

Analytical Report Number : 24-044332

Project / Site name: 53924

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
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
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
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES	In-house method based on TRL 447	L038B	D	NONE
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	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
Water Soluble Nitrate (2:1) as N in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry	In-house method based on Examination of Water and Wastewater & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078-PL	W	NONE

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Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser	In-house method	L082B	D	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
Fraction Organic Carbon FOC Automated	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate	In-house method	L009B	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

*g - Unaccredited sample matrix.



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Analytical Report Number : 24-046485

Project / Site name:	Scours Lane	Samples received on:	08/10/2024
Your job number:	53924	Samples instructed on / Analysis started on:	08/10/2024
Your order number:	PO3447 I2 02	Analysis completed by:	17/10/2024
Report Issue Number:	1	Report issued on:	17/10/2024
Samples Analysed:	1 water sample		

Signed: 

Trevor Hill
Customer Service Advisor
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.



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Analytical Report Number: 24-046485

Project / Site name: Scours Lane

Your Order No: PO3447 I2 02

Lab Sample Number				341454
Sample Reference				BH01
Sample Number				None Supplied
Depth (m)				7.20
Date Sampled				07/10/2024
Time Taken				1350
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status	

General Inorganics

pH (L099)	pH Units	N/A	ISO 17025	7.2
Sulphate as SO ₄	mg/l	0.045	ISO 17025	61.2
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	1.31
Total Organic Carbon (TOC)	mg/l	0.1	ISO 17025	1.7
Total Suspended Solids (L004B)	mg/l	2	ISO 17025	1900

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	0.38
Fluorene	µg/l	0.01	ISO 17025	0.26
Phenanthrene	µg/l	0.01	ISO 17025	0.86
Anthracene	µg/l	0.01	ISO 17025	0.29
Fluoranthene	µg/l	0.01	ISO 17025	0.58
Pyrene	µg/l	0.01	ISO 17025	0.42
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	2.79
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.26
Barium (dissolved)	µg/l	0.06	ISO 17025	52
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.5
Copper (dissolved)	µg/l	0.5	ISO 17025	2.2
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05
Molybdenum (dissolved)	µg/l	0.05	ISO 17025	0.84
Nickel (dissolved)	µg/l	0.5	ISO 17025	13
Selenium (dissolved)	µg/l	0.6	ISO 17025	2.9
Vanadium (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Zinc (dissolved)	µg/l	0.5	ISO 17025	5.1

Boron (dissolved)	µg/l	10	ISO 17025	100
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0



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Analytical Report Number: 24-046485

Project / Site name: Scours Lane

Your Order No: PO3447 I2 02

Lab Sample Number				341454
Sample Reference				BH01
Sample Number				None Supplied
Depth (m)				7.20
Date Sampled				07/10/2024
Time Taken				1350
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Petroleum Hydrocarbons

TPH - Aliphatic >EC5 - EC6 _{HS 1D AL}	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC6 - EC8 _{HS 1D AL}	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC8 - EC10 _{HS 1D AL}	µg/l	1	ISO 17025	< 1.0
TPH - Aliphatic >EC10 - EC12 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC12 - EC16 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC16 - EC21 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC21 - EC35 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC5 - EC35 _{HS+EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC35 - EC40 _{EH 1D AL MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC5 - EC40 _{HS+EH 1D AL MS}	µg/l	10	NONE	< 10

TPH - Aromatic >EC5 - EC7 _{HS 1D AR}	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC7 - EC8 _{HS 1D AR}	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC8 - EC10 _{HS 1D AR}	µg/l	1	ISO 17025	< 1.0
TPH - Aromatic >EC10 - EC12 _{EH 1D AR MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC12 - EC16 _{EH 1D AR MS}	µg/l	10	NONE	25
TPH - Aromatic >EC16 - EC21 _{EH 1D AR MS}	µg/l	10	NONE	10
TPH - Aromatic >EC21 - EC35 _{EH 1D AR MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC5 - EC35 _{HS+EH 1D AR MS}	µg/l	10	NONE	35
TPH - Aromatic >EC35 - EC40 _{EH 1D AR MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC5 - EC40 _{HS+EH 1D AR MS}	µg/l	10	NONE	35

TPH Total (>EC5 - EC40) _{HS+EH 1D TOTAL MS}	µg/l	10	NONE	35
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0
Benzene	µg/l	3	ISO 17025	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0

