
SUPPLEMENTARY BOREHOLE INVESTIGATION
FOR NEW AMC CONTROL ROOM BUILDING
AT READING SEWAGE TREATMENT WORKS
ISLAND ROAD
READING
BERKSHIRE
RG2 0RP

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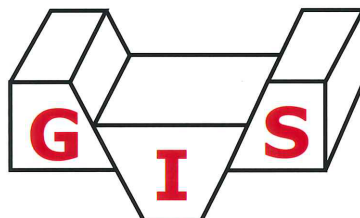
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DATE: MARCH 2026

REPORT NO: 2727 A

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1.0 INTRODUCTION

In December 2025 Ground Investigation Specialists Limited (GIS) produced a Ground Investigation Report (No. 2727) on behalf of Thames Water Limited for a new AMC Control Room building which is to be constructed at their Sewage Treatment Works in Reading, Berkshire. CS2 Limited were retained as the Construction Consultants for the project.

The proposal is to construct a new two storey Alarm Monitoring Centre (AMC) building, incorporating a new substation and adjacent car park. It is to be surrounded by high security fencing incorporating a below-ground concrete security barrier. In November 2025, two cable percussive boreholes (BH01 and BH02) were sunk to the respective depths of 22.0 and 16.5mbgl in the area of the new building.

In February 2026 GIS were instructed to return to the site to investigate the area of the proposed security fencing. Fieldwork was carried out on 24th and 25th of February 2026 and consisted of sinking eight boreholes to 3m depth using percussive windowless sampling means.

This report presents a factual account of the work undertaken and gives an updated risk-based assessment of the soil contamination on the site with respect to a specific suite of contaminants. A brief geotechnical appraisal of the soil conditions in respect of the new concrete structure is also included.

This report has been produced for the sole use of Thames Water Limited and their advisors in support of the AMC Control Room development. No liability can be accepted for its use by other parties or for any other development proposals. It should only be read in conjunction with GIS report No. 2727, which is partly superseded by the assessments in this report.

2.0 CURRENT SITE CONDITION

At the time of the supplementary investigation in February 2026, the site was no longer in use by Lanes Limited and had been cleared of most of the cabins and containers noted in November 2025.

A contractor was in the process of clearing vegetation and heavily pruning the trees around the western, northern and eastern extremities of the site. Photographs of the site at the time of the investigation are included in Figures 1 and 2 below and overleaf:



Fig 1: Site Looking West – 24.2.26



Fig 2: Eastern Part of Site – 24.2.26

3.0 SUPPLEMENTARY SITE INVESTIGATION

3.1 Fieldwork

On 24th and 25th February 2026 a fully tracked percussive windowless sampling rig was mobilised to sink a series of eight boreholes (WS1 – WS8) to depths of 3.0mbgl, the approximate locations of which are included on the site plan in section 10.0.

Below service inspection pits dug to depths of 1.0 – 1.2m, continuous 1.0m long undisturbed samples, of decreasing diameter from 100 mm, were taken to ensure a complete soil profile to the base of each borehole. The samples were then described and sub-sampled on site by a Senior Ground Engineer who produced the borehole logs included in section 7.0.

In-situ Standard Penetration Tests with a cone (S(C)PT) were carried out at regular intervals in order to determine the consistency of the underlying strata.

On completion the boreholes were infilled with the arisings.

3.2 Laboratory Analysis

GIS specified the laboratory testing. The results are presented in full in section 8.0.

With regard to conditions considered aggressive to buried concrete, the pH and soluble sulphate content (using a 2:1 water/soil extract) was determined for ten samples of soil.

Four samples of topsoil and nine samples of made ground/ refuse were selected for contamination analysis and tested for a general suite of contaminants, including metals and metalloids (arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium

and zinc), speciated Polycyclic Aromatic Hydrocarbons (PAH), Total Petroleum Hydrocarbons (either total TPH or Criteria Working Group TPH CWG), and asbestos. Two samples of made ground also underwent an extended suite of tests to satisfy regulations for disposal of soils to landfill.

4.0 GROUND CONDITIONS

4.1 Strata Encountered

Full details of the strata encountered by this investigation are presented on the borehole logs included in section 7.0. The strata encountered by the supplementary investigation are largely in keeping with those of the previous investigation. As a brief guide, the main engineering geology horizons relevant to the construction of the fence structure encountered by both investigations are summarised below:-

In boreholes BH01, WS7 and WS8, the blacktop surface was found to be underlain by 0.4 – 0.7m of **fill**, comprising concrete and limestone gravel.

The landscaped area in the western, northern and eastern parts of the site has been found to be underlain a variable thickness of topsoil (0.2 to 1.3m thick), underlain by **made ground**, comprising loose to dense golden sand, flint gravel, subsoilly sand or disturbed clay with varying amounts of brick, concrete plastic, roots, ash and metal. Uncorrected S(C)PT N values recorded in the made ground ranged from a minimum of 5 at 1.2m in WS6, to a maximum of 43 at the same depth in WS4.

Made ground/ refuse was encountered below depths of 0.4 – 0.7m below the yard area in WS7, WS8, BH01 and BH02, and deeper below the soft landscaped area (below depths of 1.3 – 2.8m). It consisted of medium dense becoming loose slightly odorous clayey sand; or very soft grey-brown and dark grey sandy silt and clay, all containing varying amounts of semi-decomposed newspaper, mortar, ash, fabric,

cardboard, plastic, metal, flint, chert, chalk, grass, glass, rope, rubber printing press blanks, bleach bottles, washing-up liquid bottles, and wood. Below a depth of 2.4m in WS1, the refuse gave way to firm thinly laminated pale brown and grey very silty clay which was suspected to be disturbed. Below c.3.0m in BH02, very dense dark grey silty sandy gravel of chert and flint with many angular metal, brick, wood, plastic and glass fragments was encountered below the refuse. Uncorrected S(C)PT results ranged from a minimum of 2 blows for 450mm penetration at 1.2m depth in BH02, to a maximum extrapolated N value of 66 at 3.0m in the same borehole, as based on 50 blows for 227mm penetration.

4.2 Groundwater

During the four week monitoring period for the November 2025 investigation, groundwater levels in BH01 and BH02 were observed at a depth of c.2.7 to 2.9m. Perched water was encountered at 0.9m in WS1, while water was encountered at 2.0m depth in WS7.

5.0 GEOTECHNICAL COMMENTS

CAD drawing no. 1760-9101-07 (included in section 10.0) is the latest proposed site plan. It shows the new AMC building within a secure compound with an outer boundary fence and inner security fence, separated by a 3m wide buffer. The eastern part of the site is to be occupied by a 15 bay car park. It is understood the security fence will be underlain by a below-ground concrete security structure.

The site investigation has found the area of the proposed security fencing to be underlain by soils of highly variable bearing capacity and settlement characteristics associated with the former landfill which occupied the site. A mean SPT N value of c.12 has been calculated from 30 No. tests carried out at 1 – 3.0m depth. However,

that somewhat masks the large variation in results, ranging from 2 blows for 450mm penetration, to a maximum extrapolated N value of 66.

For design purposes for the construction of the below-ground concrete barrier, a low bearing capacity of no more than 30 kPa should be assumed for the soils at 1.0 – 2.0m depth.

The structure should be reinforced as it will span refuse soils of varying settlement characteristics which may still be experiencing settlement associated with decomposition of the waste, regardless of any additional applied loads from the structure.

For recommendations concerning the foundations for the AMC building, reference should be made to section 8.2 of GIS report 2727.

5.1 Buried Concrete

Reference to BRE Special Digest 1:2005 and the chemical testing carried out on the twenty samples of soil would indicate that in terms of buried concrete and classifying the site as to its Design Sulphate Class (DS) and Aggressive Chemical Environment for Concrete Class (ACEC) the site could be considered to have a DS class of DS-2 and ACEC class of AC-2.

6.0 SOIL CONTAMINATION ASSESSMENT

6.1 Introduction

The layout of the proposed development and approximate position of the fencing is shown on the site plan included in section 10.0.

Please note that the following assessment supersedes the soil contamination assessment presented in section 9.2 of GIS report 2727.

6.2 Soil Analysis

In total from the two phases of investigation, four samples of topsoil, and fourteen samples of made ground/ refuse were selected for contamination analysis and tested for a general suite of contaminants, including metals and metalloids (arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium and zinc), speciated PAH, TPH, TPH CWG and asbestos.

The results from both investigations are included in full in section 8.0. They have been compared with Generic Assessment Criteria (GAC) for both residential without homegrown produce and commercial land uses, known as “Suitable 4 Use Levels – S4UL”, derived using the Contaminated Land Environmental Assessment ‘CLEA’ v1.06 software methodology by the Land Quality Management (LQM)/ Chartered Institute of Environmental Health (CIEH). The only exception is lead, for which the DEFRA Category 4 Screening Level for the same land use scenario has been used.

The use of a residential screening value is considered to be protective of groundworkers who, in this scenario, are deemed at greatest short term risk from any soil contamination. Commercial screening values (appropriate to the long term

continued use of the site as part of a sewage works) are far less stringent and are provided for context.

Tables 1 and 2 (overleaf) provide a summary of the analysis data in for the topsoil and made ground/ refuse samples respectively, and a comparison with the screening values. The S4UL's for the organic contaminants are appropriate to a Soil Organic Matter (SOM) content of 2.5% for the topsoil in Table 1, and 6% for the made ground/ refuse in Table 2. This is based on an assessment of the 14 No. SOM, and 4 No. Total Organic Carbon (TOC) laboratory test results, and assumes that soil organic matter contains approximately 58 % carbon.

Table 1: Summary of Topsoil Analysis Data for Metals, Metalloids, pH, PAH, TPH and Asbestos

