-039-00-4

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

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

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

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

• **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.

Data source: <http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>

Data source date: 16 Jun 2014

Hazard Statements: STOT SE 2; H371

Appendix B: Rationale for selection of metal species

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

Worst case species

antimony {antimony trioxide}

Potentially carcinogenic. Most likely to negatively impact human health. If lots of sulfide is present then consider stoichiometric relativity of that, trisulfide is also a 2B carcinogen. Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings.

arsenic {arsenic trioxide}

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

cadmium {cadmium oxide}

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

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

Reasonable case CLP entry based on Hazard Statements.

copper {copper(II) oxide}

Divalent Oxide. Reasonable case CLP entry based on Hazard Statements and low solubility. Oxidised form of Copper most likely to be present. Divalent copper is most likely to be bound to soils and organic matter. Worst case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

There is an insufficient quantity of Chromium VI available to stoichiometrically form Chromate Compounds, as such the next most likely worst-case species has been selected for assessment. The concentration of Chromium VI is noted to be less than the detection limit of the analytical test.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Worst case species based on risk phrases, dichloride too soluble

nickel {nickel(II) carbonate}

Divalent Carbonate. Reasonable case CLP entry based on Hazard Statements and low solubility. Nickel Selenite (if lots of selenium). Nickel Chromate (if lots of Chromium).

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

Worst case species based on risk phrases

vanadium {divanadium pentaoxide; vanadium pentoxide}

Likely species

boron {diboron trioxide; boric oxide}

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

zinc {zinc oxide}

Most likely species of Zinc in soil is as Zinc Oxide or Silicate. Sulfates and Chlorides are very soluble and unlikely to be present. Sulfides are unlikely to be present in this sample. Silicate is not an option. Zinc Oxide is selected as the most likely species.

chromium in chromium(VI) compounds {chromium(VI) oxide}

most likely species

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**

HazWasteOnline Classification Engine Version: 2023.271.5764.10641 (28 Sep 2023)

HazWasteOnline Database: 2023.270.5761.10634 (27 Sep 2023)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

