



Teddington Direct River Abstraction

Preliminary Environmental Information Report
Appendix 10.1 – Phase 1 Ground Investigation
Interim Ground Investigation Factual Report

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Appendix 10.1 – Phase 1 Ground Investigation Interim Ground Investigation Factual Report

A.1 Introduction

- A.1.1 This Phase 1 Ground Investigation Interim Factual Report outlines the key geo-environmental findings of the ongoing Phase 1 Ground Investigation (GI) based on the information received up to the 25 February 2025, when this appendix began production.

A.2 Ongoing Phase 1 GI

- A.2.1 The ongoing programme of GI commenced on 28 August 2024 and is currently scheduled to be completed on the 23 May 2025 (provisional). A second phase of GI (Phase 2), comprising of two additional boreholes, MT-034-35 and MT-035-35, will commence immediately after the first phase of GI (Phase 1). The locations of the boreholes from both Phase 1 and Phase 2 are shown on Figure 10.3.

Purpose of the GI

- A.2.2 Undertake a geotechnical, geo-environmental and hydrogeological assessment of the nature, thickness and distribution of the geological sequence, including groundwater and ground gas conditions. This is to enable the design of the proposed structures within Mogden sewage treatment works (STW) at the northern end of the proposed route, and along the proposed conveyance route options for tunnelling and pipejacking, for suitably positioning the drive shaft, interception shaft, intermediate shaft, reception shaft, connection shaft and the Thames Lee Tunnel (TLT) connection and to assess the ground conditions at the proposed intake and outfall structure locations at the southern end;
- A.2.3 Understand and assess Made Ground (MG) along the proposed route (principally at the construction sites), including reworked ground and potential landfilled materials, to assess composition and identify potential contamination;
- A.2.4 Produce factual data to characterise the ground conditions of both soils and rocks using sample descriptions and in-situ tests carried out in the exploratory boreholes, and to identify the presence of shallow groundwater and/or perched groundwater, including chemical composition;
- A.2.5 Undertake geotechnical and geo-environmental laboratory testing to confirm soil parameters and identify the potential for the presence of contaminants;
- Collect in-situ geotechnical test data;
 - Collect in-situ permeability test data; and,
 - Install groundwater and ground gas monitoring wells to undertake a schedule of in-situ monitoring.

Scope of the GI

- A.2.6 The scope of the ongoing Phase 1GI for the Teddington Direct River Abstraction (TDRA, hereafter referred to as the Project) outlined in the GI Specification 'B22849AP-GEO-SPE-002 (Rev.5)'¹as follows:
- a. Two boreholes advanced sub-horizontally through the eastern embankment at Mogden STW to determine the embankment structure and undertake in-situ testing and sampling;
 - b. Two boreholes, advanced initially through the superficial deposits using cable percussive techniques and then within the London Clay Formation to a provisional maximum depth of 25.0 metres below ground level (mbgl) to determine the ground conditions for the proposed pipejack connection between Burnell Avenue and the TLT;
 - c. A total of 16 boreholes, advanced initially through the superficial deposits using cable percussive techniques, extended by dynamic sampling / rotary coring within the London Clay Formation to a provisional maximum depth of 90m bgl, to determine the ground conditions along the proposed conveyancing route. Selected boreholes will prove the top of the underlying Lambeth Group;
 - d. Single and dual installations for groundwater and ground gas monitoring in selected boreholes;
 - e. In-situ Standard Penetration Tests (SPT);
 - f. Hand shear vane tests on cohesive material encountered within hand excavated inspection pits;
 - g. Pressuremeter testing to determine the in-situ strength and elastic modulus of the London Clay Formation in selected boreholes at the proposed shaft locations;
 - h. Variable head permeability testing;
 - i. Long-term in-situ groundwater monitoring proposed within the six months allowable period for the borehole to be drilled, decommissioned and reinstated at each location. This will be undertaken to understand local groundwater conditions by the use of dataloggers;
 - j. Bulk and disturbed soil sampling for geotechnical and geo-environmental purposes;
 - k. Geotechnical and geo-environmental laboratory testing;
 - l. In-situ groundwater sampling and gas monitoring during six (provisional) groundwater sampling visits; and
 - m. Preparation of GI reports including an account of the field and laboratory test results obtained and the methodologies used

¹ Jacobs UK Ltd, "Specification for a Ground Investigation for the Thames Water, London Water Recycling SRO - West London Route Rev 5 'B22849AP-GEO-SPE-002,'" 2024.

Summary of GI Works to date

A.2.7 Figure 10.3 shows the borehole locations for this phase of GI. Draft borehole logs for the boreholes completed as of 25 February 2025 are presented in Section Annex A1. .

Boreholes

A.2.8 As of the 25 February 2025, two sub-horizontal boreholes (MT-003 and MT-004) through the eastern embankment structure at Mogden STW, and 11 of the 16 scheduled vertical boreholes along the proposed conveyancing route and at certain proposed structures have been completed. The borehole construction programme and location of each borehole has been led by land access and associated approvals, whilst the requirements for fencing, security and reinstatement of each borehole drilling compound have been controlled in accordance with local constraints and obligations.

A.2.9 Draft borehole logs have been provided by the GI contractor, Geo-Environmental Services Limited (GESL), and are included in Section Annex A1. . It should be noted that the borehole logs provided by GESL are preliminary and may be updated at the Environmental Statement stage. The termination depths of the completed boreholes are shown in Section Annex A1. .

Table A.1 Termination Depths of Completed Boreholes

BH ID	Depth to Base (m bgl)	Proposed Structure
MT-003	14.7 (horizontal)	Interception shaft Mogden STW Eastern Work Area
MT-004	10.5 (horizontal)	Interception shaft Mogden STW Eastern Work Area
MT-005	67.0	Interception shaft Mogden STW Eastern Work Area
MT-009	40.5	Tunnel Conveyance
MT-017a	60.0	Connection shaft Burnell Avenue
MT-019-35	81.0	Drive Shaft Mogden STW Western Work Area
MT-022-35	67.5	Tunnel Conveyance
MT-025-35	62.3	Intermediate shaft Ham Playing Fields
MT-026-35	8.5	Tunnel Conveyance
MT-027-35	36.0	Tunnel Conveyance
MT-028-35	31.5	Tunnel Conveyance
MT-030-35	45.0	Tunnel Conveyance
MT-031-35	25.5	TLT connection tunnel

Geo-environmental Testing

A.2.10 Results for 22 soil samples submitted for geo-environmental testing have been received as of 25 February 2025. These samples have been tested for a range of determinands as shown in Section Annex A1. . The samples were submitted to i2 Analytical Ltd, a Monitoring Certification Scheme (MCERT) and United Kingdom Accreditation Service (UKAS) accredited laboratory. The results are discussed in Section Annex A1. . No ground gas monitoring or groundwater monitoring or chemical data had been received by 25 February 2025.

Table A.2 Geo-Environmental Testing Suites

Suite	Determinands	Tests Received as of 25 February 2025
Modified Suite E (Soil)	Metals: arsenic, barium, beryllium, boron, cadmium, chromium (III & VI), copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, vanadium, zinc Total organic carbon, phenol, sulphate, soil organic matter, moisture content, total & free cyanide, thiocyanate, ammoniacal nitrogen, pH, and asbestos screen, identification & quantification Total petroleum hydrocarbons speciated by aliphatic and aromatic fractions Polycyclic aromatic hydrocarbons (PAH) USEPA 16 speciated Volatile organic compounds (VOCs) and Semi-volatile organic compounds (SVOCs)	Modified Suite E (Soil)
Modified Suite F (Groundwater)	Metals: arsenic, barium, beryllium, boron, cadmium, calcium, chromium (III & VI), copper, ferric and ferrous iron, lead, manganese, mercury, selenium, vanadium, zinc	Modified Suite F (Groundwater)
Suite H (Soil)	Waste Acceptance Criteria Testing	0
Suite K (Soil Leachate)	Metals: arsenic, barium, beryllium, boron, cadmium, chromium, hexavalent chromium, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, vanadium, zinc Total hardness, pH, sulphate, cyanide free & complex, ammoniacal nitrogen, chloride, nitrate, phenols Total petroleum hydrocarbons PAH USEPA 16 speciated	5

Groundwater

A.2.11 Groundwater strikes during drilling have been identified in seven of the 11 vertical boreholes drilled to date. A summary of the groundwater strikes and the depths to groundwater recorded 20 minutes after the strikes were observed (a standard duration to allow groundwater levels to equilibrate) is included in the table below.

Table A.3 Summary of Groundwater Strikes

Borehole ID	Level (m AOD)	Depth of Strike (m bgl)	Depth After 20 Minutes (m bgl)	Stratum
MT-005 ²	6.52	-	-	N/A
MT-009	7.54	6.40	4.80	Kempton Park Gravel
MT-017a	7.80	3.90	3.50	Kempton Park Gravel
MT-019-35	22.49	11.70	11.56	Kempton Park Gravel
MT-022-35	7.80	4.70	4.70	Kempton Park Gravel
MT-025-35	5.88	-	-	N/A
MT-026-35	7.47	-	-	N/A
MT-027-35	7.01	4.30 5.50	4.30 5.50	MG
MT-028-35 ¹	7.29	-	-	N/A
MT-030-35	5.71	3.20	2.80	Alluvium
MT-031-35	8.28	5.20	3.45	Kempton Park Gravel

Monitoring

A.2.12 High Density Polyethylene (HDPE) and Polyvinyl Chloride (PVC) standpipe piezometers have been installed in most of the completed boreholes for the purpose of groundwater monitoring and in some instances ground gas monitoring. A single 42mm diameter standpipe has been installed in boreholes MT-009, MT-022-35, MT-027-35, MT-028-35, MT-030-35 and MT-031-35. Dual installations, comprising a single 50mm dia. standpipe and a single 42mm dia. standpipe, have been installed in MT-019-35 and MT 025-35. Two 42mm dia. standpipes have been installed in MT-005. The approximate standpipe

² Cable Percussion (CP) only drilled to 3m bgl in MT-005, 6m bgl in MT-028 and 6.50m bgl in MT-025 before switching to rotary cored Geobore-S. Due to the use of drilling flush during the rotary coring process it is often not possible to record groundwater strikes, hence it is possible that the groundwater table in MT-005, MT-028 and MT-025 lies below 3m bgl, 6m bgl and 6.50m bgl respectively. MT-026 was drilled by CP to its termination depth of 8.5m bgl.

installation depths and screen lengths are presented in Table A.4. In accordance with the GI specification, groundwater monitoring proposed within the six months allowable period for the borehole to be drilled, decommissioned and reinstated at each location. This will be undertaken to understand local groundwater conditions by the use of dataloggers.

Table A.4 Standpipe Installations

BH ID	Screen Top (m bgl)	Screen Base (m bgl)	Stratum/ Strata Screened
MT-005	18	21	London Clay
	39	42	London Clay
MT-009	26	29	London Clay
MT-019-35	4	13	MG and Kempton Park Gravel
	57	60	London Clay
MT-022-35	34	37	London Clay
MT-025-35	1	4	MG and Kempton Park Gravel
	25	28	London Clay
MT-027-35	20	23	London Clay
MT-028-35	19	22	London Clay
MT-030-35	29	32	London Clay
MT-031-35	12	15	London Clay

A.3 Geo-environmental

Ground Conditions

Made Ground

- A.3.1 MG has been encountered at all borehole locations except MT-017a. Clay has been reported as the primary constituent of the MG at the majority of exploratory locations, with sand and gravel also encountered. Anthropogenic materials recorded on borehole logs at these locations is shown in Section Annex A1. .
- A.3.2 A faint hydrocarbon odour was noted at 1m bgl in MT-019-35. This exploratory hole location was within the embankment fill of Mogden STW in the area where the Drive Shaft is proposed to be constructed and is adjacent to a historical landfill. The MG depth of 10.2mbgl may indicate that the landfill extends further west than indicated on mapping, refer to Figure 10.1 and Figure 10.2.
- A.3.3 MG was present to a depth of 6m at MT-027-35. This location is along the tunnel conveyance route and the infilled former gravel pits are mapped (as

artificial ground on the BGS map) to the west of this location. However, the presence of this thickness of MG indicates that the infilled former gravel pits extend further east than shown on the BGS map.

Table A.5 Anthropogenic Material Recorded Within Made Ground

Location	Base of MG (m bgl)	Anthropogenic Constituents	Proposed Structure
MT-003 ³	14.7	Fragments of brick, concrete, charcoal, ash, coal	Interception shaft Mogden STW Eastern Work Area
MT-004 ²	10.5	Fragments of charcoal	Interception shaft Mogden STW Eastern Work Area
MT-005	0.4	None observed	Interception shaft Mogden STW Eastern Work Area
MT-009	0.8	Fragments of brick, concrete	Tunnel conveyance
MT-017a	N/A	No MG recorded	Connection shaft Burnell Avenue
MT-019-35	10.2	Fragments of concrete, brick, wood, glass	Drive Shaft Mogden STW Western Work Area
MT-022-35	0.7	Fragments of tile, glass, potential clinker	Tunnel conveyance
MT-025-35	2.1	Fragments of brick, ceramics, concrete	Intermediate shaft Ham Playing Fields
MT-026-35	0.4	Brick fragments	Tunnel conveyance
MT-027-35	6.0	Fragments of brick, concrete, tarmac, slate, clinker, asbestos containing material, glass, wood, ceramic, metal	Tunnel conveyance
MT-028-35	0.35	Fragments of brick, concrete	Tunnel conveyance
MT-030-35	0.6	Fragments of brick, glass, potential clinker	Tunnel conveyance
MT-031-35	1.4	Fragments of brick, concrete, clinker, occasional brick cobbles	TLT connection tunnel

Soil Testing Analysis

A.3.4 The results of the geo-environmental tests received up to 25 February 2025 have been screened against Human Health Assessment Criteria (HHAC)

³ Horizontal borehole drilled into embankment at Mogden STW.

comprising either Category 4 Screening Levels (C4SL) or Suitable 4 Use Levels (S4UL) for a commercial/industrial end use and public open space residential end use. There has been a single exceedance of the public open space residential screening criteria for dibenz(a,h)anthracene at MT-019-35. It should be noted that this location is within the Mogden STW, therefore commercial/industrial criteria would be more appropriately applied in this scenario. There have been exceedances of the public open space residential screening criteria for lead at MT-022-35, and for benzo(b)fluoranthene and dibenz(a,h)anthracene at MT-028-35 and MT-030-35, additionally the commercial/industrial criteria for these two determinands were exceeded at MT-028. Given that these locations are on the tunnel conveyance route, the proposed scheme should not change human health exposure pathways at the surface. Additionally, the majority of organic contaminants were at concentrations below the laboratory limits of detection (LOD).

- A.3.5 Suspected asbestos containing material (ACM) was identified at MT-027-35 in the MG. Several attempts at this borehole were terminated upon encountering suspected ACM in the inspection pits for the borehole. Not all laboratory analytical data for samples had been received at the time of writing this Interim GI Factual Report, (Appendix 10.1); however, the laboratory subsequently confirmed this sample to be asbestos. As this borehole is on the tunnel conveyance route and there are no proposed structures or works, there will not be any exposure to human health from asbestos here as a result of the Project.
- A.3.6 The full screening results are available in A.7.