Determinand	Units	WS1 0.50m	WS2 0.40m	WS3 0.60m	WS4 0.50m	Resi _{without} Screening Values	Commercial Screening Values	Source
Arsenic	mg/kg	1.0	10	12	11	40	640	S4UL
Cadmium	mg/kg	<0.1	4.2	1.6	2.0	85	190	S4UL
Chromium	mg/kg	3.5	120	49	66	910	8600	S4UL
Copper	mg/kg	5.1	110	55	88	7100	68000	S4UL
Lead	mg/kg	6.5	190	130	150	310	2330	C4SL
Mercury	mg/kg	<0.05	1.2	0.61	0.85	56	1100	S4UL
Nickel	mg/kg	1.1	36	24	25	180	980	S4UL
Selenium	mg/kg	<0.25	1.4	0.46	0.86	430	12000	S4UL
Zinc	mg/kg	7.3	330	190	220	40000	730000	S4UL
pH	pH units	7.90	7.70	7.80	8.00	<5	<5	Arb
Asbestos	%	NAD	NAD	NAD	NAD	Nil	Nil	Arb
Naphthalene	mg/kg	<0.05	<0.05	0.05	0.05	5.6	460	S4UL
Acenaphthylene	mg/kg	<0.05	<0.05	0.05	0.05	4600	97000	S4UL
Acenaphthene	mg/kg	<0.05	<0.05	0.05	0.05	4700	97000	S4UL
Fluorene	mg/kg	<0.05	<0.05	0.05	0.05	1600	68000	S4UL
Phenanthrene	mg/kg	<0.05	0.10	0.05	0.05	1500	22000	S4UL
Anthracene	mg/kg	<0.05	<0.05	0.05	0.05	35000	54000	S4UL
Fluoranthene	mg/kg	<0.05	0.24	0.18	0.17	1600	23000	S4UL
Pyrene	mg/kg	<0.05	0.21	0.15	0.16	3800	54000	S4UL
Benzo[a]anthracene	mg/kg	<0.05	0.14	0.11	0.11	14	170	S4UL
Chrysene	mg/kg	<0.05	0.13	0.11	0.11	31	350	S4UL
Benzo[b]fluoranthene	mg/kg	<0.05	0.28	0.21	0.22	4.0	44	S4UL
Benzo[k]fluoranthene	mg/kg	<0.05	0.09	0.07	0.07	110	1200	S4UL
Benzo[a]pyrene (only)	mg/kg	<0.05	0.22	0.17	0.18	3.2	35	S4UL
Indeno[1,2,3-cd]pyrene	mg/kg	<0.05	0.20	0.15	0.17	46	510	S4UL
Dibenzo[a,h]anthracene	mg/kg	<0.05	<0.05	0.05	0.05	0.32	3.6	S4UL
Benzo[g,h,i]perylene	mg/kg	<0.05	0.17	0.12	0.14	360	4000	S4UL
Aliphatic VPH >C5-C6	mg/kg	<0.05	<0.05	<0.05	<0.05	78	5900	S4UL
Aliphatic VPH >C6-C8 (Sum)	mg/kg	<0.10	<0.10	<0.10	<0.10	230	17000	S4UL
Aliphatic VPH >C8-C10	mg/kg	<0.05	<0.05	<0.05	<0.05	65	4800	S4UL
Aliphatic EPH >C10-C12	mg/kg	<2	<2	<2	<2	330	2300	S4UL
Aliphatic EPH >C12-C16	mg/kg	<2	<2	<2	<2	2400	82000	S4UL
Aliphatic EPH >C16-C21	mg/kg	<2	41	23	20	92000	1700000	S4UL
Aliphatic EPH >C21-C35	mg/kg	<3	140	98	83			
Aliphatic EPH >C35-C40	mg/kg	<10	<10	<10	<10	92000	1700000	S4UL
Aliphatic EPH >C40-C44	mg/kg	<1	<1	<1	<1			
Aromatic VPH >C5-C7	mg/kg	<0.05	<0.05	<0.05	<0.05	690	46000	S4UL
Aromatic VPH >C7-C8	mg/kg	<0.05	<0.05	<0.05	<0.05	1800	110000	S4UL
Aromatic VPH >C8-C10	mg/kg	<0.05	<0.05	<0.05	<0.05	110	8100	S4UL
Aromatic EPH >C10-C12	mg/kg	<2	<2	<2	<2	590	28000	S4UL
Aromatic EPH >C12-C16	mg/kg	<2	9.6	<2	<2	2300	37000	S4UL
Aromatic EPH >C16-C21	mg/kg	<2	6.8	3.6	3.8	1900	28000	S4UL
Aromatic EPH >C21-C35	mg/kg	6.7	54	28	43	1900	28000	S4UL
Aromatic EPH >C35-C40	mg/kg	4.8	37	21	28	1900	28000	S4UL
Aromatic EPH >C40-C44	mg/kg	<1	4.3	5.1	4.0			
Total TPH >C10-C40	mg/kg	16	290.00	180.00	180.00	-	-	-

S4UL = Suitable 4 Use Levels developed by LQM/CIEH for Residential Without Homegrown Produce and Commercial land uses (2.5% SOM).

C4SL = DEFRA Category 4 Screening Levels for lead.

Arb = Arbitrary Acidity Screen.

NAD = No Asbestos Detected.

Breaches of Resi_{without} GAC's are highlighted in yellow; breaches of Commercial GAC's are highlighted in red (where appropriate).

Table 2: Summary of Made Ground/ Refuse Analysis Data for Metals, Metalloids, pH, PAH and TPH

Determinand	Units	No.	Minimum	Maximum	Mean	Resi _{without} Screening Values	No. Ex.	Commercial Screening Values	No. Ex.	Source
Arsenic	mg/kg	14	5.6	35	13	40	0	640	0	S4UL
Cadmium	mg/kg	14	0.15	2.4	1.0	85	0	190	0	S4UL
Chromium	mg/kg	14	13	100	42	910	0	8600	0	S4UL
Copper	mg/kg	14	18	1400	258	7100	0	68000	0	S4UL
Lead	mg/kg	14	30	560	237	310	4	2330	0	C4SL
Mercury	mg/kg	14	0.1	5.2	0.8	56	0	1100	0	S4UL
Nickel	mg/kg	14	9.6	63	29	180	0	980	0	S4UL
Selenium	mg/kg	14	<0.25	1.3	0.4	430	0	12000	0	S4UL
Zinc	mg/kg	14	50	850	302	40000	0	730000	0	S4UL
pH	pH units	14	7.6	10.6	8.3	<5	0	<5	0	Arb
Naphthalene	mg/kg	14	<0.05	0.74	0.12	13	0	1100	0	S4UL
Acenaphthylene	mg/kg	14	<0.05	0.51	0.10	6000	0	100000	0	S4UL
Acenaphthene	mg/kg	14	<0.05	2.30	0.25	6000	0	15000	0	S4UL
Fluorene	mg/kg	14	<0.05	2.30	0.26	4500	0	71000	0	S4UL
Phenanthrene	mg/kg	14	<0.05	15	1.5	1500	0	23000	0	S4UL
Anthracene	mg/kg	14	<0.05	5.1	0.52	37000	0	540000	0	S4UL
Fluoranthene	mg/kg	14	<0.05	29	2.8	1600	0	23000	0	S4UL
Pyrene	mg/kg	14	<0.05	25	2.4	2000	0	54000	0	S4UL
Benzo[a]anthracene	mg/kg	14	<0.05	12	1.2	15	0	180	0	S4UL
Chrysene	mg/kg	14	<0.05	14	1.4	32	0	350	0	S4UL
Benzo[b]fluoranthene	mg/kg	14	<0.05	31	2.8	4.0	1	45	0	S4UL
Benzo[k]fluoranthene	mg/kg	14	<0.05	8.4	0.8	110	0	1200	0	S4UL
Benzo[a]pyrene (only)	mg/kg	14	<0.05	25	2.2	3.2	1	36	0	S4UL
Indeno[1,2,3-cd]pyrene	mg/kg	14	<0.05	21	1.9	46	0	510	0	S4UL
Dibenzo[a,h]anthracene	mg/kg	14	<0.05	3.4	0.33	0.32	2	3.6	0	S4UL
Benzo[g,h,i]perylene	mg/kg	14	<0.05	20	1.7	360	0	4000	0	S4UL
Aliphatic VPH >C5-C6	mg/kg	10	<0.05	0.05	0.05	160	0	12000	0	S4UL
Aliphatic VPH >C6-C8 (Sum)	mg/kg	10	<0.10	0.10	0.10	530	0	40000	0	S4UL
Aliphatic VPH >C8-C10	mg/kg	10	<0.05	0.30	0.08	150	0	11000	0	S4UL
Aliphatic EPH >C10-C12	mg/kg	10	<2.0	520	59	770	0	47000	0	S4UL
Aliphatic EPH >C12-C16	mg/kg	10	<2.0	240	38	4400	0	90000	0	S4UL
Aliphatic EPH >C16-C21	mg/kg	10	3.6	720	126	11000	0	1800000	0	S4UL
Aliphatic EPH >C21-C35	mg/kg	10	4.0	34000	3646		0		0	
Aliphatic EPH >C35-C40	mg/kg	10	<10	12000	1254	11000	0	1800000	0	S4UL
Aliphatic EPH >C40-C44	mg/kg	10	<1.0	53	8.0		0		0	
Aromatic VPH >C5-C7	mg/kg	10	<0.05	0.05	0.05	1400	0	86000	0	S4UL
Aromatic VPH >C7-C8	mg/kg	10	<0.05	0.05	0.05	3900	0	180000	0	S4UL
Aromatic VPH >C8-C10	mg/kg	10	<0.05	0.05	0.05	270	0	17000	0	S4UL
Aromatic EPH >C10-C12	mg/kg	10	<1.0	100	14	1200	0	34000	0	S4UL
Aromatic EPH >C12-C16	mg/kg	10	<2.0	77	18	2500	0	38000	0	S4UL
Aromatic EPH >C16-C21	mg/kg	10	<2.0	330	99	1900	0	28000	0	S4UL
Aromatic EPH >C21-C35	mg/kg	10	3.3	89	41	1900	0	28000	0	S4UL
Aromatic EPH >C35-C40	mg/kg	10	<1.0	44	19	1900	0	28000	0	S4UL
Aromatic EPH >C40-C44	mg/kg	10	<1.0	23	8.6		0		0	
Total TPH >C10-C40	mg/kg	14	<10	48000	4265	-	-	-	-	-

S4UL = Suitable 4 Use Levels developed by LQM/CIEH for Residential Without Homegrown Produce and Commercial land uses (6% SOM).

C4SL = DEFRA Category 4 Screening Levels for lead.

Arb = Arbitrary Acidity Screen.

Breaches of Resi_{without} GAC's are highlighted in yellow; breaches of Commercial GAC's are highlighted in red (where appropriate).

No. Ex. = Number of Exceedances.

Topsoil

Reference to Table 1 would show that the four samples of topsoil recovered from the existing areas of soft landscaping were not found to contain any concentrations of contaminants that exceeded the GAC's used. In addition, no asbestos was detected in the four samples. Based on the available information, the topsoil could be re-used onsite without restriction.

Made Ground/ Refuse

Reference to Table 2 would show that elevated concentrations of **lead** and **PAH** (namely **benzo[b]fluoranthene**, **benzo[a]pyrene** and **dibenzo[a,h]anthracene**) were detected in at least one of the made ground/ refuse samples. The most pervasive contaminant was lead, with four of the fourteen samples tested exceeding the Res_iwithout GAC of 310 mg/kg (maximum 560 mg/kg at 2.0m in WS6).

The generally low levels of lead and PAH contamination identified in the soil should not be a significant risk to human health either during, or post construction, in a commercial setting. Groundworkers involved in any construction works should wear appropriate PPE for a development of this nature at an active sewage works.

With respect to asbestos contamination, a total of fourteen samples of made ground/ refuse were analysed. Two were found to contain fragments of **chrysotile asbestos cement** (WS3 at 1.6m depth, and WS6 at 2.00m). Subsequent gravimetry quantification analysis has produced respective asbestos concentrations of 0.45 and 0.51 % by weight. Attention is also drawn to a suspected fragment of asbestos tile noted at a depth of 2.8m in BH01. The sample was too deep to impact human health directly, and as such was not tested.

Given the nature of the near surface material, its age and history, the presence of small quantities of asbestos containing materials (ACM's) is not a surprise. Based on the available information, two positive ACM results from eighteen samples is not considered hugely onerous, and site works are unlikely to warrant HSE notification under the Control of Asbestos Regulations 2012.

However, a careful watch for ACM's should be kept during groundworks by suitably trained and experienced personnel. Further advice should be sought if any suspected ACM's are uncovered with respect to their safe removal. It may also be prudent to allow for dampening of any exposed made ground/ refuse soils to control dust during any prolonged dry periods as a precautionary measure.

In addition to the above, some elevated concentrations of TPH were detected in the sample recovered from 1.0m depth in borehole WS8 (34,000 mg/kg Aliphatic C₂₁ – C₃₅). The TPH detected is within the longer carbon chain range which is typically associated with lubricating oils or highly weathered diesel. It is important to note that the concentrations fall well below the screening levels considered a risk to human health. Due to its high molecular weight, Aliphatic C₂₁ – C₃₅ has a low volatility (hence the higher screening values for human health), and importantly, it is essentially immobile within the soil environment.