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

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

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

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

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

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

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

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

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

Appendix 5

Photographs



Figure 1: Photograph of Stockpile 1



Figure 2: Photograph of Stockpile 1



Figure 3: Photograph of Stockpile 2



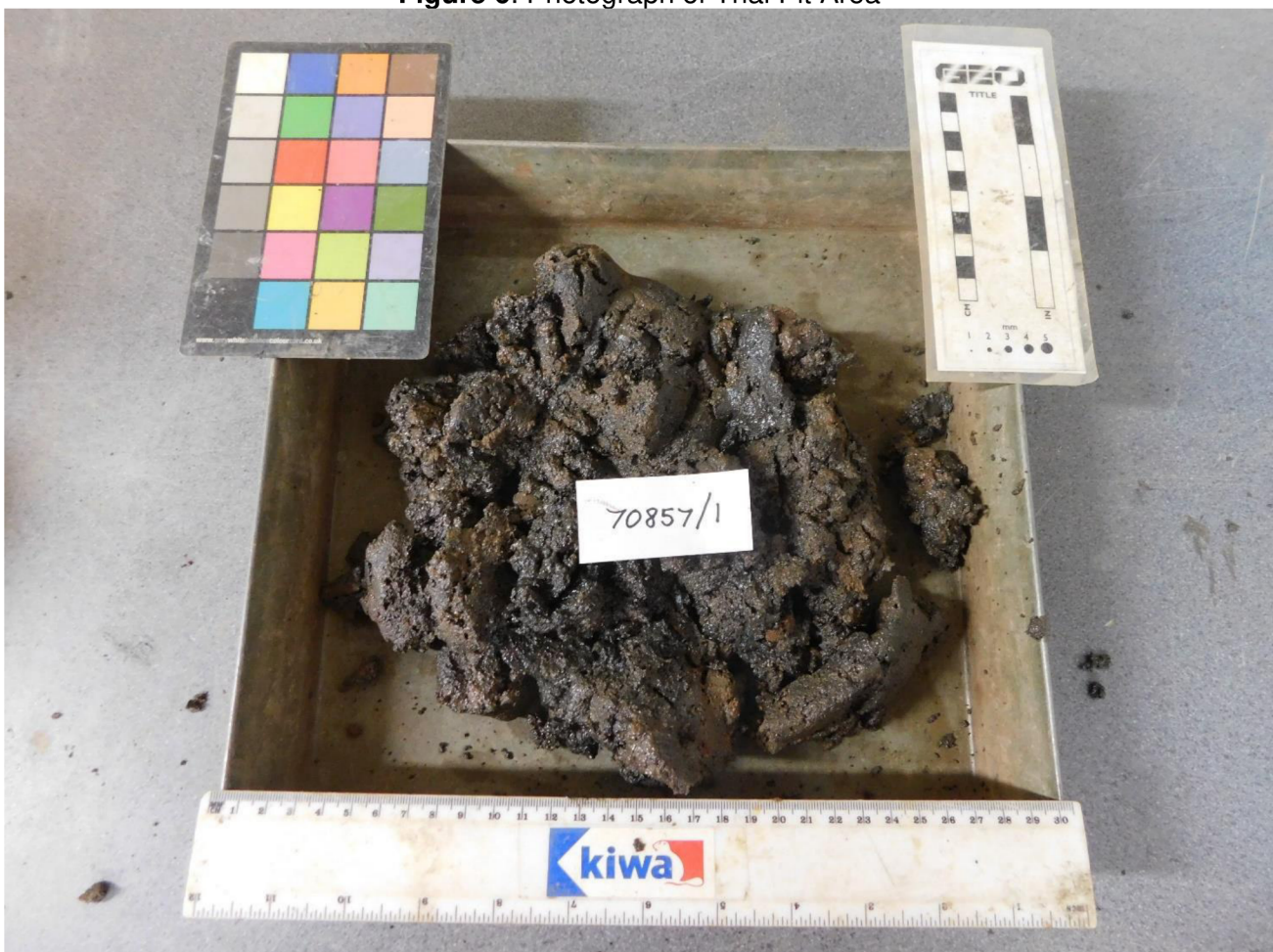
Figure 4: Photograph of Stockpile 2

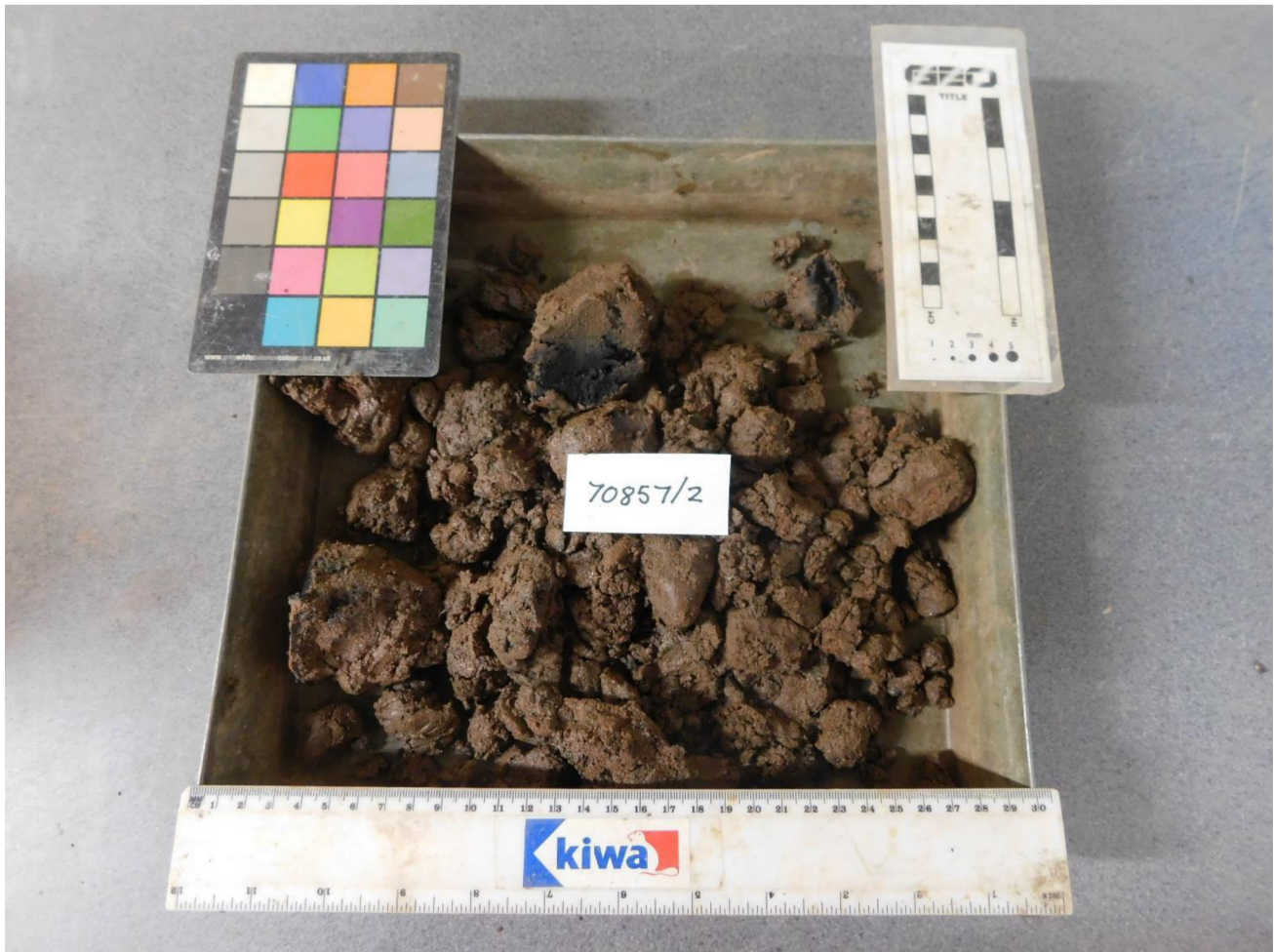
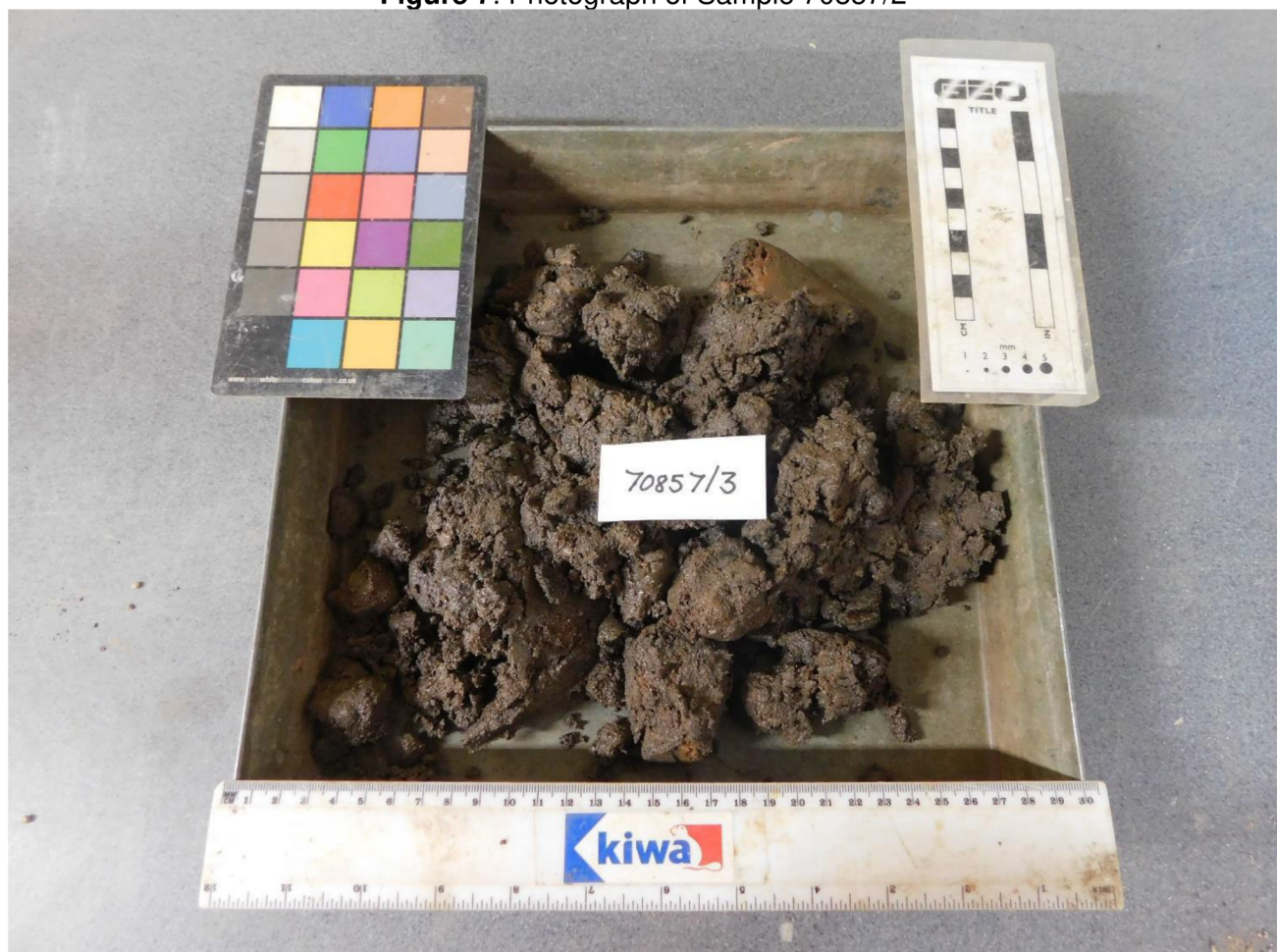


