






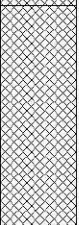




				Start - End Date: 13/02/2024		Project ID: J15525		Hole Type: TP		TP2 Sheet 1 of 1	
Client: Royal Borough of Kingston upon Thames				Co-ordinates:		Level (m AOD)		Logger: er			
Project Name: Eagle Brewery Wharf (Open Space)				Location: Riverside Walk, Kingston upon Thames							
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)	Stratum Description				
Depth (m bgl)	Type	Results									
0.90	ES			(0.10)		0.10	blacktop surfacing				
				(0.70)			Compacted fine to coarse gravel of brick, concrete and flint MAde Ground				
				(0.40)		0.80	Brown silty fine to coarse SAND with occasional to some fine to coarse gravel of brick and tile MAde Ground				
						1.20	Pit terminated at 1.20m				
Pit Dimension (m)		Pit Stability: stable		Water Strikes							
		Weather:				Depth (m)		Date/Time		Remarks	
Width:	1.00	Remarks:									
Length:	1.00	dry									
Depth:	1.20										
Status: FINAL		Log Print Date and Time: 15/02/2024 11:12		Log Approved By:							

		Start - End Date:		Project ID:	Hole Type:	TP3
		13/02/2024		J15525	TP	Sheet 1 of 1
Client:		Royal Borough of Kingston upon Thames		Co-ordinates:		Level (m AOD)
Project Name:		Eagle Brewery Wharf (Open Space)		Location:		Riverside Walk, Kingston upon Thames
Logger:		er				
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)
Depth (m bgl)	Type	Results				Stratum Description
0.30	ES		(0.10)		0.10	blacktop surfacing
			(0.50)			Dark brown fine to coarse GRAVEL of brick, concrete and flint Made Ground
			(0.05)		0.60	old yard surfacing Made Ground
0.80	ES		(0.55)		0.65	Dark brown silty fine to coarse SAND with occasional fine to coarse gravel of brick and concrete Made Ground
					1.20	Pit terminated at 1.20m
Pit Dimension (m)		Pit Stability:	stable		Water Strikes	
Width:	1.00	Weather:			Depth (m)	Date/Time
Length:	1.00	Remarks:	0.6mbgl former yard surface, dry			Remarks
Depth:	1.20					
Status:	FINAL	Log Print Date and Time:	15/02/2024 11:12		Log Approved By:	

				Start - End Date: 13/02/2024		Project ID: J15525		Hole Type: TP		TP4 Sheet 1 of 1	
Client: Royal Borough of Kingston upon Thames				Co-ordinates:		Level (m AOD)		Logger: er			
Project Name: Eagle Brewery Wharf (Open Space)				Location: Riverside Walk, Kingston upon Thames							
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)	Stratum Description				
Depth (m bgl)	Type	Results									
0.70	ES			(0.10)		0.10	blacktop surfacing				
				(0.50)			Fine to coarse gravel of brick and concrete, compacted Made Ground				
				(0.60)		0.60	Brown silty fine to coarse SAND with occasional to some fine to coarse gravel of brick, concrete, flint, old road surface Made Ground				
						1.20	Pit terminated at 1.20m				
Pit Dimension (m)			Pit Stability: stable		Water Strikes						
			Weather:			Depth (m)	Date/Time	Remarks			
Width:	1.00	Remarks:									
Length:	1.00	dry									
Depth:	1.20										
Status: FINAL			Log Print Date and Time: 15/02/2024 11:12		Log Approved By:						

				Start - End Date:		Project ID:	Hole Type:	TP5	
				13/02/2024		J15525	TP	Sheet 1 of 1	
Client:			Royal Borough of Kingston upon Thames			Co-ordinates:		Level (m AOD)	Logger:
Project Name:			Eagle Brewery Wharf (Open Space)			Location:		Riverside Walk, Kingston upon Thames	
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)	Stratum Description		
Depth (m bgl)	Type	Results							
0.30	ES			(0.10)		0.10	blacktop surfacing		
				(0.50)			Brown fine to coarse GRAVEL of brick and flint with scant fine to coarse matrix of fine to coarse sand Made Ground		
0.80	ES			(0.60)		0.60	Brown silty fine to coarse SAND with occasional fine to coarse gravel of brick, concrete and flint, pockets of sandy clay noted Made Ground		
						1.20	Pit terminated at 1.20m		
Pit Dimension (m)			Pit Stability:	stable			Water Strikes		
			Weather:				Depth (m)	Date/Time	Remarks
Width:	1.00	Remarks:							
Length:	1.00								
Depth:	1.20								
Status:			FINAL	Log Print Date and Time:		15/02/2024 11:12	Log Approved By:		

APPENDIX B

Field Sampling and In-Situ Test Methods and Results



B

Soil and Rock Descriptions

All soil and rock descriptions are in general accordance with BS5930 Ref [3].