The site is situated in a relatively sensitive location with respect to the protection of controlled waters, however, the TPH contamination detected in WS8 must also be considered in the context of the site's position in a large former household and commercial landfill site. Taking into account also the isolated and immobile nature of the contamination detected, it is considered unlikely that the regulators will regard the TPH as a significant risk to controlled waters. As such, no further detailed assessment, or remedial action, is deemed necessary. This conclusion should be confirmed with the

regulators at the earliest opportunity in order to prevent any unnecessary delays to the project.

6.3 Soil Disposal

In respect of determining the suitability of the near surface soils for disposal to landfill, waste classification software has been used to identify whether the topsoil and made ground/ refuse materials can be classified as hazardous or non-hazardous, as defined in the EWC (European Waste Catalogue 2002). Again, the following assessment supersedes the assessment presented in section 9.3 of GIS report 2727.

Please note that the following classification does not include the results for the sample recovered from 1.0m in WS8 due to the elevated TPH in that sample (as discussed in the previous section). Should it be necessary to excavate the soils in the immediate vicinity of WS8, any obviously impacted by hydrocarbons will need to be sent to a Hazardous Waste Landfill. They must be kept separate from other soils excavated from the site.

For soils away from WS8, the solid suite determinands have been compared with the appropriate/ most likely chemical compounds as detailed in EWC Chapter 17 – Construction and demolition wastes. Full details of the classification are provided on the data sheets in section 9.0.

Based on a mean of the solid test results for each determinand for both soil types, the topsoil and made ground/ refuse materials would both be classified at this stage as “Non-Hazardous Wastes”.

As previously discussed, no asbestos was detected in the four samples of topsoil tested. However, chrysotile asbestos was detected in 2 of the 18 samples of made ground/ refuse tested. Although individually the quantification results of 0.45 and 0.51 % exceed the

0.1% hazardous waste limit for asbestos, the results should be considered alongside the other twelve samples of made ground/ refuse, and as such it is unlikely that the made ground/ refuse material will be considered hazardous with regards to asbestos. However, this will need to be agreed with the landfill operator.

Following the initial assessment, Waste Acceptance Criteria (WAC) testing is subsequently required in order to establish the suitability of the made ground/ refuse for disposal to an Inert Waste Landfill. Summaries of the solid and leachate results for the samples recovered from 0.6, 1.1, 0.8 and 1.2m depth in BH01, BH02, WS4 and WS7 respectively are included in section 8.0.

The WAC analysis has revealed the soils exceed the Inert Waste Limit Values (IWLTV), with TPH the principal concern. The mean value of TPH C₁₀ – C₄₀ for the 13 samples of made ground/ refuse (excluding WS8) is 901 mg/kg, which exceeds the 500 mg/kg IWLTV. As such, the waste should be disposed of at a Non-Hazardous Waste Landfill. Final tipping costs will need to be agreed with the landfill operators.

T.J. McLaren, BSc., FGS.
Associate Director

Ground Investigation Specialists Limited

7.0 BOREHOLE LOGS

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD	BORING COMMENCED: 24.02.26	TYPE OF BORING: Percussive Windowless	CLIENT: Thames Water Limited	BOREHOLE: WS1
	BORING COMPLETED: 24.02.26	DIAMETER OF HOLE: 100 – 80 mm	ENGINEER: CS2 Limited	
	GROUND LEVEL:	BOREHOLE CASING:	CONTRACT: Reading Sewage Treatment Works	
	SHEET: 1 OF 1			
JOB NO: 2727 A				

DRILLING			SAMPLES					RESULTS OF TESTS										IN-SITU TESTS AND REMARKS (SPT Blows)		
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK- NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degree)			
				GL														Service inspection pit dug to 1.20 m		
Made ground (dark brown very sandy slightly gravelly TOPSOIL).		▽	0.90			0.50	E1													
Includes increasing brick fragments below 0.80 m.																				
Made ground (brown sandy fine to coarse angular flint GRAVEL).			0.20	0.90																
Made ground (golden fine SAND). Becomes dark grey below 1.30 m.			0.30	1.10			1.20	S(C)2	12										(4.5.3.3.3.3.)	
Made ground/refuse (soft dark grey very silty very sandy CLAY with some ash, coal, plastic, creosoted wood, brick, chalk and sandstone fragments).			1.00	1.40	1.50	E3	2.00	S(C)4	10											(2.2.2.3.2.3.)
Made ground ? (firm thinly laminated pale brown and pale grey very silty CLAY).			0.60	2.40			2.50	D5												
						3.00		3.00	S(C)6	9										
Borehole Complete.																				
Backfilled with arisings.																				
GROUNDWATER OBSERVATIONS:			▼ - Final groundwater level			W - Water Sample		M/C - Natural Moisture Content				'N' - Standard or Cone Penetration Test Result				S - Standard Penetration Test				
Water at 0.90 m 2 hours after pit dug to 1.20 m, but prior to drilling of borehole.			▽ - Groundwater first struck			B - Bulk Sample		LL - Liquid Limit				T - Undrained Triaxial				S(C) - Standard Penetration Test with Cone				
			▲ - Standpipe			D - Disturbed Sample		PL - Plastic Limit				M - Multi-stage Undrained Triaxial				V - Pocket Vane Test				
			● - Piezometer			E - Environmental Sample		PI - Plasticity Index												

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD	BORING COMMENCED: 24.02.26	TYPE OF BORING: Percussive Windowless	CLIENT: Thames Water Limited	BOREHOLE: WS2
	BORING COMPLETED: 24.02.26	DIAMETER OF HOLE: 100 – 80 mm	ENGINEER: CS2 Limited	SHEET: 1 OF 1
	GROUND LEVEL:	BOREHOLE CASING: 1.00 m	CONTRACT: Reading Sewage Treatment Works	JOB NO: 2727 A

DRILLING				SAMPLES				RESULTS OF TESTS										
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)	
Made ground (dark brown very sandy slightly gravelly TOPSOIL).				GL														Service inspection pit dug to 1.20 m
			1.20		0.40	E1												
Made ground (dense dark brown and buff sandy hardcore GRAVEL).			0.20	1.20	1.20	S(C)2	41										(6.15.9.11.10.11.)	
Made ground (dense golden and dark brown fine SAND).			0.20	1.40	1.60													
Made ground/refuse (very soft dark grey very silty very sandy CLAY with much glass, some plastic, brick, ash, occasional wood and a Fairy washing up liquid bottle).			1.40			1.80	E3											(-.1.-.1.1.2.)
							2.00	S(C)4	5 blows for 450 mm penetration									
Borehole Complete – backfilled with arisings.				3.00		3.00	S(C)5	2										(2.-.1.-.1.-.)
GROUNDWATER OBSERVATIONS:		▼ - Final groundwater level		W - Water Sample		M/C - Natural Moisture Content		‘N’ - Standard or Cone Penetration Test Result		S - Standard Penetration Test								
Dry 30 minutes after completion of drilling.		▽ - Groundwater first struck		B - Bulk Sample		LL - Liquid Limit		T - Undrained Triaxial		S(C) - Standard Penetration Test with Cone								
		▲ - Standpipe		D - Disturbed Sample		PL - Plastic Limit		M - Multi-stage Undrained Triaxial		V - Pocket Vane Test								
		● - Piezometer		E - Environmental Sample		PI - Plasticity Index												

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD	BORING COMMENCED: 24.02.26	TYPE OF BORING: Percussive Windowless	CLIENT: Thames Water Limited	BOREHOLE: WS3
	BORING COMPLETED: 24.02.26	DIAMETER OF HOLE: 100 – 80 mm	ENGINEER: CS2 Limited	
	GROUND LEVEL:	BOREHOLE CASING: 1.00 m	CONTRACT: Reading Sewage Treatment Works	
SHEET: 1 OF 1				
JOB NO: 2727 A				

DRILLING			SAMPLES					RESULTS OF TESTS										
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)	
Made ground (dark brown very sandy slighlty gravelly TOPSOIL).				GL														(3.3.2.2.3.3.)
			1.30		0.60	E1												
				1.30		1.20	S(C)2	10										
Made ground (medium dense dark brown and brown subsoilly SAND with occasional concrete, brick and plastic fragments).																		(2.3.3.3.6.6.)
			1.50		2.00	S(C)4	18											
Made ground/refuse (firm dark grey clayey SILT with some brick, sandstone, plastic and glass fragments).			0.20	2.80														(1.1.1.3.2.3.)
				3.00		3.00	S(C)5	9										
Borehole Complete – backfilled with arisings.																		
GROUNDWATER OBSERVATIONS:			W - Water Sample			M/C - Natural Moisture Content			'N' - Standard or Cone Penetration Test Result			S - Standard Penetration Test						
Dry 30 minutes after completion of drilling.			B - Bulk Sample			LL - Liquid Limit			T - Undrained Triaxial			S(C) - Standard Penetration Test with Cone						
▲ - Standpipe			D - Disturbed Sample			PL - Plastic Limit			M - Multi-stage Undrained Triaxial			V - Pocket Vane Test						
● - Piezometer			E - Environmental Sample			PI - Plasticity Index												

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD	BORING COMMENCED: 25.02.26	TYPE OF BORING: Percussive Windowless	CLIENT: Thames Water Limited	BOREHOLE: WS4
	BORING COMPLETED: 25.02.26	DIAMETER OF HOLE: 100 – 80 mm	ENGINEER: CS2 Limited	SHEET: 1 OF 1
	GROUND LEVEL:	BOREHOLE CASING: 1.00 m	CONTRACT: Reading Sewage Treatment Works	JOB NO: 2727 A

DRILLING			SAMPLES					RESULTS OF TESTS											
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)	
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)		
				GL															Service inspection pit dug to 1.20 m

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD	BORING COMMENCED: 25.02.26	TYPE OF BORING: Percussive Windowless	CLIENT: Thames Water Limited	BOREHOLE: WS5
	BORING COMPLETED: 25.02.26	DIAMETER OF HOLE: 100 – 80 mm	ENGINEER: CS2 Limited	
	GROUND LEVEL:	BOREHOLE CASING: 1.00 m	CONTRACT: Reading Sewage Treatment Works	

DRILLING			SAMPLES					RESULTS OF TESTS											
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)	
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)		
Made ground (dark brown silty very sandy slightly gravelly TOPSOIL/SUBSOIL with some fragments of bricks, roots, occasional ash and breeze-block fragments).				GL														Service inspection pit dug to 1.20 m	
			1.30			0.50	E1												
				1.30		1.20	S(C)2	15											(1.2.5.4.3.3.)
Made ground/refuse ? (soft dark brown becoming brown silty sandy slightly gravelly CLAY with occasional brick, mortar, ash, flint and chalk fragments).				1.70		1.50	D3												(1.1.1.1.2.2.)
						2.00	S(C)4	6										(1.1.1.1.2.2.)	
Borehole Complete – backfilled with arisings.				3.00		3.00	S(C)5	4										(1.1.1.1.1.1.)	
GROUNDWATER OBSERVATIONS:			W - Water Sample			M/C - Natural Moisture Content			'N' - Standard or Cone Penetration Test Result			S - Standard Penetration Test							
Dry 30 minutes after completion of drilling.			B - Bulk Sample			LL - Liquid Limit			T - Undrained Triaxial			S(C) - Standard Penetration Test with Cone							
▲ - Standpipe			D - Disturbed Sample			PL - Plastic Limit			M - Multi-stage Undrained Triaxial			V - Pocket Vane Test							
● - Piezometer			E - Environmental Sample			PI - Plasticity Index													

