Verification Report

Headley Road East
Reading

August 2025

433851.0003.0002

Prepared For:
HE2 Reading 1 GP Limited
c/o Baynham Meikle
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20 Red Lion
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Quality Control

Client Name:	HE2 Reading 1 GP Limited
Project Name:	Headley Road East, Reading
Project No.:	433851.0003.0002
Document Title:	Verification Report
Date:	29th August 2025

Version:	Date:	Prepared By:	Reviewed By:	Approved By:
1.0	April 2025	L Sadowski *MSc FGS*	S Nichols *CEnv MIEnvSc*	S Nichols *CEnv MIEnvSc*
2.0	August 2025	L Sadowski *MSc FGS*	S Nichols *CEnv MIEnvSc*	S Nichols *CEnv MIEnvSc*

Table of Contents

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1.0 Introduction

1.1 Purpose

TRC Companies Limited (TRC) was commissioned by HE2 Reading 1 GP Limited (the 'Client') to provide a verification report following the remediation for the development located at Headley Road East, Reading (hereafter referred to as the 'Site').

This report covers the following aspects of remediation:

- Removal of the identified concrete cradle and any associated impacted soils;
- Verification testing underlying the areas of any known above ground storage tanks (AST);
- Decommissioning of boreholes;
- Installation of ground gas protection measures;
- Placement of engineered clean capping over a geotextile marker layer in areas of proposed landscaping; and,
- Use of appropriate materials for buried services in accordance with statutory provider requirements.

A Site location plan is presented as Figure 1 in Annex A.

The purpose of the remediation is to support the discharge of Condition 7 and 29 of planning reference APP/X0360/W/22/3306963 as presented below.

'The approved remediation scheme shall be carried out and, upon completion, a verification report by a suitably qualified contaminated land practitioner shall be submitted to and approved in writing by the local planning authority before the development, or relevant phase thereof, is occupied.

Any contamination that is found during the course of construction of the approved development that was not previously identified shall be reported immediately to the local planning authority.

Development on the part of the site affected shall be suspended and a risk assessment carried out and submitted to and approved in writing by the local planning authority.

Where unacceptable risks are found remediation and verification schemes shall be submitted to and approved in writing by the local planning authority.

These approved schemes shall be carried out before the development, or relevant phase thereof, is resumed or continued.'

1.2 Proposed Development

The proposed development will comprise the demolition of existing structures at the Site and the construction of ten light industrial / commercial units in four separate buildings across the Site, with corresponding car parking, loading yards, and roadways. The largest proposed building is 2,980 m^2.

A proposed development plan is presented as Figure 2 in Annex A.

The Site is currently in the final stages of construction.

1.3 Scope of Services

This report aims to confirm that the verification works have been undertaken in accordance with the TRC Remediation Strategy and Verification Plan (RSVP) (report ref. 433851.0003.0001, dated 17th May 2024) or appropriate variation.

1.4 Previous Reports

This report should be read in conjunction with the following documents:

- TRC Companies Limited, Phase I Environmental Site Assessment, (October 2021, report ref. 433851.0000.0000);
- TRC Companies Limited, Phase II Geo-environmental Site Assessment, (March 2022, report ref. 433851.0001.0000);
- TRC Companies Limited, Supplementary Geo-environmental Site Assessment, (June 2023, report ref. 433851.0002.0000);
- TRC Companies Limited, Letter Report, (May 2024, report ref. 433851.0003.0000); and,
- TRC Companies Limited, Remediation Strategy, (May 2024, report ref. 433851.0003.0001)

1.5 Significant Assumptions

This report presents TRC's observations, findings, and conclusions as they existed on the date that this report was issued. This report is subject to modification if TRC becomes aware of additional information after the date of this report that is material to its findings and conclusions.

The reliability of information provided by others to TRC cannot be guaranteed to be accurate or complete. Performance of this Verification Report is intended to reduce, but not eliminate, uncertainty of environmental conditions associated with the subject Site; therefore, the findings and conclusions made in this report should not be construed to warrant or guarantee the subject Site, or express or imply, including without limitation, warranties as to its marketability for a particular use. TRC found no reason to question the validity of information received unless explicitly noted elsewhere in this report.

1.6 User Reliance

This report has been prepared for HE2 Reading 1 GP Limited. Reliance on the Report by any other third party is subject to requesting and fully executing a reliance letter between TRC and the third party that acknowledges the TRC Standard Terms and Conditions with the Client, to the same extent as if they were the Client thereunder.

TRC has been provided with information from third parties for information purposes only and without representation or warranty, express or implied as to its accuracy or completeness and without any liability on such third parties part to revise or update the information. Where reliance has been provided by third parties to potential purchasers this is noted in our report.

2.0 Remediation and Verification Requirements

2.1 Remediation Requirements

Based on the TRC Remediation Strategy, the following remediation and mitigation measures were required:

- Removal of the identified concrete cradle and any associated impacted soils;
- Decommissioning of boreholes;
- Installation of ground gas protection measures;
- Use of appropriate materials for buried services in accordance with statutory provider requirements;
- Placement of clean capping (300mm) over a geotextile marker layer in areas of soft landscaping;
- The implementation of a discovery strategy; and,
- Verification testing underlying the areas of any known aboveground storage tanks (AST), if applicable.

2.2 Verification Requirements

Verification of remediation actions required by the TRC RSVP are as follows:

- Verification sampling and testing around concrete cradle following removal;
- Verification sampling and testing underlying any ASTs, if applicable;
- Decommission onsite boreholes;
- Verification of ground gas protection measures;
- Confirmation of materials used for buried services;
- Confirmation of capping thickness and presence of geotextile marker layer;
- Sampling and testing of material used as capping in areas of soft landscaping; and,
- Verification sampling and testing as required by the discovery strategy.

2.3 Variations

The following variations during verification are presented below:

- **AST verification**: TRC understands that there were no ASTs at the Site; however, several IBCs were present at the Site. Further details are presented in Section 3.2.

3.0 Remediation Verification

3.1 Concrete Cradle Removal

3.1.1 Site Inspection and Sampling

A TRC engineer visited the Site on 26th June 2024 to sample the interior of the concrete cradle for waste disposal (CC-1 and CC-2). During the Site visit, the first 0.5m of soil had been excavated and placed onto polythene sheeting approximately 10m north of the concrete cradle. The material within the concrete cradle remained in situ. The soil and trapped water within the concrete cradle had a hydrocarbon odour and sheen.

A TRC engineer visited the Site on 16th July 2024 to confirm the removal of the concrete cradle structure and impacted soils and collect samples for validation (BASE, NORTH, SOUTH, EAST, and WEST). When the TRC engineer was onsite, the concrete cradle had been broken up and placed on a polythene sheet. The material within the concrete cradle had been excavated and segregated north-west of the former concrete cradle location for later off-site disposal.

Photographs are presented in Annex B.

3.1.2 Laboratory Chemical Testing

On the 26th June 2024, two soil samples were submitted for chemical laboratory testing by i2 Analytical Limited. Testing of soils derived from soils was for pH, heavy metals, PAH, TPH CWG, BTEX, MTBE, and asbestos.

In addition, Waste Acceptance Criteria (WAC) testing was also undertaken to inform off-site disposal of the soil. The certificates of analysis are presented in Annex C.