Figure 5: Photograph of Trial Pit Area



Figure 6: Photograph of Trial Pit Area

**Figure 6:** Photograph of Trial Pit Area**Figure 6:** Photograph of Sample 70857/1

**Figure 7:** Photograph of Sample 70857/2**Figure 8:** Photograph of Sample 70857/3

Appendix 6

Logs



Kiwa CMT

None Provided

Appendix 7

General References

Kiwa CMT

Classification, Labelling and Packaging of Substances and Mixtures Regulation (EC 1272/2008)

Environment Agency (2013) Waste Sampling and Testing for Disposal to Landfill

1st ATP – Regulation 790/2009/EC

2nd ATP – Regulation 286/2011/EC

3rd ATP – Regulation 618/2012/EU

4th ATP Regulation 487/2013/EU

Correction to 1st ATP – 758/2013/EU

5th ATP – Regulation 944/2013/EU

6th ATP – Regulation 605/2014/EU

7th ATP – Regulation 2015/1221/EU

8th ATP – Regulation 2016/918/EU

9th ATP – Regulation 2016/1179/EU

10th ATP – Regulation 2017/776/EU

HP14 Amendment Regulation (EU) 2017/997

13th ATP – Regulation (EU) 2018/1480

14th ATP – Regulation (EU) 2020/217

15th ATP – Regulation (EU) 2020/1182

List of Waste Decision 2002/532/EC

PD CEN/TR 15310:2006 Characterisation of Waste – Sampling of Waste Materials

POPs Regulation 2004 – Regulation 850/2004/EC

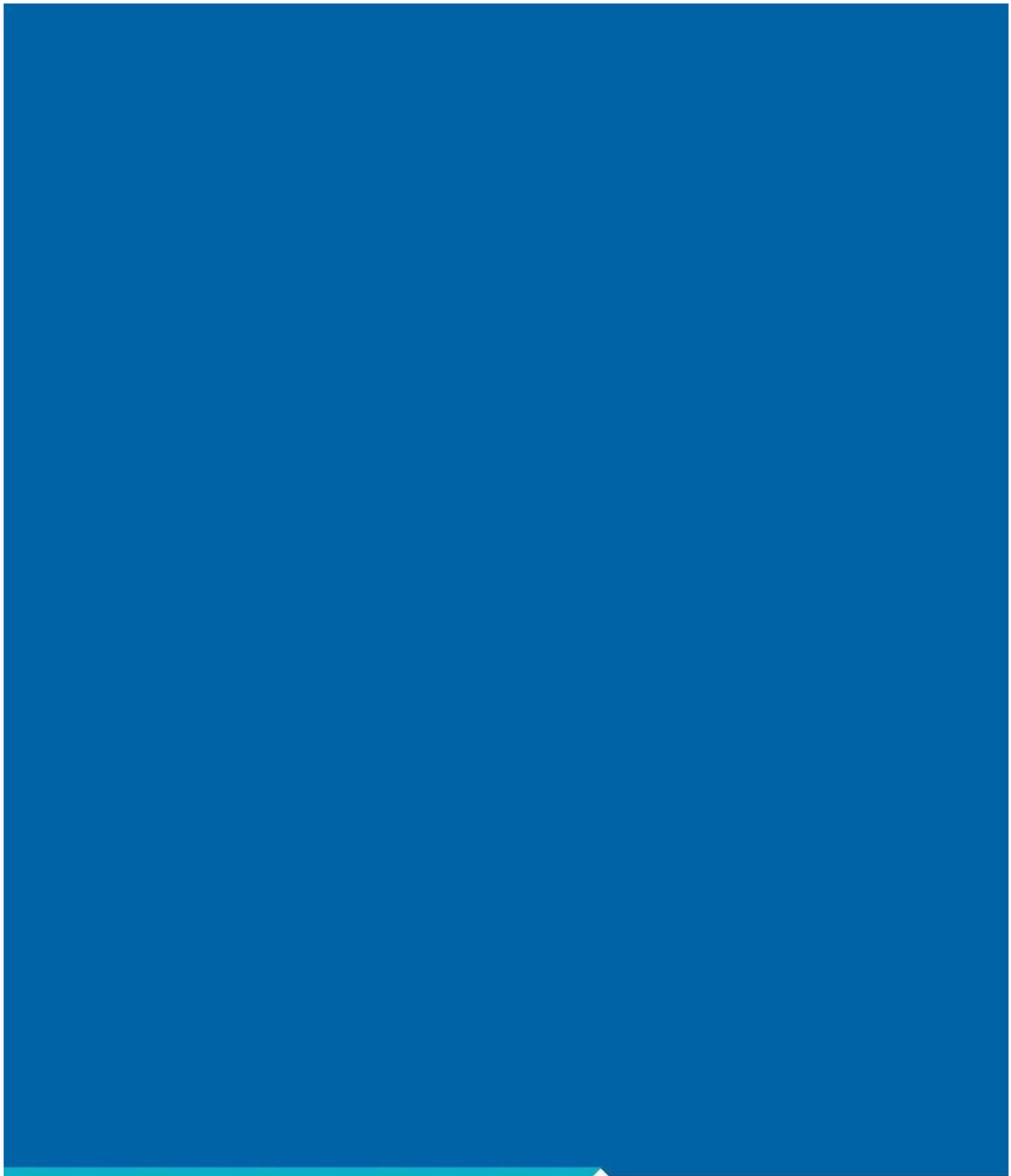
1st ATP to POPs regulation – Regulation 756/2010/EU

2nd ATP to POPs regulation – Regulation 756/2010/EU

Revised List of Wastes 2014 – Decision 2014/955/EU

Waste Framework Directive (WFD) 2008/98/EC

WM3 Environment Agency (2021) Guidance on the classification and assessment of waste (v1.2.GB 2021)



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Unit 5 Prime Park Way
Prime Enterprise Park
Derby DE1 3QB