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



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Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total Suspended Solids in water	Determined gravimetrically with GFC filtration papers. Accredited matrices: SW, PW, GW, PrW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004B	W	ISO 17025
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited matrices: SW, PW, GW, except B - SW, GW, Hg - SW, PW, Al - SW, PW	In-house method based on USEPA Method 6020 & 200.8 for the determination of trace elements in water by ICP-MS	L012B	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved organic carbon in water by TOC/DOC NDIR Analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	ISO 17025
Total Organic Carbon in water	Determination of total organic carbon in water by TOC/DOC NDIR Analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, FSE, LL; PrW, DI PrW (Al, Cu, Fe, Zn)	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Total Petroleum Hydrocarbons with carbon banding in water by GC-MS	Determination of total petroleum hydrocarbons in water by GC-MS with carbon banding aliphatic and aromatic	In-house method	L070B	W	NONE
BTEX and/or Volatile Organic Compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW, PW, GW	In-house method based on USEPA 8260	L073B	W	ISO 17025
Chromium(III) in water	In-house method by calculation from total Cr and Cr(VI)	In-house method by calculation	L080-PL	W	NONE
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5-diphenylcarbazide, followed by colorimetry. Accredited matrices: SW, PW, GW, FSE, LL	In-house method by continuous flow analyser	L080-PL	W	ISO 17025
Total Petroleum Hydrocarbons in water by HS-GC-MS	Determination of total petroleum hydrocarbons in water by headspace GC-MS. Accredited matrices: SW, PW, GW	In-house method	L088-PL	W	ISO 17025
pH of water at 20°C (automated)	Determination of pH of water by electrochemical measurement. Accredited matrices: SW, PW, GW, FSE, LL	In-house method	L099-PL	W	ISO 17025
Speciated PAHs and/or Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds (including PAHs) in water by extraction in dichloromethane followed by GC-MS. Accredited matrices (PAHs): SW, PW, GW	In-house method based on USEPA 8270	L102B	W	ISO 17025
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, PrW, DI PrW, FSE, LL	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	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 30°C.

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.



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Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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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



Appendix G Qualitative Risk Assessment Matrix

A2SI qualitative risk assessment for geo-environmental purposes is undertaken in accordance with *CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001)*. The CIRIA C552 risk categories and the assessment methodology are summarised below in Table G.1, Table G.2 and Table G.3. Potential magnitude and potential likelihood are both classified to enable a risk rating to be assessed. Potential magnitude takes into account the potential consequences should a complete source–pathway–receptor linkage be present. Potential magnitude is classified as per Table G.1.

Table G.1 Definition of potential magnitude of consequence

Category	Definition
Severe	Acute risks to human health, catastrophic damage to buildings / property, major pollution to controlled waters.
Medium	Chronic risk to human health, pollution of sensitive controlled waters, significant effects on sensitive ecosystems or species, significant damage to buildings or structures.
Mild	Pollution of non-sensitive waters, minor damage to buildings or structures.
Minor	Damage to non-sensitive ecosystems or species.

Potential likelihood takes into account the presence of the hazard and receptor as well as the integrity of the pathway for exposure, i.e., whether a source-pathway-receptor linkage is present or not. Potential likelihood is classified as per Table G.2.

Table G.2 Definition of potential likelihood of exposure

Category	Definition
High Likelihood	Pollutant linkage may be present and is almost certain to occur in the long-term. Or there is evidence of harm to the receptor.
Likely	Pollutant linkage may be present, and it is probable that it will occur over the long-term.
Low Likelihood	Pollutant linkage may be present, and there is a possibility that it will occur, although there is no certainty that it will do so.
Unlikely	Pollutant linkage may be present, but it is improbable that it will occur.

The potential magnitude of consequence and the potential likelihood of exposure are assessed in accordance with the risk matrix presented in Table G.3.

Table G.3 Geo-environmental risk assessment matrix

		Potential Magnitude of Consequence			
		Severe	Medium	Mild	Minor
Potential Likelihood of Exposure	High Likelihood	Very High	High	Moderate	Low to Moderate
	Likely	High	Moderate	Low to Moderate	Low
	Low Likelihood	Moderate	Low to Moderate	Low	Very Low



Unlikely	Low to Moderate	Low	Very Low	Very Low
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Appendix H GQRA Screening Tables