The results of the testing were also assessed in accordance with WM3 'Guidance on the classification and assessment of waste' (1st edition, version 1.2 GB 2021). The waste classification report is presented in Annex C.

On the 16th July 2024, five soil samples and five leachate samples were submitted for chemical laboratory testing by i2 Analytical Limited from the base, north, south, east, and west of the concrete cradle after removal. Testing of soils and leachate derived soils was for asbestos (soils only), pH, organic matter (soils only), PAHs, heavy metals, TPH CWG, BTEX, and MTBE.

The results of the chemical laboratory testing confirmed that the soils from the concrete cradle excavation, following removal of the impacted materials, were free from chemical contamination with measured concentrations of all determinants less than the verification criteria.

3.1.3 Disposal

The excavated materials were removed from Site to a suitably licenced landfill site.

Collards has confirmed the concrete cradle and its contents and associated infrastructure were removed from site and disposed of to a suitably licenced waste facility.

TRC understands that approximately 100 kg of waste soils were disposed of off-site.

Records relating to waste disposal provided by Collards are presented in Annex G.

3.2 Aboveground Storage Tanks (AST) and Intermediate Bulk Containers (IBC)

TRC understands that there were no ASTs at the Site.

However, several IBCs were present at the Site and contained diesel oil and light fuel.

TRC understands that Collards removed 13 tonnes of diesel oil and light fuel from Site on 1st March 2023.

TRC understands the Collards removed ten empty IBCs, each 100 kgs on 3rd September 2024.

Records relating to waste disposal provided by Collards are presented in Annex G.

3.3 Borehole Decommissioning

TRC attended the Site on 25th July and 19th August 2024 to decommission BH101, BH103, BH104, BH105, BH106, and BH107, in accordance with the publication 'Good Practice for Decommissioning Redundant Boreholes and Wells'. BH102 appeared to have already been decommissioned at this time.

Each monitoring well was decommissioned by removing the headworks and filling the borehole with bentonite / cement grout. The final 1m to ground surface was infilled with concrete.

Groundwater levels were found to be between 1.68m and 1.91m bgl.

A selection of photographs is presented in Annex B.

A borehole decommissioning plan is presented in Annex A as Figure 4.

3.4 Ground Gas Protection Measures

The Site was classified as Characteristic Situation CS2 (low risk) and ground gas protection measures were recommended.

The design included the use of a Juta GP5 membrane and a concrete slab to achieve a solution score of 1.5 as required for building type D. The contractor has confirmed that the ground floor slab was constructed in accordance with the design.

UK Membranes was appointed to install the gas membrane at the development. The membrane was installed by a NVQ Level 2 qualified installers.

Following installation, UK Membranes engaged MEC Environmental Ltd to provide independent verification of the membrane installation. These works were overseen and managed by Michael Corban. Evidence of qualification has been provided in Annex D.

The membrane installed was inspected to ensure there was appropriate sealing and that that any damage (if present) of the membrane was repaired. The inspection comprised visual, probe and pick testing. The inspection identified that the sealing was done to the appropriate standard.

The provision of gas protection measures is in accordance with TRC's Remediation Strategy.

The ground gas verification report is presented in Annex D.

3.5 Buried Services

MCS Group have confirmed that barrier water supply pipes have been installed at the development. TRC attended Site on 10th April 2025 and confirmed the visual presence of barrier pipe.

An invoice of the barrier pipe as well as a service connection letter from Thames Water for the Site has been provided and is presented in Annex E.

A selection of photographs is presented in Annex B.

3.6 Soft Landscaped Areas

3.6.1 Site Inspection and Sampling

A TRC engineer visited the Site on 10th April 2025 to collect verification samples from the capping soils that have been imported to Site thus far. A total of three samples of imported capping soil were obtained from one topsoil stockpile (T-1), one subsoil stockpile (S-1), and one location where subsoil had been emplaced (S-2).

A TRC engineer visited the Site on 12th August 2025 to collect the remaining verification samples from the capping soils. Six samples of emplaced imported topsoil (T-2 to T-7) and one sample of emplaced subsoil (S-3) were collected.

The topsoil and subsoil appeared to be free from any visual sign of contamination or anthropogenic materials. The stockpiles were placed on a sheet and separated from other construction material.

A geotextile membrane was confirmed to have been installed.

A selection of photographs taken during the Site inspection is presented in Annex B.

A verification sample location plan is presented as Figure 3 in Annex A.

3.6.2 Imported Materials

The remediation strategy required the testing of any imported materials placed in areas of proposed soft landscaping. The areas of landscaping are shown in Figure 2 of Annex A.

The imported material used by MCS Group was 1,704 tonnes, or approximately 1,278m^3, of certified topsoil sourced from British Sugar and 235m^3 of certified subsoil sourced from Mid Hants Quarry.

The topsoil material comprised dark brown, dry, friable, very calcareous SANDY LOAM with a weakly developed, very fine to medium, occasionally very coarse, granular structure.

The subsoil material comprised dark yellowish brown, slightly moist, friable, non-calcareous LOAMY SAND with a weakly developed, fine to coarse, granular and sub-angular structure.

Certifications confirming compliance with BS3883:2015 provided by MCS Group are presented in Annex F and confirms the topsoil and subsoil would be considered suitable for general landscape purposes.

3.6.3 Laboratory Chemical Testing

A total of ten verification soil samples were submitted for chemical laboratory testing by i2 Analytical Limited. Verification testing was for heavy metals, PAH, TPH CWG and asbestos. The certificates of analysis are presented in Annex C.

The results of the chemical laboratory testing confirmed that the capping soil placed in the areas of soft landscaping was free from chemical contamination with measured concentrations of all determinants less than the verification criteria. No asbestos was identified in any of the samples tested.

3.7 Discovery Strategy

MCS Group have confirmed that no visual or olfactory evidence of contamination was identified during groundworks and construction.