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD	BORING COMMENCED: 25.02.26	TYPE OF BORING: Percussive Windowless	CLIENT: Thames Water Limited	BOREHOLE: WS6
	BORING COMPLETED: 25.02.26	DIAMETER OF HOLE: 100 – 80 mm	ENGINEER: CS2 Limited	
	GROUND LEVEL:	BOREHOLE CASING: 1.00 m	CONTRACT: Reading Sewage Treatment Works	

DRILLING			SAMPLES					RESULTS OF TESTS											
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)	
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)		
Made ground (brown very sandy TOPSOIL).				GL														Service inspection pit dug to 1.20 m	
			0.30	0.30															
Made ground (brown clayey SAND and fine to coarse angular GRAVEL sized fragments of brick and concrete).				0.90		0.70	E1												
Made ground (soft brown and grey silty slightly sandy slightly gravelly CLAY).				0.30		1.20	S(C)2	5											(1.1.1.2.1.1.)
				0.40		1.50													
Made ground (buff SAND and fine to coarse angular GRAVEL sized fragments of limestone and concrete).				1.90														(1.1.1.1.1.2.)	
			1.10		2.00 2.00	E3 S(C)4	5												
Made ground/refuse (very soft dark brown sandy SILT with much plastic, glass, brick, paper and cardboard).																			
				3.00		3.00	S(C)5	4										(1.1.1.1.1.1.)	
Borehole Complete – backfilled with arisings.																			
GROUNDWATER OBSERVATIONS:			▼ - Final groundwater level		W - Water Sample		M/C - Natural Moisture Content			'N' - Standard or Cone Penetration Test Result			S - Standard Penetration Test						
Dry 30 minutes after completion of drilling.			▽ - Groundwater first struck		B - Bulk Sample		LL - Liquid Limit			T - Undrained Triaxial			S(C) - Standard Penetration Test with Cone						
			▲ - Standpipe		D - Disturbed Sample		PL - Plastic Limit			M - Multi-stage Undrained Triaxial			V - Pocket Vane Test						
			● - Piezometer		E - Environmental Sample		PI - Plasticity Index												

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD	BORING COMMENCED: 25.02.26	TYPE OF BORING: Percussive Windowless	CLIENT: Thames Water Limited	BOREHOLE: WS7
	BORING COMPLETED: 25.02.26	DIAMETER OF HOLE: 100 – 80 mm	ENGINEER: CS2 Limited	SHEET: 1 OF 1
	GROUND LEVEL:	BOREHOLE CASING: 1.00 m	CONTRACT: Reading Sewage Treatment Works	JOB NO: 2727 A

DRILLING			SAMPLES					RESULTS OF TESTS										
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)	
BLACKTOP.		▽	0.08	GL 0.08														Service inspection pit dug to 1.00 m
Fill (crushed concrete and limestone hardcore GRAVEL with brick fragments).			0.57															
Terram onto made ground / refuse (medium dense dark grey clayey SILT and fine to coarse angular GRAVEL sized fragments of cardboard, brick, fabric, plastic and glass). Becomes mostly sandy fine to medium GRAVEL sized fragments of blacktop scalplings, with occasional plastic, wood and rope below 1.40 m. Becomes loose and black with much cardboard, creosoted wood and plastic fragments below 2.00 m.			0.65															
			2.35															
			2.00															
Borehole Complete – backfilled with arisings.			3.00	3.00	3.00	S(C)4	7										(1.1.2.1.2.2.)	
GROUNDWATER OBSERVATIONS:			▼ - Final groundwater level		W - Water Sample		M/C - Natural Moisture Content			'N' - Standard or Cone Penetration Test Result				S - Standard Penetration Test				
Water at 2.00 m 30 minutes after completion of drilling.			▽ - Groundwater first struck		B - Bulk Sample		LL - Liquid Limit			T - Undrained Triaxial				S(C) - Standard Penetration Test with Cone				
			▲ - Standpipe		D - Disturbed Sample		PL - Plastic Limit			M - Multi-stage Undrained Triaxial				V - Pocket Vane Test				
			● - Piezometer		E - Environmental Sample		PI - Plasticity Index											

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD	BORING COMMENCED: 24.02.26	TYPE OF BORING: Percussive Windowless	CLIENT: Thames Water Limited	BOREHOLE: WS8
	BORING COMPLETED: 24.02.26	DIAMETER OF HOLE: 100 – 80 mm	ENGINEER: CS2 Limited	
	GROUND LEVEL:	BOREHOLE CASING: 1.00 m	CONTRACT: Reading Sewage Treatment Works	
SHEET: 1 OF 1				
JOB NO: 2727 A				

DRILLING			SAMPLES					RESULTS OF TESTS											
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)	
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)		
BLACKTOP.			0.10	GL 0.10															Service inspection pit dug to 1.20 m
Fill (grey limestone hardcore GRAVEL with occasional brick fragments).			0.30	0.40															
Terram onto made ground/refuse (loose dark grey silty sandy GRAVEL with many fragments of brick, concrete, plastic, occasional glass, creosoted wood, rope and a Fairy washing up liquid bottle). Includes a slight hydrocarbon odour.			2.60	1.00															
Includes much very soft brown sandy silt below 2.00 m.	1.20	S(C)2																	
Borehole Complete – backfilled with arisings.	2.00	D3 S(C)4		6															
			3.00	3.00	S(C)5	9												(1.1.1.2.2.2.) 10% recovery 1.00 – 2.00 m	
																			(1.1.1.1.2.2.) 40% recovery 2.00 – 2.00 m
																			(1.2.2.2.2.3.)
GROUNDWATER OBSERVATIONS:			W - Water Sample		M/C - Natural Moisture Content		'N' - Standard or Cone Penetration Test Result		S - Standard Penetration Test										
Dry 30 minutes after completion of drilling.			B - Bulk Sample		LL - Liquid Limit		T - Undrained Triaxial		S(C) - Standard Penetration Test with Cone										
▲ - Standpipe			D - Disturbed Sample		PL - Plastic Limit		M - Multi-stage Undrained Triaxial		V - Pocket Vane Test										
● - Piezometer			E - Environmental Sample		PI - Plasticity Index														

8.0 SOIL CONTAMINATION TEST RESULTS



Final Report

Report No.: 25-37176-1

Initial Date of Issue: 05-Dec-2025

Re-Issue Details:

Client *Ground Investigation Specialists Ltd*

Client Address: *Suite D Astor House
282 Lichfield Road
Sutton Coldfield
WV2 4LY*

Contact(s): *Charlie Noakes*

Project *J 2727 (Reading)*

Quotation No.: *Q25-37036*

Date Received: 19-Nov-2025

Order No.:

Date Instructed: 19-Nov-2025

No. of Samples: *12*

Turnaround (Wkdays): *10*

Results Due: 02-Dec-2025

Date Approved: 05-Dec-2025

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: J 2727 (Reading)

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:		25-37176	25-37176	25-37176	25-37176	25-37176	25-37176	25-37176
Quotation No.: Q25-37036		Chemtest Sample ID.:		2055128	2055129	2055130	2055131	2055132	2055133	
		Client Reference:		BH01	BH01	BH01	BH01	BH01	BH02	
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
		Top Depth (m):		0.60	1.80	4.00	7.80	20.80	0.60	
		Bottom Depth (m):				4.45				
		Date Sampled:		04-Nov-2025	05-Nov-2025	05-Nov-2025	06-Nov-2025	07-Nov-2025	11-Nov-2025	
		Asbestos Lab:		DURHAM	DURHAM				DURHAM	
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
ACM Type		N	2192		N/A	-	-			-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected			No Asbestos Detected
Moisture		N	2030	%	0.020	13	16	41	16	26
Soil Colour		N	2030		N/A	Brown	Brown	Brown	Grey	White
Other Material		N	2030		N/A	Stones and Roots	Stones, Roots, Glass and plastic	Stones	None	None
Soil Texture		N	2030		N/A	Sand	Sand	Clay	Sand	Chalk
pH at 20C		M	2010		4.0		8.1	7.9	9.0	8.5
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40		2.0			1.0
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	1.0	1.5	0.94	0.012	0.032
Arsenic		M	2455	mg/kg	0.5	9.0	9.8			5.9
Barium		M	2455	mg/kg	0.5	160				
Cadmium		M	2455	mg/kg	0.10	0.96	2.4			0.33
Chromium		M	2455	mg/kg	0.5	41	47			19
Molybdenum		M	2455	mg/kg	0.5	1.8				
Antimony		N	2455	mg/kg	2.0	2.5				
Copper		M	2455	mg/kg	0.50	97	46			19
Mercury		M	2455	mg/kg	0.05	0.20	0.10			0.12
Nickel		M	2455	mg/kg	0.50	49	44			12
Lead		M	2455	mg/kg	0.50	430	120			30
Selenium		M	2455	mg/kg	0.25	0.39	1.3			0.66
Zinc		M	2455	mg/kg	0.50	380	260			50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05			< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05			< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05			< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10		< 0.10			< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05			< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25		< 0.25			< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		11			2.2
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00		17			2.0
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		58			30
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00		210			65
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		33			14
Aliphatic EPH >C40-C44 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		< 10			< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00		300			98

Results - Soil

Project: J 2727 (Reading)

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:		25-37176	25-37176	25-37176	25-37176	25-37176	25-37176
Quotation No.: Q25-37036		Chemtest Sample ID.:		2055128	2055129	2055130	2055131	2055132	2055133
		<i>Client Reference:</i>		BH01	BH01	BH01	BH01	BH01	BH02
		<i>Sample Type:</i>		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>		0.60	1.80	4.00	7.80	20.80	0.60
		<i>Bottom Depth (m):</i>				4.45			
		<i>Date Sampled:</i>		04-Nov-2025	05-Nov-2025	05-Nov-2025	06-Nov-2025	07-Nov-2025	11-Nov-2025
		<i>Asbestos Lab:</i>		DURHAM	DURHAM				DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		330		110
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05		< 0.05		< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05		< 0.05		< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05		< 0.05		< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25		< 0.25		< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		24		< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		19		4.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00		260		22
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00		54		14
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00		5.9		3.5
Aromatic EPH >C40-C44 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00		< 10		< 10
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00		360		40
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00		360		44
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50		< 0.50		< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00		660		140
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00		700		160
Organic Matter		M	2625	%	0.40		4.2		1.6
Naphthalene		M	2800	mg/kg	0.10	0.74	0.21		< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	0.51	0.11		< 0.10
Acenaphthene		M	2800	mg/kg	0.10	2.3	0.28		< 0.10
Fluorene		M	2800	mg/kg	0.10	2.3	0.31		< 0.10
Phenanthrene		M	2800	mg/kg	0.10	15	2.3		0.18
Anthracene		M	2800	mg/kg	0.10	5.1	0.91		< 0.10
Fluoranthene		M	2800	mg/kg	0.10	29	4.7		0.45
Pyrene		M	2800	mg/kg	0.10	25	3.8		0.39
Benzo[a]anthracene		M	2800	mg/kg	0.10	12	2.1		0.24
Chrysene		M	2800	mg/kg	0.10	14	2.0		0.25
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	31	3.3		0.36
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	8.4	1.1		0.15
Benzo[a]pyrene		M	2800	mg/kg	0.10	25	2.7		0.29
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	21	1.9		0.20
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	3.4	0.37		< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	20	1.7		0.20
Coronene		N	2800	mg/kg	0.10	< 0.10			
Total Of 16 PAH's		N	2800	mg/kg	2.0		28		2.7
Total Of 17 PAH's		N	2800	mg/kg	2.0	210			