Anthropogenic soils ('made ground' or 'fill') describe materials which have been placed by man and can be divided into those composed of reworked natural soils and those composed of or containing man-made materials. 'Fill' is used to describe material placed in a controlled manner and 'made ground' is used to describe materials placed without strict engineering control.

The classification of materials such as topsoil is based on visual description only and should not be interpreted to mean that the material complies with criteria used in BS 3882 Ref [10].

Chalk descriptions are based on CIRIA C574 Ref [11] and Mortimore Ref [12].

The geology code is only provided on logs where a positive identification of the sample strata has been made.

Inspection Pit

Inspection pits are hand excavated from the surface (maximum depth 1.2 – 1.5m) using appropriate tools to locate and avoid existing buried services at exploratory hole positions. They are also regularly used as part of investigations on existing structures to expose and determine foundation detail.

Trial Pits and Trenches

Trial pits and trenches are unsupported excavations, mechanically excavated by machine to the required depth to enable visual examination, in situ testing and sampling as required from outside the excavation.

Disturbed Samples

Disturbed samples were taken from exploratory holes in general accordance with BS 5930 [3] and BS EN ISO 22475-1 Ref [13] as required and stored in appropriately labelled containers. Details of the type, size and depth of sample will be recorded within the exploratory hole record. Such samples can be regarded as being between Class 5 up to Class 3 quality depending upon their method of sampling.

Environmental Samples

Environmental samples were taken from the boreholes at regular intervals in the made ground and natural soils as indicated on the exploratory hole logs. The sampling strategy was in general accordance with BS10175 Ref [4] and BS ISO 18400 Refs [14], [15], [16], [17] & [18].

These samples were collected and stored in glass jars or plastic pots and transferred to the laboratory in cool boxes as appropriate to the proposed laboratory testing.

APPENDIX C

Contamination Laboratory Test Methods and Results



These screening values are valid at the time of writing but may be subject to change and any such changes will have implications for the assessments based on them. Their validity should be confirmed at the time of site development.

Table 1 – Tier 1 Screening Values

Contaminant	Units	Proposed Land Use					
		Residential with home grown produce consumption	Residential without home grown produce consumption	Open Space* (Residential)	Open Space* (Park)	Allotments	Commercial / Industrial
Arsenic (As) [2]	mg/kg	37	40	79	170	43	640
Cadmium (Cd) [2]	mg/kg	11	85	120	555	1.9	190
Trivalent Chromium (CrIII) [2]	mg/kg	910	910	1,500	33,000	18,000	8600
Hexavalent Chromium (CrVI) [2]	mg/kg	6	6	7.7	220	1.8	33
Lead (Pb) [3]	mg/kg	200	310	630	1300	80	2330
Mercury (Hg) [1,2,7]	mg/kg	7.6-11	9.2-15	40	68-71	6.0	29-320
Selenium (Se) [2]	mg/kg	250	430	1,100	1,800	88	12,000
Nickel (Ni) [2,4]	mg/kg	130	180	230	800	53	980
Copper (Cu) [2,4]	mg/kg	2,400	7,100	12,000	44,000	520	68,000
Zinc (Zn) [2,4]	mg/kg	3,700	40,000	81,000	170,000	620	730,000
Phenol [1,2]	mg/kg	120-380	440-1200	440-1300	440-1300	23-83	440-1300
Benzo[a]pyrene [1,5]	mg/kg	1.7-2.4	2.6	4.9	10	0.67-2.7	36
Naphthalene [1,2]	mg/kg	2.3-13	2.3-13	77-430 ⁺	77-430 ⁺	4.1-24	77-430 ⁺
Total Cyanide (CN) [6]	mg/kg	/	/	/	/	/	/
Free Cyanide [6]	mg/kg	/	/	/	/	/	/
Complex Cyanides [6]	mg/kg	/	/	/	/	/	/
Thiocyanate [6]	mg/kg	/	/	/	/	/	/

Notes:

* Open Space levels calculated on the basis of the exposure modelling developed in the C4SL research.

+ Screening values constrained to saturation limit. Higher values may be acceptable on a site specific basis.

[1] Where ranges of values are given for organic contaminants the screening value is dependent on the Soil +Organic Matter.

[2] LQM/CIEH S4UL (2014). Copyright Land Quality Management Ltd. reproduced with permission; Publication Number S4UL 3116. All rights reserved.