4.0 Conclusions

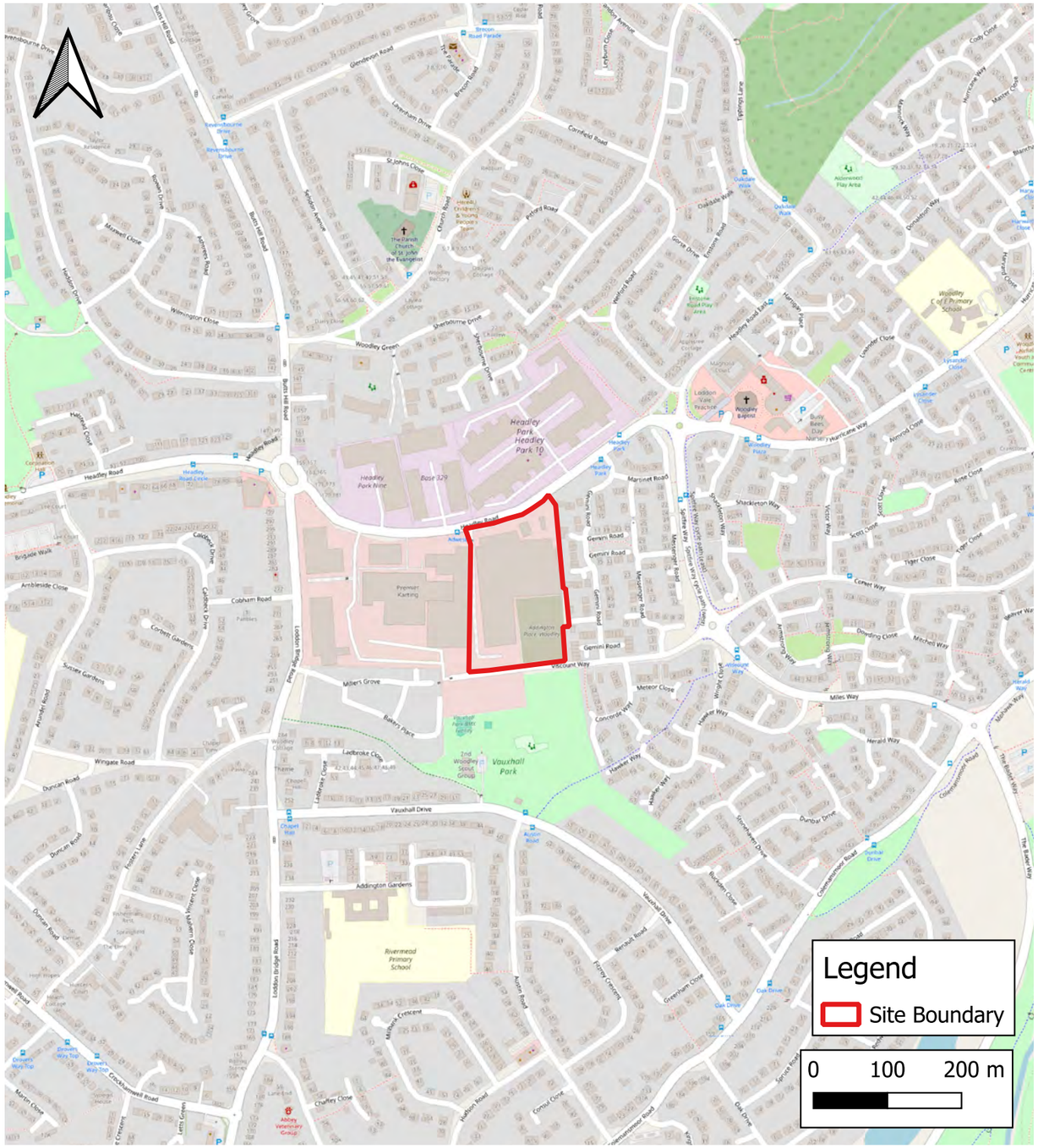
Based on the results of the site inspections, sampling and testing undertaken, and the information provided by the Client, TRC considers that the remediation actions undertaken have been satisfactorily completed in accordance with the TRC Remediation Strategy and the variation described in Section 2.3.

The following work has been completed at the Site:

- Installation and verification of ground gas protection measures;
- Borehole decommissioning;
- Installation of Barrier pipe used for water supply pipes;
- Testing around concrete cradle following removal; and,
- Testing of imported topsoil and subsoil imported to Site.

TRC consider that the work undertaken and reported within this Verification Report is sufficient to discharge Condition 7 and 29 of planning reference APP/X0360/W/22/3306963.

Annex A: Figures



NOTES

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Google imagery June 2018

REVISIONS

REV.				
P01	FIRST ISSUE			
	Initials	LS	LS	23/04/25
REV.	REVISION NOTES/COMMENTS			
	Initials			

TRC
Work.Life
20 Red Lion Street
London
WC1R 4PS

HE2 READING 1 GP LIMITED

PROJECT
HEADLEY ROAD EAST, READING

TITLE
SITE LOCATION PLAN

TRC PROJECT NO.
433851

SCALE
1:7,000 @ A3
1:1,250 @ A3

PURPOSE OF ISSUE
SUITABLE FOR INFORMATION

STATUS

DRAWING NO
FIGURE 01

REVISION
PO1

Figured dimensions only are to be used. All dimensions to be checked onsite. Differences between drawings and between drawings and specification or bills of quantities to be reported to the PRC Group.

Revisions: Drawn/Chkd: Date:

	GEA (ft²)			GEA (m²)
	Ground	First	GEA (ft²)	
1.	16,565	2,788	19,353	1,798
2.	10,301	1,905	12,206	1,134
3.	8,800	1,668	10,548	980
4.	15,285	2,551	17,836	1,657
5.	12,573	2,390	14,963	1,390
6.	27,631	4,445	32,076	2,980
7.	23,035	3,616	26,651	2,476
8.	18,019	3,025	21,044	1,955
9.	13,778	2,616	16,394	1,523
10.	11,560	2,067	13,627	1,266
T.	157,627	27,071	184,698	17,159

SITE AREA 3.06H / 7.58A
DEVELOPMENT DENSITY 55.8% GEA

KEY

- APPLICATION AREA
- SOFT LANDSCAPE
- NEW SWALE
- WELDMESH FENCE
- EXISTING ACOUSTIC BARRIER
- EXISTING BUILDINGS
- TARMACADAM SURFACING
- BRUSHED CONCRETE SERVICE YARD
- NATURAL BLOCK PAVING TO VEHICLE AREAS
- CHARCOAL BLOCK PAVING TO PEDESTRIAN AREAS
- WELL CONSOLIDATED GRAVEL
- AC AIR CONDITIONING PLANT ENCLOSURE
- CYCLE SHELTER
- DK DROP KERB
- ELECTRIC VEHICLE CHARGING POINTS/ DUCTS FOR FUTURE POINT
- PROPOSED TREES
- EXISTING TREES
- TREES TO BE REMOVED

Client: HE2 READING 1 GP LTD (LONDON)

Project: HEADLEY ROAD EAST WOODLEY

Drawing Title: PROPOSED SITE PLAN

Scale @ A1: 1:500 | Checked by: JR | Date: SEPT 21

Job No: 11359 | Stage: PL | Drawing No: 103 | Rev:

Issue Status: Construction Information Tender | Preliminary Approval

PRC Architecture & Planning

12 Warren Yard, Warren Park, Milton Keynes, MK12 5NW 01908 305246 info@prc-group.com www.prc-group.com

Architecture
Planning
Master Planning
Urban Design
Interiors
Landscape

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Warsaw

NOTES	COPYRIGHT NOTES	REVISIONS						TITLE	
	Google imagery June 2018							PROPOSED DEVELOPMENT PLAN	
								TRC PROJECT NO. 433851.0003.0002	SCALE
		P01	FIRST ISSUE					PURPOSE OF ISSUE SUITABLE FOR INFORMATION	STATUS
			Initials	LS	LS	23/04/25			
		REV.	REVISION NOTES/COMMENTS					DRAWING NO FIGURE 02	REVISION PO1
			Initials						