Summary of Findings

- A.3.7 The absence of asbestos and a lack of exceedances of the selected HHAC at the proposed works sites indicates there is a low risk from contamination to human health during the operational phase of the proposed Project.
- A.3.8 The composition of the MG and results of contamination testing received up to 25 February 2025 appear typical of ground conditions within urban areas, particularly outside Mogden STW. As expected, there are significant thicknesses of MG forming the embankments within the STW. MG outside Mogden STW is generally limited in thickness, however, there is evidence of landfilling in the vicinity of the Intermediate shaft at Ham Playing Fields (MG to 2.1m bgl), and on the tunnel conveyance route at MT-027-35 (MG to 6.0m bgl) associated with the former gravel workings in the area. Preliminary observations from MT-027-35, where 6m of MG was encountered, suggests that infilled gravel pits extend further east than suggested on BGS mapping of artificial ground.
- A.3.9 Once the full GI data (including ground gas and groundwater monitoring results) is received, a land contamination risk assessment will be undertaken.

A.4 Conceptual Ground Model

Ground Model

- A.4.1 A conceptual ground model is being developed by the Applicant's geotechnical specialists based on available historical borehole records accessed via the BGS GeoIndex⁴, the Geotechnical and Geo-environmental desk study ('B22849AP-GEO-REP-002 | 02', Jacobs, 2022)⁵, and the information collected to-date from the ongoing GI. The ground model (GM) is at a preliminary stage of development and will be continually evolving as the GI progresses. An updated GM shall be produced as part of the final Ground Investigation Report (GIR) upon GI completion.

Made Ground

- A.4.2 MG has been encountered at various thicknesses in most boreholes completed to date with the exception of MT-017a. The sub-horizontal boreholes (MT-003 and MT-004) were drilled directly into a man-made embankment, hence the entirety of these boreholes is classified as MG. The MG in MT-003 and MT-004 is typically described as a slightly gravelly Clay or Sand (detailed descriptions are included on the draft borehole logs in Section Annex A1.).
- A.4.3 Similarly, the embankment on which borehole MT-019-35 is located (in the area of the Drive Shaft) is classified as MG and generally described as a slightly gravelly Clay with flint and brick fragments. Most of the completed boreholes, MT-005, MT-009, MT-022-35, MT-026-35, MT-028-35, MT-030-35 and MT-031-35, encountered relatively small amounts of MG (between 0.4 and 1.4m bgl).
- A.4.4 Greater thicknesses of MG (2.1m and 6m) were encountered in boreholes MT-025-35 and MT-027-35. Infilling comprising various anthropogenic materials at MT-027-35 (adjacent to Woodville Road in Ham) included various construction/demolition waste, including asbestos. This is indicative of infilling of gravel pits suggesting the artificial ground mapping may not be accurate.

Superficial Deposits

- A.4.5 Superficial deposits were encountered in most boreholes. The River Terrace Deposits encountered are primarily ascribed to the Kempton Park Gravel Formation (typically a medium dense to dense silty, gravelly Sand). However, the Langley Silt Member, typically of post-glacial aeolian origin, was encountered in MT-009-35 and 3.3m of Alluvium interbedded with Peat was encountered in borehole MT-030-35 underlying the MG. Only some two metres of the Kempton Park Gravel were encountered in MT-025-35 (in the area of the Intermediate shaft at Ham Playing Fields), much having been removed as a consequence of local former gravel extraction. No superficial deposits were

⁴ British Geological Survey, "BGS GeoIndex Onshore. Accessed: <https://www.bgs.ac.uk/map-viewers/geoindex-onshore/>," 2024.

⁵ Jacobs UK Ltd, "Thames Water London Reuse Gate 2 West London Desk Study ' B22849AP-GEO-REP-002 | 02'," 2022.

encountered in MT-005 (adjacent to the Interception shaft in Mogden STW Eastern Work Area).

- A.4.6 The preliminary GM, combined with data from Jacobs' 2022 desk study ('B22849AP-GEO-REP-002 | 02', Jacobs, 2022)⁶, indicates a deepening of the top of the London Clay Formation between boreholes MT-019-35 (at the Drive Shaft in Mogden STW Western Work Area) and MT-020-35 (drilling yet to commence).

London Clay Formation

- A.4.7 The London Clay Formation has been encountered in all exploratory locations (with the exception of the two horizontal locations), from a depth of between 4.40m bgl (MT-025-35) and 23.00m bgl (MT-005). The base of the London Clay Formation is approximately 61 to 80mbgl. It is typically described as very still finely laminated grey sandy or silty clay.
- A.4.8 The majority of shaft construction and all tunnelling along the proposed conveyance routes for the Project are expected to take place within the London Clay Formation.

Lambeth Group

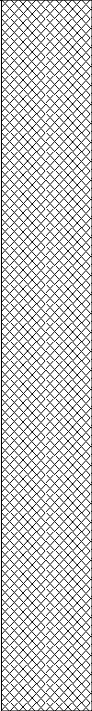
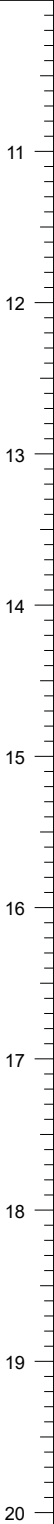
- A.4.9 The Lambeth Group has been encountered in four boreholes, MT-005 (65m bgl), MT-019-35 (80.10m bgl), MT-022-35 (65.90m bgl) and MT-025-35 (61.22m bgl). It is typically described as a very stiff bluish and greenish grey mottled multi-coloured (comprising orange, red, purple and brown) silty slightly sandy Clay which is readily distinguishable from the overlying typically dark grey sequence of the London Clay Formation.
- A.4.10 The Lambeth Group sequence is not expected to be encountered during construction of the Project.

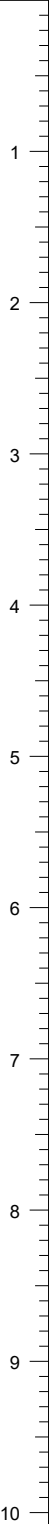
A.5 Forward Programme of Works

- A.5.1 Upon completion of the ongoing GI a full Ground Investigation Report (GIR) will be prepared. The GIR shall include an updated ground model and provide design recommendations based on the geotechnical and geo-environmental information collected during the GI.
- A.5.2 A Phase 2 GI is proposed to immediately follow Phase 1, but it has not yet commenced. It is currently scheduled to start in the latter part of June 2025. Phase 2 includes two vertical boreholes, principally for geotechnical purposes, at Orleans Gardens and at land adjacent to Cole Park Road.
- A.5.3 It may be necessary to propose additional boreholes where data collected from the Phase 1 and Phase 2 GIs is limited, to reduce risk during both the design and construction processes.

⁶ Jacobs UK Ltd, "Thames Water London Reuse Gate 2 West London Desk Study ' B22849AP-GEO-REP-002 | 02'," 2022.

Annex A1. Draft Borehole Logs

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log				Borehole No. MT-003 Sheet 2 of 2				
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 515794E - 174998N		Hole Type WLS		
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 7.37		Scale 1:50		
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 11/09/2024 - 13/09/2024		Logged By TL		
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		10.20 - 11.70	B	PID=0.0ppm				MADE GROUND comprising dark brown to dark grey sandy slightly gravelly CLAY with organic odour. Sand is fine to medium. Gravel is fine to coarse subangular to subrounded mixed anthropogenic materials including brick, ash, charcoal, flint. MADE GROUND		
		10.70 10.70	ES PID							
		11.70 11.70 - 13.20 11.70	ES B PID							
		12.70 12.70	ES PID							
		13.20 - 14.70	B							
		13.70 13.70	ES PID							
14.70 14.70	ES PID	PID=0.0ppm	14.70	-7.33	End of Borehole at 14.700m					
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks Hole drilled horizontally. Depths given are from ground surface, horizontally into embankment. Cased to support sides. Water added to aid penetrative of casing.				
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to					

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log			Borehole No. MT-004 Sheet 1 of 2				
Project Name: London Water Recycling (LWR)		Project No. GE21665		Co-ords: 515773E - 174936N					
Location: London		Energy Ratio (%):		Level: 7.89					
Client: Thames Water Utilities Ltd		Driller's Initial:		Dates: 16/09/2024 - 17/09/2024					
		Rig Type:		Logged By TL					
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.30	B	PID=0.0ppm	0.30	7.59		MADE GROUND comprising brown to greyish brown sandy CLAY with rootlets. Sand is fine to coarse.	
		0.20	ES						
		0.20	PID						
		0.30 - 1.50	B						
		1.00	ES	PID=0.0ppm	1.50	6.39		MADE GROUND comprising greyish brown silty slightly gravelly CLAY with some rootlets. Gravel is fine to coarse subrounded to rounded flint.	
		1.00	PID						
		At 0.6m: a root, 10mm diameter.							
		0.6 to 1.0m: patch of sandy clay. Sand is yellowish brown, fine to medium.							
		1.50 - 2.25	B	PID=0.0ppm	2.25	5.64		MADE GROUND comprising greyish brown sandy to very sandy CLAY with rootlets.	
		2.00	PID						
		At 1.6m: abundant rootlets and a partially decayed root, 12mm diameter.							
		2.25 - 3.00	B						
		2.50	ES	PID=0.0ppm	3.20	4.69		MADE GROUND comprising yellowish brown gravelly fine to coarse SAND. Gravel is fine to coarse subrounded to subangular flint.	
		3.00	PID						
		At 3.3m: patch of roots up to 6mm diameter.							
		3.20 - 4.45	B						
		3.50	ES	PID=0.0ppm	4.45	3.44		MADE GROUND comprising greyish brown very sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded flint. Rare fine gravel-sized fragments of charcoal.	
		4.00	PID						
		At 3.3m: patch of roots up to 6mm diameter.							
		4.45 - 6.00	B						
4.60	ES	PID=0.0ppm	5.00	5.50		MADE GROUND comprising brown to yellowish brown gravelly fine to coarse SAND. Gravel is fine to coarse subangular to subrounded flint.			
5.00	PID								
At 3.3m: patch of roots up to 6mm diameter.									
5.50	ES								
6.00 - 7.50	B	PID=0.0ppm	6.50	7.00		MADE GROUND comprising brown to yellowish brown gravelly fine to coarse SAND. Gravel is fine to coarse subangular to subrounded flint.			
6.00	PID								
At 3.3m: patch of roots up to 6mm diameter.									
6.50	ES								
7.00	PID	PID=0.0ppm	7.50	8.00		MADE GROUND comprising brown to yellowish brown gravelly fine to coarse SAND. Gravel is fine to coarse subangular to subrounded flint.			
7.50	ES								
At 3.3m: patch of roots up to 6mm diameter.									
8.00	PID								
8.50	ES	PID=0.0ppm	9.00	9.50		MADE GROUND comprising brown to yellowish brown gravelly fine to coarse SAND. Gravel is fine to coarse subangular to subrounded flint.			
9.00	PID								
At 3.3m: patch of roots up to 6mm diameter.									
9.50	ES								
10.00	PID	PID=0.0ppm							
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to				
						Hole drilled horizontally through existing embankment. Casing used to support hole sides during drilling. Hole started 16/09/2024. Hole completed 17/09/2024. Hole terminated at 10.5m due to repeat collapse of soils. Engineer confirmed termination.			



www.gesl.net

Borehole No.

MT-004

Sheet 2 of 2

Project Name:	London Water Recycling (LWR)
---------------	------------------------------

Project No.
GE21665

Co-ords: 515773E - 174936N

Hole Type	WLS
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Location:	London
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Energy Ratio (%):

Level: 7.89

Scale

Driller's Initial:

1:50

Client:	Thames Water Utilities Ltd
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Rig Type:

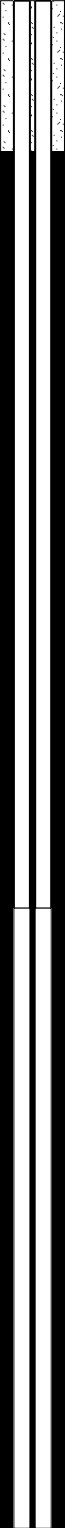
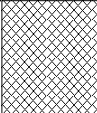
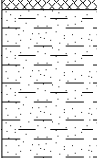
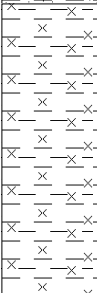
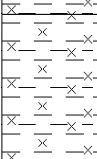
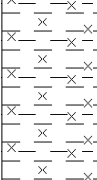
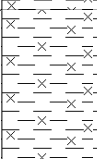
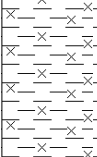
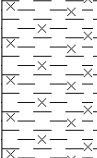
Dates: 16/09/2024 - 17/09/2024

Logged By

TL

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 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log				Borehole No. MT-005 Sheet 1 of 15			
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 515789E - 174998N		Hole Type CP+RC	
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 6.52		Scale 1:25	
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 18/09/2024		Logged By TL	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.30	B	PID=0.0ppm	0.40	6.12		MADE GROUND comprising yellowish brown slightly gravelly fine to medium SAND. Gravel is fine to coarse subrounded flint. MADE GROUND	1
		0.30	ES						
		0.30	PID						
		0.80	B	PID=0.0ppm	0.90	5.62		Greyish brown to yellowish brown weathered sandy CLAY with rootlets. Sand is fine to coarse. LONDON CLAY FORMATION	
		0.80	ES						
		0.80	PID						
		1.00	D						
		1.20	B	N=10 (1,1/2,2,3,3) PID=0.0ppm	1.90	4.62		Stiff greyish brown to yellowish brown weathered silty slightly sandy CLAY with rootlets. Sand is fine to medium. LONDON CLAY FORMATION	
		1.20	ES						
		1.20 - 1.65	D						
		1.20	SPT						
		1.20	PID						
		2.00	D	PID=0.0ppm				Stiff greyish brown very thinly laminated very closely fissured silty CLAY. Fissures are very closely spaced without consistent orientations, tight to very tight, clean, dry, smooth, planar, unweathered. [Preliminary London Clay Formation subdivision C3.] LONDON CLAY FORMATION	
		2.00	ES						
		2.00 - 2.50	B						
2.00	PID	N=9 (1,1/2,2,2,3)							
2.50 - 2.95	D								
2.50	SPT	N=10 (1,1/2,2,3,3) PID=0.0ppm				At 3.25m: fossil worm casts up to 1mm diameter.			
3.00	D								
3.00	SPT								
3.00	PID	100 67 67				At 3.45m: shell fragment. At 3.5m: fossilised wood fragment, 40 x 30 x 5 mm.			
3.50	D								
4.00	D								
4.50 - 6.00				100mm		At 4.7m: tabular and subrounded coarse gravel-sized claystone nodule. 5mm x 30mm x 30mm.			
5.00	D								
Type/Fl		TCR	SCR	RQD					
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.			
200	1.60								