Tel +44 (0) 1332 383333
Email uk.cmt.enquiries@kiwa.com



www.kiwa.co.uk

Appendix C



Tier 1 Assessment Criteria

Determinand	Commercial/Industrial (mg/kg) - 1% SOM			Source
Arsenic	640.00			LQM S4UL
Boron	240000.00			LQM S4UL
Cadmium	410.00			C4SL
Chromium III	8600.00			LQM S4UL
Chromium VI	33.00			LQM S4UL
Lead	2300.00			C4SL
Mercury, elemental	58.00 ^{vap} (25.80)			LQM S4UL
Mercury, inorganic	1100.00			LQM S4UL
Mercury, methyl	320.00			LQM S4UL
Selenium	12000.00			LQM S4UL
Nickel	980.00			LQM S4UL
Copper	68000.00			LQM S4UL
Vanadium	9000.00			LQM S4UL
Zinc	730000.00			LQM S4UL
Polycyclic Aromatic Hydrocarbons				
	SOM 1%	SOM 2.5%	SOM 6%	
Benzo(a)pyrene	35.00	35.00	36.00	LQM S4UL
Dibenz(ah)anthracene	3.50	3.60	3.60	LQM S4UL
Acenaphthene	84000 (57) ^{sol}	97000 (141) ^{sol}	100000.00	LQM S4UL
Acenaphthylene	83000 (86) ^{sol}	97000 (212) ^{sol}	100000.00	LQM S4UL
Anthracene	520000.00	540000.00	540000.00	LQM S4UL
Benzo(a)anthracene	170.00	170.00	180.00	LQM S4UL
Benzo(b)fluoranthene	44.00	44.00	45.00	LQM S4UL
Benzo(ghi)perylene	3900.00	4000.00	4000.00	LQM S4UL
Benzo(k)fluoranthene	1200.00	1200.00	1200.00	LQM S4UL
Chrysene	350.00	350.00	350.00	LQM S4UL
Fluoranthene	23000.00	23000.00	23000.00	LQM S4UL
Fluorene	63000 (30) ^{sol}	68000.00	71000.00	LQM S4UL
Indeno(123cd)pyrene	500.00	510.00	510.00	LQM S4UL
Phenanthrene	22000.00	22000.00	23000.00	LQM S4UL
Pyrene	54000.00	54000.00	54000.00	LQM S4UL
Naphthalene	190 (76) ^{sol}	460 (183) ^{sol}	1100 (432) ^{sol}	LQM S4UL

Note:

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* Values calculated using CLEA v1.071

^{vap} - S4UL presented exceed the vapour saturation limit, which is presented in brackets.

^{sol} - S4UL presented exceeds the solubility saturation limit, which is presented in brackets.

Tier 1 Assessment Criteria

Determinand	Commercial/Industrial (mg/kg)			Source
	1% SOM	2.5% SOM	6% SOM	
Benzene	27.00	47.00	90.00	LQM S4UL
Ethylbenzene	5700 ^{vap} (518)	13000 ^{vap} (1220)	27000 ^{vap} (2840)	LQM S4UL
Phenol	760.00	1500.00	3200.00	LQM S4UL
Toulene	56000 ^{vap} (869)	110000 ^{vap} (1920)	180000 ^{vap} (4360)	LQM S4UL
Xylene, o-	6600 ^{sol} (478)	15000 ^{sol} (1120)	33000 ^{sol} (2620)	LQM S4UL
Xylene, m-	6200 ^{vap} (625)	14000 ^{vap} (1470)	31000 ^{vap} (3460)	LQM S4UL
Xylene, p-	5900 ^{sol} (576)	14000 ^{sol} (1350)	30000 ^{sol} (3170)	LQM S4UL
Aliphatic C5-C6	3200 (304) ^{sol}	5900 (558) ^{sol}	12000 (1150) ^{sol}	LQM S4UL
Aliphatic C6-C8	7800 (144) ^{sol}	17000 (322) ^{sol}	40000 (736) ^{sol}	LQM S4UL
Aliphatic C8-C10	2000 (78) ^{sol}	4800 (190) ^{vap}	11000 (451) ^{vap}	LQM S4UL
Aliphatic C10-C12	9700 (48) ^{sol}	23000 (118) ^{vap}	47000 (283) ^{vap}	LQM S4UL
Aliphatic C12-C16	59000 (24) ^{sol}	82000 (59) ^{sol}	90000 (142) ^{sol}	LQM S4UL
Aliphatic C16-C35	1600000	1700000	1800000	LQM S4UL
Aliphatic C35-C44	1600000	1700000	1800000	LQM S4UL
Aromatic C5-C7	26000 (1200) ^{sol}	46000 (2260) ^{sol}	86000 (4710) ^{sol}	LQM S4UL
Aromatic C7-C8	56000 (869) ^{vap}	110000 (1920) ^{sol}	180000 (4360) ^{vap}	LQM S4UL
Aromatic C8-C10	3500 (613) ^{vap}	8100 (1500) ^{vap}	17000 (3580) ^{vap}	LQM S4UL
Aromatic C10-C12	16000 (364) ^{sol}	28000 (899) ^{sol}	34000 (2150) ^{sol}	LQM S4UL
Aromatic C12-C16	36000 (169) ^{sol}	37000	38000	LQM S4UL
Aromatic C16-C21	28000	28000	28000	LQM S4UL
Aromatic C21-C35	28000	28000	28000	LQM S4UL
Aromatic C35-C44	28000	28000	28000	LQM S4UL
Combined Aliphatic and Aromatic C44-C70	28000	28000	28000	LQM S4UL

Note:

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^{vap} - S4UL presented exceed the vapour saturation limit, which is presented in brackets.

^{sol} - S4UL presented exceeds the solubility saturation limit, which is presented in brackets.

Appendix D



Certificate of Registration under the Waste (England and Wales) Regulations 2011

Regulation authority

Name	
Address	National Customer Contact Centre 99 Parkway Avenue Sheffield S9 4WF
Telephone number	03708 506506

The Environment Agency certify that the following information is entered in the register which they maintain under regulation 28 of the Waste (England and Wales) Regulations 2011.

Carriers details

Name of registered carrier	MIDLAND ROCK (LEICESTER) LIMITED
Registered as	An upper tier waste carrier, broker and dealer
Registration number	CBDU153127
Address of place of business	MIDLAND ROCK ELMS FARM RELIEF ROAD BROUGHTON ASTLEY LEICESTER LE9 6SN
Telephone number	01455 332 147
Date of registration	19 December 2022
Expiry date of registration (unless revoked)	14 January 2026

Making changes to your registration

Your registration will last 3 years and will need to be renewed after this period. If any of your details change, you must notify us within 28 days of the change.

You can do this by calling the Environment Agency.