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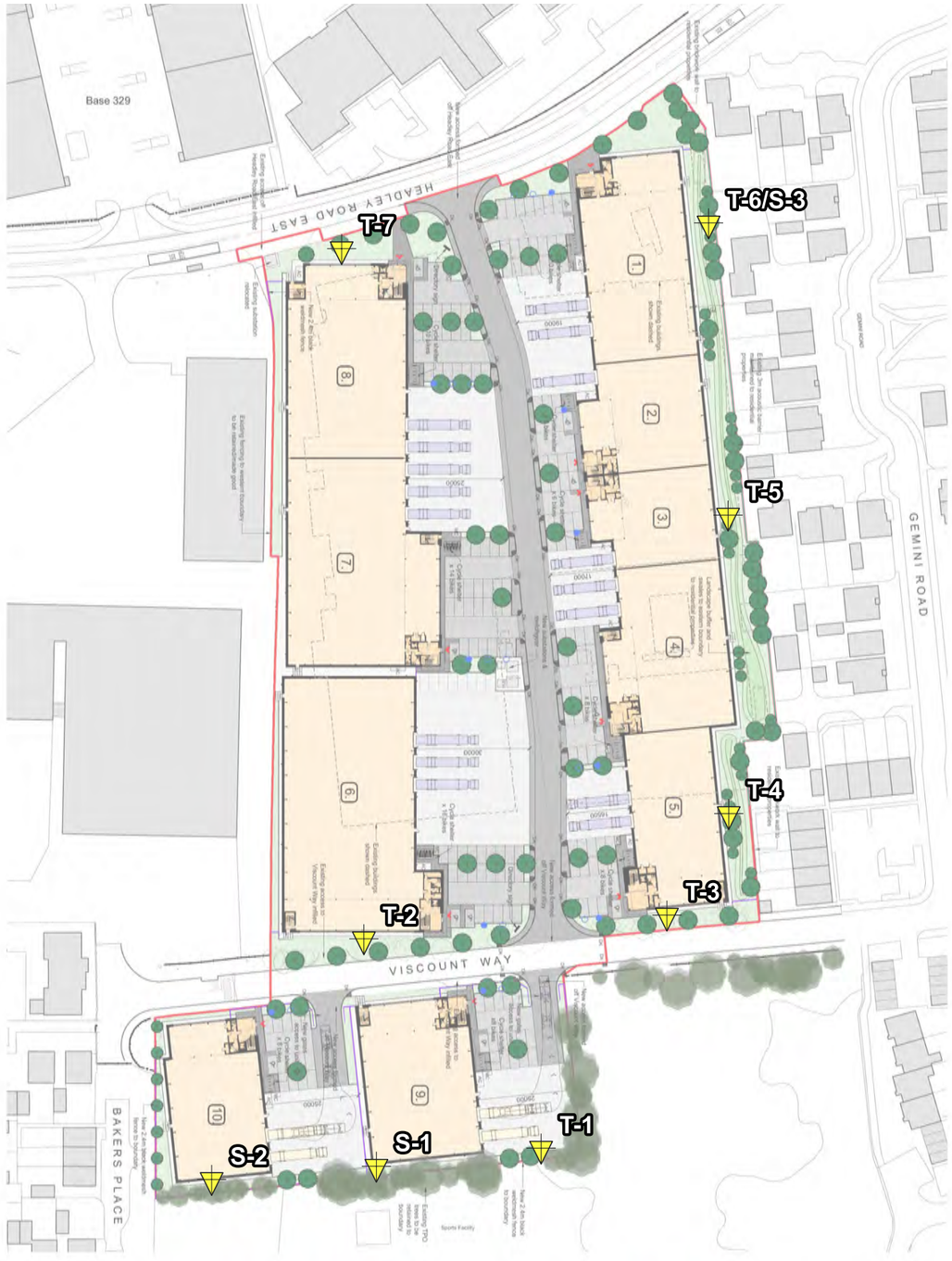
London
WC1R 4PS

HE2 READING 1 GP LIMITED

PROJECT HEADLEY ROAD EAST, READING



Legend

- Site Boundary
- Verification Pits

0 50 100 m

NOTES	COPYRIGHT NOTES Google imagery June 2018	REVISIONS	Work.Life 20 Red Lion Street London WC1R 4PS

REV.				
P01	FIRST ISSUE			
	Initials	LS	LS	14/08/25
REV.	REVISION NOTES/COMMENTS			
	Initials			

HE2 READING 1 GP LIMITED	TITLE VERIFICATION SAMPLE LOCATION PLAN	
	TRC PROJECT NO. 433851.0003.0002	SCALE
PROJECT HEADLEY ROAD EAST, READING	PURPOSE OF ISSUE SUITABLE FOR INFORMATION	STATUS
	DRAWING NO FIGURE 03	REVISION PO1

NOTES	COPYRIGHT NOTES	REVISIONS				TRC Work.Life 20 Red Lion Street London WC1R 4PS	TITLE: BOREHOLE DECOMMISSIONING PLAN
							TRC PROJECT NO.: 433851.0003.0002 / SCALE: 1:1,400 @ A3
		P01	FIRST ISSUE			HE2 Reading 1 GP Limited	PURPOSE OF ISSUE: SUITABLE FOR INFORMATION / STATUS
			Initials	KS	KS 24/04/25		
		REV.	REVISION NOTES/COMMENTS			PROJECT: HEADLEY ROAD EAST, READING	DRAWING NO: FIGURE 04 / REVISION: PO1
			Initials				

Annex B: Photographs

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
1	10/04/25 - 12/08/25

Description

Topsoil Stockpile (T-1)

Photo No.	Date
2	10/04/25 - 12/08/25

Description

Subsoil Stockpile (S-1)

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
3	10/04/25 - 12/08/25

Description

Emplaced subsoil with membrane (S-2)

Photo No.	Date
4	10/04/25 - 12/08/25

Description

Topsoil sample (T-2)

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
5	10/04/25 - 12/08/25

Description

T-2 Arisings

Photo No.	Date
6	10/04/25 - 12/08/25

Description

Topsoil sample (T-3)

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
7	10/04/25 - 12/08/25

Description

T-3 Arisings

Photo No.	Date
8	10/04/25 - 12/08/25

Description

Topsoil sample (T-4)

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
9	10/04/25 - 12/08/25

Description

T-4 Arisings

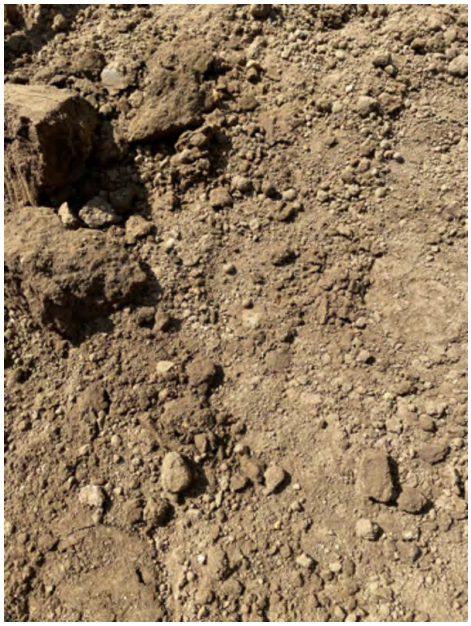


Photo No.	Date
10	10/04/25 - 12/08/25

Description

Topsoil sample (T-5)

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
11	10/04/25 - 12/08/25

Description

T-5 Arisings

Photo No.	Date
12	10/04/25 - 12/08/25

Description

Topsoils sample (T-6), Subsoil sample (S-3)

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
13	10/04/25 - 12/08/25

Description

T-6 Arisings

Photo No.	Date
14	10/04/25 - 12/08/25

Description

Topsoil sample (T-7)