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 18/09/2024			
Location: London				Contractor:				Co-ords: E515789.04 N174998.30			
Project No. : GE21665				Crew Name:				Drilling Equipment:			
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Scale 1:25		Page Number Sheet 2 of 15	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description			
				TCR	SCR	RQD								
		6.00 6.00 - 7.50	D	100	100	100	(14) 100mm				Stiff greyish brown very thinly laminated very closely fissured silty CLAY. Fissures are very closely spaced without consistent orientations, tight to very tight, clean, dry, smooth, planar, unweathered. [Preliminary London Clay Formation subdivision C3.] LONDON CLAY FORMATION <u>At 5.2m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered</u> <u>5.3 to 5.4m: fissure. 80 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered</u>	6		
		7.00	D	100	73	40					<u>At 5.9m: fissure. 30 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered</u>	<u>At 6.8m: medium gravel-sized fossilised wood fragment.</u>	<u>At 7.1m: tabular medium gravel-sized fossilised wood fragment. 3mm x 10mm x 10mm.</u>	7
		8.50 - 10.00	D				100mm					<u>7.5 to 8.5m: pressuremeter test, no core.</u>		8
		8.70 8.80 - 9.20	C											9
				100	100	67					<u>At 9.2m: pyritised fossil wood fragment. 15 x 50 x 40mm.</u>			
											<u>9.5 to 9.8m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered</u>			

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental Rotary Core Log																	
Project Name: London Water Recycling (LWR)						Client: Thames Water Utilities Ltd						Date: 18/09/2024					
Location: London						Contractor:						Co-ords: E515789.04 N174998.30					
Project No. : GE21665						Crew Name:						Drilling Equipment:					
Borehole Number MT-005			Hole Type CP+RC			Level 6.52m AoD			Logged By TL			Scale 1:25			Page Number Sheet 3 of 15		
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPL)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		10.00 10.00 - 11.50	D				100mm	10.00	-3.48		Stiff greyish brown very thinly laminated very closely fissured silty CLAY. Fissures are very closely spaced without consistent orientations, tight to very tight, clean, dry, smooth, planar, unweathered. [Preliminary London Clay Formation subdivision C3.] LONDON CLAY FORMATION	10					
		11.00	D	33	33	16			9.9 to 10.0m: fissure. 50 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered LIMITED RECOVERY (unable to determine depth of soils recovered). Stiff to very stiff very closely fissured very thinly to thinly laminated brownish grey silty CLAY. Several fissures cut through the core: tight, 20 to 40 degree dip, smooth, planar, very tight, clean, stiff, unweathered. [Preliminary London Clay Formation subdivision C2.] LONDON CLAY FORMATION		11						
		11.50 - 13.00					100mm	11.50	-4.98		NO RECOVERY.	12					
		13.00 - 14.50						(28) 100mm	13.00		-6.48	Very stiff very thinly laminated very closely to closely fissured greyish brown slightly silty to silty CLAY. Fissures are mostly subhorizontal, smooth, planar to undulating, dull to slight polish, very tight, clean and unweathered. [Preliminary London Clay Formation subdivision C1.] LONDON CLAY FORMATION	13				
		13.50	D	80	47	13					At 13.85m: shell fragment.	14					
		14.50 14.50 - 16.00	D				100mm										
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														
Remarks																	
Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 18/09/2024		
Location: London			Contractor:			Co-ords: E515789.04 N174998.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Page Number Sheet 4 of 15

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		15.00 - 15.40	C								Very stiff very thinly laminated very closely to closely fissured greyish brown slightly silty to silty CLAY. Fissures are mostly subhorizontal, smooth, planar to undulating, dull to slight polish, very tight, clean and unweathered. [Preliminary London Clay Formation subdivision C1.] LONDON CLAY FORMATION 14.7 to 14.8m: fissure. 50 degree dip. Smooth, undulating, dull, tight, clean, very stiff, unweathered 15.4 to 15.7m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered At 15.5m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered At 15.55m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered At 15.7m: two fissures. Fissure 1: 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Fissure 2: 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	15
		15.50	D	100	100	87						
		16.00 - 17.50					(31) 100mm	16.00	-9.48		NO RECOVERY.	16
				0	0	0						17
		17.50 17.50 - 19.00	D				100mm	17.50	-10.98		Stiff to very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION At 17.85m: 5mm thick layer of dark grey silty sandy CLAY with shell fragment 5mm below 18.0 to 18.1m: fissure. 45 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. 18.1 to 18.2m: fissure. 60 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. 18.2 to 18.25m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.6m: fissure. 45 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. At 18.75m: 40mm long fissure, terminates against laminations within soil mass. 85 degree dip. Smooth, slightly polished, very tight, clean, very stiff, unweathered. Offsets subhorizontal fissure at same depth. At 18.75m: 40mm long fissure, terminates against laminations within soil mass. 85 degree dip. Smooth, slightly polished, very tight, clean, very stiff, unweathered. Offsets subhorizontal fissure at same depth. At 18.75m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, unweathered. Walls appear remoulded. Fissure offset 10mm vertically by a subvertical fissure at same depth. 18.9 to 19.0m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.1m: coarse gravel-sized rounded to subrounded claystone nodule. At 19.2m: medium gravel-sized tabular subrounded to subangular claystone nodule.	18
		18.50	D	100	87	80						19
		19.00 - 20.50					(23) 100mm					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 18/09/2024		
Location: London			Contractor:			Co-ords: E515789.04 N174998.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Page Number Sheet 5 of 15

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		19.50	D							Stiff to very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION <i>19.4 to 19.9m: very closely fissured.</i>	20
				100	73	47				<i>19.9 to 21.5m: subhorizontal fissures are spaced at between 10 and 60mm. Fissures are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	
		20.50	D				20.50	-13.98		<i>20.3 to 20.5m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 20.4m: fossil shell fragment.</i>	
		21.50 - 23.00								NO RECOVERY (pressuremeter test pocket 20.5 to 21.5m, core lost 21.5 to 23.0m)	21
											22
		23.00 - 24.50					23.00	-16.48		Very stiff very thinly laminated fissured greyish brown silty CLAY. Preliminary [London Clay Formation subdivision B2.] LONDON CLAY FORMATION <i>23.0 to 23.2m: core disturbed by claystone cobbles. Uncertain if claystone is part of the claystone band between 21.5 and 23.0m.</i> <i>23.1 to 23.2m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>23.15 to 23.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>23.2 to 23.3m: fissure. 45 degree dip, opposite direction to fissure at 23.1m. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 23.6m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.</i> <i>At 23.9m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 29.35m: fossilised wood fragment. 8mm diameter, 10mm length.</i> <i>At 24.0m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	23
		23.30	D								
				93	87	87					
		24.00	D								24

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 18/09/2024		
Location: London			Contractor:			Co-ords: E515789.04 N174998.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Page Number Sheet 6 of 15

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		24.50 - 26.00	C				100mm			Very stiff very thinly laminated fissured greyish brown silty CLAY. Preliminary [London Clay Formation subdivision B2.] LONDON CLAY FORMATION <u>At 24.05m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>24.2 to 24.3m: fissure. 50 degree dip. Smooth, undulating slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 24.55m: fissure. 50 degree dip. Smooth, undulating, dull, very tight, clean, stiff and remoulded walls, unweathered.</u> <u>At 24.65m: fissure. 30 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered.</u> <u>24.65 to 24.7m: fissure. 50 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered.</u> <u>At 24.75m: fissure. 30 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</u>	25
		24.80 - 25.20									
				100	100	80					
		26.00 - 27.50	D				(43) 100mm			<u>25.60 to 25.65m: fissure. 20 degree dip. Smooth, planar, slightly polished very tight, clean, very stiff, unweathered.</u> <u>25.65 to 25.7m: fissure. 20 degree dip. Smooth, planar, slightly polished very tight, clean, very stiff, unweathered. Appears conjugate with fissure at 25.6m.</u> <u>At 26.0m: two fissures. 20 degree dip in opposite directions. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>From 26.1m becoming very silty, very slightly sandy (sand is fine).</u> <u>At 26.3m: nobbly fossil wood fragment. 7mm diameter, 12mm length.</u>	26
			D	93	60	60					
		27.00								<u>26.80 to 27.10m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>26.90 to 26.95: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>26.80 to 27.10m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Possibly conjugate with fissure from 26.8 to 27.1 (both subvertical, at approx 60 degrees to each other around vertical axis of core).</u> <u>At 27.0m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u>	27
		27.50 - 29.00					100mm			<u>27.40 to 27.50m: fissure. 70 degree dip. Smooth, planar to curved surface, slightly polished, very tight, clean, very stiff, unweathered. Second fissure at same depth, with same characteristics, at 90 degrees around core axis to first fissure.</u> <u>At 27.6m: slightly pyritised medium gravel-sized clast nodule.</u>	
										<u>27.7 to 27.8m: two fissures. Fissure 1: 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Fissure 2: 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.</u>	
		28.00	D	100	100	80				<u>At 28.0m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>28.0 to 28.1m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>28.0 to 28.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 28.3m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 28.35m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>28.35 to 28.4m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 28.55m: very thin lense of dark grey silty fine sand.</u>	28

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 18/09/2024		
Location: London			Contractor:			Co-ords: E515789.04 N174998.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Page Number Sheet 7 of 15

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		29.00 29.00 - 30.50	D				(50) 100mm			Very stiff very thinly laminated fissured greyish brown silty CLAY. Preliminary [London Clay Formation subdivision B2.] LONDON CLAY FORMATION	29
		29.60 - 30.00	C	100	100	40				At 29.4m: medium gravel-sized claystone nodule. 29.5 to 29.75m: fissure. 90 degree dip at top, curves sharply at base to 0 degree dip. Smooth, slightly polished, very tight, clean, very stiff, unweathered. Appears to offset laminations on either side of vertical section.	
		30.00	D							At 29.95m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 29.95 to 30.2m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.97m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.25m: patch of dark grey silty very sandy clay. Sand is fine. Patch contains a coarse gravel-sized claystone nodule.	30
							30.50	-23.98		NO RECOVERY (pressuremeter test pocket).	31
		32.00 - 33.50									
		32.50	D	80	67	20	100mm	-25.48		Very stiff very thinly laminated fissured brownish grey silty CLAY. Preliminary [London Clay Formation subdivision B2.] LONDON CLAY FORMATION 32.0 to 32.5m: core disturbed by claystone. At 32.3m: 150 mm thick claystone (whole core diameter).	32
										32.6 to 32.9m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										32.8 to 33.1m: very closely to closely fissured. 32.85 to 32.95m: fissure with curved surface. 60 degree dip at top, curving to 80 degree dip. Smooth, slightly polished, very tight, clean, very stiff, unweathered.	33
										33.0 to 34.7m: decreasing silt content, becoming slightly silty.	
										33.1 to 33.2m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		33.50 33.50 - 35.00	D				100mm			33.35 to 33.45m: very closely fissured.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 18/09/2024		
Location: London			Contractor:			Co-ords: E515789.04 N174998.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Page Number Sheet 8 of 15

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		34.50	D	100	67	13	100mm	34.70	-28.18		Very stiff very thinly laminated fissured brownish grey silty CLAY. Preliminary [London Clay Formation subdivision B2.] LONDON CLAY FORMATION 33.7 to 34.2m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	34
		35.00 35.00 - 36.50	D								34.6 to 34.7m: 100mm thick light greyish brown claystone. Core wet.	35
			D								Very stiff very thinly laminated fissured greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B1.] LONDON CLAY FORMATION 34.8 to 35.0m: extremely closely fissured. 34.9 to 34.9m: fissure. 40 degree dip. Smooth, planar, slightly polished, slightly striated, very tight, clean, very stiff, unweathered. 34.95 to 34.95m: fissure. 40 degree dip. Smooth, planar, slightly polished, slightly striated, very tight, clean, very stiff, unweathered. Parallel with fissure at 34.9m. 35.0 to 35.0m: fissure. 40 degree dip. Smooth, planar, slightly polished, slightly striated, very tight, clean, very stiff, unweathered.	
			D	100	100	70					35.5 to 35.65m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 35.6 to 35.9m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	
		36.00 36.10 - 36.45	D C								36.0 to 38.1m: very silty. Horizontal to 10 degree dip fissures spaced at between 30 and 60mm. Very tight, smooth, planar, dull to slightly polished, clean, very stiff, unweathered. Core splits easily along these fissures.	36
		36.50 - 38.00										37
			D								At 36.9m: cluster of pyritised fossil wood fragments up to 10mm diameter.	
		37.00	D	93	93	40					At 37.2m: several cross-cutting fissures. Dip at between 20 and 70 degrees in various directions. Very tight, smooth, planar, dull to slightly polished, clean, very stiff, unweathered. 37.7 to 37.8m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 37.7 to 37.8m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 37.95 to 37.95m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 37.95m: pyritised fossil wood fragment. Medium gravel-sized. 38.1 to 38.15m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 38.1 to 38.2m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		38.00 38.00 - 39.50	D					38.20	-31.68		Very stiff very thinly laminated fissured greyish brown silty slightly sandy to sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION 38.2 to 38.35m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 38.2 to 40.9m: decreasing sand content, becoming silty CLAY below 40.0m	38

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 18/09/2024									
Location: London				Contractor:				Co-ords: E515789.04 N174998.30									
Project No. : GE21665				Crew Name:				Drilling Equipment:									
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Scale 1:25		Page Number Sheet 9 of 15							
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		38.50	D				100mm				Very stiff very thinly laminated fissured greyish brown silty slightly sandy to sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION	39					
		39.00 - 39.40	C	100	100	80											
		39.50 39.50 - 40.50	D														
				93	93	67											
		40.50	D					40.50	-33.98					At 40.1m: 10mm thick layer of light greyish brown sandy silt. Sand is fine. At 40.1m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 40.3m: parting of light greyish brown sandy silt. Sand is fine. 40.3 to 40.4m: extremely to closely fissured. 40.3 to 40.5m: very silty, with some very thin lenses of light greyish brown silt.			
													NO RECOVERY due to pressuremeter test.				
		41.00 - 41.50		100	0	0		100mm	41.00				-34.48		Very stiff very thinly laminated fissured greyish brown silty CLAY. Preliminary [London Clay Formation subdivision A3.] LONDON CLAY FORMATION 41.0 to 41.5m: core damaged by pressuremeter test.	41	
		41.50 - 43.00															
				100	100	67											
																	42
		43.00 43.00 - 44.50	D				100mm				42.6 to 42.8m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 42.8m: two parallel fissures, terminating in soil mass, spaced 15 mm apart. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	43					
Hole Diameter Casing Diameter Chiselling Inclination and Orientation Drilling Flush																	
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														
Remarks																	
Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	



Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 18/09/2024															
Location: London				Contractor:				Co-ords: E515789.04 N174998.30															
Project No. : GE21665				Crew Name:				Drilling Equipment:															
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Scale 1:25		Page Number Sheet 10 of 15													
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SR)	Depth (m)	Level (m)	Legend	Stratum Description												
				TCR	SCR	RQD																	
		43.90 44.00 - 44.40	D C	100	100	73	100mm				Very stiff very thinly laminated fissured greyish brown silty CLAY. Preliminary [London Clay Formation subdivision A3.] LONDON CLAY FORMATION <u>At 43.35m: 5mm thick sandy claystone lamination.</u> <u>43.55 to 44.10m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 43.6m: fossil shell fragment.</u> <u>At 43.85m: parting of light greyish brown silt.</u> <u>At 43.9m: 3mm thick lamination of dark grey sandy claystone.</u>	44											
		44.50 - 46.00	D	95	95	85					100mm	<u>From 44.3m: laminations becoming less distinct. Becoming very stiff to extremely weak.</u> <u>At 44.7m: 10mm thick lense (60mm diameter) of dark greyish brown pyritised sandy claystone.</u> <u>At 44.8m: 10mm thick layer of extremely weak light greyish brown silty claystone.</u>	45										
		45.00										<u>At 45.15m: 10mm thick layer of extremely weak dark grey sandy claystone.</u> <u>At 45.4m: silt parting.</u> <u>45.7 to 45.8m: silt partings spaced at 20 to 50mm.</u>											
		46.00 46.00 - 47.50	D	100	100	40					100mm	<u>46.2 to 46.9m: extremely to very closely fissured.</u> <u>At 46.3m: fissure. 75 degree dip. Smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered.</u> <u>46.4 to 46.5m: fissure. 50 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>46.45 to 46.55m: fissure. 50 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 46.4m.</u> <u>At 46.6m: 10mm thick layer of very stiff to extremely weak light greyish brown silty clay.</u> <u>46.9 to 47.2m: closely fissured.</u>	46										
		47.00	D									<u>47.0 to 47.1: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure 47.0 to 47.2m.</u> <u>47.0 to 47.2m: fissure. 70 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>47.1 to 47.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 47.35m: 10mm thick layer of very stiff to extremely weak light greyish brown silty clay.</u> <u>From 47.5m: very stiff to extremely weak.</u> <u>At 47.6m: 20mm thick layer of extremely weak light brownish grey silty clay.</u> <u>47.7 to 47.5m: slightly sandy, with light grey laminations. Sand is fine.</u> <u>47.7 to 47.8m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations.</u>		47									
		47.50 - 49.00																					
		Hole Diameter		Casing Diameter		Chiselling					Inclination and Orientation				Drilling Flush								
		Depth Base	Diameter	Depth Base	Diameter	Depth Top					Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
				1.60	200																		
		Remarks																					
		Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																					



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 18/09/2024		
Location: London			Contractor:			Co-ords: E515789.04 N174998.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Page Number Sheet 11 of 15

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		48.00	D								Very stiff very thinly laminated fissured greyish brown silty CLAY. Preliminary [London Clay Formation subdivision A3.] LONDON CLAY FORMATION	48
				107	107	93						
		49.00	D				100mm	49.00	-42.48		At 48.6m: thick lamination of dark grey silty sandy CLAY. Sand is fine. Very stiff very thinly laminated fissured greyish brown silty CLAY with silt partings. [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION	49
		49.00 - 50.50									At 48.6m: thick lamination of dark grey silty sandy CLAY. Sand is fine. At 49.0m: core damaged by pressuremeter test. At 49.2m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.8m: two parallel fissures, terminating in soil mass, spaced 15 mm apart. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.35m: 5mm thick sandy claystone lamination. At 49.55 to 49.10m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.6m: fossil shell fragment. At 49.85m: parting of light greyish brown silt. At 49.9m: 3mm thick lamination of dark grey sandy claystone. From 49.3m: laminations becoming less distinct. Becoming very stiff to extremely weak.	
		49.60 - 50.00	C	107	107	60					At 49.35m: 5mm thick sandy claystone lamination. At 49.55 to 49.10m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.6m: fossil shell fragment. At 49.85m: parting of light greyish brown silt. At 49.9m: 3mm thick lamination of dark grey sandy claystone. From 49.3m: laminations becoming less distinct. Becoming very stiff to extremely weak.	
		50.30	D								At 49.35m: 5mm thick sandy claystone lamination. At 49.55 to 49.10m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.6m: fossil shell fragment. At 49.85m: parting of light greyish brown silt. At 49.9m: 3mm thick lamination of dark grey sandy claystone. From 49.3m: laminations becoming less distinct. Becoming very stiff to extremely weak.	50
		50.50 - 52.00					100mm				At 49.35m: 5mm thick sandy claystone lamination. At 49.55 to 49.10m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.6m: fossil shell fragment. At 49.85m: parting of light greyish brown silt. At 49.9m: 3mm thick lamination of dark grey sandy claystone. From 49.3m: laminations becoming less distinct. Becoming very stiff to extremely weak.	
		51.00	D								At 49.35m: 5mm thick sandy claystone lamination. At 49.55 to 49.10m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.6m: fossil shell fragment. At 49.85m: parting of light greyish brown silt. At 49.9m: 3mm thick lamination of dark grey sandy claystone. From 49.3m: laminations becoming less distinct. Becoming very stiff to extremely weak.	51
				100	100	93					At 49.35m: 5mm thick sandy claystone lamination. At 49.55 to 49.10m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.6m: fossil shell fragment. At 49.85m: parting of light greyish brown silt. At 49.9m: 3mm thick lamination of dark grey sandy claystone. From 49.3m: laminations becoming less distinct. Becoming very stiff to extremely weak.	
		52.00	D				100mm				At 49.35m: 5mm thick sandy claystone lamination. At 49.55 to 49.10m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.6m: fossil shell fragment. At 49.85m: parting of light greyish brown silt. At 49.9m: 3mm thick lamination of dark grey sandy claystone. From 49.3m: laminations becoming less distinct. Becoming very stiff to extremely weak.	52
		52.00 - 53.50									At 49.35m: 5mm thick sandy claystone lamination. At 49.55 to 49.10m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.6m: fossil shell fragment. At 49.85m: parting of light greyish brown silt. At 49.9m: 3mm thick lamination of dark grey sandy claystone. From 49.3m: laminations becoming less distinct. Becoming very stiff to extremely weak.	
											At 52.4m: 70mm thick moderately strong light grey claystone.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 18/09/2024									
Location: London				Contractor:				Co-ords: E515789.04 N174998.30									
Project No. : GE21665				Crew Name:				Drilling Equipment:									
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Scale 1:25		Page Number Sheet 12 of 15							
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description						
		53.00	D	TCR	SCR	RQD					Very stiff very thinly laminated fissured greyish brown silty CLAY with silt partings. [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION 52.8 to 53.1m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered.	53					
		53.50 - 55.00					100mm				53.1 to 53.3m: core disturbed, recovered at soft, wet and destructured silty CLAY. 53.2 to 53.3m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered. At 53.4m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered.						
		54.00	D								53.6 to 53.8m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered.	54					
				100	100	73					At 54m: fossil bivalve shell. 10mm diameter.						
		55.00 55.00 - 56.50	D				100mm					55					
								55.20	-48.68								
		55.70	D	100	100	93					Very stiff to extremely weak brownish grey silty slightly sandy CLAY, with rare medium gravel-sized patches of dark grey sandy clay. Sand is fine. In places faintly very thinly laminated, predominantly structureless. [Preliminary London Clay Formation subdivision A2.] LONDON CLAY FORMATION	56					
		55.90 - 56.30	D														
		56.50 - 58.00					100mm				56.3 to 56.4m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff to extremely weak, unweathered.						
											At 56.6m: pyritised fossil wood fragment. 8mm x 50mm x 30mm.						
		57.00	D	100	100	80						57					
											57.2 to 58.9m: sandy, with occasional very thin lenses of grey to light grey silty fine sand.						
Hole Diameter Casing Diameter Chiselling Inclination and Orientation Drilling Flush																	
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														
Remarks																	
Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 18/09/2024			
Location: London				Contractor:				Co-ords: E515789.04 N174998.30			
Project No. : GE21665				Crew Name:				Drilling Equipment:			
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Scale 1:25		Page Number Sheet 13 of 15	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		58.00 58.00 - 59.50	D				75mm				Very stiff to extremely weak brownish grey silty slightly sandy CLAY, with rare medium gravel-sized patches of dark grey sandy clay. Sand is fine. In places faintly very thinly laminated, predominantly structureless. [Preliminary London Clay Formation subdivision A2.] LONDON CLAY FORMATION	58
		59.00	D	100	100	80					58.9 to 59.5m: slightly sandy, faintly very thinly laminated. Sand is fine.	59
		59.50 - 61.00					100mm				59.3 to 59.4m: fissure, 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered.	
											59.5 to 60.05m: dark greenish grey. Sandy; sand is fine. Possibly glauconitic.	
											60.05 to 60.1m: very sandy. Sand is fine.	60
		60.60	D	100	100	100					60.55 to 60.7m: dark greenish grey with rare partings of fine sand. Possibly glauconitic.	
		61.00 61.00 - 62.50	D				100mm				60.7 to 60.85m: fissure, 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered.	
											60.7 to 60.9m: silty, very thinly laminated, with light grey silt partings.	
											60.9 to 61.0m: sandy.	
											61.0 to 61.9m: silty, very thinly laminated, with light grey silt partings.	61
											At 61.2m: fissure, 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered.	
				100	100	93					At 61.3m: 30mm thick lense of weak claystone.	
		62.00	D								61.9 to 62.6m: slightly sandy to sandy, indistinct laminations.	62

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 18/09/2024			
Location: London				Contractor:				Co-ords: E515789.04 N174998.30			
Project No. : GE21665				Crew Name:				Drilling Equipment:			
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Scale 1:25		Page Number Sheet 14 of 15	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description		
				TCR	SCR	RQD							
		62.50 - 64.00					100mm				Very stiff to extremely weak brownish grey silty slightly sandy CLAY, with rare medium gravel-sized patches of dark grey sandy clay. Sand is fine. In places faintly very thinly laminated, predominantly structureless. [Preliminary London Clay Formation subdivision A2.] LONDON CLAY FORMATION	63	
		63.00	D										At 62.1m: fissure. 60 degree dip. Smooth, planar, dull, very tight, clean, very stiff to extremely weak, unweathered. At 62.2m: 10mm thick fragment of fossilised wood / lignite, with pyritised surfaces. Whole core diameter. 62.6 to 63.1: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered. 62.6 to 63.6m: silty with faint very thin laminations and rare silt partings.
		63.40 - 63.80	C	100	100	93					63.3 to 63.9m: dark greenish grey, sandy,. Possibly glauconitic.		
		64.00 64.00 - 65.50	D				100mm				At 63.8m: fossil shell (bivalve, 30mm diameter). 63.9 to 64.8m: silty and sandy, few clear laminations. At 64.0m: fossil shells (bivalves, up to 10mm diameter).		
											At 64.6m: fossilised and pyritised wood fragment.		
		64.90	D	100	100	100	64.80 -58.28				Very stiff brownish grey silty sandy CLAY with rare fossil shell fragments. HARWICH FORMATION		
		65.00					65.00 -58.48				At 64.8m: layer of broken shell fossils. 64.95 to 65.0m: base of unit contains medium gravel-sized rounded black flint.		
		65.20	D								Very stiff to extremely weak closely fissured friable light bluish grey mottled yellowish brown slightly silty CLAY. Fissures have polished surfaces. LAMBETH GROUP		
		65.50 - 67.00					100mm						
											66		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 18/09/2024			
Location: London				Contractor:				Co-ords: E515789.04 N174998.30			
Project No. : GE21665				Crew Name:				Drilling Equipment:			
Borehole Number MT-005		Hole Type CP+RC		Level 6.52m AoD		Logged By TL		Scale 1:25		Page Number Sheet 15 of 15	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
								67.00	-60.48		Very stiff to extremely weak closely fissured light bluish grey mottled red slightly silty CLAY. Some fissures have polished and striated surfaces. LAMBETH GROUP End of Borehole at 67.000m	67
												68
												69
												70
												71

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		1.60	200														

Remarks
Hand dug pit to 1.2m. CP drilled to 3m. Preliminary London Clay Formation subdivisions based on visual logs only.



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-009 Sheet 1 of 11							
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 516614E - 173670N		Hole Type CP+RC							
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 7.54		Scale 1:20							
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 19/11/2024		Logged By JH / TL							
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description							
		Depth (m)	Type	Results											
		0.30 0.30	B PID	PID=0.1ppm	0.20	7.34		Grass overlying clayey gravelly fine to medium SAND. Gravels are fine subangular flints							
		0.80 0.80	B PID	PID=0.0ppm	0.80	6.74		Soft to firm brown sandy gravelly clay. Sands were fine to coarse. Gravels were fine to coarse subangular to angular brick and concrete fragments.							
		1.20 1.20 - 1.65 1.20 1.20	B D SPT PID	N=12 (1,1/2,2,3,5) PID=0.0ppm	1.90	5.64		Brown/grey silty clayey fine to medium SAND. Occasional fine subangular gravels of flint LANGLEY SILT MEMBER <i>At 11.75m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>							
		2.00 - 2.45 2.00 2.00	B CPT PID	N=18 (5 for 80mm/3,4,5,6) PID=0.0ppm	3.40	4.14		Medium dense yellowish grey gravelly fine to coarse SAND. Gravels are fine to coarse angular to subrounded flint. KEMPTON PARK GRAVEL							
		3.00 - 3.45 3.00 3.00	B CPT PID	N=25 (1,1/2,4,8,11) PID=0.0ppm				Medium dense yellowish grey very sandy GRAVEL. Gravels are fine to coarse angular to subrounded flint. KEMPTON PARK GRAVEL							
		4.00 - 4.45 4.00	B CPT	N=23 (2,3/4,5,7,7)											
		Casing								Water Strikes (mbgl)		Chiselling (mbgl)		Remarks Hand dug: Ground level to 1.2m. Cable percussive: 1.2 to 10m. Rotary core (Geobore-S): 10 to 40.5m.	
		Diameter		Depth (m)		Depth Strike		Rose to		Depth from		Depth to			
		150		10.50		6.40		4.80							
															



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Borehole No.