Appendix E



Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

NRS Meriden Aggregates Ltd
Cornets End Recycling Facility
Cornets End Lane
Meriden
Solihull
CV7 7LH

Variation application number

EPR/HB3802HF/V003

Permit number

EPR/HB3802HF

Cornets End Recycling Facility

Permit number EPR/HB3802HF

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

This variation is to:

- Add a treatment activity to the waste operation comprising washing of non-hazardous waste;
- Add non-hazardous waste codes to the waste operation;
- Remove the site-specific limits specified in schedule 4 of the permit;
- Add an installation activity for the treatment of hazardous waste by physico-chemical treatment including hand-picking, screening and washing;
- Increase the permitted boundary; and
- Consolidate and update the permit to modern conditions.

The site is located approximately 1.3km south-west of Meriden, Solihull at the National Grid reference SP 22909 81064.. It is situated in a predominantly rural location in an area that was previously used for mineral extraction and processing. The site is bounded to the south and east by agricultural land and by mineral working and processing and other waste management facilities on the other boundaries.

Installation activities

The treatment and storage of hazardous waste is an installation in accordance with schedule 1, sections 5.3 Part A(1)(a)(vi) and 5.6 Part A(1)(a) of the Environmental Permitting (England & Wales) Regulations 2016. Hazardous wastes accepted at the are treated by screening, hand-picking of asbestos and/or by washing. Any hazardous wastes accepted that cannot be treated will be transferred off site. The permitted activities are as follows:

Hazardous waste screening

Wastes will be screened into different size fractions. Each fraction will be tested to determine if the waste is hazardous or non-hazardous. Waste that is hazardous will be further treated by washing and the non-hazardous wastes will be crushed, screened and/or washed to produce aggregate under the waste permit.

Asbestos picking

Hazardous waste containing bonded asbestos will be hand-picked from an enclosed conveyor with water spray to prevent fibre releases. The pieces of removed asbestos will be double bagged and stored in a locked container prior to removal from the site for disposal. The remaining waste will be tested for fibre content and treated as non-hazardous waste where testing indicates fibre content is below the threshold. If the asbestos containing waste has other hazardous properties, the waste will first be treated by hand-picking of asbestos and then further treated by screening and/or washing where asbestos fibres are not present above the threshold. If the content of asbestos fibres is above 0.1% following hand-picking, the waste will be disposed of at a suitable landfill.

Hazardous waste washing

Hazardous waste that does not require screening, the hazardous fractions following screening and wastes with asbestos removed will be washed to separate hazardous fractions. Water used for the washing will be

recirculated following treatment and filtered to remove the fines which are then pressed. The pressed filter cake will be tested and then disposed of at a suitable facility. The washed fractions will be tested and if they are non-hazardous, the wastes will be crushed and screened to produce aggregate.

Waste operation activities

Non-hazardous wastes are accepted for treatment by hand-picking, separation, screening, washing and blending to produce aggregate. Washing takes place in the same plant as that for hazardous waste as a batch process so that hazardous and non-hazardous wastes are not mixed.

All hazardous waste treatment and storage will be carried out on an impermeable surface with a sealed drainage system. The area is enclosed by a kerb. The asbestos picking area will be enclosed and the waste will be sprayed with water to prevent release of fibres.

Non-hazardous waste is treated and stored in the same area with hazardous waste and will be kept separate from the hazardous wastes all through the treatment and storage processes.

Drainage from the northern part of the site where waste is processed will be collected in an interceptor. The drainage water will be transferred to the water treatment plant where it will be treated and re-used in the wash plant. Any excess water in the reservoir will be tankered off-site for disposal. Surface water run-off from the southern part of the site drains to a settlement pond via an oil interceptor and silt trap prior to discharges to an un-named stream.

There are no point source emissions to air. Dust is managed by spraying stockpiles with water in dry conditions to prevent wind-blown dust.

There is a local wildlife site and the River Blythe Site of Special Scientific Interest within 2km of the site.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Original License EAWML 42811 determined	16/12/1998	
Modification notice determined	04/12/2003	Area initiated variation of permit.
Permit determined EPR/BP3996LK	19/01/2009	Variation to increase permitted site boundary. (EPR permit number issued)
Application EPR/HB3008GX/T001 (full transfer of permit EPR/BP3996LK)	Duly made 22/01/2019	Application to transfer the permit in full to N.R.S Waste Management Services Limited.
Transfer determined	07/02/2019	Full transfer of permit complete to N.R.S Waste Management Services Limited.
Transfer determined	06/08/2020	Full transfer of permit complete to NRS Meriden Aggregates Ltd.
Application EPR/HB3802HF/V002 (variation)	Duly made 03/03/2021	Application to vary the permit
Additional information received	13/06/2021	Waste Acceptance Procedure (also containing revised list of waste codes)
Variation determined EPR/HB3802HF/V002	13/08/2021	Notice of variation issued

Status log of the permit		
Description	Date	Comments
Application EPR/HB3802HF/V003 (variation and consolidation)	Duly made 03/08/2022	Application to add installation activity for treatment of hazardous waste, increase the permitted boundary, add non-hazardous waste washing to waste operation and update the permit to modern conditions.
Additional information	10/10/2022	Response to schedule 5 notice regarding treatment activities, wastes, dust and noise management plans and site layout and drainage plans.
Additional information	11/11/2022	Clarification of management procedures for site drainage, wash water and waste types.
Additional information	10/01/2023	Revised Process Flow Diagram
Variation determined and consolidation issued EPR/HB3802HF/V003 (Installation billing ref: LP3904MX; Waste billing ref: EAWML 42811)	10/01/2023	Varied and consolidated permit issued in modern format

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/HB3802HF

Issued to

NRS Meriden Aggregates Ltd ("the operator")

whose registered office is

NRS House Site 7

Meriden Park

Cornets End Lane

Meriden

Solihull

CV7 7LH

company registration number 11911715

to operate regulated facilities at

Cornets End Recycling Facility

Cornets End Lane

Meriden

Solihull

CV7 7LH

to the extent set out in the schedules.

The notice shall take effect from 10/01/2023.