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
15	10/04/25 - 12/08/25

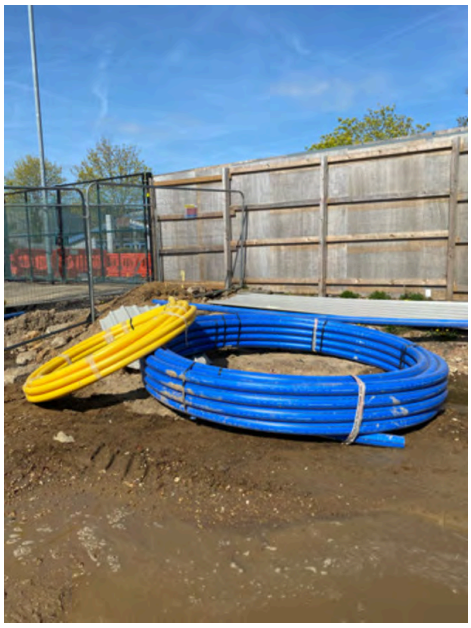
Description

T-7 Arisings

Photo No.	Date
16	10/04/25 - 12/08/25

Description

Barrier Pipe onsite



Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
17	10/04/25 - 12/08/25

Description

Emplaced barrier pipe

Photo No.	Date
18	10/04/25 - 12/08/25

Description

Emplaced barrier pipe

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
19	10/04/25 - 12/08/25

Description

BH101 - Borehole Decommissioning

Photo No.	Date
20	10/04/25 - 12/08/25

Description

BH102 - double checked that there was no pipe work and that the borehole had already been decommissioned

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
21	10/04/25 - 12/08/25

Description

BH103 - Borehole Decommissioning

Photo No.	Date
22	10/04/25 - 12/08/25

Description

BH105 - Borehole Decommissioning

Photograph Log

Client:	Site Location:	Project No.:
HE2 Reading 1 GP Limited	Headley Road East, Reading	433851.0003.0002

Photo No.	Date
23	10/04/25 - 12/08/25

Description

BH106 - Borehole Decommissioning

Annex C: Laboratory Test Results

TRC Companies Ltd
20 Red Lion Street, London
WC1R 4PQ

e: lsadowski@trccompanies.com

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 24-027639

Project / Site name:	Headley Road East, Wadley	Samples received on:	27.06.2024
Your job number:	433851	Samples instructed on/ Analysis started on:	27.06.2024
Your order number:	433851	Analysis completed by:	05.07.2024
Report Issue Number:	1	Report issued on:	05.07.2024
Samples Analysed:	1 soil sample		

Signed: [redacted]

Rafał Szczepańczyk
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-027639
Project / Site name: Headley Road East, Wadley
Your Order No: 433851

Lab Sample Number				240754
Sample Reference				CC-1
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				26/06/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	10
Total mass of sample received	kg	0.1	NONE	0.9

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM
Actinolite detected	Type	N/A	ISO 17025	Not-detected
Amosite detected	Type	N/A	ISO 17025	Not-detected
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected
Chrysotile detected	Type	N/A	ISO 17025	Detected
Crocidolite detected	Type	N/A	ISO 17025	Not-detected
Tremolite detected	Type	N/A	ISO 17025	Not-detected
Asbestos % by hand picking/weighing	%	0.001	ISO 17025	0.002
Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Loose Fibres

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.5

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.07
Phenanthrene	mg/kg	0.05	MCERTS	0.37
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.68
Pyrene	mg/kg	0.05	MCERTS	0.62
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.28
Chrysene	mg/kg	0.05	MCERTS	0.36
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.38
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.22
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.33
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.21
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.24

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	3.76

Analytical Report Number: 24-027639
Project / Site name: Headley Road East, Wadley
Your Order No: 433851

Lab Sample Number				240754
Sample Reference				CC-1
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				26/06/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.1
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	4.6
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (III)	mg/kg	1	NONE	41
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	41
Copper (aqua regia extractable)	mg/kg	1	MCERTS	63
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	140
Petroleum Hydrocarbons				
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.02	NONE	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.02	NONE	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.05	NONE	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	130
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	130
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	NONE	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	NONE	0.021
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.05	NONE	0.076
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10
VOCs				
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	21
Ethylbenzene	µg/kg	5	MCERTS	15
p & m-Xylene	µg/kg	5	MCERTS	39
o-Xylene	µg/kg	5	MCERTS	9

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-027639
Project / Site name: Headley Road East, Wadley
Your Order No: 433851

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
240754	CC-1		161	Loose Fibres	Chrysotile	0.002	0.002

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Analytical Report Number : 24-027639
Project / Site name: Headley Road East, Wadley

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
240754	CC-1	None Supplied	None Supplied	Brown clay and sand with gravel and vegetation

Analytical Report Number : 24-027639
Project / Site name: Headley Road East, Wadley

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references	HSE Report No: 83/1996, HSG 248 (2021), HSG 264 (2012) & SCA Blue Book (draft)	A006B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080	W	MCERTS

Analytical Report Number : 24-027639
Project / Site name: Headley Road East, Wadley

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

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Analytical Report Number : 24-027640

Project / Site name:	Headley Road East, Wadley	Samples received on:	27.06.2024
Your job number:	433851	Samples instructed on/ Analysis started on:	27.06.2024
Your order number:	433851	Analysis completed by:	05.07.2024
Report Issue Number:	1	Report issued on:	05.07.2024
Samples Analysed:	1 10:1 WAC sample		

Signed: [redacted]

Rafał Szczepańczyk
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-027640
Project / Site name: Headley Road East, Wadley
Your Order No: 433851

Lab Sample Number				240755
Sample Reference				CC-2
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				26/06/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	15
Total mass of sample received	kg	0.1	NONE	1.2

General Inorganics

pH (L005B)	pH Units	N/A	MCERTS	7.3
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.3
Loss on Ignition @ 450°C	%	0.2	MCERTS	2.9
Acid Neutralisation Capacity	+/- mmol/kg	-9999	NONE	0.51

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.06
Phenanthrene	mg/kg	0.05	MCERTS	0.24
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.58
Pyrene	mg/kg	0.05	MCERTS	0.62
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.31
Chrysene	mg/kg	0.05	MCERTS	0.39
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.54
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.19
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.42
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.26
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.32
Coronene	mg/kg	0.05	NONE	0.11

Total PAH

Total WAC-17 PAHs	mg/kg	0.85	NONE	4.04

Petroleum Hydrocarbons

Mineral Oil (EC10 - EC40) EH_CU_1D_AL	mg/kg	10	NONE	1400

VOCs

Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	17
Ethylbenzene	µg/kg	5	MCERTS	14
p & m-Xylene	µg/kg	5	MCERTS	36
o-Xylene	µg/kg	5	MCERTS	8.8
Total BTEX	µg/kg	5	MCERTS	75

Analytical Report Number: 24-027640
Project / Site name: Headley Road East, Wadley
Your Order No: 433851

Lab Sample Number				240755
Sample Reference				CC-2
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				26/06/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
PCBs by GC-MS				
PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	0.009
PCB Congener 101	mg/kg	0.001	MCERTS	0.057
PCB Congener 118	mg/kg	0.001	MCERTS	0.031
PCB Congener 138	mg/kg	0.001	MCERTS	0.11
PCB Congener 153	mg/kg	0.001	MCERTS	0.082
PCB Congener 180	mg/kg	0.001	MCERTS	0.016
Total PCBs	mg/kg	0.007	MCERTS	0.31