MT-009

Sheet 2 of 11

Project Name:	London Water Recycling (LWR)
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Project No.
GE21665

Co-ords: 516614E - 173670N

Hole Type
CP+RC

Location:	London
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Energy Ratio (%):
Driller's Initial:

Level: 7.54

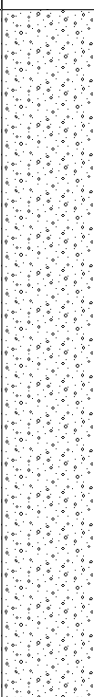
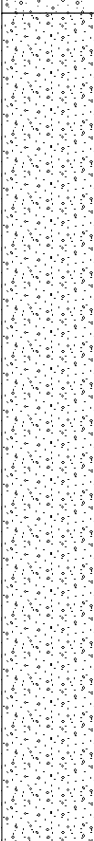
Scale
1:20

Client:	Thames Water Utilities Ltd
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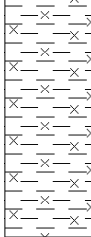
Rig Type:

Dates: 19/11/2024

Logged By
JH / TL

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		4.00	PID	PID=0.0ppm	5.90	1.64		Medium dense yellowish grey very sandy GRAVEL. Gravels are fine to coarse angular to subrounded flint. KEMPTON PARK GRAVEL	5
	5.00 - 5.45 5.00 5.00	B CPT PID	N=15 (2,2/3,3,4,5) PID=0.0ppm						
	6.00 - 6.45 6.00 6.00	B CPT PID	N=17 (2,3/3,4,5,5) PID=0.0ppm				Medium dense yellowish grey gravelly fine to coarse SAND. Gravels are fine to coarse angular to subrounded flint. KEMPTON PARK GRAVEL	6	
	6.80	W							
	7.00 - 7.45 7.00 7.00	B CPT PID	N=11 (1,2/2,3,3,3) PID=0.0ppm					7	
	8.00 - 8.30 8.00 8.00	B CPT PID	N=12 (1,2/2,2,3,5) PID=0.0ppm				8.0 to 8.3m: occasional thin clay lenses.		8
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to				
150	10.50	6.40	4.80						



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-009 Sheet 3 of 11		
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 516614E - 173670N		Hole Type CP+RC		
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 7.54		Scale 1:20		
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 19/11/2024		Logged By JH / TL		
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
1		9.00 9.00 - 9.45 9.00 9.00	B D SPT PID	N=23 (2,3/5,5,6,7) PID=0.0ppm	8.30	-0.76		Medium dense yellowish grey gravelly fine to coarse SAND. Gravels are fine to coarse angular to subrounded flint. KEMPTON PARK GRAVEL Firm becoming stiff slightly sandy silty brownish grey CLAY. Sands are fine to medium. Occasional fine subangular flint gravel. LONDON CLAY FORMATION Stiff very thinly laminated greyish brown silty CLAY. LONDON CLAY FORMATION	9	
					8.50	-0.96				
							Very stiff very thinly laminated fissured greyish brown slightly silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION	10		
10.00 - 10.45	D									
		100	27	27						
10.40	D									
10.50 - 12.00					100mm					
11.00	D									
		100	93	73						
							At 10.4m: coarse gravel-sized patch of dark grey very silty clay. 10.55 to 10.9m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 10.55 to 10.9m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Orientated at 90 degrees to other vertical fissure at same depth. 10.7 to 15.0m: silty. 10.7 to 11.3m: laminations indistinct. 10.75 to 10.85m: fissure. 60 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 10.85m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 10.9m: 10mm diameter rounded pyrite nodule. At 10.9m: fissure. 80 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 10.95 to 11.3m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 10.95 to 11.3m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Orientated at 90 degrees to other vertical fissure at same depth. At 11.0m: fissure. 65 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 11.3 to 11.4m: fissure. 70 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 11.4 to 11.45m: extremely closely fissured. Fissures are subvertical, smooth, planar, slightly polished, clean, very stiff, unweathered. 11.4 to 11.6m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 11.6 to 12.0m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 11.65m: fissure. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 11.85 to 11.9m: 50mm thick layer containing several fine to medium sand-sized fossilised worm burrows. At 11.95m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 11.95m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to other fissure at same depth. At 12.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations.	11		
12.00 12.00 - 13.50	D									
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks				
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to					
150	10.50	6.40	4.80			Hand dug: Ground level to 1.2m. Cable percussive: 1.2 to 10m. Rotary core (Geobore-S): 10 to 40.5m.				



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 19/11/2024			
Location: London				Contractor:				Co-ords: E516614.04 N173670.38			
Project No. : GE21665				Crew Name:				Drilling Equipment:			
Borehole Number MT-009		Hole Type CP+RC		Level 7.54m AoD		Logged By JH / TL		Scale 1:20		Page Number Sheet 4 of 11	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description																																																																			
				TCR	SCR	RQD																																																																								
		13.00	D	93	93	90	(31) 100mm				Very stiff very thinly laminated fissured greyish brown slightly silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION 12.25 to 12.3m: fissure. 70 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 12.3 to 13.0m: laminations indistinct. At 12.4m: 10mm diameter nodules of pyritised fossilised wood. 12.4 to 12.5m: fissure. 80 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 12.4 to 12.55m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 12.55m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 12.6 to 12.65m: several very thin 20mm diameter lenses of dark grey slightly sandy silt. Sand is fine. At 12.6m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 12.55m. 12.6 to 12.8m: fissure. 80 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 12.75 to 13.05m: extremely closely fissured. Orientations inconsistent and fissures generally impersistent, with three possible sets: _Set 1_ 10 to 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Persistent across core diameter. _Set 2_ 60 to 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against set 1. _Set 3_ 70 to 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against set 1. Orientated at about 60 degrees clockwise to set 2. At 13.35m: 15 mm long 5mm diameter piece of fossilised wood.	13																																																																		
		13.50 - 15.00	D	100	67	67					100mm				14.1 to 14.7m: slightly sandy (sand is fine). Slight gritty feeling when cut with sharp knife. 14.1 to 14.15m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 14.1 to 14.15m: extremely closely fissured. No apparent sets or consistent orientations. 14.2 to 14.35m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Offset 5mm by subhorizontal fissure at 14.3m. At 14.3m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 14.4 to 14.5m: extremely closely fissured, no clear consistent orientations. Several disturbed partings of dark grey slightly sandy silt. Sand is fine. 14.5 to 14.7m: fissure. 90 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered. 14.65 to 14.9m: extremely closely fissured, no clear consistent orientations. 14.8 to 15.0m: very closely fissured in three sets. _Set 1_ 10 to 30 degree dip in varying orientations. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Persistent across core diameter. _Set 2_ 80 to 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. _Set 3_ 70 to 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Orientated at about 60 degrees clockwise to set 2. At 14.95m: fossil conical gastropod shell. 3mm diameter, 15mm length. At 15.0m: parting of dark grey silt. 15.0 to 15.1m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 15.0 to 18.00 pm: silty to very silty. Gritty feel when cut with sharp knife. 15.05 to 15.15m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is about 90 degrees to fissure at 15m. At 15.25m: fine gravel-sized patch of dark grey silty fine sand. 15.3 to 15.55m: fissure. 80 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 15.65m: two subparallel fissures. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 15.7 to 16.1m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 15.8 to 16.0m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 15.7m.	14																																																														
		14.00														D	100	67	67	100mm																																																										
		15.00																							D	100	100	80	100mm																																																	
		15.00 - 16.50																																D	100	100	80	100mm																																								
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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		10.50	150														

Remarks Hand dug: Ground level to 1.2m. Cable percussive: 1.2 to 10m. Rotary core (Geobore-S): 10 to 40.5m.																	
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Project Name: London Water Recycling (LWR)		Client: Thames Water Utilities Ltd		Date: 19/11/2024	
Location: London		Contractor:		Co-ords: E516614.04 N173670.38	
Project No. : GE21665		Crew Name:		Drilling Equipment:	
Borehole Number MT-009	Hole Type CP+RC	Level 7.54m AoD	Logged By JH / TL	Scale 1:20	Page Number Sheet 5 of 11

[illegible]



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 19/11/2024			
Location: London				Contractor:				Co-ords: E516614.04 N173670.38			
Project No. : GE21665				Crew Name:				Drilling Equipment:			
Borehole Number MT-009		Hole Type CP+RC		Level 7.54m AoD		Logged By JH / TL		Scale 1:20		Page Number Sheet 6 of 11	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		20.00	D								Very stiff very thinly laminated fissured greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION At 19.75m: fissure. 320 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.85m: nobbly wood fossil. 8mm diameter, 30mm length. At 19.95m: slightly pyritised fossil wood fragment. 5 x 10 x 12 mm. At 20.05m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.1m: fissure. 20 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 20.1m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.2m: several parallel fissures spaced 15 to 30mm apart. 40 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered. 20.25 to 20.35m: extremely closely fissured. 20.35 to 20.4m: fissure. 80 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 20.4m: fissure. 30 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 20.5m: fissure. 30 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 20.4m. 20.5 to 20.55m: wedge-shaped section of core extremely closely fissured. At 20.6m: fissure. 75 dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 20.7 to 20.8m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.75m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.8m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Same dip direction as fissure at 20.75m. 20.8 to 21.0m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 20.95 to 21.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 21.2 to 21.3m: extremely closely fissured. 21.25 to 21.5m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 21.35m: medium gravel-sized fossilised wood fragment. At 21.4m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.4m: fissure. 30 degree dip in opposite direction to other fissure at 21.4m. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 21.45 to 21.95m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 21.5m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure with same dip angle at 21.4m. 21.6 to 21.9m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Orientated at 90 degrees to other vertical fissure at same. 21.65 to 21.75m: several subhorizontal fissures spaced at between 5 and 50mm. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 22.0 to 22.1m: fissure. 65 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered. At 22.1m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. At 22.3m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 22.32m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 22.35 to 22.5m: fissure. 90 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered. 22.35 to 22.5m: very closely fissured.	20
		21.00 21.00 - 22.50	D	93	93	80						21
		22.00	D				100mm					
		22.50 - 24.00	D	100	100	20						
		23.00	D	93	63	40	(38) 100mm					23
											At 23.35m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 23.35m: fissure. 50mm length. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against other fissures. At 23.4m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 23.42m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		10.50	150														

Remarks Hand dug: Ground level to 1.2m. Cable percussive: 1.2 to 10m. Rotary core (Geobore-S): 10 to 40.5m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 19/11/2024		
Location: London			Contractor:			Co-ords: E516614.04 N173670.38		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-009		Hole Type CP+RC		Level 7.54m AoD		Logged By JH / TL		Page Number Sheet 7 of 11

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		24.00 24.00 - 25.50	D				100mm			Very stiff very thinly laminated fissured greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION At 23.6m: fissure. 0 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 23.6m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.65 to 23.8m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.75 to 24.0m: laminations indistinct, very silty. 23.9 to 24.0m: three pieces of pyritised fossilised wood. 24.05 to 24.15m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 24.15 to 24.2m: fissure. 30 degree dip in opposite direction to fissure at 24.05m. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 24.35m: fissure. 65 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 24.35 to 24.5m: fissure. 80 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. (Core split easily along this fissure). 24.45 to 24.65m: very closely fissured.	24
		25.00	D	90	90	27				At 24.75m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. 24.75 to 24.9m: fissure. 0 degree dip, curving sharply to 90 degrees at edge of core. Smooth, planar (except for curve), slightly polished, very tight, clean, very stiff, unweathered. At 24.75m: fissure. 5 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 24.85m: fissure. 10 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered. At 24.9m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 25.2 to 25.6m: fissure. 85 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered.	25
		25.50 - 27.00					100mm				
		26.00	D					25.70	-18.16	At 23.65m: fissure. 45 degree dip. Smooth, undulating, polished and slightly striated, very tight, clean, very stiff, unweathered. Very stiff very thinly laminated fissured brownish grey silty to very silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION 25.7 to 26.9m: faintly laminated. Slightly sandy (sand is fine). At 25.75m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.8m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 25.85 to 26.0m: fissure. 90 degree dip. Smooth, undulating, dull to slightly polished, very tight, clean, very stiff, unweathered. Has concave surface across core when viewed along core axis. 25.95 to 26.05m: extremely closely fissured. 26.0 to 26.3m: fissure. 85 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 26.25 to 26.5m: fissure. 85 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 26.0m. 26.04 to 26.35m: fissure. 85 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. Dip direction is approx 90 degrees to fissure at 26.25m. 26.7 to 26.9m: fissure. 80 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 26.75 to 26.85m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 26.8m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 26.9 to 27.0m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 26.95 to 27.0m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is about 90 degrees to fissure at 26.9m.	26
		27.00 27.00 - 28.50	D				100mm				27

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		10.50	150														

Remarks

Hand dug: Ground level to 1.2m. Cable percussive: 1.2 to 10m. Rotary core (Geobore-S): 10 to 40.5m.

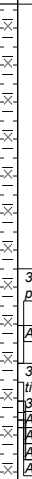




						Rotary Core Log											
Project Name: London Water Recycling (LWR)							Client: Thames Water Utilities Ltd					Date: 19/11/2024					
Location: London							Contractor:					Co-ords: E516614.04 N173670.38					
Project No.: GE21665							Crew Name:					Drilling Equipment:					
Borehole Number MT-009			Hole Type CP+RC			Level 7.54m AoD			Logged By JH / TL			Scale 1:20		Page Number Sheet 8 of 11			
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		28.00	D		100	67	53				Very stiff very thinly laminated fissured brownish grey silty to very silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION At 27.35m: 15 mm thick layer of extremely weak light greyish brown silty claystone. At 27.5 to 28.1m: slightly sandy (sand is fine). At 27.6m: parting of light grey silty fine sand. At 27.7m: parting of light grey silty fine sand, and a bivalve shell (30mm diameter). At 27.75 to 28.0m: 50mm thick moderately strong CLAYSTONE.						28
		28.10 - 28.45	C								At 27.95 to 28.1m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.0 to 28.1m: core below claystone is extremely closely fissured. At 28.05 to 28.1m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. May be same fissure as vertical fissure at 28.45m. At 28.1m: parting of dark grey silt. At 28.1 to 30.0m: with intermittent partings of light grey silt.						
		28.50 - 30.00					100mm				At 28.45 to 28.5m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.5m: parting of light greyish brown silty fine sand.						
		29.00	D								At 28.6 to 29.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.6 to 29.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Orientated at 90 degrees to other vertical fissure at same depth. At 28.6m: very thin lense of dark grey fine sand, 15mm diameter. At 28.8m: parting of light greyish brown silty fine sand. At 28.9 to 29.0m: slightly sandy. Sand is fine. At 28.9m: 5mm thick layer of brownish grey silty fine sand, with fragment of claystone.						29
		29.60 - 30.00	C		100	100	93				At 28.95m: parting of light greyish brown silty fine sand. At 29.05 to 29.15m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.1 to 29.25m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.2 to 29.25m: extremely weak, light brownish grey, very silty. At 29.3m: very thin lense of dark grey silt, 10mm diameter. At 29.35m: 10mm thick layer of extremely weak light greyish brown very silty clay. At 29.4m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 29.42m: parting of light grey silty fine sand. At 29.5m: parting of light grey silty fine sand. At 29.55m: 5mm thick parting of dark grey silty fine sand. At 29.6m: parting of light grey silty fine sand.						
		30.00	D				100mm	30.00	-22.46								30
		30.00 - 31.50									POOR RECOVERY. 30.0 to 31.5m: poor recovery due to claystone jammed in barrel. 300mm of core recovered, unable to locate within this core run. Includes 100mm thick moderately strong light grey claystone, and 200mm very stiff very thinly laminated fissured brownish grey silty CLAY.						
																	31
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		10.50	150														
Remarks																	
Hand dug: Ground level to 1.2m. Cable percussive: 1.2 to 10m. Rotary core (Geobore-S): 10 to 40.5m.																	