Results - Soil

Project: J 2727 (Reading)

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:				25-37176	25-37176	25-37176	25-37176	25-37176	25-37176
Quotation No.: Q25-37036		Chemtest Sample ID.:				2055134	2055135	2055136	2055137	2055138	2055139
		Client Reference:				BH02	BH02	BH02	BH02	BH02	BH02
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				1.10	1.80	2.80	5.60	10.90	16.00
		Bottom Depth (m):									16.45
		Date Sampled:				11-Nov-2025	11-Nov-2025	11-Dec-2005	11-Nov-2025	12-Nov-2025	12-Nov-2025
		Asbestos Lab:				DURHAM	DURHAM				
Determinand	HWOL Code	Accred.	SOP	Units	LOD						
ACM Type		N	2192		N/A	-	-				
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected				
Moisture		N	2030	%	0.020	23	43	32	17	17	20
Soil Colour		N	2030		N/A	Brown	Brown	Brown	Brown	Grey	White
Other Material		N	2030		N/A	None	Stones, paper and Glass	Stones, Roots, Glass and plastic	Stones	None	None
Soil Texture		N	2030		N/A	Clay	Clay	Clay	Clay	Sand	Chalk
pH at 20C		M	2010		4.0		8.2	7.8	8.8	8.9	8.6
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40		2.3				
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010			0.59	0.033	0.036	0.026
Arsenic		M	2455	mg/kg	0.5	6.6	35				
Barium		M	2455	mg/kg	0.5	83					
Cadmium		M	2455	mg/kg	0.10	0.38	0.55				
Chromium		M	2455	mg/kg	0.5	24	17				
Molybdenum		M	2455	mg/kg	0.5	1.7					
Antimony		N	2455	mg/kg	2.0	2.0					
Copper		M	2455	mg/kg	0.50	100	49				
Mercury		M	2455	mg/kg	0.05	0.50	0.10				
Nickel		M	2455	mg/kg	0.50	24	14				
Lead		M	2455	mg/kg	0.50	81	120				
Selenium		M	2455	mg/kg	0.25	< 0.25	< 0.25				
Zinc		M	2455	mg/kg	0.50	150	360				
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05				
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05				
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05				
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10		< 0.10				
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05		< 0.05				
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25		< 0.25				
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		33				
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00		70				
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		290				
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00		1700				
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		400				
Aliphatic EPH >C40-C44 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		53				
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00		2100				

Results - Soil

Project: J 2727 (Reading)

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:		25-37176	25-37176	25-37176	25-37176	25-37176	25-37176
Quotation No.: Q25-37036		Chemtest Sample ID.:		2055134	2055135	2055136	2055137	2055138	2055139
		<i>Client Reference:</i>		BH02	BH02	BH02	BH02	BH02	BH02
		<i>Sample Type:</i>		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>		1.10	1.80	2.80	5.60	10.90	16.00
		<i>Bottom Depth (m):</i>							16.45
		<i>Date Sampled:</i>		11-Nov-2025	11-Nov-2025	11-Dec-2005	11-Nov-2025	12-Nov-2025	12-Nov-2025
		<i>Asbestos Lab:</i>		DURHAM	DURHAM				
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		2400		
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05		< 0.05		
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05		< 0.05		
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05		< 0.05		
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25		< 0.25		
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		6.9		
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		45		
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00		280		
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00		89		
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00		33		
Aromatic EPH >C40-C44 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00		< 10		
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00		430		
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00		460		
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50		< 0.50		
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00		2500		
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00		2900		
Organic Matter		M	2625	%	0.40		5.1		
Naphthalene		M	2800	mg/kg	0.10	< 0.10	0.14		
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10		
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10		
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10		
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	0.66		
Anthracene		M	2800	mg/kg	0.10	< 0.10	0.16		
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.94		
Pyrene		M	2800	mg/kg	0.10	< 0.10	0.85		
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	0.46		
Chrysene		M	2800	mg/kg	0.10	< 0.10	0.57		
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.73		
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.28		
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	0.53		
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	0.39		
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10		
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	0.39		
Coronene		N	2800	mg/kg	0.10	< 0.10			
Total Of 16 PAH's		N	2800	mg/kg	2.0		6.1		
Total Of 17 PAH's		N	2800	mg/kg	2.0	< 2.0			

Results - Single Stage WAC

Project: J 2727 (Reading)

Chemtest Job No: 25-37176						Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 2055128						Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:								
Sample ID:								
Client Reference: BH01								
Top Depth(m): 0.60								
Bottom Depth(m):								
Sampling Date: 04-Nov-2025								
Determinand	SOP	HWOL Code	Accred.	Units				
Total Organic Carbon	2625		M	%	3.2	3	5	6
Loss On Ignition	2610		M	%	5.3	--	--	10
Total BTEX	2760		M	mg/kg	< 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	0.12	1	--	--
TPH Total WAC	2670	EH_CU_1D_Total	M	mg/kg	4500	500	--	--
Total (Of 17) PAH's	2800		N	mg/kg	210	100	--	--
pH at 20C	2010		M		8.5	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.019	--	To evaluate	To evaluate
Eluate Analysis				10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455		U	0.0010	0.0095	0.5	2	25
Barium	1455		U	0.064	0.64	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0039	0.039	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0024	0.024	0.5	10	30
Nickel	1455		U	0.0027	0.027	0.4	10	40
Lead	1455		U	0.0009	0.0092	0.5	10	50
Antimony	1455		U	0.0013	0.013	0.06	0.7	5
Selenium	1455		U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455		U	0.006	0.062	4	50	200
Chloride	1220		U	2.1	21	800	15000	25000
Fluoride	1220		U	0.31	3.1	10	150	500
Sulphate	1220		U	660	6600	1000	20000	50000
Total Dissolved Solids	1020		N	1300	13000	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	5.3	53	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	11
WAC Sample Weight	3144

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: J 2727 (Reading)

Chemtest Job No: 25-37176						Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 2055134						Limits		
Sample Ref:						Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:								
Client Reference: BH02								
Top Depth(m): 1.10								
Bottom Depth(m):								
Sampling Date: 11-Nov-2025								
Determinand	SOP	HWOL Code	Accred.	Units				
Total Organic Carbon	2625		M	%	0.81	3	5	6
Loss On Ignition	2610		M	%	2.9	--	--	10
Total BTEX	2760		M	mg/kg	< 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.05	1	--	--
TPH Total WAC	2670	EH_CU_1D_Total	M	mg/kg	< 10	500	--	--
Total (Of 17) PAH's	2800		N	mg/kg	< 2.0	100	--	--
pH at 20C	2010		M		8.3	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.016	--	To evaluate	To evaluate
Eluate Analysis				10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455		U	0.0005	0.0048	0.5	2	25
Barium	1455		U	0.019	0.19	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0037	0.037	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0026	0.026	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	0.0008	0.0078	0.5	10	50
Antimony	1455		U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455		U	0.0005	0.0051	0.1	0.5	7
Zinc	1455		U	0.003	0.033	4	50	200
Chloride	1220		U	6.0	60	800	15000	25000
Fluoride	1220		U	0.63	6.3	10	150	500
Sulphate	1220		U	42	420	1000	20000	50000
Total Dissolved Solids	1020		N	150	1500	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	3.1	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	4.8
WAC Sample Weight	1052

Waste Acceptance Criteria

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

Deviations

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

Chemtest Sample ID	Clients Sample Ref:	Clients Sample ID:	Clients Reference:	Sampled Date:	Deviation Code(s):	Containers Received:
2055128			BH01	04-Nov-2025	B	Amber Glass 250ml
2055128			BH01	04-Nov-2025	B	Amber Glass 60ml
2055128			BH01	04-Nov-2025	B	Plastic Tub 1000g
2055134			BH02	11-Nov-2025	E	Amber Glass 250ml
2055134			BH02	11-Nov-2025	E	Amber Glass 60ml
2055134			BH02	11-Nov-2025	E	Plastic Tub 1000g
2055136			BH02	11-Dec-2005	B	Plastic Tub 1000g

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity at 25°C and Total Dissolved Solids (TDS) in Waters	Conductivity Meter	
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.	RE PW PL LE DW GW
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).	RE PW PL SW DW GW
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation	PL SW GW
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.	PL GW
2010	pH Value of Soils	pH at 20°C	pH Meter	
2015	Acid Neutralisation Capacity	Acid Reserve	Titration	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2192	Asbestos Quantification in Soils Sediments Ballast & Aggregate Crushed Concrete & Demolition Rubble	Asbestos	Polarised light microscopy / Gravimetry	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8-C10 Aromatics: >C5–C7,>C7-C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS. Reported PCB 101 results may contain contributions from PCB 90 due to inseparable chromatography.	
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
650	Characterisation of Waste (Leaching C2,C8,C10,WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	

Report Information

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

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

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

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

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

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

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

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

Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com



Final Report

Report No.: 26-06075-1

Initial Date of Issue: 30-Mar-2026

Re-Issue Details:

Client *Ground Investigation Specialists Ltd*

Client Address: *Suite D Astor House
282 Lichfield Road
Sutton Coldfield
WV2 4LY*

Contact(s): *Charlie Noakes
Tom McLaren*

Project *J 2727A Reading*

Quotation No.: Q26-40749

Date Received: 02-Mar-2026

Order No.:

Date Instructed: 02-Mar-2026

No. of Samples: 13

Turnaround (Wkdays): 27

Results Due: 09-Apr-2026

Date Approved: 30-Mar-2026

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: J 2727A Reading

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:				26-06075	26-06075	26-06075	26-06075	26-06075	26-06075	26-06075	26-06075
Quotation No.: Q26-40749		Chemtest Sample ID.:				2091012	2091013	2091014	2091015	2091016	2091017	2091018	2091019
		Client Reference:				WS1	WS1	WS2	WS2	WS3	WS3	WS4	WS5
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.50	1.50	0.40	1.80	0.60	1.60	0.80	0.50
		Date Sampled:				24-Feb-2026	24-Feb-2026	24-Feb-2026	24-Feb-2026	24-Feb-2026	24-Feb-2026	25-Feb-2026	25-Feb-2026
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD								
ACM Type		N	2192		N/A	-	-	-	-	-	Cement	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	Chrysotile	No Asbestos Detected	No Asbestos Detected
Asbestos by Gravimetry		U	2192	%	0.001						0.45		
Asbestos By Fibre Counting		U	2192	%	0.001						-		
Total Asbestos		U	2192	%	0.001						0.45		
Moisture		N	2030	%	0.020	10	22	18	13	13	9.1	13	13
Soil Colour		N	2030		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2030		N/A	Stones and Roots	Stones, Roots and plastic, brick, aluminium foil	Stones and Roots	Stones, Roots, Glass and plastic	Stones and Roots	Stones and brick	Stones and Roots	Stones, Roots and brick
Soil Texture		N	2030		N/A	Loam	Clay	Loam	Clay	Loam	Clay	Loam	Loam
pH at 20C		M	2010		4.0	7.9	7.8	7.7	7.9	7.8	10.6		8.0
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	0.76	2.0	0.82	2.4	2.0	0.93		2.2
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010		0.41		0.15		0.90	0.33	0.052
Arsenic		M	2455	mg/kg	0.5	1.0	9.7	10	8.1	12	12	25	11
Barium		M	2455	mg/kg	0.5							130	
Cadmium		M	2455	mg/kg	0.10	< 0.10	0.63	4.2	0.59	1.6	0.57	2.0	2.0
Chromium		M	2455	mg/kg	0.5	3.5	20	120	23	49	33	59	66
Molybdenum		M	2455	mg/kg	0.5							1.0	
Antimony		N	2455	mg/kg	2.0							2.0	
Copper		M	2455	mg/kg	0.50	5.1	960	110	49	55	530	78	88
Mercury		M	2455	mg/kg	0.05	< 0.05	0.84	1.2	0.23	0.61	5.2	1.1	0.85
Nickel		M	2455	mg/kg	0.50	1.1	23	36	18	24	33	22	25
Lead		M	2455	mg/kg	0.50	6.5	230	190	180	130	260	160	150
Selenium		M	2455	mg/kg	0.25	< 0.25	< 0.25	1.4	0.26	0.46	0.33	0.55	0.86
Zinc		M	2455	mg/kg	0.50	7.3	200	330	130	190	350	220	220
Aliphatic VPH >C5-C6	HS 2D AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aliphatic VPH >C6-C7	HS 2D AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aliphatic VPH >C7-C8	HS 2D AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS 2D AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10
Aliphatic VPH >C8-C10	HS 2D AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05
Total Aliphatic VPH >C5-C10	HS 2D AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25		< 0.25
Aromatic VPH >C5-C7	HS 2D AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aromatic VPH >C7-C8	HS 2D AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aromatic VPH >C8-C10	HS 2D AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05
Total Aromatic VPH >C5-C10	HS 2D AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25		< 0.25
Total VPH >C5-C10	HS 2D Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50
Aliphatic EPH >C10-C12	EH 2D AL #1	M	5002	mg/kg	2.00	< 2.0	9.3	< 2.0	8.7	< 2.0	< 2.0		< 2.0
Aliphatic EPH >C12-C16	EH 2D AL #1	M	5002	mg/kg	2.00	< 2.0	14	< 2.0	15	< 2.0	14		< 2.0