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Waste Acceptance Criteria Analytical Results

Report No:	24-027640						
					Client: TRC COMP		
Location	Headley Road East, Wadley						
Lab Reference (Sample Number)	240755				Landfill Waste Acceptance Criteria Limits		
Sampling Date	26.06.2024				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	CC-2						
Depth (m)							
Solid Waste Analysis							
TOC (%)**	1.3				3%	5%	6%
Loss on Ignition (%) **	2.9				--	--	10%
BTEX (µg/kg) **	75				6000	--	--
Sum of PCBs (mg/kg) **	0.31				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	1400				500	--	--
Total PAH (WAC-17) (mg/kg)	4.04				100	--	--
pH (units)**	7.3				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	0.51				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1 mg/l			10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.00100			< 0.0100	0.5	2	25
Barium *	0.0431			0.431	20	100	300
Cadmium *	0.000322			0.00322	0.04	1	5
Chromium *	0.00063			0.0063	0.5	10	70
Copper *	0.0079			0.079	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00736			0.0736	0.5	10	30
Nickel *	0.0036			0.036	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	0.027			0.27	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0031			0.031	4	50	200
Chloride *	1.3			13	800	15000	25000
Fluoride*	0.32			3.2	10	150	500
Sulphate *	3.0			30	1000	20000	50000
TDS*	51			510	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	11.8			118	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.2						
Dry Matter (%)	85						
Moisture (%)	15						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*= UKAS accredited (liquid eluate analysis only)

Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation

** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Analytical Report Number : 24-027640
Project / Site name: Headley Road East, Wadley

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
240755	CC-2	None Supplied	None Supplied	Brown clay and sand with gravel

Analytical Report Number : 24-027640
Project / Site name: Headley Road East, Wadley

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH at 20°C in soil	Determination of pH in soil by addition of water followed by electrometric measurement	In-house method	L005B	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Sample Preparation		In-house method	L043B	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe	In-house method based on Guidance an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046B	W	NONE
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	ISO 17025

Analytical Report Number : 24-027640
Project / Site name: Headley Road East, Wadley

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

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Analytical Report Number : 24-031097

Replaces Analytical Report Number: 24-031097, issue no. 1
Result correction by laboratory.
Accreditation status amended to NONE for PAH analysis on leachate
The report has been updated to the current Schedule of Accreditation in regards to VOC method

Project / Site name:	Headley Road East, Reading	Samples received on:	17/07/2024
Your job number:	433851	Samples instructed on/ Analysis started on:	17/07/2024
Your order number:	433851	Analysis completed by:	25/10/2024
Report Issue Number:	2	Report issued on:	26/10/2024
Samples Analysed:	5 soil samples - 5 leachate samples		

Signed: [redacted]

Rachel Chappell
Key Account Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-031097
Project / Site name: Headley Road East, Reading
Your Order No: 433851

Lab Sample Number				258961	258962	258963	258964	258965
Sample Reference				BASE	NORTH	SOUTH	WEST	EAST
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.00	3.00	3.00	3.00
Date Sampled				16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Stone Content	%	0.1	NONE	54.4	47.4	57.2	62	51.2
Moisture Content	%	0.01	NONE	5.8	7.1	5.6	8.4	6.2
Total mass of sample received	kg	0.1	NONE	0.8	0.9	0.8	0.9	0.8
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KSZ	KSZ	KSZ	KSZ	KSZ
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	6.6	8.4	8.5	8.3	8
Organic Matter (automated)	%	0.1	MCERTS	0.3	1	0.3	1.8	0.2
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	12	6.8	12	8.1
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	0.2	0.2	0.4	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	8	14	12	19	10
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	8	14	12	19	10
Copper (aqua regia extractable)	mg/kg	1	MCERTS	5.1	9	3.4	12	4.2
Lead (aqua regia extractable)	mg/kg	1	MCERTS	3.8	26	4.4	25	5.5
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	11	11	12	10
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	14	30	24	47	16

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Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.00	3.00	3.00	3.00
Date Sampled				16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.050	2.4	< 0.050	7.1 [$%]	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	1.4	1.4	< 1.0	1.2	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	6.6	16	< 2.0	22	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	45	130	8.3	150	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	130	620	40	790	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	180	770	48	970	< 10
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	3.4	10	< 2.0	9.2	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	45	75	< 10	73	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	110	270	32	240	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	160	360	32	320	< 10
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-031097
Project / Site name: Headley Road East, Reading

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Lab Sample Number				258961	258962	258963	258964	258965
Sample Reference				BASE	NORTH	SOUTH	WEST	EAST
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.00	3.00	3.00	3.00
Date Sampled				16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Test Limit of detection	Test Accreditation Status					
General Inorganics								
pH (automated)	pH Units	N/A	ISO 17025	6.7	7.6	6.9	7.6	6.9
Speciated PAHs								
Naphthalene	µg/l	0.01	NONE	0.09	< 0.01	< 0.01	0.07	0.07
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE	0.05	0.05	0.04	0.04	0.04
Fluorene	µg/l	0.01	NONE	0.05	0.05	0.04	0.06	0.04
Phenanthrene	µg/l	0.01	NONE	0.12	0.1	0.09	0.11	0.07
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	0.04	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE	0.03	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.16	NONE	0.38	0.2	0.17	0.28	0.22
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	1	ISO 17025	1.7	< 1.0	2.2	3.5	< 1.0
Boron (dissolved)	µg/l	10	ISO 17025	14	25	13	28	15
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08	0.12	< 0.08
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	< 0.4	< 0.4	< 0.4	4.3	< 0.4
Copper (dissolved)	µg/l	0.7	ISO 17025	2.6	9.6	3.9	18	4
Lead (dissolved)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	2.7	< 1.0
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	< 0.3	1.9	< 0.3	3.8	0.5
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	6.5	10	4.3	10	5.1

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Sample Reference				BASE	NORTH	SOUTH	WEST	EAST
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.00	3.00	3.00	3.00
Date Sampled				16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Petroleum Hydrocarbons								
TPH - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >EC10 - EC12 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC12 - EC16 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC16 - EC21 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC21 - EC35 $_{EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >EC5 - EC35 $_{HS+EH\_1D\_AL\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 $_{EH\_1D\_AR\_MS}$	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC12 - EC16 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC16 - EC21 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC21 - EC35 $_{EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC6 - EC35 $_{HS+EH\_1D\_AR\_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	NONE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3	NONE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	NONE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	NONE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3	NONE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3	NONE	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
258961	BASE	None Supplied	3	Brown sand with gravel and stones
258962	NORTH	None Supplied	3	Brown sand with gravel and stones
258963	SOUTH	None Supplied	3	Brown sand with gravel and stones
258964	WEST	None Supplied	3	Brown sand with gravel and stones
258965	EAST	None Supplied	3	Brown sand with gravel and stones

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Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-MS/GC-MS HS in leachate	Determination of total petroleum hydrocarbons in leachate by GC-MS/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L070B/L088-PL	W	NONE
BTEX and/or Volatile organic compounds in leachate	Determination of volatile organic compounds in leachate by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	NONE
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088-PL	D/W	MCERTS
Chromium III in leachate	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL	W	NONE
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL/L130B	W	NONE
Hexavalent chromium in leachate	Determination of hexavalent chromium in leachate by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	ISO 17025

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Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
pH at 20°C in leachate (automated)	Determination of pH in leachate by electrometric measurement	In-house method	L099-PL	W	ISO 17025
Speciated PAHs and/or Semi-volatile organic compounds in leachate	SVOCs and PAHs in leachate	In-house method	L102B		NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

$% - Concentration has been determined by extrapolated calibration as analyte concentration is above the concentration range for the procedure. The result should be considered as deviating and should be interpreted with caution. The result is not accredited.