Project Name: London Water Recycling (LWR)		Client: Thames Water Utilities Ltd		Date: 19/11/2024	
Location: London		Contractor:		Co-ords: E516614.04 N173670.38	
Project No. : GE21665		Crew Name:		Drilling Equipment:	
Borehole Number MT-009	Hole Type CP+RC	Level 7.54m AoD	Logged By JH / TL	Scale 1:20	Page Number Sheet 9 of 11

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		31.50 - 33.00	D				(49) 100mm	31.50	-23.96		POOR RECOVERY.	32					
											Very stiff very thinly laminated fissured brownish grey silty to very silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION						
		32.00	D	87	53	53					32.2 to 32.45m: fissure. 90 degree dip, curving gradually to 85 degrees. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	At 28.5m: parting of dark greyish silty fine sand.	32.45 to 32.5m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 32.45m.	At 32.55m: parting of light grey silt.	At 32.58m: parting of light grey silt.	At 32.6m: parting of light grey silty fine sand.	At 32.62m: 10mm thick layer of extremely weak light greyish brown silty CLAY.
											At 32.85: parting of light greyish brown silty fine sand.						
											At 32.95m: 5mm thick layer of dark greyish brown silty sandy CLAY. Sand is fine.						
		33.00 33.00 - 34.50	D				100mm										33
				33.20 - 33.50	C								At 33.2m: 3mm thick layer of weakly cemented dark grey silty fine sand.	At 23.35m: fissure. 45 degree dip. Smooth, planar. Unable to determine other properties as lies with core subs ample.			
		34.00	D			93	93				60		33.6 to 23.75m: two subparallel fissures. 90 degree dip, to mm spacing reducing to 5mm spacing at base. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	33.9 to 34.15m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	At 34.0m: parting of light greyish brown silt.	34.1 to 34.2m: very closely fissured. Fissures predominantly have 5 to 20 degree dip in same direction and are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	At 34.3m: parting of light grey silt.
34.50 - 36.00							100mm							34			

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		10.50	150														

Remarks

Hand dug: Ground level to 1.2m. Cable percussive: 1.2 to 10m. Rotary core (Geobore-S): 10 to 40.5m.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 19/11/2024			
Location: London				Contractor:				Co-ords: E516614.04 N173670.38			
Project No. : GE21665				Crew Name:				Drilling Equipment:			
Borehole Number MT-009		Hole Type CP+RC		Level 7.54m AoD		Logged By JH / TL		Scale 1:20		Page Number Sheet 10 of 11	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		35.00	D								Very stiff very thinly laminated fissured brownish grey silty to very silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION 35.0 to 35.1m: fissure. 90 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. 35.1 to 35.2m: moderately strong claystone. At 35.3m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 35.4m: 30mm thick layer of light brownish grey very silty clay.	35
		36.00 36.00 - 37.50	D	100	100	93						
		36.60	D				100mm				At 35.7m: 20mm thick layer containing very thin lenses and coarse sand-sized patches of light brownish grey very silty clay.	36
		37.50 - 39.00	D	87	40	33					36.75 to 37.5m: liner failed; core disturbed. At 36.8m: parting of light grey silt. 37.0 to 40.5m: becoming very stiff to extremely weak.	37
		38.00	D								37.55 to 37.65m: fissure. 90 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. At 37.6m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 37.8 to 37.9m: very closely fissured. Fissures mostly have 0 to 10 degree dip and are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 37.95 to 38.0m: fractured moderately strong claystone. 38.0 to 38.05m: fissure. 65 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. At 38.05m: 5mm thick layer of dark grey sandy clay (sand is fine). 38.1 to 38.25m: extremely closely fissured. At 38.25m: 10mm thick layer of weak light grey claystone. 38.6 to 38.75m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 38.7m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	38
				93	93	20						

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		10.50	150														

Remarks Hand dug: Ground level to 1.2m. Cable percussive: 1.2 to 10m. Rotary core (Geobore-S): 10 to 40.5m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 19/11/2024		
Location: London			Contractor:			Co-ords: E516614.04 N173670.38		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-009		Hole Type CP+RC		Level 7.54m AoD		Logged By JH / TL		Page Number Sheet 11 of 11

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		39.00 39.00 - 40.50	D				100mm			Very stiff very thinly laminated fissured brownish grey silty to very silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION <u>38.75 to 38.85m: moderately strong grey claystone.</u> <u>At 38.95m: 3mm thick layer of very weak dark grey sandy claystone.</u>	39
		40.00	D	97	97	60				<u>39.4 to 39.9m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.</u> <u>39.45 to 39.55m: fissure with curved surface. 40 degree dip at top, steepening to 85 degrees at base. Smooth, polished, very tight, clean, very stiff, unweathered.</u> <u>39.9 to 40.0m: moderately strong claystone.</u> <u>40 to 40.2m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.</u>	40
							40.50	-32.96		End of Borehole at 40.500m	41
											42

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		10.50	150														

Remarks
Hand dug: Ground level to 1.2m. Cable percussive: 1.2 to 10m. Rotary core (Geobore-S): 10 to 40.5m.





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Borehole No.

MT-017a

Sheet 1 of 16

Project Name:	London Water Recycling (LWR)
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Project No.
GE21665

Co-ords: 517363E - 171307N

Hole Type
CP+RC

Location:	London
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Energy Ratio (%):	Level: 7.84
Driller's Initial: MY	

Level: 7.84

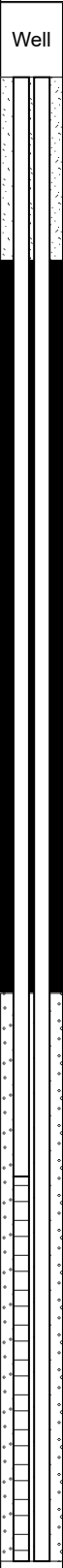
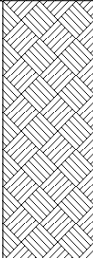
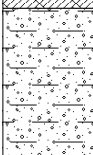
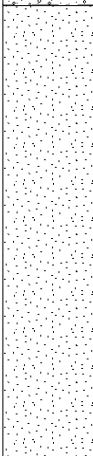
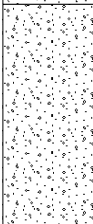
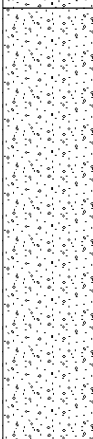
Scale
1:20

Client:	Thames Water Utilities Ltd
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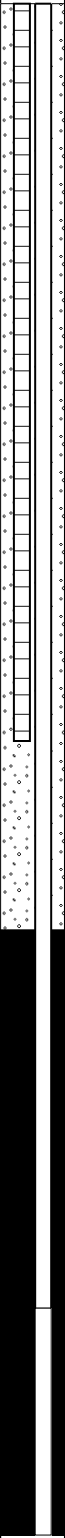
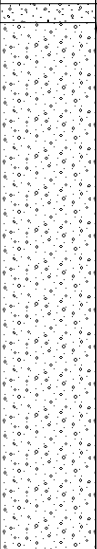
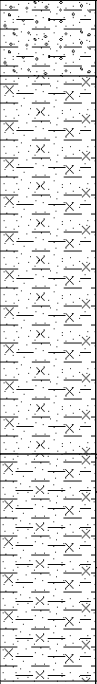
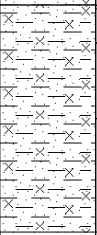
Rig Type:
Dando 2000

Dates: 06/02/2025

Logged By
JH+TL

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		0.30 - 0.60 0.30 - 0.60 0.30	B ES PID	PID=0.1ppm	0.70	7.14		Grass overlying soft brown silty sandy CLAY. Sands are fine to coarse.	1 2 3 4	
		0.80 - 1.00 0.80 - 1.00 0.80	B ES PID	PID=0.1ppm				Medium dense reddish grey slightly clayey sandy GRAVEL. Sands are fine to coarse. Gravels are fine to medium angular to sub angular flints. KEMPTON PARK GRAVEL		
		1.20 - 1.40 1.20 - 1.40 1.20 - 1.65 1.20 1.20 1.50 - 14.50	B ES D SPT PID D	N=22 (2,4/5,5,6,6) PID=0.0ppm	1.15	6.69		Dense yellowish grey fine to medium SAND. Occasional fine gravel of flint. KEMPTON PARK GRAVEL		
		2.00 - 2.40 2.00 - 2.40 2.00 - 2.45 2.00 2.00	B ES D SPT PID	N=50 (2,4/7,12,15,16) PID=0.0ppm				Medium dense brown gravelly fine to coarse SAND. Gravels are fine subangular to subrounded flint. KEMPTON PARK GRAVEL		
		3.00 - 3.45 3.00 - 3.45 3.00 3.00	B ES CPT PID	N=36 (2,2/6,9,10,11) PID=0.0ppm	2.90	4.94		Dense brown very gravelly fine to coarse SAND. Gravels are fine to coarse subangular to subrounded flint. KEMPTON PARK GRAVEL		
		3.50	EW							
		4.00 - 4.45 4.00 - 4.45	B ES							
	Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks			
	Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to				
	200 150	6.50 7.50	3.90	3.50						



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-017a Sheet 2 of 16		
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517363E - 171307N		Hole Type CP+RC		
Location:		London		Energy Ratio (%): Driller's Initial: MY		Level: 7.84		Scale 1:20		
Client:		Thames Water Utilities Ltd		Rig Type: Dando 2000		Dates: 06/02/2025		Logged By JH+TL		
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		4.00 4.00	CPT PID	N=20 (3,3/5,4,5,6) PID=0.0ppm	4.10	3.74		Dense brown very gravelly fine to coarse SAND. Gravels are fine to coarse subangular to subrounded flint. KEMPTON PARK GRAVEL Medium dense sandy fine to coarse GRAVEL. Sands are fine to coarse. Gravels are fine to coarse angular to subrounded flint. Occasional cobble of flint. KEMPTON PARK GRAVEL	5	
		5.00 - 5.45 5.00 - 5.45 5.00 5.00	B ES CPT PID	N=12 (2,2/3,3,4,2) PID=0.0ppm	5.50	2.34		Medium dense sandy fine to coarse GRAVEL. Sands are fine to coarse. Gravels are fine to medium angular to subrounded flint. KEMPTON PARK GRAVEL		
		6.00 - 6.30 6.00 - 6.30 6.00 6.00	B ES CPT PID	N=14 (2,2/3,2,3,6) PID=0.0ppm	6.30	1.54		Firm brown grey mottled sandy slightly gravelly CLAY. Sands are fine to coarse. Gravels are fine subangular flint. LONDON CLAY FORMATION Firm very thinly laminated brownish grey silty slightly sandy CLAY. Sands are fine. Sand appears in lenses. LONDON CLAY FORMATION	7	
		6.50 - 6.70	B		6.50	1.34				
		7.00 - 7.45 7.00 - 7.45	B ES							
		7.50 - 8.00	D			7.50	0.34		Stiff to very stiff fissured brownish grey very silty sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION <i>7.5 to 10.5m: gritty feel when cut with sharp knife. 7.5 to 10.5m: with frequent very thin lenses of dark grey or light grey sandy silt. No clear laminations. At 7.6m: bivalve shell fossil, 10mm diameter. At 7.8m: fissure, 80 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i>	8
	8.00	D								
		Type/Fl	TCR	SCR	RQD					
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks				
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.				
200 150	6.50 7.50	3.90	3.50							
										



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/02/2025		
Location: London			Contractor:			Co-ords: E517362.98 N171307.17		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Page Number Sheet 3 of 16

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description					
				TCR	SCR	RQD										
		8.50	D	100	100	100	(24) 100mm	10.50	-2.66		Stiff to very stiff fissured brownish grey very silty sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION	9				
		8.60 - 9.00	C								At 8.4m: fissure. 10 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 8.4 to 8.6m: fissure. 80 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.					
		9.00	D								9.0 to 10.5m: core damaged during drilling. Detailed logging of core structure not possible.		10			
		9.00 - 10.50	C													
		9.50	D	100	0	0					9.5 to 10.5m: becoming greyish brown.			11		
		10.00	D													
		10.50	D								Very stiff fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION 10.5 to 10.8m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 10.7m: fossil shell, 6mm diameter. 10.75 to 10.9m: several parallel fissures, spaced at 10 to 30mm. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.				11	
		10.50 - 12.00	C													
		11.00	D	100	100	100					11.0 to 11.25m: intermittent fine gravel-sized patches of dark grey silt. 11.1 to 11.3m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 11.1 to 11.3m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to other fissure at same depth. 11.7 to 11.8m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 11.7 to 12.2m: very thinly laminated. 11.7 to 11.75m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 11.7 to 11.8m, creating wedge-shaped section of core that split away easily.					
		11.30 - 11.70	C													

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50	200	6.50	200									8.30	12.00			100	100
7.50	150	7.50	150									12.00	60.00			80	80
60.00	146																

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/02/2025		
Location: London			Contractor:			Co-ords: E517362.98 N171307.17		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Page Number Sheet 4 of 16

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		12.00 12.00 - 13.50	D				100mm	12.20	-4.36	Very stiff fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION	12
		12.50	D							Very stiff fissured greyish brown very silty slightly sandy CLAY. Sand is fine. Becomes silty clay below 15.8m. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION	13
		13.00	D							12.2 to 13.4m: gritty feeling when cut with sharp knife. Indistinct very thin laminations. With occasional fine gravel-sized patches of dark grey slightly sandy silt.	
		13.50 13.50 - 13.80 13.50 - 15.00	D C				100mm			12.2 to 12.3m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		14.00	D							At 12.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 30mm length, terminating within soil mass.	
		15.00 15.00 - 16.50	D				(36) 100mm			At 12.3m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		15.50	D							At 12.8m: fossilised wood fragment, 10 x 8 x 2mm. Slightly pyritised.	
										At 13.0m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										At 13.0m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to other fissure at same depth.	
										At 13.2m: fossil worm burrows, 1mm diameter.	
										At 13.35m: parting of light grey silt.	
										At 13.8m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	14
										At 13.9m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										At 13.9m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										13.9 to 14.0m: fissure. 70 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered.	
										At 14.0m: very thin lense of dark grey silty clay.	
										At 14.1m: fissure. 45 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.	
										At 14.1m: fossil worm burrow. 1mm diameter.	
										At 14.15m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										14.15 to 14.2m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										At 14.3m: parting of dark grey silt.	
										14.3 to 14.35m: fissure. 70 degree dip. Smooth, un, slightly polished, very tight, clean, very stiff, unweathered.	
										14.45 to 14.55m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										14.5 to 14.55m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in same direction as fissure at 14.45m.	15
										14.7 to 14.8m: extremely closely fissured.	
										14.75 to 15.0m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										At 14.85m: fossil shell fragments.	
										At 14.9m: fossil wood fragment. 20 x 5 x 50 mm.	
										15.0 to 15.8m: gradual change, becoming very thinly laminated without sand content. Very thinly laminated silty clay from 15.8m.	
										At 15.5m: fossil worm burrow, 1mm diameter.	
										At 15.55m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										At 15.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										15.65 to 15.75m: moderately strong light grey CLAYSTONE. Whole core diameter.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50 7.50 60.00	200 150 146	6.50 7.50	200 150									8.30 12.00	12.00 60.00			100 80	100 80

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/02/2025		
Location: London			Contractor:			Co-ords: E517362.98 N171307.17		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Page Number Sheet 5 of 16