Human Health Generic Quantitative Screening of Soil Data

52724 Addison Road

Key:	
	Exceedance of the GAC
	GAC - Generic Assessment Criteria

Location											
Laboratory Report Ref.											
Exploratory Location Ref.											
Sample Depth (m)											
Sample Date											
Made Ground / Natural ?											
Units	Commercial	2.5% SOM (mg kg-1)		23/09/2024		23/09/2024		24/09/2024		24/09/2024	
		GAC	GAC Ref.	Made Ground	Alluvium	TGM	Chalk	Chalk	Chalk	Made Ground	Made Ground

Anions and Other

pH	pH Units	-	9.5	8.1	8.7	9	9	7.6	8.4	8.4	8.5
Total Sulphate as SO ₄	mg/kg	-	130	47	19	30	35	18	19	24	55
W/S Sulphate as SO ₄ (2:1)	mg/l	-	64.2	23.7	9.72	15	17.2	8.97	9.24	12	27.4
W/S Sulphate as SO ₄ (2:1)	g/l	-	0.0642	-	-	-	-	0.00897	0.00924	0.012	0.0274
Organic Matter (SOM)	%	-	1.8	-	-	-	-	0.8	0.3	1.6	4.6
TOC (Total Organic Carbon)	%	-	1	-	-	-	-	0.5	0.2	0.9	2.6
Fraction Organic Carbon (FOC)	Units	-	0.011	-	-	-	-	0.0046	0.0017	0.0093	0.026

Heavy Metals and Metalloids

Arsenic (As)	mg/kg	640	DEFRA	14	-	-	-	-	16	11	17	12
Barium (Ba)	mg/kg	22,000	CCARRE	190	-	-	-	-	59	34	81	120
Beryllium (Be)	mg/kg	12	CCARRE	1.1	-	-	-	-	0.91	0.54	0.82	0.71
W/S Boron	mg/kg	24,000	DEFRA	0.8	-	-	-	-	0.7	0.3	0.6	0.7
Cadmium (Cd)	mg/kg	410	DEFRA	0.3	-	-	-	-	< 0.2	< 0.2	0.3	0.3
Chromium (Cr)	mg/kg	8600	LQM	< 1.8	-	-	-	-	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	8600	LQM	21	-	-	-	-	26	16	20	18
Chromium (hexavalent)	mg/kg	49	DEFRA	21	-	-	-	-	26	16	20	19
Copper (Cu)	mg/kg	68,000	LQM	36	-	-	-	-	12	6	26	30
Lead (Pb)	mg/kg	2330	DEFRA	61	-	-	-	-	16	9.9	78	76
Mercury (Hg)	mg/kg	1100	LQM	< 0.3	-	-	-	-	< 0.3	< 0.3	< 0.3	< 0.3
Molybdenum (Mo)	mg/kg	17000	LQM	1.3	-	-	-	-	0.77	0.55	1.1	1.1
Nickel (Ni)	mg/kg	980	LQM	21	-	-	-	-	22	12	19	16
Selenium (Se)	mg/kg	12000	LQM	< 1.0	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (V)	mg/kg	9,000	LQM	40	-	-	-	-	46	34	38	36
Zinc (Zn)	mg/kg	730,000	LQM	95	-	-	-	-	58	33	95	100

Asbestos

Asbestos Screen ⁽⁵⁾	Detection		Not-detected	-	-	-	-	Not-detected	Not-detected	Not-detected	Not-detected
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PAHs

Naphthalene	mg/kg	460	LQM	0.55	-	-	-	-	< 0.05	< 0.05	0.09	0.17
Acenaphthylene	mg/kg	97,000	LQM	0.64	-	-	-	-	< 0.05	< 0.05	0.07	0.3
Acenaphthene	mg/kg	97,000	LQM	7.3	-	-	-	-	< 0.05	< 0.05	0.1	0.18
Fluorene	mg/kg	68,000	LQM	7.6	-	-	-	-	< 0.05	< 0.05	0.09	0.31
Phenanthrene	mg/kg	22,000	LQM	34	-	-	-	-	< 0.05	< 0.05	1.1	4.2
Anthracene	mg/kg	540,000	LQM	16	-	-	-	-	< 0.05	< 0.05	0.36	1.1
Fluoranthene	mg/kg	23,000	LQM	41	-	-	-	-	0.09	0.07	2.2	7.6
Pyrene	mg/kg	54,000	LQM	43	-	-	-	-	0.06	< 0.05	2	6.5
Benzo(a)anthracene	mg/kg	170	LQM	21	-	-	-	-	0.09	< 0.05	1.1	3.7
Chrysene	mg/kg	350	LQM	21	-	-	-	-	0.07	< 0.05	1.3	3.8
Benzo(b)fluoranthene	mg/kg	44	LQM	22	-	-	-	-	< 0.05	< 0.05	1.5	4.7
Benzo(k)fluoranthene	mg/kg	350	LQM	12	-	-	-	-	< 0.05	< 0.05	0.77	2.1
Benzo(a)pyrene	mg/kg	77	LQM	21	-	-	-	-	< 0.05	< 0.05	1.3	4.2
Indeno(1,2,3-cd)pyrene	mg/kg	510	LQM	9.1	-	-	-	-	< 0.05	< 0.05	0.78	2.3
Dibenz(a,h)anthracene	mg/kg	3.6	LQM	2.2	-	-	-	-	< 0.05	< 0.05	0.18	0.42
Benzo(ghi)perylene	mg/kg	4,000	LQM	11	-	-	-	-	< 0.05	< 0.05	0.93	2.6
Total EPA-16 PAHs	mg/kg	-		270	-	-	-	-	< 0.80	< 0.80	13.8	44.3