[3] C4SL (DEFRA 2014).

[4] Copper, Zinc and Nickel may have phototoxic effects at the given concentrations. Alternative criteria should be adopted for importation of Topsoil or other soils for cultivation. BS3882:2015 and BS8601:2013 suggest values of 200 to 300mg/kg for Zn, 100 to 200mg/kg for Cu, and 60 to 110mg/kg for Ni, for topsoil and subsoil, depending on pH.

[5] Based on the Surrogate Marker approach and modelled using the modified exposure parameters of C4SL but retaining 'minimal risk' HCV.

[6] Screening criteria derived on a site specific basis if test results indicate.

[7] S4UL for Methyl Mercury, higher concentrations may be tolerable if inorganic mercury is the only species present. Lower concentrations apply for elemental Mercury.



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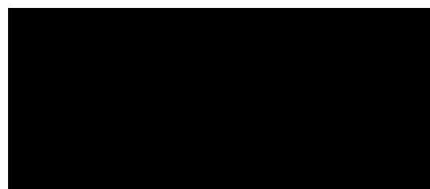
Analytical Report Number : 24-003766

Replaces Analytical Report Number: 24-003766, issue no. 1

Additional analysis undertaken.

Quantification added on the sample 120405 as per client's request

Project / Site name:	Eagle Brewery Wharf, Kingston upon Thames	Samples received on:	16/02/2024
Your job number:	J15525	Samples instructed on/ Analysis started on:	16/02/2024
Your order number:	J15525 1	Analysis completed by:	23/02/2024
Report Issue Number:	2	Report issued on:	01/03/2024
Samples Analysed:	7 soil samples		



Reporting Specialist

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: 24-003766
 Project / Site name: Eagle Brewery Wharf, Kingston upon Thames
 Your Order No: J15525 1

Lab Sample Number	120401	120402	120403	120404	120405
Sample Reference	TP1	TP2	TP3	TP3	TP4
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.50	0.90	0.30	0.80	0.70
Date Sampled	13/02/2024	13/02/2024	13/02/2024	13/02/2024	13/02/2024
Time Taken	1000	1000	1000	1000	1100
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	37.1	< 0.1	42.9	< 0.1
Moisture Content	%	0.01	NONE	34	8	16	7.9	16
Total mass of sample received	kg	0.1	NONE	0.4	0.3	1.2	1.1	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Detected
Asbestos Analyst ID	N/A	N/A	N/A	KSZ	KSZ	KSZ	KSZ	KSZ
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	-	-	-	-	< 0.001
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-	-	-	Loose Fibres
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General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.2	11.5	9.7	8.6	9.7
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	73	240	350	94	210
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.03632	0.11779	0.17321	0.04685	0.10396
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	36.3	118	173	46.9	104
Sulphide	mg/kg	1	MCERTS	< 1.0	11	2.8	< 1.0	1.8
Organic Matter (automated)	%	0.1	MCERTS	10	1.3	0.6	1.1	1.9

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.66	0.9	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.08	0.3	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.14	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.13	0.28	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.84	2.7	1.3	< 0.05	0.33
Anthracene	mg/kg	0.05	MCERTS	0.14	0.57	0.26	< 0.05	0.08
Fluoranthene	mg/kg	0.05	MCERTS	0.64	3.3	1.8	< 0.05	0.59
Pyrene	mg/kg	0.05	MCERTS	0.52	2.7	1.6	< 0.05	0.49
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.38	1.6	0.94	< 0.05	0.32
Chrysene	mg/kg	0.05	MCERTS	0.36	1.5	0.87	< 0.05	0.31
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.35	1.8	0.96	< 0.05	0.36
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.16	0.62	0.43	< 0.05	0.21
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.28	1.4	0.74	< 0.05	0.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.25	0.74	0.39	< 0.05	0.21
Dibenzo(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.17	0.14	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.29	0.86	0.48	< 0.05	0.23

Analytical Report Number: 24-003766

Project / Site name: Eagle Brewery Wharf, Kingston upon Thames

Your Order No: J15525 1

Lab Sample Number	120401	120402	120403	120404	120405
Sample Reference	TP1	TP2	TP3	TP3	TP4
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.50	0.90	0.30	0.80	0.70
Date Sampled	13/02/2024	13/02/2024	13/02/2024	13/02/2024	13/02/2024
Time Taken	1000	1000	1000	1000	1100
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	5.08	19.4	9.86	< 0.80	3.43
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Heavy Metals / Metalloids