Name	Date
Peter Maksymiw	10/01/2023

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/HB3802HF

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/HB3802HF/V003 authorising,

NRS Meriden Aggregates Ltd ("the operator"),

whose registered office is

NRS House Site 7

Meriden Park

Cornets End Lane

Meriden

Solihull

CV7 7LH

company registration number 11911715

to operate an installation and waste operations at

Cornets End Recycling Facility

Cornets End Lane

Meriden

Solihull

CV7 7LH

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Peter Maksymiw	10/01/2023

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1, AR1 to AR7, the operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 For the following activities referenced in schedule 1, table S1.1, AR1 to AR7, the operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 For the following activities referenced in schedule 1, table S1.1, AR1 to AR7, waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2, table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.2, S2.3, S2.4; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

Hazardous waste storage and treatment

- 2.3.7 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1, table S1.1 and appropriate measures are taken.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1, table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

- 2.5.1 The operations specified in schedule 1, table S1.4 shall not commence until the measures specified in that table have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 table S3.1.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 For the following activities referenced in schedule 1, table S1.1, AR1 to AR7, periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in table S3.1;
 - (b) ambient air monitoring specified in table S3.2; and
 - (c) process monitoring specified in table S3.3.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
 - (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 For the following activities referenced in schedule 1, table S1.1, AR1 to AR7, a report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production/treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4, table S4.1 and using the forms specified in schedule 4, table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR1	S5.3 A1(a)(vi) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving recycling or reclamation of inorganic materials other than metals or metal compounds.	Asbestos removal R5 Recycling/reclamation of other inorganic materials	From receipt of waste through to storage of treated waste. Treatment in a dedicated enclosed and abated picking line. Asbestos removed from the waste shall: • Be double-bagged and stored in a sealed locked container. • not be transferred between different bulk containers, which shall be locked when not being loaded and shall not be stacked. All treatment and storage shall take place on an impermeable surface with a sealed drainage system. Hazardous waste types and quantities as specified in Table S2.2.
AR2	S5.3 A1(a)(vi) Recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving recycling or reclamation of inorganic materials other than metals or metal compounds.	Screening of hazardous waste R5 Recycling/reclamation of other inorganic materials	From receipt of waste, including treated waste from Activity AR1, through to storage of treated waste in different size fractions. Treatment shall take place on an impermeable surface with a sealed drainage system as shown on indicative Site Layout Plan reference 21/001c 003 V2. Waste containing asbestos shall not be screened. Hazardous waste types and quantities as specified in Table S2.3.
AR3	S5.3 A1(a)(vi) Recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving recycling or reclamation of inorganic materials other than metals or metal compounds.	Soil washing of hazardous waste R5 Recycling/reclamation of other inorganic materials	From receipt of waste, including from Activity AR2 through to storage of treated waste, including treatment of water from the wash plant and from the interceptor and return of clean water to the wash plant. Storage of filter cake prior to disposal off-site. All treatment and storage shall take place on an impermeable surface with a sealed drainage system.

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
			Hazardous waste types and quantities as specified in Table S2.3.
AR4	S5.6 A1(a) Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes.	R13 Storage of waste pending any of the operations R1 to R12	From receipt of waste through to submission for treatment. All storage shall take place on an impermeable surface with a sealed drainage system as shown on indicative Site Layout Plan reference 21/001c 003 V2. Asbestos shall be stored in a locked container. Hazardous waste shall not be stored for more than 6 months. Hazardous waste types and quantities as specified in Tables S2.2 and S2.3. The combined total of non-hazardous waste and hazardous waste stored shall not exceed 80,000 tonnes.
Directly Associated Activity			
AR5		Surface water management	From collection and storage of site run-off from the northern area of the site in an interceptor, to treatment in the water treatment plant for use in the wash plant (activity AR3) and/or removal from the site. From collection of uncontaminated site run-off from the southern area to storage in the settlement pond via an oil interceptor and silt trap, to discharge to the stream at emission point 1 as shown on indicative Site Layout Plan reference 21/001c 003 V2. Drainage infrastructure is as shown on indicative Drainage Plan Drawing number 21/001f 001.
AR6	-	Storage of raw materials including fuel	From the receipt of raw materials and fuel through to their use within the facility.
AR7	-	Storage of hazardous waste prior to disposal off-site. D15 Storage of waste pending any of the operations D1 to D14	Storage of treated waste. No more than 10 m³ of asbestos shall be stored at any one time.

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
Activity reference	Description of activities for waste operations		Limits of activities
AR8	R5: Recycling/reclamation of other inorganic compounds R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)		Physical treatment including hand-picking, screening, crushing and blending for the purpose of recovery. Treatment of non-hazardous waste in a soil washing plant. Non-hazardous waste types as specified in Table S2.4. The combined total of non-hazardous waste and hazardous waste stored shall not exceed 80,000 tonnes.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/HB3802HF/V003	- Response to question 3a of the Part C3 application form. - Hazardous Waste Treatment Permit Boundary Plan, reference 21/011 004.	27/07/2022
	- BAT Assessment Report for Hazardous Waste Treatment Operations. - Waste Pre-acceptance Procedure. - Waste Rejection Procedure. - Waste Storage and Handling Procedure.	01/08/2022
Response to schedule 5 notice dated 08/09/2022	- Indicative Site Layout Plan, reference 21/011c 003 V2. - Indicative Drainage Plan, drawing number 21/001f 001. - Hazardous Waste Acceptance Procedure. - Noise Management Plan.	10/10/2022
Response to request for information dated 27/10/2022	- Technical summary, excluding paragraph 5.17. - Water Treatment Process Flow Diagram.	11/11/2022
Additional information	Hazardous Waste Treatment Process Flow.	10/01/2023

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The operator shall submit in writing to the Environment Agency for approval a report that shall include, but not be limited to, the following: - The results of testing of the surface water drainage from the northern area of the site from a minimum of three samples taken on at least three separate occasions to determine if the water is hazardous. - Proposals to prevent the mixing of hazardous surface water drainage with non-hazardous wash water in the water treatment plant, where the site drainage is determined to be hazardous,	30/09/2023

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
	including alternative arrangements for the treatment or removal of surface water drainage. Where the site drainage is determined to be hazardous, it shall not be mixed with the non-hazardous wash water in the water treatment plant and alternative arrangements for managing surface drainage shall be submitted.	