Human Health Generic Quantitative Screening of Soil Data

52724 Addison Road

Key:	
	Exceedance of the GAC
	GAC - Generic Assessment Criteria

Location												
Laboratory Report Ref.												
Exploratory Location Ref.												
Sample Depth (m)												
Sample Date												
Made Ground / Natural ?												
	Units	2.5% SOM (mg kg-1)										
		GAC	GAC Ref.									

TPH

Aliphatic >C5 - C6	mg/kg	5,900	LQM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic >C6 - C8	mg/kg	17,000	LQM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic >C8 - C10	mg/kg	4,800	LQM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic >C10 - C12	mg/kg	23,000	LQM S4ULs	< 1.0	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic >C12 - C16	mg/kg	82,000	LQM S4ULs	< 2.0	-	-	-	-	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic >C16 - C21	mg/kg	1,700,000	LQM S4ULs	< 8.0	-	-	-	-	< 8.0	< 8.0	< 8.0	< 8.0
Aliphatic >C21 - C34	mg/kg	1,700,000	LQM S4ULs	13	-	-	-	-	< 8.0	< 8.0	< 8.0	< 8.0
Aliphatic >C34 - C40	mg/kg	1,700,000	LQM S4ULs	< 10	-	-	-	-	< 10	< 10	< 10	< 10
Aliphatic (C5 - C40)	mg/kg	110,000	LQM S4ULs	13	-	-	-	-	< 10	< 10	< 10	< 10
Aromatic >C5 - C7	mg/kg	46,000	LQM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic >C7 - C8	mg/kg	110,000	LQM S4ULs	< 0.010	-	-	-	-	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic >C8 - C10	mg/kg	8,100	LQM S4ULs	< 0.020	-	-	-	-	< 0.020	< 0.020	< 0.020	< 0.020
Aromatic >C10 - C12	mg/kg	28,000	LQM S4ULs	2.3	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic >C12 - C16	mg/kg	37,000	LQM S4ULs	31	-	-	-	-	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic >C16 - C21	mg/kg	28,000	LQM S4ULs	130	-	-	-	-	< 10	< 10	< 10	11
Aromatic >C21 - C35	mg/kg	28,000	LQM S4ULs	190	-	-	-	-	< 10	< 10	20	33
Aromatic (C35 - C40)	mg/kg	28,000	LQM S4ULs	29	-	-	-	-	< 10	< 10	< 10	< 10
Total >C5 - C40	mg/kg	28,000	LQM S4ULs	380	-	-	-	-	< 10	< 10	20	43

BTX and MTBE

Benzene	ug/kg	27,000	DEFRA C4SLs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	ug/kg	110,000,000	LQM S4ULs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	ug/kg	13,000,000	LQM S4ULs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	ug/kg	14,000,000	LQM S4ULs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	ug/kg	15,000,000	LQM S4ULs	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0
MTBE	ug/kg	13,000,000	CLAIRE GAC	< 5.0	-	-	-	-	< 5.0	< 5.0	< 5.0	< 5.0

Controlled Waters Generic Quantitative Screening of Groundwater Data

53924 Scours Lane

Key:	
	Exceedance of the Drinking Water GAC
	Exceedance of Environmental Quality GAC
	Exceedance of both GAC
GAC - Generic Assessment Criteria	

Laboratory Report Ref.		Drinking Water GAC	Environmental Quality GAC	341454
Exploratory Location Ref.				BH01
Sample Date				07/10/2024
Aquifer Unit				TGM
GAC Refs.	Units	UK and EU Drinking Water Standards and WHO Guideline Values	Environmental Quality Standards (EQS) published by the UK, EU and EA	