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		16.00	D							Very stiff fissured greyish brown very silty slightly sandy CLAY. Sand is fine. Becomes silty clay below 15.8m. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION 15.75 to 16.1m: extremely closely fissured. 16.0 to 16.1m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	16
		16.10 - 16.40	C	97	60	53					
		16.50	D								
		16.50 - 18.00									
							100mm				
		17.00	D								
				100	100	73					
		17.50	D								
		18.00	D							At 17.55m: fissure. 20 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 17.55 to 17.6m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 17.6 to 17.7m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 17.7m: fissure. 50 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 17.75m: medium sand-sized fossil shell fragment, and fossil worm burrows. 17.8 to 17.9m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 18.0 to 18.2m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.2m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.3m: very thin lense of dark grey silt. At 18.5m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.7m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against other fissure. At 18.7m: fissure. 30 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 18.75 to 18.8m: three parallel fissures spaced at 10 to 40mm. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 18.95 to 19.0m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.05m: thin lamination of dark grey slightly sandy silt. Sand is fine. At 19.1m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 19.2 to 19.5m: extremely closely fissured.	17
		18.00 - 19.50									
							100mm				
		18.50	D								
				100	100	83					
		19.00	D								
		19.50	D								
		19.50 - 21.00					(46) 100mm				

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50	200	6.50	200									8.30	12.00			100	100
7.50	150	7.50	150									12.00	60.00			80	80
60.00	146																

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/02/2025		
Location: London			Contractor:			Co-ords: E517362.98 N171307.17		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Page Number Sheet 6 of 16

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		20.00	D							Very stiff fissured greyish brown very silty slightly sandy CLAY. Sand is fine. Becomes silty clay below 15.8m. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION	20
		20.30 - 20.65	C	93	53	53					
		21.00	D								
		21.00 - 22.50	D								
		21.50	D								
		22.00	D								
		22.50	D								
		22.50 - 24.00	D								
		22.90	D								
		23.00 - 23.40	C								
		21.00	D							At 20.65m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.8m: very weak dark grey silty slight pyritised claystone nodule, 15mm thick. 80mm diameter. 21.0 to 21.1m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 21.3 to 21.4m: fissure. 90 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. 21.6 to 21.7m: two parallel fissures. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 21.75 to 21.95m: two parallel fissures. 90 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. 21.9 to 22.1m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	21
		21.50	D								
		22.00	D								
		22.50	D								
		22.50 - 24.00	D								
		22.90	D								
		23.00 - 23.40	C								
		23.00 - 23.40	C								
		23.00 - 23.40	C								
		23.00 - 23.40	C								
		22.20						-14.36		NO RECOVERY. 22.2 to 22.5m: no recovery, core washed out.	22
		22.50									
		22.50 - 24.00									
		22.90									
		23.00 - 23.40									
		23.00 - 23.40									
		23.00 - 23.40									
		23.00 - 23.40									
		23.00 - 23.40									
		23.00 - 23.40									
		22.50	D							Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION 22.5 to 23.0m: surface of core partially washed away. 22.6 to 22.7 m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 22.6 to 22.7m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to other fissure at 22.6m. 22.7 to 22.9m: very closely fissured. Fissures in multiple orientations. Core split easily along fissures into angular chunks up to 100mm diameter. Fissures are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 22.9 to 23.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 22.9 to 23m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	23
		22.50 - 24.00	D								
		22.90	D								
		23.00 - 23.40	C								
		23.00 - 23.40	C								
		23.00 - 23.40	C								
		23.00 - 23.40	C								
		23.00 - 23.40	C								
		23.00 - 23.40	C								
		23.00 - 23.40	C								

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50	200	6.50	200									8.30	12.00			100	100
7.50	150	7.50	150									12.00	60.00			80	80
60.00	146																

Remarks

Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.





Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 06/02/2025									
Location: London				Contractor:				Co-ords: E517362.98 N171307.17									
Project No. : GE21665				Crew Name: MY+PJ				Drilling Equipment: Dando 2000+Comacchio 305									
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Scale 1:20		Page Number Sheet 7 of 16							
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPL)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		23.50	D				(47) 100mm				Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION <u>At 23.5m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 23.55m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>23.55 to 23.8m: fissure. 85 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>23.6 to 23.7m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees clockwise to fissure at 23.55 to 23.8m.</u> <u>23.75 to 23.9m: extremely closely fissured.</u>	24					
	24.00 24.00 - 25.50	D															
	24.50	D															
			73	27	20												
	25.00	D						24.95 -17.11									
								25.10 -17.26									
	25.50 25.50 - 27.00	D				100mm		25.50 -17.66									
	26.00	D															
			100	100	27												
	26.50	D															
		27.00 27.00 - 28.50	D				100mm					27					
Hole Diameter				Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50	200	6.50	200									8.30	12.00			100	100
7.50	150	7.50	150										60.00			80	80
60.00	146																
Remarks																	
Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/02/2025		
Location: London			Contractor:			Co-ords: E517362.98 N171307.17		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Page Number Sheet 8 of 16

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		27.50	D							Very stiff very thinly laminated fissured greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION 27.2 to 27.3m: fissure. 75 degree dip. Smooth, stepped, slightly polished, very light, clean, very stiff, unweathered. At 27.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 27.5m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	28
		28.00	D	100	100	80				At 27.7m: fissure. 70 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 27.9m: vertically aligned fossil wood fragment, 7mm diameter, 50mm length. 28.0 to 28.2m: fissure. 90 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered.	
		28.50 28.50 - 30.00	D				100mm			28.25 to 28.3m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 28.4 to 28.5m: several parallel fissures spaced at 5 to 25mm. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		29.00 29.10 - 29.40	D C							At 28.8m: medium gravel-sized patch of dark grey silty clay.	
		29.50	D							At 29.1m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		30.00 30.00 - 31.50	D				100mm			29.6 to 30.0m: very silty. At 29.61m: very thin lense of light greyish brown silt. At 29.65m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.9m: medium gravel-sized patch of dark grey silty clay.	
		30.50	D	97	97	93				At 30.2m: several very thin lenses of dark grey silty clay. At 30.3m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.3m: 2mm thick layer of dark grey silty fine sand. 30.35 to 30.5m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 30.55m: several very thin lenses of dark grey silty fine sand.	
										At 30.8m: fissure. 0 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 30.9m: fissure. 0 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50 7.50 60.00	200 150 146	6.50 7.50	200 150									8.30 12.00	12.00 60.00			100 80	100 80

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 06/02/2025			
Location: London				Contractor:				Co-ords: E517362.98 N171307.17			
Project No. : GE21665				Crew Name: MY+PJ				Drilling Equipment: Dando 2000+Comacchio 305			
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Scale 1:20		Page Number Sheet 9 of 16	

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		31.00	D							Very stiff very thinly laminated fissured greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION <i>At 30.92m: fissure. 0 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 31.05m: fissure. 30 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 31.25m: 1mm thick layer of dark grey silty fine sand.</i>	31
		31.50 31.50 - 33.00	D				100mm			<i>At 31.6m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>31.65 to 31.7m: two subparallel fissures. 90 degree dip, 10mm spacing. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	32
		31.75 31.80 - 32.20	D C								
		32.50	D	100	100	93				<i>32.4 to 32.45m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 32.5m: very thin lense of dark grey silt.</i>	
		33.00 33.00 - 34.50	D				100mm				
		33.50	D								
		34.00	D	97	97	67				<i>At 33.9m: cobble-sized nodule of dark grey silty claystone. Core is disturbed for approximately 30mm above and below.</i> <i>At 34.05m: fissure. 50 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i>	
		34.50 34.50 - 36.00	D				100mm			<i>At 34.4m: fissure. 50 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 34.3m: fossil bivalve shell, 15mm diameter.</i> <i>34.35 to 34.4m: two subparallel fissures. 80 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.</i> <i>At 34.5m: thin lense of dark grey silt.</i> <i>234.55 to 34.8m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.</i> <i>34.65 to 35.8m: intermittent very thin lenses and fine gravel-sized patches of dark grey silty sandy clay. Sand is fine.</i>	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50 7.50 60.00	200 150 146	6.50 7.50	200 150									8.30 12.00	12.00 60.00			100 80	100 80

Remarks

Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 06/02/2025			
Location: London				Contractor:				Co-ords: E517362.98 N171307.17			
Project No. : GE21665				Crew Name: MY+PJ				Drilling Equipment: Dando 2000+Comacchio 305			
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Scale 1:20		Page Number Sheet 10 of 16	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		35.00	D								Very stiff very thinly laminated fissured greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION	35
		35.50	D	100	100	100						
		36.00 36.00 - 36.30 36.00 - 37.50	D C				100mm				At 35.6m: fissure. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	36
		36.50	D								35.8 to 36.0m: surface of core partially washed away.	
		37.00	D								36.4 to 36.7m: fissure. 80 degree dip. Smooth, planar, polished and slightly striated, very tight, clean, very stiff, unweathered.	
		37.40 37.50 - 39.00	D	93	93	93					36.65 to 36.9m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		38.00	D	93	53	53					At 36.8m: bivalve shell fossil, and a 5mm thick lense of dark grey silty.	37
		38.50	D								37.0 to 37.1m: very closely fissured.	
											37.3 to 37.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
											37.4 to 37.5m: poor recovery.	
											38.0 to 38.05m: extremely closely fissured.	38
											38.05 to 38.1m: extremely weak tight greyish brown silty clay.	
											At 38.1m: thin lamination of dark grey silt.	
											38.1 to 38.3m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	
											38.2 to 38.4m: fissure. 75 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	
											38.2 to 38.3m: extremely closely fissured.	
											38.4 to 38.5m: fissure. 70 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50 7.50 60.00	200 150 146	6.50 7.50	200 150									8.30 12.00	12.00 60.00			100 80	100 80

Remarks

Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.





Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 06/02/2025									
Location: London				Contractor:				Co-ords: E517362.98 N171307.17									
Project No. : GE21665				Crew Name: MY+PJ				Drilling Equipment: Dando 2000+Comacchio 305									
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Scale 1:20		Page Number Sheet 11 of 16							
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPL)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		39.00 39.00 - 40.50 39.15 - 39.55	D C				100mm				Very stiff very thinly laminated fissured greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION <u>At 38.5m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 38.8 to 38.95m: fissure. 85 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.</u> <u>At 38.85m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 38.85m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u>	39					
		39.60	D														
		40.00	D	97	97	80					<u>At 39.9m: medium gravel-sized nodule of pyritised claystone.</u> <u>At 39.95m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 40.05m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u>	40					
		40.50 40.50 - 42.00	D				100mm				<u>40.25 to 40.5m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 40.5m: coarse gravel-sized nodule of extremely weak light brown silty claystone.</u> <u>40.55 to 40.6m: two parallel fissures spaced 50mm apart. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u>						
		41.00	D								Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION <u>40.7 to 41.1m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>40.7 to 41.5m: surface of core partially washed away. Very silty.</u> <u>40.9 to 41.1m: core split easily into several fragments along several intersect subvertical fissures.</u> <u>41.1 to 41.2m: extremely closely fissured, core appears softened and friable.</u>	41					
		41.50	D	100	100	21					<u>At 41.3m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 41.35m: rounded medium gravel-sized pyritised fossil wood fragment.</u>						
		42.00 42.00 - 43.50	D				100mm				<u>At 41.6m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>41.7 to 42.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>42.0 to 42.15m: several parallel fissures spaced at 10 to 30mm. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u>	42					
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50 7.50 60.00	200 150 146	6.50 7.50	200 150									8.30 12.00	12.00 60.00			100 80	100 80
Remarks																	
Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/02/2025		
Location: London			Contractor:			Co-ords: E517362.98 N171307.17		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-017a	Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL	Scale 1:20	Page Number Sheet 12 of 16	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		42.50	D								Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY. [Preliminary LONDON Clay Formation subdivision B1]. LONDON CLAY FORMATION At 42.3m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 42.3 to 42.7m: core diameter reduced to 80mm: surface partially washed away. At 42.35m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 42.4 to 42.5m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees anticlockwise to fissure at 42.35m (viewed down-core). 42.45 to 42.7m: extremely closely fissured. 42.45 to 43.8m: very silty. 42.7 to 42.8m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	43
		43.00	D	100	100	73					43.2 to 43.25m: extremely closely fissured. 43.25 to 43.45m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. 43.25 to 43.45m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. Dip direction is opposite to other fissure at same depth.	
		43.50 43.50 - 45.00	D				100mm				43.5 to 44.8m: core diameter reduced to approximately 90mm, with irregular surface profile along length. Surface partially washed away during drilling. At 43.6m: parting of dark grey silty fine sand. At 43.7m: very thin lense of dark grey fine sand. At 43.8m: pyritised fossil wood fragment, 5mm diameter. At 43.85m: very thin lense of dark grey silt.	
		44.00	D	100	100	47					At 43.95m: 10mm thick layer of dark grey very silty clay. 44.0 to 44.3m: core split easily along fissures into angular chunks. 44.0 to 44.25m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 44.1 to 44.3m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 44.0m.	44
		44.40	D								44.5 to 44.6m: extremely closely fissured. Core surface significantly affected by drilling. 44.65 to 44.7m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 44.75 to 45.1m: very silty.	
		45.00 45.00 - 46.50	D				100mm	45.10	-37.26		45.0 to 45.2m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	45
		45.20 - 45.55	C								Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY. [Preliminary LONDON Clay Formation subdivision A3]. LONDON CLAY FORMATION 45.1 to 46.5m: very silty, slightly sandy. Sand is fine. Slight gritty feeling when cut with sharp knife.	
		45.60	D	100	100	93					At 45.6m: parting of light grey silt. 45.7 to 45.8m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 45.75 to 46.0m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 45.7m.	46
		46.00	D								At 45.7m: fissure. 45 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 90 degrees clockwise to fissure at 45.75m.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50	200	6.50	200									8.30	12.00			100	100
7.50	150	7.50	150									12.00	60.00			80	80
60.00	146																

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/02/2025		
Location: London			Contractor:			Co-ords: E517362.98 N171307.17		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Page Number Sheet 13 of 16

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		46.50 46.50 - 48.00	D				100mm				Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION 46.35 to 46.45m: fissure. 60 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 46.45 to 46.5m: several medium gravel-sized patches of dark grey very silty clay. 46.5 to 46.7m: No recovery: core washed away during re-run. 46.5 to 48.0m: core slipped out of the barrel during recovery of the tool. Recovered on re-run. Core disturbed. 46.7 to 47.4m: orientation and integrity of core disturbed during re-run.	47
		47.50	D				100mm				47.9 to 48.0m: strong light grey claystone. Whole core diameter. 48.0 to 49.5m: core slipped out of the barrel during recovery of the tool. Recovered on re-run. Core disturbed.	48
		48.00 - 49.50	D				100mm				48.75 to 49.3m: recovered as reworked and destructured silty clay.	49
		48.50	D				100mm				49.3 to 49.5m: core lost during re-run.	
		49.20	D				100mm					
		49.50 - 49.90 49.50 - 51.00	C				100mm					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50 7.50 60.00	200 150 146	6.50 7.50	200 150									8.30 12.00	12.00 60.00			100 80	100 80