Results - Soil

Project: J 2727A Reading

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:					26-06075	26-06075	26-06075	26-06075	26-06075	26-06075	26-06075	26-06075
Quotation No.: Q26-40749		Chemtest Sample ID.:					2091012	2091013	2091014	2091015	2091016	2091017	2091018	2091019
		Client Reference:					WS1	WS1	WS2	WS2	WS3	WS3	WS4	WS5
		Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):					0.50	1.50	0.40	1.80	0.60	1.60	0.80	0.50
		Date Sampled:					24-Feb-2026	24-Feb-2026	24-Feb-2026	24-Feb-2026	24-Feb-2026	24-Feb-2026	25-Feb-2026	25-Feb-2026
		Asbestos Lab:					DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD									
Aliphatic EPH >C16-C21	EH 2D AL #1	M	5002	mg/kg	2.00	< 2.0	65	41	45	23	35			20
Aliphatic EPH >C21-C35	EH 2D AL #1	M	5002	mg/kg	3.00	< 3.0	330	140	120	98	9.6			83
Aliphatic EPH >C35-C40	EH 2D AL #1	N	5002	mg/kg	10.00	< 10	21	< 10	29	< 10	< 10			< 10
Aliphatic EPH >C40-C44	EH 2D AL #1	N	5002	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0
Total Aliphatic EPH >C10-C35	EH 2D AL #1	M	5002	mg/kg	7.00	< 7.0	420	180	190	120	59			100
Total Aliphatic EPH >C10-C40	EH 2D AL #1	N	5002	mg/kg	10.00	< 10	440	190	220	130	59			100
Aromatic EPH >C10-C12	EH 2D AR #1	U	5002	mg/kg	2.00	< 2.0	< 2.0	< 2.0	2.8	< 2.0	< 2.0			< 2.0
Aromatic EPH >C12-C16	EH 2D AR #1	U	5002	mg/kg	2.00	< 2.0	14	9.6	14	< 2.0	2.7			< 2.0
Aromatic EPH >C16-C21	EH 2D AR #1	U	5002	mg/kg	2.00	< 2.0	53	6.8	23	3.6	< 2.0			3.8
Aromatic EPH >C21-C35	EH 2D AR #1	U	5002	mg/kg	2.00	6.7	45	54	26	28	3.3			43
Aromatic EPH >C35-C40	EH 2D AR #1	N	5002	mg/kg	1.00	4.8	24	37	21	21	< 1.0			28
Aromatic EPH >C40-C44	EH 2D AR #1	N	5002	mg/kg	1.00	< 1.0	7.0	4.3	17	5.1	< 1.0			4.0
Total Aromatic EPH >C10-C35	EH 2D AR #1	U	5002	mg/kg	4.00	8.1	110	71	65	33	6.8			47
Total Aromatic EPH >C10-C40	EH 2D AR #1	N	5002	mg/kg	10.00	13	140	110	86	53	< 10			75
Total EPH >C10-C35	EH 2D Total #1	U	5002	mg/kg	10.00	11	530	260	250	150	65			150
Total EPH >C10-C40	EH 2D Total #1	N	5002	mg/kg	10.00	16	570	290	300	180	66			180
Organic Matter		M	2625	%	0.40	1.7	5.3	7.4	9.2	4.1	2.6			5.5
Naphthalene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene		M	5003	mg/kg	0.05	< 0.05	0.07	< 0.05	0.07	< 0.05	< 0.05	0.10	< 0.05	< 0.05
Fluorene		M	5003	mg/kg	0.05	< 0.05	0.09	< 0.05	0.06	< 0.05	< 0.05	0.09	< 0.05	< 0.05
Phenanthrene		M	5003	mg/kg	0.05	< 0.05	0.26	0.10	0.36	< 0.05	< 0.05	0.99	< 0.05	< 0.05
Anthracene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	0.11	< 0.05	< 0.05	0.29	< 0.05	< 0.05
Fluoranthene		M	5003	mg/kg	0.05	< 0.05	0.11	0.24	0.58	0.18	< 0.05	1.7	< 0.05	0.17
Pyrene		M	5003	mg/kg	0.05	< 0.05	0.09	0.21	0.46	0.15	< 0.05	1.3	< 0.05	0.16
Benzo[a]anthracene		M	5003	mg/kg	0.05	< 0.05	< 0.05	0.14	0.23	0.11	< 0.05	0.87	< 0.05	0.11
Chrysene		M	5003	mg/kg	0.05	< 0.05	< 0.05	0.13	0.20	0.11	< 0.05	0.74	< 0.05	0.11
Benzo[b]fluoranthene		M	5003	mg/kg	0.05	< 0.05	< 0.05	0.28	0.28	0.21	< 0.05	1.2	< 0.05	0.22
Benzo[k]Fluoranthene		M	5003	mg/kg	0.05	< 0.05	< 0.05	0.09	0.10	0.07	< 0.05	0.42	< 0.05	0.07
Benzo[a]pyrene		M	5003	mg/kg	0.05	< 0.05	< 0.05	0.22	0.23	0.17	< 0.05	1.0	< 0.05	0.18
Indeno(1,2,3-c,d)Pyrene		M	5003	mg/kg	0.05	< 0.05	< 0.05	0.20	0.15	0.15	< 0.05	0.74	< 0.05	0.17
Dibenz(a,h)Anthracene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.13	< 0.05	< 0.05
Benzo[g,h,i]perylene		M	5003	mg/kg	0.05	< 0.05	< 0.05	0.17	0.12	0.12	< 0.05	0.56	< 0.05	0.14
Coronene		N	5003	mg/kg	0.05							< 0.05		
Total Of 16 PAH's		M	5003	mg/kg	0.05	< 0.05	0.62	1.8	2.9	1.3	< 0.05			1.3
Total Of 17 PAH's		N	5003	mg/kg	0.05							10		

Results - Soil

Project: J 2727A Reading

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:				26-06075	26-06075	26-06075	26-06075	26-06075
Quotation No.: Q26-40749		Chemtest Sample ID.:				2091020	2091021	2091022	2091023	2091024
		Client Reference:				WS5	WS6	WS6	WS7	WS8
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				1.50	0.70	2.00	1.20	1.00
		Date Sampled:				25-Feb-2026	25-Feb-2026	25-Feb-2026	25-Feb-2026	24-Feb-2026
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
ACM Type		N	2192		N/A	-	-	Cement	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	Chrysotile	No Asbestos Detected	No Asbestos Detected
Asbestos by Gravimetry		U	2192	%	0.001			0.51		
Asbestos By Fibre Counting		U	2192	%	0.001			-		
Total Asbestos		U	2192	%	0.001			0.51		
Moisture		N	2030	%	0.020	11	12	20	11	29
Soil Colour		N	2030		N/A	Brown	Brown	Brown		Brown
Other Material		N	2030		N/A	Stones, Roots and brick	Stones, Roots and brick	Stones, Roots, Glass and plastic, brick		Stones, Roots, plastic, brick and Glass
Soil Texture		N	2030		N/A	Clay	Loam	Loam		Clay
pH at 20C		M	2010		4.0	8.3	8.1	7.6		7.8
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	1.6	2.1	2.6		1.5
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.045	0.059	0.54	0.11	0.24
Arsenic		M	2455	mg/kg	0.5	5.6	13	17	8.6	21
Barium		M	2455	mg/kg	0.5				180	
Cadmium		M	2455	mg/kg	0.10	0.15	0.44	2.0	1.1	1.3
Chromium		M	2455	mg/kg	0.5	13	21	94	100	72
Molybdenum		M	2455	mg/kg	0.5				2.9	
Antimony		N	2455	mg/kg	2.0				2.5	
Copper		M	2455	mg/kg	0.50	18	34	1400	65	170
Mercury		M	2455	mg/kg	0.05	0.15	0.37	1.7	0.27	0.57
Nickel		M	2455	mg/kg	0.50	9.6	16	43	36	63
Lead		M	2455	mg/kg	0.50	39	120	560	490	500
Selenium		M	2455	mg/kg	0.25	< 0.25	0.39	0.76	0.38	< 0.25
Zinc		M	2455	mg/kg	0.50	58	140	770	850	310
Aliphatic VPH >C5-C6	HS 2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aliphatic VPH >C6-C7	HS 2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aliphatic VPH >C7-C8	HS 2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS 2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10		< 0.10
Aliphatic VPH >C8-C10	HS 2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		0.30
Total Aliphatic VPH >C5-C10	HS 2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25		0.30
Aromatic VPH >C5-C7	HS 2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aromatic VPH >C7-C8	HS 2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aromatic VPH >C8-C10	HS 2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Total Aromatic VPH >C5-C10	HS 2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25		< 0.25
Total VPH >C5-C10	HS 2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50
Aliphatic EPH >C10-C12	EH 2D_AL #1	M	5002	mg/kg	2.00	< 2.0	< 2.0	< 2.0		520
Aliphatic EPH >C12-C16	EH 2D_AL #1	M	5002	mg/kg	2.00	< 2.0	< 2.0	3.8		240