Anions and Other

pH (L099)	pH Units	-		7.2
Sulphate as SO ₄	mg/l	250	400	61.2
Dissolved Organic Carbon (DOC)	mg/l	-		1.31
Total Organic Carbon (TOC)	mg/l	-		1.7
Total Suspended Solids (L004B)	mg/l	-		1900

Heavy Metals and Metalloids

Arsenic (dissolved)	µg/l	10	50	0.26
Barium (dissolved)	µg/l	700	-	52
Beryllium (dissolved)	µg/l	12	-	< 0.1
Boron (dissolved)	µg/l	1000	2000	100
Cadmium (dissolved)	µg/l	5	0.08	< 0.02
Chromium (dissolved)	µg/l	50 (sum)	4.7	0.5
Chromium (hexavalent)	µg/l		3.4	< 5.0
Chromium (III)	µg/l		4.7	< 5.0
Copper (dissolved)	µg/l	2000	1 (bioavailable)	2.2
Lead (dissolved)	µg/l	10	1.2	< 0.2
Mercury (dissolved)	µg/l	1	0.07	< 0.05
Molybdenum (dissolved)	µg/l	-		0.84
Nickel (dissolved)	µg/l	20	4	13
Selenium (dissolved)	µg/l	10	-	2.9
Vanadium (dissolved)	µg/l	-	20	< 0.2
Zinc (dissolved)	µg/l	3000	10.9	5.1

PAHs

Naphthalene	µg/l	-	2	< 0.01
Acenaphthylene	µg/l	-		< 0.01
Acenaphthene	µg/l	-		0.38
Fluorene	µg/l	-		0.26
Phenanthrene	µg/l	-		0.86
Anthracene	µg/l	-	0.1	0.29
Fluoranthene	µg/l	-	0.0063	0.58
Pyrene	µg/l	-		0.42
Benzo(a)anthracene	µg/l	-		< 0.01
Chrysene	µg/l	-		< 0.01
Benzo(b)fluoranthene	µg/l	0.1 (sum)	0.0002	< 0.01
Benzo(k)fluoranthene	µg/l		0.0002	< 0.01
Benzo(a)pyrene	µg/l		0.0002	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l		0.0002	< 0.01
Dibenz(a,h)anthracene	µg/l	-		< 0.01
Benzo(ghi)perylene	µg/l	0.01	0.0002	< 0.01
Total EPA-16 PAHs	µg/l	-		2.79

TPH

TPH - Aliphatic >EC5 - EC6 _{HS_1D_AL}	µg/l	300	20	< 1.0
TPH - Aliphatic >EC6 - EC8 _{HS_1D_AL}	µg/l	300	20	< 1.0
TPH - Aliphatic >EC8 - EC10 _{HS_1D_AL}	µg/l	300	20	< 1.0
TPH - Aliphatic >EC10 - EC12 _{EH_1D_AL_MS}	µg/l	300	20	< 10
TPH - Aliphatic >EC12 - EC16 _{EH_1D_AL_MS}	µg/l	300	20	< 10
TPH - Aliphatic >EC16 - EC21 _{EH_1D_AL_MS}	µg/l	Insoluble	-	< 10
TPH - Aliphatic >EC21 - EC35 _{EH_1D_AL_MS}	µg/l	Insoluble	-	< 10
TPH - Aliphatic >EC5 - EC35 _{HS+EH_1D_AL_MS}	µg/l	-		< 10
TPH - Aromatic >EC5 - EC7 _{HS_1D_AR}	µg/l	1	10	< 1.0
TPH - Aromatic >EC7 - EC8 _{HS_1D_AR}	µg/l	700	74	< 1.0
TPH - Aromatic >EC8 - EC10 _{HS_1D_AR}	µg/l	300	20	< 1.0
TPH - Aromatic >EC10 - EC12 _{EH_1D_AR_MS}	µg/l	90	2	< 10
TPH - Aromatic >EC12 - EC16 _{EH_1D_AR_MS}	µg/l	90	2	25
TPH - Aromatic >EC16 - EC21 _{EH_1D_AR_MS}	µg/l	90	0.1	10
TPH - Aromatic >EC21 - EC35 _{EH_1D_AR_MS}	µg/l	90	0.0002	< 10
TPH - Aromatic >EC5 - EC35 _{HS+EH_1D_AR_MS}	µg/l	-		35
TPH Total (>EC5 - EC40) _{HS+EH_1D_TOTAL_MS}	µg/l	-		35