Element	mg/kg	1	MCERTS	51	12	10	22	12
Arsenic (aqua regia extractable)	mg/kg	0.2	MCERTS	0.8	2.4	1.1	1.2	1
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cadmium (aqua regia extractable)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (hexavalent)	mg/kg	1	MCERTS	27	19	17	19	16
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	77	35	28	59	31
Copper (aqua regia extractable)	mg/kg	1	MCERTS	59	67	55	29	100
Lead (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Mercury (aqua regia extractable)	mg/kg	1	MCERTS	46	16	11	18	13
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	1.9	< 1.0	< 1.0	< 1.0	< 1.0
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	130	38	31	50	32
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	180	54	42	44	53
Zinc (aqua regia extractable)	mg/kg	10	NONE	< 10	70	40	29	71

Petroleum Hydrocarbons

Parameter	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Total >C6 - C40 EH_CU+HS_ID_TOTAL_#1_#2	mg/kg	10	MCERTS	< 10	70	40	29	71
Petroleum Range Organics (C6 - C10) HS_ID_TOTAL	mg/kg	10	MCERTS	< 10	70	40	29	71
TPH (C10 - C40) EH_CU_ID_TOTAL_#1_#2	mg/kg	10	MCERTS	< 10	70	40	29	71

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

Analytical Report Number: 24-003766
 Project / Site name: Eagle Brewery Wharf, Kingston upon Thames
 Your Order No: J15525 1

Lab Sample Number	120406	120407
Sample Reference	TP5	TP5
Sample Number	None Supplied	None Supplied
Depth (m)	0.30	0.80
Date Sampled	13/02/2024	13/02/2024
Time Taken	1000	1000
Analytical Parameter (Soil Analysis)	Units	Limit of detection
		Accreditation Status

Stone Content	%	0.1	NONE	36.2	< 0.1
Moisture Content	%	0.01	NONE	13	19
Total mass of sample received	kg	0.1	NONE	1.1	1.3

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	KSZ	KSZ
Actinolite detected	Type	N/A	ISO 17025	-	-
Amosite detected	Type	N/A	ISO 17025	-	-
Anthophyllite detected	Type	N/A	ISO 17025	-	-
Chrysotile detected	Type	N/A	ISO 17025	-	-
Crocidolite detected	Type	N/A	ISO 17025	-	-
Tremolite detected	Type	N/A	ISO 17025	-	-

Asbestos % by hand picking/weighing	%	0.001	ISO 17025	-	-
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Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	-	-
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General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.8	8.1
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	97	140
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.04861	0.07024
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	48.6	70.2
Sulphide	mg/kg	1	MCERTS	1.4	1.2
Organic Matter (automated)	%	0.1	MCERTS	1.2	2.5

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
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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	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05

Analytical Report Number: 24-003766

Project / Site name: Eagle Brewery Wharf, Kingston upon Thames

Your Order No: J15525 1

Lab Sample Number	120406	120407	
Sample Reference	TP5	TP5	
Sample Number	None Supplied	None Supplied	
Depth (m)	0.30	0.80	
Date Sampled	13/02/2024	13/02/2024	
Time Taken	1000	1000	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	15
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	33	62
Lead (aqua regia extractable)	mg/kg	1	MCERTS	62	130
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	19
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	38	43
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	42	48

Petroleum Hydrocarbons

TPH Total >C6 - C40 EH_CU+HS_ID_TOTAL_#1_#2	mg/kg	10	NONE	210	290
Petroleum Range Organics (C6 - C10) HS_ID_TOTAL	mg/kg	1	NONE	< 1.0	< 1.0
TPH (C10 - C40) EH_CU_ID_TOTAL_#1_#2	mg/kg	10	MCERTS	210	290

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



Analytical Report Number: 24-003766
Project / Site name: Eagle Brewery Wharf, Kingston upon Thames
Your Order No: J15525 1

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
120405	TP4	0.70	125	Loose Fibres	Chrysotile	< 0.001	< 0.001

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

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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 *
120401	TP1	None Supplied	0.5	Brown sand
120402	TP2	None Supplied	0.9	Brown gravely sand with stones
120403	TP3	None Supplied	0.3	Brown gravely sand with brick
120404	TP3	None Supplied	0.8	Brown gravely sand with stones and brick
120405	TP4	None Supplied	0.7	Brown gravely sand with rubble and brick
120406	TP5	None Supplied	0.3	Brown gravely sand with stones
120407	TP5	None Supplied	0.8	Brown gravely sand

Analytical Report Number : 24-003766

Project / Site name: Eagle Brewery Wharf, Kingston upon Thames

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
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
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010	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
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated EPA-16 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 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	MCERTS
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
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
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 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.