Table S1.4 Pre-operational measures for future development

Reference	Operation	Pre-operational measures
PO1	Commencement of activities AR1 to AR6 as detailed in table S1.1	The operator shall submit plans showing the final layout of the site infrastructure and drainage (as-built plans) to replace Indicative Site Layout Plan, reference 21/011c 003 V2 and Indicative Drainage Plan, drawing number 21/001f 001.
PO2	Commencement of activity AR1 as detailed in table S1.1	The operator shall submit a revised Dust Management Plan in writing to the Environment Agency for approval that includes proposals for the monitoring of asbestos fibres in air at the site boundary. The Plan shall be updated to include: • A drawing showing the location of the proposed monitoring points which shall be up and down wind of the treatment area; and • A monitoring methodology to the standards and frequency specified in schedule 3, table S3.2.
PO3	Acceptance of utility waste from emergency repairs following withdrawal of RPS 211	The operator shall submit proposals in writing to the Environment Agency for approval for the handling and storage of utility waste that is assumed to be hazardous which is generated as a result of emergency repairs work by the utility companies. The proposals shall include: • Details of the storage of the waste so that it is isolated from other wastes accepted at the site, including the location of the area for isolated quarantine; • The maximum storage capacity and the maximum time the waste will be stored in the isolated quarantine; • Details of the sampling to be carried out to determine if the assumed hazardous waste is hazardous or non-hazardous.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
-	-

Table S2.2 Permitted waste types and quantities for Activity AR1 – Asbestos removal	
Maximum quantity	Total quantity of waste accepted per year under activities AR1 to AR4 and AR8, shall be no more than 300,000 tonnes per year, of which waste accepted under activity AR1 shall not exceed 30,000 tonnes per year.
Exclusions	Wastes having any of the following characteristics shall not be accepted: Asbestos in unbound fibrous form (fibres must be <0.1% w/w)
Waste code	Description
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 06	insulation materials and asbestos-containing construction materials
17 06 01*	insulation materials containing asbestos – pieces/bonded asbestos only
17 06 05*	construction materials containing asbestos – pieces/bonded asbestos only

Table S2.3 Permitted waste types and quantities for Activities AR2, AR3 and AR4 – screening, washing and storage	
Maximum quantity	Total quantity of waste accepted under activities AR1 to AR4 and AR8, shall be no more than 300,000 tonnes per year
Exclusions	HP1 Explosive Waste HP9 Infectious Waste HP12 Waste which will release acute toxic gas HP15 Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste.
Waste code	Description
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals
01 05	drilling muds and other drilling wastes
01 05 06*	drilling muds and other drilling wastes containing hazardous substances
10	Wastes from thermal processes
10 09	wastes from casting of ferrous pieces
10 09 05*	casting cores and moulds which have not undergone pouring containing hazardous substances
10 09 07*	casting cores and moulds which have undergone pouring containing hazardous substances

Table S2.3 Permitted waste types and quantities for Activities AR2, AR3 and AR4 – screening, washing and storage

Maximum quantity	Total quantity of waste accepted under activities AR1 to AR4 and AR8, shall be no more than 300,000 tonnes per year
Exclusions	HP1 Explosive Waste HP9 Infectious Waste HP12 Waste which will release acute toxic gas HP15 Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste.
Waste code	Description
10 09 11*	other particulates containing hazardous substances
10 09 13*	waste binders containing hazardous substances
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 12*	solid wastes from gas treatment containing hazardous substances
13	Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)
13 05	oil/water separator contents
13 05 01*	solids from grit chambers and oil/water separators
13 05 08*	mixtures of wastes from grit chambers and oil/water separators
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 01	concrete, bricks, tiles and ceramics
17 01 06*	mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing hazardous substances
17 03	bituminous mixtures, coal tar and tarred products
17 03 01*	bituminous mixtures containing coal tar
17 03 03*	coal tar and tarred products
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 03*	soil and stones containing hazardous substances
17 05 05*	dredging spoil containing hazardous substances
17 05 07*	track ballast containing hazardous substances
17 06	insulation materials and asbestos-containing construction materials
17 06 03*	other insulation materials consisting of or containing hazardous substances
17 08	gypsum-based construction material
17 08 01*	gypsum-based construction materials contaminated with hazardous substances
17 09	other construction and demolition wastes
17 09 03*	other construction and demolition wastes (including mixed wastes) containing hazardous substances
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified

Table S2.3 Permitted waste types and quantities for Activities AR2, AR3 and AR4 – screening, washing and storage

Maximum quantity	Total quantity of waste accepted under activities AR1 to AR4 and AR8, shall be no more than 300,000 tonnes per year
Exclusions	HP1 Explosive Waste HP9 Infectious Waste HP12 Waste which will release acute toxic gas HP15 Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste.
Waste code	Description
19 12 11*	other wastes (including mixtures of materials) from mechanical treatment of waste containing hazardous substances – wastes from the treatment of construction and demolition waste only
19 13	wastes from soil and groundwater remediation
19 13 01*	solid wastes from soil remediation containing hazardous substances

Table S2.4 Permitted waste types and quantities for Activity AR8

Maximum quantity	Total quantity of waste accepted under activities AR1 to AR4 and AR8, shall be no more than 300,000 tonnes per year
Exclusions	Wastes having any of the following characteristics shall not be accepted: • Hazardous wastes • Wastes in liquid form • Waste sludge • Biodegradable waste
Waste code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, DRESSING AND FURTHER TREATMENT OF MINERALS AND QUARRY
01 01	wastes from mineral extraction
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clay
10	WASTES FROM THERMAL PROCESSES
10 01	
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 09	Waste from casting of ferrous pieces
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 07
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)

Table S2.4 Permitted waste types and quantities for Activity AR8	
Maximum quantity	Total quantity of waste accepted under activities AR1 to AR4 and AR8, shall be no more than 300,000 tonnes per year
Exclusions	Wastes having any of the following characteristics shall not be accepted: • Hazardous wastes • Wastes in liquid form • Waste sludge • Biodegradable waste
Waste code	Description
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 14	Waste concrete and concrete sludge – solid wastes only
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 07	glass packaging
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 05 03
17 02	wood, glass and plastic
17 02 02	glass – clean only
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 08	track ballast other than those mentioned in 17 05 07
17 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
17 09	other construction and demolition wastes
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION / INDUSTRIAL WASTE
19 08	wastes from waste water treatment plants not otherwise specified
19 08 02	waste from desanding – washed sewage grit free from sewage and contamination only
19 12	Wastes from the mechanical treatment of wastes (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 05	glass – clean only
19 12 09	minerals (for example sand, stones)

Table S2.4 Permitted waste types and quantities for Activity AR8	
Maximum quantity	Total quantity of waste accepted under activities AR1 to AR4 and AR8, shall be no more than 300,000 tonnes per year
Exclusions	Wastes having any of the following characteristics shall not be accepted: • Hazardous wastes • Wastes in liquid form • Waste sludge • Biodegradable waste
Waste code	Description
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
20	MUNICIPAL WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES INCLUDING SEPERATELY COLLECTED FRACTIONS
20 01	separately collected fractions (except 15 01)
20 01 02	glass – clean only
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones

Schedule 3 – Emissions and monitoring

Table S3.1 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
Emission point 1 as shown on indicative Site Layout Plan reference 21/001c 003 V2	Uncontaminated surface water drainage from southern area	-	-	-	-	-