Results - Soil

Project: J 2727A Reading

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:					26-06075	26-06075	26-06075	26-06075	26-06075
Quotation No.: Q26-40749		Chemtest Sample ID.:					2091020	2091021	2091022	2091023	2091024
		Client Reference:					WS5	WS6	WS6	WS7	WS8
		Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):					1.50	0.70	2.00	1.20	1.00
		Date Sampled:					25-Feb-2026	25-Feb-2026	25-Feb-2026	25-Feb-2026	24-Feb-2026
		Asbestos Lab:					DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD						
Aliphatic EPH >C16-C21	EH 2D AL #1	M	5002	mg/kg	2.00	3.6	6.4	11			720
Aliphatic EPH >C21-C35	EH 2D AL #1	M	5002	mg/kg	3.00	6.8	4.0	19			34000
Aliphatic EPH >C35-C40	EH 2D AL #1	N	5002	mg/kg	10.00	< 10	< 10	< 10			12000
Aliphatic EPH >C40-C44	EH 2D AL #1	N	5002	mg/kg	1.00	< 1.0	< 1.0	1.3			< 1.0
Total Aliphatic EPH >C10-C35	EH 2D AL #1	M	5002	mg/kg	7.00	11	12	33			36000
Total Aliphatic EPH >C10-C40	EH 2D AL #1	N	5002	mg/kg	10.00	11	12	36			47000
Aromatic EPH >C10-C12	EH 2D AR #1	U	5002	mg/kg	2.00	< 2.0	< 2.0	< 2.0			100
Aromatic EPH >C12-C16	EH 2D AR #1	U	5002	mg/kg	2.00	< 2.0	< 2.0	< 2.0			77
Aromatic EPH >C16-C21	EH 2D AR #1	U	5002	mg/kg	2.00	8.1	9.0	6.7			330
Aromatic EPH >C21-C35	EH 2D AR #1	U	5002	mg/kg	2.00	30	20	59			74
Aromatic EPH >C35-C40	EH 2D AR #1	N	5002	mg/kg	1.00	13	44	18			24
Aromatic EPH >C40-C44	EH 2D AR #1	N	5002	mg/kg	1.00	4.9	23	2.1			< 1.0
Total Aromatic EPH >C10-C35	EH 2D AR #1	U	5002	mg/kg	4.00	38	30	67			590
Total Aromatic EPH >C10-C40	EH 2D AR #1	N	5002	mg/kg	10.00	50	74	85			610
Total EPH >C10-C35	EH 2D Total #1	U	5002	mg/kg	10.00	48	42	100			36000
Total EPH >C10-C40	EH 2D Total #1	N	5002	mg/kg	10.00	61	86	120			48000
Organic Matter		M	2625	%	0.40	1.7	5.0	18			15
Naphthalene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05
Acenaphthylene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05
Acenaphthene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05		0.15
Fluorene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05		0.25
Phenanthrene		M	5003	mg/kg	0.05	0.07	< 0.05	< 0.05	0.08		0.70
Anthracene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05		0.14
Fluoranthene		M	5003	mg/kg	0.05	0.29	0.09	0.13	0.24		0.69
Pyrene		M	5003	mg/kg	0.05	0.27	< 0.05	0.15	0.20		0.95
Benzo[a]anthracene		M	5003	mg/kg	0.05	0.17	< 0.05	0.15	0.17		0.28
Chrysene		M	5003	mg/kg	0.05	0.18	< 0.05	0.16	0.17		0.31
Benzo[b]fluoranthene		M	5003	mg/kg	0.05	0.30	0.08	0.40	0.42		0.32
Benzo[k]Fluoranthene		M	5003	mg/kg	0.05	0.11	< 0.05	0.14	0.11		0.08
Benzo[a]pyrene		M	5003	mg/kg	0.05	0.25	0.07	0.35	0.33		0.25
Indeno(1,2,3-c,d)Pyrene		M	5003	mg/kg	0.05	0.24	0.07	0.44	0.33		0.17
Dibenz(a,h)Anthracene		M	5003	mg/kg	0.05	< 0.05	< 0.05	0.06	< 0.05		< 0.05
Benzo[g,h,i]perylene		M	5003	mg/kg	0.05	0.19	< 0.05	0.33	0.24		0.28
Coronene		N	5003	mg/kg	0.05				< 0.05		
Total Of 16 PAH's		M	5003	mg/kg	0.05	2.1	0.31	2.3			4.6
Total Of 17 PAH's		N	5003	mg/kg	0.05				2.3		

Results - Single Stage WAC

Project: J 2727A Reading

Chemtest Job No: 26-06075						Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 2091018						Limits		
Sample Ref:						Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:								
Client Reference: WS4								
Top Depth(m): 0.80								
Bottom Depth(m):								
Sampling Date: 25-Feb-2026								
Determinand	SOP	HWOL Code	Accred.	Units				
Total Organic Carbon	2625		M	%	3.0	3	5	6
Loss On Ignition	2610		M	%	8.2	--	--	10
Total BTEX	2760		M	mg/kg	< 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.05	1	--	--
WAC Total C10-C40	5001	EH_1D_Total	N	mg/kg	40	500	--	--
Total (Of 17) PAH's	5003		N	mg/kg	10	100	--	--
pH at 20C	2010		M		8.1	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.0080	--	To evaluate	To evaluate
Eluate Analysis				10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455		U	0.0007	0.0068	0.5	2	25
Barium	1455		U	0.014	0.14	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0006	0.0056	0.5	10	70
Copper	1455		U	0.0022	0.022	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0031	0.031	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455		U	0.0006	0.0056	0.1	0.5	7
Zinc	1455		U	< 0.003	< 0.025	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.34	3.4	10	150	500
Sulphate	1220		U	91	910	1000	20000	50000
Total Dissolved Solids	1020		N	170	1600	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	3.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	11
WAC Sample Weight	2520

Waste Acceptance Criteria

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

Results - Single Stage WAC

Project: J 2727A Reading

Chemtest Job No: 26-06075						Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 2091023						Limits		
Sample Ref:						Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:								
Client Reference: WS7								
Top Depth(m): 1.20								
Bottom Depth(m):								
Sampling Date: 25-Feb-2026								
Determinand	SOP	HWOL Code	Accred.	Units				
Total Organic Carbon	2625		M	%	5.6	3	5	6
Loss On Ignition	2610		M	%	6.8	--	--	10
Total BTEX	2760		M	mg/kg	< 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	0.09	1	--	--
WAC Total C10-C40	5001	EH_1D_Total	N	mg/kg	2200	500	--	--
Total (Of 17) PAH's	5003		N	mg/kg	2.3	100	--	--
pH at 20C	2010		M		8.1	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.0050	--	To evaluate	To evaluate
Eluate Analysis				10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455		U	0.0020	0.020	0.5	2	25
Barium	1455		U	0.039	0.39	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0006	0.0056	0.5	10	70
Copper	1455		U	0.0054	0.055	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0060	0.060	0.5	10	30
Nickel	1455		U	0.0015	0.015	0.4	10	40
Lead	1455		U	0.014	0.14	0.5	10	50
Antimony	1455		U	0.0031	0.031	0.06	0.7	5
Selenium	1455		U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455		U	0.009	0.087	4	50	200
Chloride	1220		U	2.3	23	800	15000	25000
Fluoride	1220		U	1.1	11	10	150	500
Sulphate	1220		U	8.9	89	1000	20000	50000
Total Dissolved Solids	1020		N	100	1000	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	7.9	79	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	11
WAC Sample Weight	3301

Waste Acceptance Criteria

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

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity at 25°C and Total Dissolved Solids (TDS) in Waters	Conductivity Meter	
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.	RE PW PL LE DW GW
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).	RE PW PL SW DW GW
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation	PL SW GW
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.	PL GW
2010	pH Value of Soils	pH at 20°C	pH Meter	
2015	Acid Neutralisation Capacity	Acid Reserve	Titration	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2192	Asbestos Quantification in Soils Sediments Ballast & Aggregate Crushed Concrete & Demolition Rubble	Asbestos	Polarised light microscopy / Gravimetry	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS. Reported PCB 101 results may contain contributions from PCB 90 due to inseparable chromatography.	
5001	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C10-C40); optional carbon banding, e.g. 4-band DRO >C10-12, >C12-16, >C16-21 and >C21-35	Hexane/Acetone extraction / GC-FID	
5002	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Hexane extraction / GCxGC FID detection	
5003	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Hexane / Acetone extraction GC-MS	
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	
650	Characterisation of Waste (Leaching C2,C8,C10,WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	

Report Information

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

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

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

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

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

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

A - Date of sampling not supplied

B - Sample age exceeds stability time (sampling to extraction)

C - Sample not received in appropriate containers

D - Broken Container

E - The required amount of sample for analysis was not received

H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

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

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

Report Information

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com

9.0 WASTE ACCEPTANCE CRITERIA TEST DATA



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)



4VETR-26P20-Z85Z9

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

Report is invalid if pages are removed.

Job name

Reading STW

Description/Comments

Project

J 2727

Site

Classified by

Name:
Tom McLaren
Date:
31 Mar 2026 16:31 GMT
Telephone:
01902 717653

Company:
Ground Investigation Specialists Limited
GIS

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:

Course	Date
Hazardous Waste Classification	-

Purpose of classification

2 - Material Characterisation

Address of the waste

Reading STW

Post Code RG2 0RP

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Construction

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

Excavation

Description of the waste

Made Ground/ Refuse



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	Topsoil		Non Hazardous		3
2	Made Ground/ Refuse		Non Hazardous		5

Related documents

#	Name	Description
1	General Soil Default Waste Stream	waste stream template used to create this Job

Report

Created by: Tom McLaren

Created date: 31 Mar 2026 16:31 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	8
Appendix B: Rationale for selection of metal species	9
Appendix C: Version	10



Classification of sample: Topsoil

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

Sample details

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

Hazard properties

None identified

Determinands

Moisture content: None

#	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	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex } 033-002-00-5			1	9 mg/kg		9 mg/kg		0.0009 %		
2	cadmium { cadmium sulfide } 048-010-00-4	215-147-8	1306-23-6	1	2 mg/kg	1.285	2.57 mg/kg		0.0002 %		
3	chromium(III) oxide (worst case) 215-160-9		1308-38-9		60 mg/kg		60 mg/kg		0.006 %		
4	copper { dicopper oxide; copper (I) oxide } 029-002-00-X	215-270-7	1317-39-1		65 mg/kg	1.126	73.183 mg/kg		0.00732 %		
5	lead { lead compounds with the exception of those specified elsewhere in this Annex } 082-001-00-6			1	119 mg/kg		119 mg/kg		0.0119 %		
6	mercury { compounds of mercury (with the exception of mercuric sulfide and those listed separately in this Annex) } 080-002-00-6			1	1 mg/kg	1.39	1.39 mg/kg		0.0001 %		
7	nickel { nickel dihydroxide } 028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		22 mg/kg	1.579	34.749 mg/kg		0.00347 %		
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8				1 mg/kg	1.405	1.405 mg/kg		0.000141 %		
9	zinc { zinc oxide } 030-013-00-7	215-222-5	1314-13-2		187 mg/kg	1.245	232.762 mg/kg		0.0233 %		
10	pH PH				7.9 pH		7.9 pH		7.9 pH		
11	TPH (C6 to C40) petroleum group TPH				167 mg/kg		167 mg/kg		0.0167 %		
12	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.05 mg/kg		<0.05 mg/kg		<0.000005 %		<LOD
13	acenaphthylene 205-917-1		208-96-8		<0.05 mg/kg		<0.05 mg/kg		<0.000005 %		<LOD
14	acenaphthene 201-469-6		83-32-9		<0.05 mg/kg		<0.05 mg/kg		<0.000005 %		<LOD
15	fluorene 201-695-5		86-73-7		<0.05 mg/kg		<0.05 mg/kg		<0.000005 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	phenanthrene	201-581-5	85-01-8		0.06 mg/kg		0.06 mg/kg	0.000006 %		
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		0.16 mg/kg		0.16 mg/kg	0.000016 %		
19	pyrene	204-927-3	129-00-0		0.14 mg/kg		0.14 mg/kg	0.000014 %		
20	benzo[a]anthracene	601-033-00-9	200-280-6		0.1 mg/kg		0.1 mg/kg	0.00001 %		
21	chrysene	601-048-00-0	205-923-4		0.1 mg/kg		0.1 mg/kg	0.00001 %		
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		0.19 mg/kg		0.19 mg/kg	0.000019 %		
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		0.07 mg/kg		0.07 mg/kg	0.000007 %		
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		0.16 mg/kg		0.16 mg/kg	0.000016 %		
25	indeno[123-cd]pyrene	205-893-2	193-39-5		0.14 mg/kg		0.14 mg/kg	0.000014 %		
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		0.12 mg/kg		0.12 mg/kg	0.000012 %		
Total:								0.0701 %		