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Analytical Report Number : 25-019045

Project / Site name:	Headley Road East, Reading	Samples received on:	15/04/2025
Your job number:	433851	Samples instructed on/ Analysis started on:	15/04/2025
Your order number:	433851	Analysis completed by:	23/04/2025
Report Issue Number:	1	Report issued on:	23/04/2025
Samples Analysed:	3 soil samples		

Signed: [redacted]

Rafał Szczepańczyk
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

Excel copies of reports are only valid when accompanied by this PDF certificate.

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 25-019045
Project / Site name: Headley Road East, Reading
Your Order No: 433851

Lab Sample Number				514031	514032	514033
Sample Reference				T-1	S-1	S-2
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				10/04/2025	10/04/2025	10/04/2025
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	17	10
Total mass of sample received	kg	0.1	NONE	0.8	0.8	0.6
Asbestos						
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KJK	KJK	KJK
Analysis completed	N/A	N/A	N/A	18/04/2025	18/04/2025	18/04/2025
General Inorganics						
pH (L099)	pH Units	N/A	MCERTS	8.1	8.4	8.5
Speciated PAHs						
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.08	0.09	0.14
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.12	0.19	0.2
Pyrene	mg/kg	0.05	MCERTS	0.09	0.15	0.16
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.1	0.09
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.1	0.1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.13
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.06
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.07	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Total PAH						
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	0.97
Heavy Metals / Metalloids						
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.3	5.1	8.5
Boron (water soluble)	mg/kg	0.2	MCERTS	1	2	0.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	< 0.2	0.5
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	20	8.9	19
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	9.5	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	16	12	16
Lead (aqua regia extractable)	mg/kg	1	MCERTS	20	12	36
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	8.2	12
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	53	38	56

Analytical Report Number: 25-019045
Project / Site name: Headley Road East, Reading
Your Order No: 433851

Lab Sample Number				514031	514032	514033
Sample Reference				T-1	S-1	S-2
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				10/04/2025	10/04/2025	10/04/2025
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			
Petroleum Hydrocarbons						
TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	24
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	24
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10
VOCs						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 25-019045
Project / Site name: Headley Road East, Reading

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
514031	T-1	None Supplied	None Supplied	Brown loam and sand with gravel and vegetation
514032	S-1	None Supplied	None Supplied	Brown loam and sand with gravel and vegetation
514033	S-2	None Supplied	None Supplied	Brown loam and sand with gravel and vegetation

Analytical Report Number : 25-019045
Project / Site name: Headley Road East, Reading

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088-PL	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL/L130B	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

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Analytical Report Number : 25-043202

Project / Site name:	Headley Road East Woodley	Samples received on:	14/08/2025
Your job number:	433851	Samples instructed on/ Analysis started on:	14/08/2025
Your order number:	433851	Analysis completed by:	26/08/2025
Report Issue Number:	1	Report issued on:	26/08/2025
Samples Analysed:	7 soil samples		

Signed: [redacted]

Rafał Szczepańczyk
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

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Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

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Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 25-043202
Project / Site name: Headley Road East Woodley
Your Order No: 433851

Lab Sample Number				647108	647109	647110	647111	647112
Sample Reference				S-3	T-2	T-3	T-4	T-5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.10	0.10	0.10	0.10
Date Sampled				12/08/2025	12/08/2025	12/08/2025	12/08/2025	12/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	6.6	< 0.1
Moisture Content	%	0.01	NONE	8.7	11	6.2	8.9	9.3
Total mass of sample received	kg	0.1	NONE	0.7	0.7	0.7	0.7	0.7
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	PDO	PDO	PDO	PDO
Analysis completed	N/A	N/A	N/A	22/08/2025	22/08/2025	22/08/2025	22/08/2025	22/08/2025
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.6	7.9	7.7	7.7	8
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.07	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.06	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	2.3	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	1.3	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	16	0.09	0.16	0.09	0.06
Anthracene	mg/kg	0.05	MCERTS	2.9	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	15	0.17	0.3	0.19	0.14
Pyrene	mg/kg	0.05	MCERTS	11	0.16	0.26	0.16	0.13
Benzo(a)anthracene	mg/kg	0.05	MCERTS	4.3	0.08	0.14	0.07	0.06
Chrysene	mg/kg	0.05	MCERTS	4	0.11	0.17	0.11	0.08
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	3.6	0.15	0.19	0.13	0.12
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	2.1	< 0.05	0.06	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	3.2	0.11	0.14	0.09	0.09
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.7	0.06	0.08	< 0.05	0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.36	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.9	0.07	0.1	0.07	0.06
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	70.3	1	1.61	0.9	0.8
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	11	13	11	13
Boron (water soluble)	mg/kg	0.2	MCERTS	1.7	2.4	1.4	2.8	2.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	3.9	0.3	0.5	0.4	0.7
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	U/S *U/S g	U/S *U/S g	< 1.8
Chromium (III)	mg/kg	1	NONE	34	24	U/S	U/S	26
Chromium (VI) by IC	mg/kg	1.8	NONE	-	-	< 1.80	< 1.80	-
Chromium (III) by IC	mg/kg	1	NONE	-	-	28	27	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	34	24	28	27	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	38	20	27	24	23
Lead (aqua regia extractable)	mg/kg	1	MCERTS	46	29	28	25	29
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	21	16	19	18	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.3	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	96	58	73	66	64

Analytical Report Number: 25-043202
Project / Site name: Headley Road East Woodley
Your Order No: 433851

Lab Sample Number				647108	647109	647110	647111	647112
Sample Reference				S-3	T-2	T-3	T-4	T-5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.10	0.10	0.10	0.10
Date Sampled				12/08/2025	12/08/2025	12/08/2025	12/08/2025	12/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	2.4	4	2.4	1.5	3
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	5.5	6.5	4	3.8	5.4
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	11	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	73	27	23	25	41
TPHCWG - Aliphatic >EC35 - EC40 $_{EH\_CU\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	93	38	29	30	49
TPHCWG - Aliphatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	93	38	29	30	49
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	3	3	4.6	2.4	3.4
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	13	7.3	9	4.1	5.8
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	60	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	82	36	32	20	30
TPHCWG - Aromatic >EC35 - EC40 $_{EH\_CU\_1D\_AR}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	160	46	45	27	39
TPHCWG - Aromatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	160	46	45	27	39
TPH Total >EC5 - EC40 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	250	84	74	57	88
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 25-043202
Project / Site name: Headley Road East Woodley
Your Order No: 433851