APPENDIX D

Photographs



D



1 – Site entrance, looking west



2 – Looking west along Ram Passage



3 – Looking north along High Street



4 – Looking south along High Street



5 – Looking east along Ram Passage



6 – Looking south towards car park



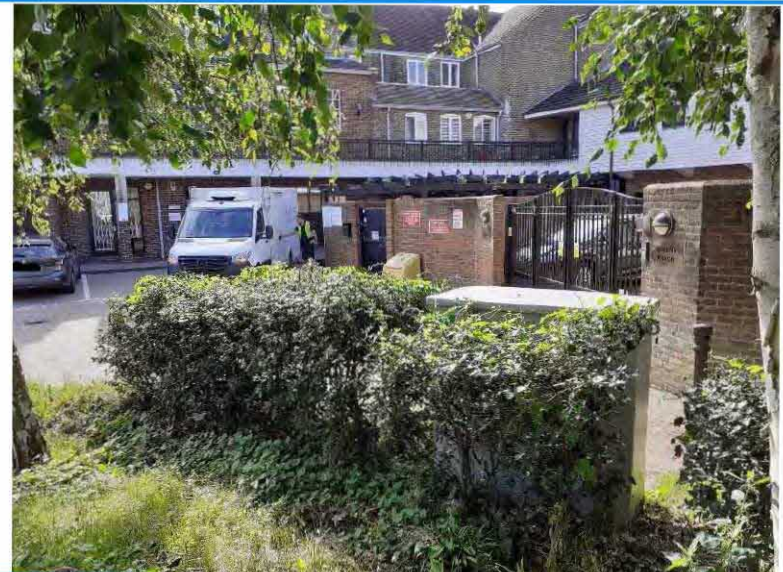
7 – Looking southeast towards car park and adjacent buildings



8 – Looking northeast towards adjacent pub



9 – Looking south towards adjacent flats



10 – Buses and grey service cabinet, looking east



11 – Looking west towards trees



12 – Looking a west across the site



13 – Flats adjacent to southern boundary, looking south



14 – Looking south along footpath



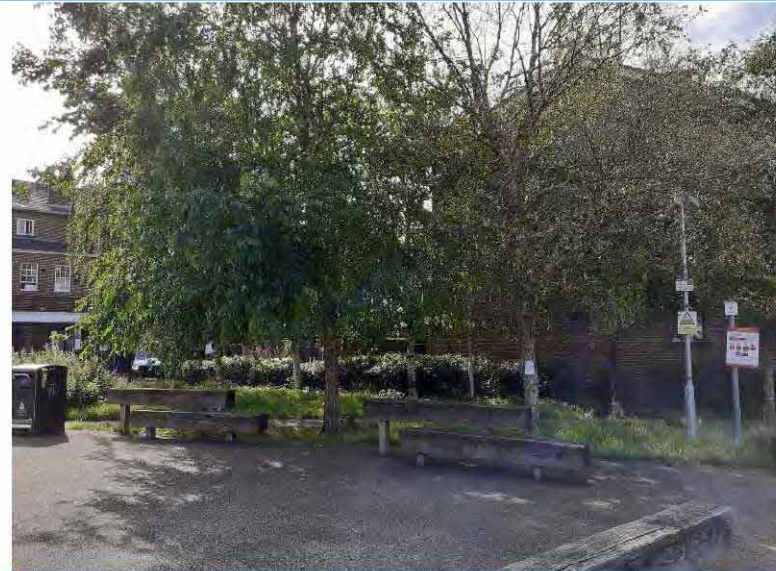
15 – Moorings adjacent to western boundary, looking north west



16 – Café building adjacent to northern boundary, looking northeast



17 – Plant box, looking south



18 – Looking south east towards birch trees



19 – Looking north along footpath



20 – Plaque denoting site history by Royal Borough of Kingston Upon Thames



21 – Looking east across site



22 – Looking north across site



23 – Possible Alder tree growing into quay wall



24 – Possible Alder leaf



25 – Possible Willow tree growing into quay wall



26 – Possible Willow leaf



27 – Bushes along southern boundary, looking east



28 – Various bush leaves



29 – Surface water drain, looking south



30 – Potentially blocked drain, looking south west



31 – Service cover in north western part of site, looking south



32 – Service cover adjacent to northern boundary, looking east



33 – Service covers, looking north along footpath



34 – Surface cover in Ram Passage, looking east



35 – Retractable bollards, looking south



36 – Surface water drain, looking south



37 – Service covers at site entrance, looking north



38 – Buildings on High Street adjacent to northern boundary



39 – Buildings on High Street adjacent to southern boundary



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