Table S3.2 Ambient air monitoring requirements

Location or description of point of measurement	Parameter	Limit	Monitoring frequency	Monitoring standard or method	Other specifications
Monitoring locations in accordance with PO2 in table S1.4	Asbestos Fibres	0.01 fibres/ml Where total fibre concentration exceeds 0.01 fibres/ml in any sample, that sample must be submitted for electron microscopy to confirm the concentration of asbestos fibres present	Monthly during receipt, handling and movement of asbestos contaminated wastes	In line with M17 monitoring guidance	- Pumped sampling 1m above ground level - Flow rate = 8 litres/ minute - Minimum sample volume = 480 litres - Filter pore size = 0.8-1.2µm Asbestos fibre limit of detection = 0.001 fibres/ml

Table S3.3 Process monitoring requirements

Monitoring Point Ref. /Description	Parameter	Limit	Monitoring Frequency	Monitoring Standard or Method	Other Specifications
Testing of treated hazardous wastes	Hazardous parameters	Determination of hazardous or non-hazardous	Following treatment	MCERTS Hand-held detector	Laboratory testing to validate on-site testing

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Point source emissions to water (other than sewer) Parameters as required by condition 3.5.1	Emission point 1	N/A	N/A
Ambient air monitoring Parameters as required by condition 3.5.1	Monitoring points are subject to the Pre-operational condition PO2	Every 3 months	1 January, 1 April, 1 July, 1 October

Table S4.2: Annual production/treatment	
Parameter	Units
Asbestos waste treated	tonnes
Hazardous waste soils treated	tonnes
Non-hazardous waste recovered	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	m ³
Energy usage	Annually	MWh
Total raw material used	Annually	tonnes

Table S4.4 Reporting forms		
Parameter	Reporting form	Form version number and date
Ambient air monitoring	Ambient Air Monitoring Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Process monitoring	Process Monitoring Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution

To be notified within 24 hours of detection
--

Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit
--

To be notified within 24 hours of detection unless otherwise specified below

Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the breach of permit conditions not related to limits	
To be notified within 24 hours of detection	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

(d) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“disposal” means any of the operations provided for in Annex I to the Waste Framework Directive.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“hazardous property” has the meaning in Annex III of the Waste Framework Directive.

“hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“recovery” means any of the operations provided for in Annex II to the Waste Framework Directive.

“RPS 211” means Environment Agency Regulatory Position Statement Excavated waste from utilities installation and repair: RPS211

“waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“year” means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels other than gas engines or gas turbines, 6% dry for solid fuels; and/or

- in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels ; and/or

in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content “year” means calendar year ending 31 December.

When the following terms appear in the waste code list in Schedule 2, tables S2.2 and S2.3, for those tables, they have the meaning given below:

‘hazardous substance’ means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008

‘heavy metal’ means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances

‘PCBs’ means

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 %by weight

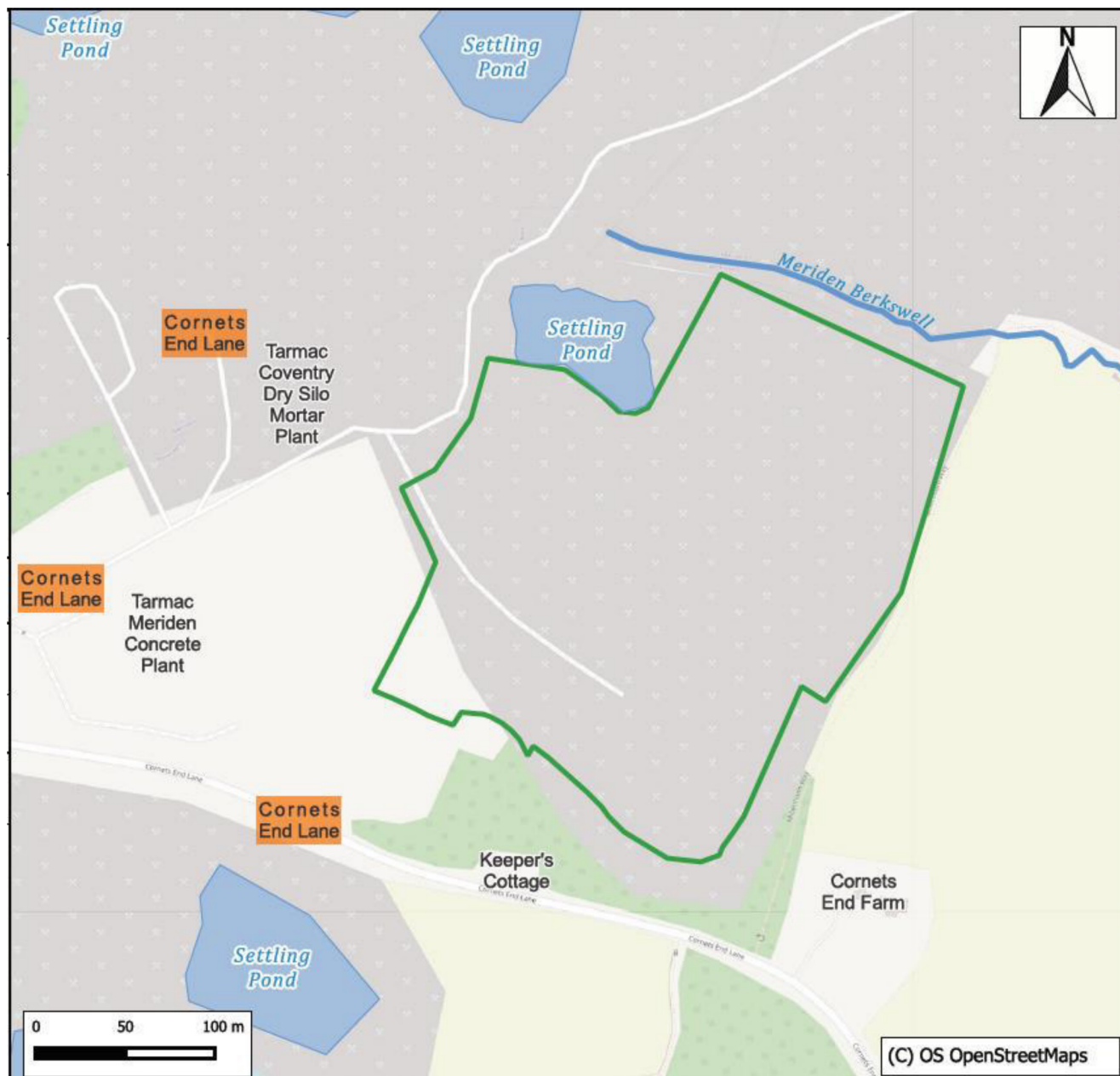
‘transition metals’ means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances

‘stabilisation’ means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste

‘solidification’ means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste

‘partly stabilised wastes’ means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term

Schedule 7 – Site plan



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