Lab Sample Number				647113	647114
Sample Reference				T-6	T-7
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				0.10	0.10
Date Sampled				12/08/2025	12/08/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		
Stone Content	%	0.1	NONE	17.2	5.6
Moisture Content	%	0.01	NONE	8.4	7.4
Total mass of sample received	kg	0.1	NONE	0.7	0.7
Asbestos					
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	PDO
Analysis completed	N/A	N/A	N/A	22/08/2025	22/08/2025
General Inorganics					
pH (L099)	pH Units	N/A	MCERTS	7.8	7.7
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.08	0.15
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.16	0.24
Pyrene	mg/kg	0.05	MCERTS	0.16	0.22
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.07	0.1
Chrysene	mg/kg	0.05	MCERTS	0.09	0.13
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.14	0.16
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.09	0.13
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.07
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.07	0.09
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	0.86	1.33
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	11
Boron (water soluble)	mg/kg	0.2	MCERTS	2.5	2.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.9	0.4
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	28	28
Chromium (VI) by IC	mg/kg	1.8	NONE	-	-
Chromium (III) by IC	mg/kg	1	NONE	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	28	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	38	23
Lead (aqua regia extractable)	mg/kg	1	MCERTS	34	25
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	81	64

Analytical Report Number: 25-043202
Project / Site name: Headley Road East Woodley
Your Order No: 433851

Lab Sample Number				647113	647114
Sample Reference				T-6	T-7
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				0.10	0.10
Date Sampled				12/08/2025	12/08/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		
Petroleum Hydrocarbons					
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	3.2	4
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	4.3	6
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	42	23
TPHCWG - Aliphatic >EC35 - EC40 $_{EH\_CU\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	50	33
TPHCWG - Aliphatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	50	33
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	3.7	3.7
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	4.7	6.7
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	21	23
TPHCWG - Aromatic >EC35 - EC40 $_{EH\_CU\_1D\_AR}$	mg/kg	10	NONE	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	30	33
TPHCWG - Aromatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	30	33
TPH Total >EC5 - EC40 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	79	67
VOCs					
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	9.6
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Project / Site name: Headley Road East Woodley

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
647108	S-3	None Supplied	0.2	Brown loam and sand with gravel
647109	T-2	None Supplied	0.1	Brown loam and sand with gravel
647110	T-3	None Supplied	0.1	Brown loam and sand with gravel
647111	T-4	None Supplied	0.1	Brown loam and sand with stones
647112	T-5	None Supplied	0.1	Brown loam and sand with gravel
647113	T-6	None Supplied	0.1	Brown loam and sand with stones
647114	T-7	None Supplied	0.1	Brown loam and sand with stones

Analytical Report Number : 25-043202
Project / Site name: Headley Road East Woodley

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL/L130B	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

Analytical Report Number : 25-043202
Project / Site name: Headley Road East Woodley

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Cr(VI) in soils by Ion chromatography	Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection	In-house method	L130B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

*U/S g- Unsuitable for analysis due to high colour intensity.

Waste Classification Report

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

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

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

Z5H9U-1NAJX-X0RN1

Job name

Headley Road East, Reading

Description/Comments

Project

433851

Site

Headley Road East, Reading

Classified by

Name:
Nyemh Johnson
Date:
08 Jul 2024 15:30 GMT
Telephone:
0161 327 1718

Company:
TRC Companies Ltd
TRC Companies Limited, Arkwright House, Manchester
M3 2LF

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	50% complete

Purpose of classification

2 - Material Characterisation

Address of the waste

Headley Road East, Reading **Post Code** N/A

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Works facility undergoing internal redevelopment.

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

Waste was produced during excavation of a concrete cradle.

Description of the waste

Dark grey silty very gravelly sand with hydrocarbon odour.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	CC-1		Non Hazardous		3

Related documents

#	Name	Description
1	TRC Waste	waste stream template used to create this Job

Report

Created by: Nyemh Johnson

Created date: 08 Jul 2024 15:30 GMT

Classification of sample: CC-1

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

Sample details

Sample name:
CC-1
Moisture content:
10%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.1 mg/kg	1.32	9.625 mg/kg	0.000963 %	✓	
2	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.8 mg/kg	3.22	2.318 mg/kg	0.000232 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		4.6 mg/kg	1.142	4.729 mg/kg	0.000473 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		41 mg/kg	1.462	53.931 mg/kg	0.00539 %	✓	
5	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		63 mg/kg	1.126	63.838 mg/kg	0.00638 %	✓	
7	lead { trilead bis(orthophosphate) }	082-006-00-3	231-205-5	7446-27-7	1	110 mg/kg	1.306	129.251 mg/kg	0.0099 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		18 mg/kg	2.806	45.45 mg/kg	0.00455 %	✓	
10	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
11	zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		140 mg/kg	2.469	311.131 mg/kg	0.0311 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		130 mg/kg		117 mg/kg	0.0117 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		21 mg/kg		18.9 mg/kg	0.00189 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16	●	ethylbenzene				15	mg/kg		13.5	mg/kg	0.00135 %	✓	
		601-023-00-4	202-849-4	100-41-4									
17		xylene				48	mg/kg		43.2	mg/kg	0.00432 %	✓	
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18	●	pH				8.5	pH		8.5	pH	8.5 pH		
				PH									
19		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				0.07	mg/kg		0.063	mg/kg	0.0000063 %	✓	
			201-695-5	86-73-7									
23	●	phenanthrene				0.37	mg/kg		0.333	mg/kg	0.0000333 %	✓	
			201-581-5	85-01-8									
24	●	anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				0.68	mg/kg		0.612	mg/kg	0.0000612 %	✓	
			205-912-4	206-44-0									
26	●	pyrene				0.62	mg/kg		0.558	mg/kg	0.0000558 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.28	mg/kg		0.252	mg/kg	0.0000252 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.36	mg/kg		0.324	mg/kg	0.0000324 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.38	mg/kg		0.342	mg/kg	0.0000342 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				0.22	mg/kg		0.198	mg/kg	0.0000198 %	✓	
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.33	mg/kg		0.297	mg/kg	0.0000297 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				0.21	mg/kg		0.189	mg/kg	0.0000189 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				0.24	mg/kg		0.216	mg/kg	0.0000216 %	✓	
			205-883-8	191-24-2									
35		asbestos				20	mg/kg		18	mg/kg	0.0018 %	✓	
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0821 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because not present as a liquid in this soil

Hazard Statements hit:

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

Because of determinands:

toluene: (conc.: 0.00189%)
ethylbenzene: (conc.: 0.00135%)

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

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.0117%)
xylene: (conc.: 0.00432%)

Appendix A: Classifier defined and non GB MCL determinands

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

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

- **trilead bis(orthophosphate)** (EC Number: 231-205-5, CAS Number: 7446-27-7)

GB MCL index number: 082-006-00-3
Description/Comments: 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

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

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

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

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

boron {diboron trioxide}

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

cadmium {cadmium oxide}

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

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

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

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

Worst case species based on hazard statements/molecular weight

copper {dicopper oxide; copper (I) oxide}

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

lead {trilead bis(orthophosphate)}

Worst case CLP species based on hazard statements/molecular weight

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight

nickel {dinickel hexacyanoferrate}

Worst case CLP species based on hazard statements/molecular weight

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight

zinc {zinc sulphate}

Worst case CLP species based on hazard statements/molecular weight

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2024.158.6092.11254 (06 Jun 2024)
HazWasteOnline Database: 2024.158.6092.11254 (06 Jun 2024)

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