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
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 2000 mg/kg (0.2%) because: Not Liquid

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0167%)



Classification of sample: Made Ground/ Refuse

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

Sample details

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

Hazard properties

None identified

Determinands

Moisture content: None

#	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	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex } 033-002-00-5			1	13 mg/kg		13 mg/kg		0.0013 %		
2	cadmium { cadmium sulfide } 048-010-00-4	215-147-8	1306-23-6	1	0.9 mg/kg	1.285	1.157 mg/kg		0.00009 %		
3	chromium(III) oxide (worst case) 215-160-9		1308-38-9		39 mg/kg		39 mg/kg		0.0039 %		
4	copper { dicopper oxide; copper (I) oxide } 029-002-00-X	215-270-7	1317-39-1		265 mg/kg	1.126	298.36 mg/kg		0.0298 %		
5	lead { lead compounds with the exception of those specified elsewhere in this Annex } 082-001-00-6			1	217 mg/kg		217 mg/kg		0.0217 %		
6	mercury { compounds of mercury (with the exception of mercuric sulfide and those listed separately in this Annex) } 080-002-00-6			1	0.8 mg/kg	1.39	1.112 mg/kg		0.00008 %		
7	nickel { nickel dihydroxide } 028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		26 mg/kg	1.579	41.067 mg/kg		0.00411 %		
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8				0.5 mg/kg	1.405	0.703 mg/kg		0.0000703 %		
9	zinc { zinc oxide } 030-013-00-7	215-222-5	1314-13-2		301 mg/kg	1.245	374.659 mg/kg		0.0375 %		
10	pH PH				8.3 pH		8.3 pH		8.3 pH		
11	TPH (C6 to C40) petroleum group TPH				901 mg/kg		901 mg/kg		0.0901 %		
12	benzene 601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
13	toluene 601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
14	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
16	naphthalene 601-052-00-2	202-049-5	91-20-3		0.13 mg/kg		0.13 mg/kg		0.000013 %		
17	acenaphthylene 205-917-1	208-96-8			0.1 mg/kg		0.1 mg/kg		0.00001 %		
18	acenaphthene 201-469-6	83-32-9			0.26 mg/kg		0.26 mg/kg		0.000026 %		
19	fluorene 201-695-5	86-73-7			0.26 mg/kg		0.26 mg/kg		0.000026 %		
20	phenanthrene 201-581-5	85-01-8			1.55 mg/kg		1.55 mg/kg		0.000155 %		
21	anthracene 204-371-1	120-12-7			0.54 mg/kg		0.54 mg/kg		0.000054 %		
22	fluoranthene 205-912-4	206-44-0			2.95 mg/kg		2.95 mg/kg		0.000295 %		
23	pyrene 204-927-3	129-00-0			2.52 mg/kg		2.52 mg/kg		0.000252 %		
24	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		1.28 mg/kg		1.28 mg/kg		0.000128 %		
25	chrysene 601-048-00-0	205-923-4	218-01-9		1.42 mg/kg		1.42 mg/kg		0.000142 %		
26	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		2.94 mg/kg		2.94 mg/kg		0.000294 %		
27	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		0.85 mg/kg		0.85 mg/kg		0.000085 %		
28	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		2.4 mg/kg		2.4 mg/kg		0.00024 %		
29	indeno[123-cd]pyrene 205-893-2	193-39-5			2 mg/kg		2 mg/kg		0.0002 %		
30	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		0.35 mg/kg		0.35 mg/kg		0.000035 %		
31	benzo[ghi]perylene 205-883-8	191-24-2			1.84 mg/kg		1.84 mg/kg		0.000184 %		
32	antimony { antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex } 051-003-00-9			1	2.3 mg/kg		2.3 mg/kg		0.00023 %		
33	molybdenum { molybdenum(VI) oxide } 042-001-00-9	215-204-7	1313-27-5		1.85 mg/kg	1.5	2.775 mg/kg		0.000278 %		
34	barium { barium oxide } 215-127-9	1304-28-5			138 mg/kg	1.117	154.078 mg/kg		0.0154 %		
Total									0.207 %		

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
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 2000 mg/kg (0.2%) because: Not Liquid

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0901%)



Appendix A: Classifier defined and non GB MCL determinands

arsenic compounds, with the exception of those specified elsewhere in this Annex

GB MCL index number: 033-002-00-5

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

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

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

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

Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2

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 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

compounds of mercury (with the exception of mercuric sulfide and those listed separately in this Annex)

EU CLP index number: 080-002-00-6

Description/Comments: Combines the average of the conversion factors for Mercury difulminate and Mercury (II) sulphide.

Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)

)

Hazard Statements: Acute Tox. 2; H330 , Acute Tox. 1; H310 , Acute Tox. 2; H300 , STOT RE 2; H373 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , STOT RE 2; H373 >= 0.1 %

pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

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

Description/Comments: Unknown Oil

Hazard statements taken from WM3 1st Edition 2015

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

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



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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 21 Aug 2015

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

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

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

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

Data source date: 21 Aug 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

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

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

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

Data source date: 23 Jul 2015

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

▪ **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

▪ **barium oxide** (EC Number: 215-127-9, CAS Number: 1304-28-5)

Description/Comments: Data from ECHA's C&L Inventory Database, Sigma Aldrich SDS dated 6/2/20

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/88825>

Data source date: 02 Apr 2020

Hazard Statements: Acute Tox. 3; H301 , Skin Corr. 1B; H314 , Eye Dam. 1; H318 , Acute Tox. 1; H332

Appendix B: Rationale for selection of metal species

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

Worst case species based on risk phrases

cadmium {cadmium sulfide}

Worst case species based on risk phrases

copper {dicopper oxide; copper (I) oxide}

Most likely common species

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

Worst case species based on risk phrases

mercury {compounds of mercury (with the exception of mercuric sulfide and those listed separately in this Annex)}

Worst case species based on risk phrases



nickel {nickel dihydroxide}

Worst case species based on risk phrases

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

Worst case species based on risk phrases

zinc {zinc oxide}

Worst case species based on risk phrases

antimony {antimony compounds, with the exception of the tetroxide (Sb₂O₄), pentoxide (Sb₂O₅), trisulphide (Sb₂S₃), pentasulphide (Sb₂S₅) and those specified elsewhere in this Annex}

Worst case species based on risk phrases

molybdenum {molybdenum(VI) oxide}

Worst case species based on risk phrases

barium {barium oxide}

most likely species

Appendix C: Version

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

HazWasteOnline Classification Engine Version: 2026.83.7020.12656 (25 Mar 2026)

HazWasteOnline Database: 2026.83.7020.12656 (25 Mar 2026)

This classification utilises the following guidance and legislation:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

GB MCL List v2.0 - version 2.0 of 20th October 2023

GB MCL List v3.0 - version 3.0 of 11th January 2024

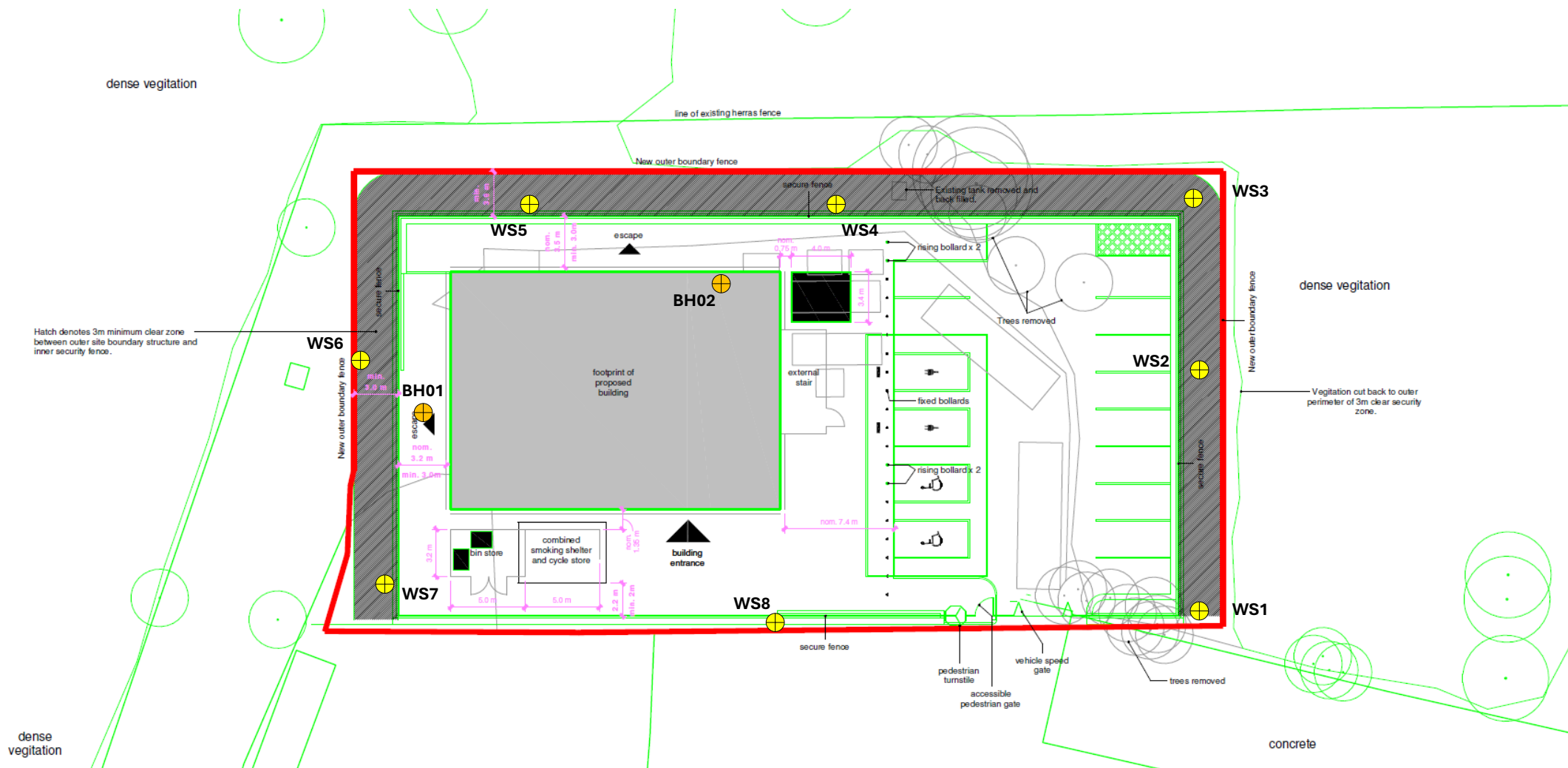
GB MCL List v4.0 - version 4.0 of 2nd March 2024

GB MCL List v5.0 - version 5.0 of 26th June 2024

GB MCL List v6.0 - version 6.0 of 15th February 2025

GB MCL List v7.0 - version 7.0 of 23rd September 2025

10.0 SITE PLANS



Proposed Site Plan Showing Approximate Location of Boreholes
AMC Building Reading Sewage Treatment Works