BTEX and MTBE

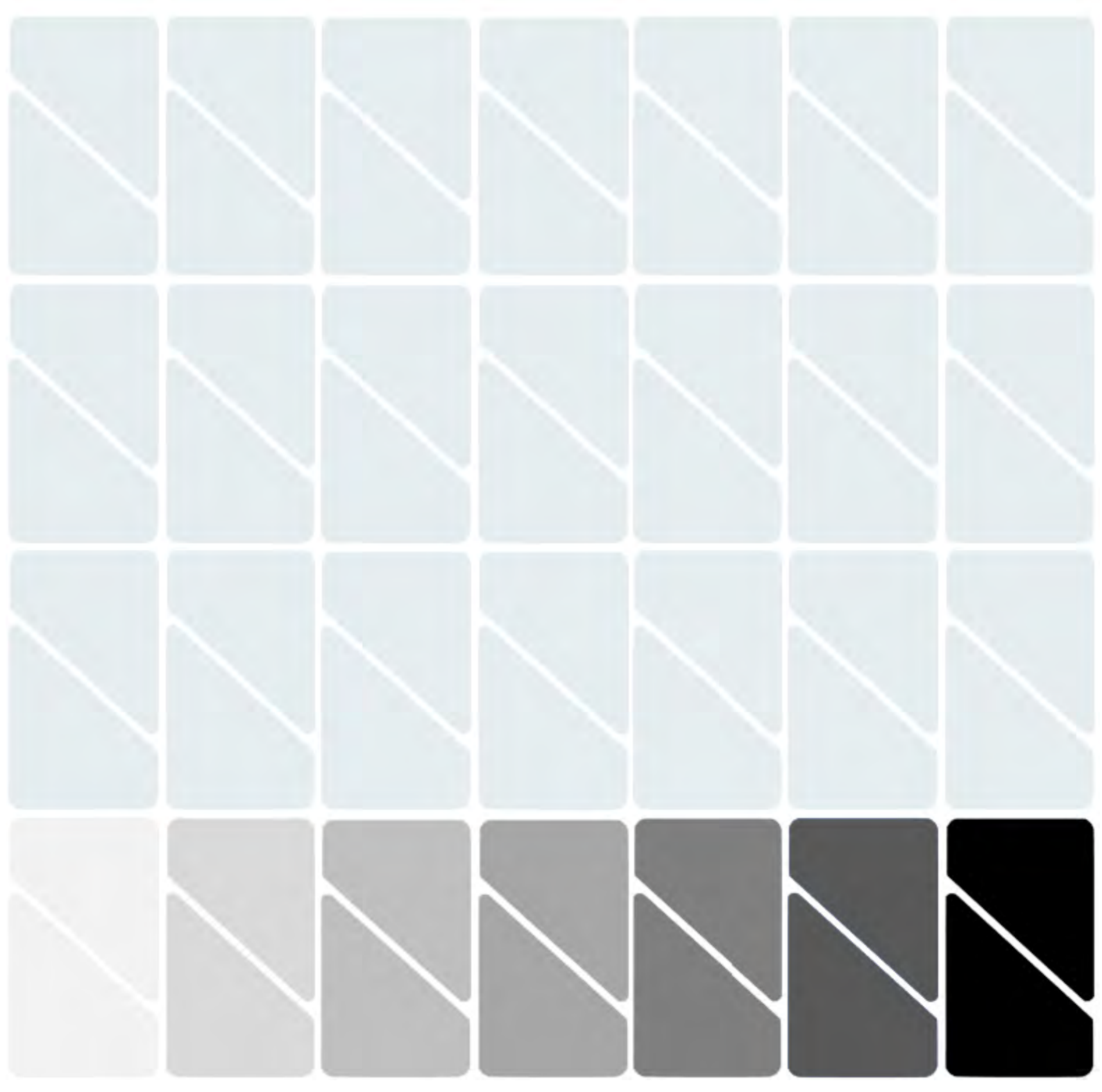
MTBE (Methyl Tertiary Butyl Ether)	µg/l	15	-	< 3.0
Benzene	µg/l	1	10	< 3.0
Toluene	µg/l	700	74	< 3.0
Ethylbenzene	µg/l	300	20	< 3.0
p & m-xylene	µg/l	500	30	< 3.0
o-xylene	µg/l			< 3.0



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APPENDIX D - REFER TO O&M MANUAL FOR FINAL CCTV SURVEY