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 06/02/2025			
Location: London				Contractor:				Co-ords: E517362.98 N171307.17			
Project No. : GE21665				Crew Name: MY+PJ				Drilling Equipment: Dando 2000+Comacchio 305			
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Scale 1:20		Page Number Sheet 14 of 16	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		50.00	D								Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION 49.9 to 50.0m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 49.9 to 51.0m: intermittent partings of dark grey silt. Spacing is between 50 and 300 mm. 50.2 to 50.35m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	50
		50.50	D	93	93	93					50.7 to 50.9m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 50.8 to 50.9m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure at 50.7m. 50.9 to 50.1m: no recovery (washed away).	
		51.00 51.00 - 52.50	D				100mm				51.1 to 51.2m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 51.2 to 51.4m: moderately strong grey claystone. Whole core diameter.	51
		51.50	D								At 51.5m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 51.65 to 51.75m: very closely fissured. Core split easily along fissures into fragments up to 50mm diameter.	
		52.00	D	97	97	93					51.9 to 52.2m: surface of core partially washed away.	52
		52.50 52.50 - 54.00	D				100mm				52.3 to 57m: intermittent partings of dark grey silt. Spaced at 100 to 300mm. At 52.35m: parting of dark grey silt.	
		53.00	D	77	77	77					53.2 to 53.3m: very silty.	53
		53.50	D									
								53.65	-45.81		NO RECOVERY. 53.65 to 54.0m: core washed away during drilling.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50	200	6.50	200									8.30	12.00			100	100
7.50	150	7.50	150									12.00	60.00			80	80
60.00	146																

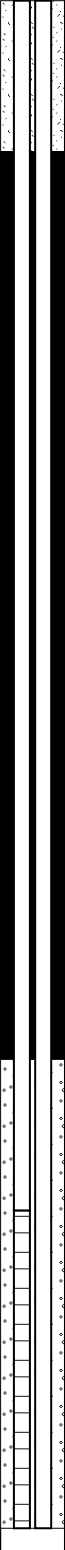
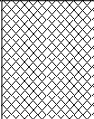
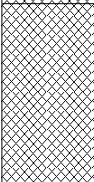
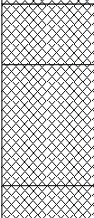
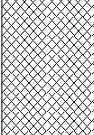
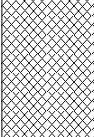
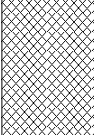
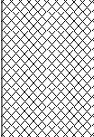
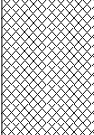
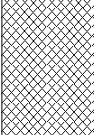
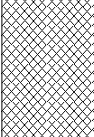
Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	
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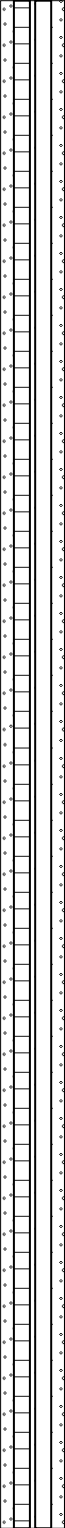
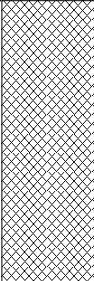
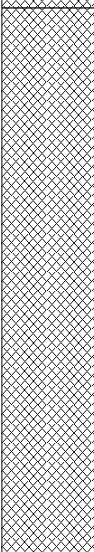
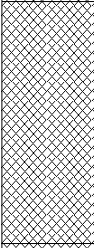
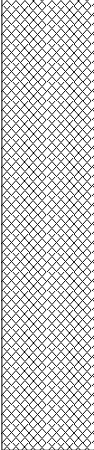
Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 06/02/2025									
Location: London				Contractor:				Co-ords: E517362.98 N171307.17									
Project No. : GE21665				Crew Name: MY+PJ				Drilling Equipment: Dando 2000+Comacchio 305									
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Scale 1:20		Page Number Sheet 15 of 16							
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPR)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		54.00 54.00 - 55.50	D				100mm	54.00	-46.16		NO RECOVERY.	54					
		54.50	D								Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY with intermittent partings abd thin laminations of dark or light grey silt and fine sand. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION						
		55.00	D	100	100	40					54.6 to 55.5m: fissure. 90 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. 54.6 to 55.6m: very silty. Slight gritty feeling when cut with sharp knife. Laminations indistinct.						
		55.50 55.50 - 55.90 55.50 - 57.00	D C				100mm				55.6 to 60.0m: occasional thin laminations / partings of light greyish brown silty fine sand.						
		56.00	D								56.0 to 56.15m: slightly sandy. Sand is fine.						
		56.50	D	100	100	100					At 56.2m: 15mm thick layer of extremely weak light greyish brown claystone. At 56.4m: 15mm thick layer of extremely weak light greyish brown claystone.						
		57.00 57.00 - 58.50	D				100mm				At 57.2m: 15mm thick layer of extremely weak light greyish brown claystone. At 57.4m: bivalve shell fossil, 3mm diameter.						
		57.50	D														
		Hole Diameter		Casing Diameter		Chiselling					Inclination and Orientation				Drilling Flush		
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50 7.50 60.00	200 150 146	6.50 7.50	200 150									8.30 12.00	12.00 60.00			100 80	100 80
Remarks																	
Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	



Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 06/02/2025									
Location: London				Contractor:				Co-ords: E517362.98 N171307.17									
Project No. : GE21665				Crew Name: MY+PJ				Drilling Equipment: Dando 2000+Comacchio 305									
Borehole Number MT-017a		Hole Type CP+RC		Level 7.84m AoD		Logged By JH+TL		Scale 1:20		Page Number Sheet 16 of 16							
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPH)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		58.00	D	90	90	80	100mm	58.35	-50.51		Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY with intermittent partings abd thin laminations of dark or light grey silt and fine sand. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION <u>At 57.9m: 20mm thick layer of destrured core. Possibly damaged during drilling process. Slightly sandy, sand is fine.</u> <u>58.0 to 58.3m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u>	58					
		58.50 58.50 - 60.00	D					58.50	-50.66		NO RECOVERY. <u>58.35 to 58.5m: no recovery. Core washed out.</u>						
		59.00	D								Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY with intermittent partings abd thin laminations of dark or light grey silt and fine sand. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION <u>At 58.6m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>59.1 to 59.2m: slightly sandy. Sand is fine.</u>	59					
		59.50	D														
		59.75	D						59.80	-51.96		NO RECOVERY. <u>59.8 to 60.0m: no recovery. Core washed out.</u>					
									60.00	-52.16		End of Borehole at 60.000m	60				
Hole Diameter				Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.50	200	6.50	200									8.30	12.00			100	100
7.50	150	7.50	150									12.00	60.00			80	80
60.00	146																
Remarks																	
Hand dug ground level to 1.2m. Cable Percussion 1.2 to 7.5m. Rotary cored (Geobore-S) 7.5 to 60.0m.																	

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-019-35 Sheet 1 of 17	
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 515012E - 175010N		Hole Type CP+RC	
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 22.49		Scale 1:25	
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 03/09/2024		Logged By TL	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.30	B	PID=0.0ppm	0.40	22.09		Grass over MADE GROUND comprising greyish brown silty slightly gravelly CLAY with rootlets. Gravel is fine to coarse subangular concrete, flint. One subangular concrete cobble. MADE GROUND	
		0.30	ES						
		0.30	PID						
		0.70 - 0.90	B	PID=0.1ppm	1.00	21.49		MADE GROUND comprising firm brownish grey to greyish brown slightly silty CLAY with very fine selenite crystals. Several subrounded to subangular fine to coarse flint gravel. MADE GROUND	
		0.80	ES						
		0.80	PID						
		1.00 - 1.20	B	N=8 (1,2/2,2,2,2) PID=0.5ppm	1.20	21.29		MADE GROUND comprising firm greyish brown to dark grey slightly silty very slightly gravelly CLAY, with faint hydrocarbon odour. Gravel is fine to coarse subangular to subrounded brick, flint, concrete. MADE GROUND	
		1.20	ES						
		1.20 - 1.50	B						
		1.20 - 1.65	D						
		1.20	SPT						
		1.20	PID	PID=0.1ppm	1.60	20.89		MADE GROUND comprising firm greyish brown slightly silty slightly gravelly CLAY, with patches of dark grey slightly sandy clay with organic odour. Gravel is fine to coarse subangular to subrounded brick and flint. MADE GROUND	
		1.30	ES						
		1.30	PID						
		1.70 - 2.20	B	PID=0.0ppm				MADE GROUND comprising firm to stiff greyish brown slightly silty slightly sandy slightly gravelly CLAY with slight organic odour. With patches of dark grey slightly sandy clay. Gravel is fine to coarse subangular to subrounded flint and brick. MADE GROUND	
		2.00	ES						
		2.00	PID						
		2.20 - 2.65	UT	PID=0.1ppm					
		2.65 - 2.70	D						
		2.80 - 3.20	B						
3.00	ES	N=18 (1,2/5,3,5,5)							
3.00	PID								
3.20 - 3.65	D								
3.20	SPT	PID=0.0ppm				At 3.7m: a concrete cobble. 3.7 to 4.2m: with partially decayed fragments of wood.			
3.70 - 4.20	B								
4.00	ES								
4.00	PID	PID=0.0ppm							
4.20 - 4.65	UT								
4.65 - 4.70	D								
4.70 - 5.20	B	PID=0.0ppm							
5.00	ES								
5.00	PID								

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks Preliminary London Clay Formation subdivisions based on visual logs only.	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		
150	9.80	11.70	11.56				
250							
200							

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-019-35 Sheet 2 of 17	
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 515012E - 175010N		Hole Type CP+RC	
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 22.49		Scale 1:25	
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 03/09/2024		Logged By TL	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		5.20 - 5.65 5.20	D SPT	N=20 (1,3/4,4,5,7)	6.00	16.49		MADE GROUND comprising firm to stiff greyish brown slightly silty slightly sandy slightly gravelly CLAY with slight organic odour. With patches of dark grey slightly sandy clay. Gravel is fine to coarse subangular to subrounded flint and brick. MADE GROUND	6
		5.70 - 6.20	B						
		6.00 6.00	ES PID	PID=0.0ppm					
		6.20 - 6.65	UT		7.80	14.69		MADE GROUND comprising firm greyish brown slightly silty sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular brick and flint, and rarely partially decayed wood. MADE GROUND	7
		6.65 - 6.70 6.70 - 7.20	D B						
		7.00 7.00	ES PID	PID=0.0ppm					
		7.20 - 7.65 7.20	D SPT	N=22 (2,4/4,6,6,6)	8.60	13.89		MADE GROUND comprising firm greyish brown to grey sandy slightly gravelly CLAY with patches of yellowish brown sandy clay. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded flint, rarely brick. MADE GROUND	8
		7.80 - 8.20	B						
		8.00 8.00	ES PID	PID=0.1ppm					
		8.20 - 8.65	UT		9.70 - 10.20	10.00		MADE GROUND comprising firm dark brown to dark grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded mixed materials including brick, flint, glass, and rare partially decayed wood. MADE GROUND	9
		8.65 - 8.70 8.70 - 9.20	D B						
		9.00 9.00	ES PID	PID=0.0ppm					
		9.20 - 9.65 9.20	D SPT	N=34 (3,4/5,8,9,12)	10.00	10.00		MADE GROUND	10
		9.70 - 10.20	B						
		10.00 10.00	ES PID	PID=0.7ppm					
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	Preliminary London Clay Formation subdivisions based on visual logs only.			
150	9.80	11.70	11.56						
250									
200	11.70								
									



Borehole Log

Borehole No.
MT-019-35

Sheet 3 of 17

Project No.
GE21665

Co-ords: 515012E - 175010N

Hole Type
CP+RC

Location:	London
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Energy Ratio (%):
Driller's Initial:

Level: 22.49

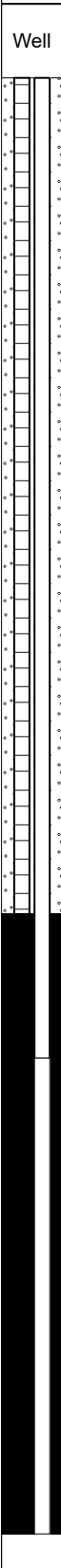
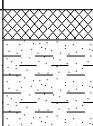
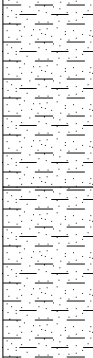
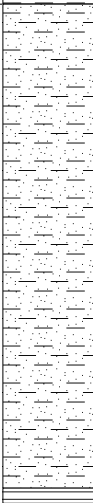
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1:25

Client:	Thames Water Utilities Ltd
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Rig Type:

Dates: 03/09/2024

Logged By
TL

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		10.20 - 10.65 10.20 - 10.65	UT UT	4.0kg/cm2	10.20	12.29		MADE GROUND comprising firm dark brown to dark grey sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded mixed materials including brick, flint, glass, and rare partially decayed wood. MADE GROUND Firm to stiff light grey mottled orangish brown slightly gravelly sandy CLAY. Sand is medium to coarse. Gravel is fine to medium subangular flint. With some relict root traces. KEMPTON PARK GRAVEL	11		
		10.65 - 10.70 10.70 - 11.10 10.80	D B PP								
		11.00 11.00 11.10 - 11.70	ES PID B					PID=0.0ppm			
		11.50	ES	N=42 (5,7/9,11,11,11)	11.70	10.79		Yellowish grey sandy CLAY with patches of light yellowish grey mottled orangish brown sandy CLAY. KEMPTON PARK GRAVEL	12		
		11.70 - 12.15 11.70	D SPT								
		12.00	PID					PID=0.0ppm			
		12.20 - 13.20	B	N=21 (7,12/9,4,4,4)	13.20	9.29		Very stiff greyish brown mottled orangish brown slightly silty sandy CLAY. Sand is fine. LONDON CLAY FORMATION	13		
		12.50	ES								
		13.20 - 13.50 13.20	B CPT								
		13.40	ES	13.50	8.99		Very stiff thinly laminated very closely to closely fissured greyish brown slightly silty sandy CLAY. Sand is fine. Fissures are dry, smooth, dull, very tight, clean, unweathered, with very stiff walls. [Preliminary London Clay Formation subdivision C3.] LONDON CLAY FORMATION <i>13.9 to 15.0m: gradual reduction in sand content, becoming slightly silty CLAY.</i> <i>14.0 to 14.9m: rare fossil worm burrows, approx 0.5 to 1mm diameter.</i>	14			
		13.50 - 13.90 13.50 - 13.90	B								
		13.60 13.70	ES ES								
		13.80 - 13.90	D	100 100 100	15.10	7.39		14.7 to 14.8m: layer of slightly sandy CLAY. Sand is fine.	15		
		14.20 - 14.70 14.20 - 14.70	C UT								
		14.70 - 14.80	D								
		15.00 - 16.50				100mm			Medium strong greyish brown CLAYSTONE. [Preliminary London Clay Formation subdivision C3.] LONDON CLAY FORMATION		
				Type/F	TCR	SCR	RQD				
		Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks Preliminary London Clay Formation subdivisions based on visual logs only.			
		Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to				
		150		11.70	11.56						
250	9.80										
200	11.70										
											



Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 03/09/2024									
Location: London				Contractor:				Co-ords: E515012.21 N175010.20									
Project No. : GE21665				Crew Name: AL				Drilling Equipment:									
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Scale 1:25		Page Number Sheet 4 of 17							
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPH)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		15.20 - 15.30	D					15.20	7.29		Medium strong greyish brown CLAYSTONE. [Preliminary London Clay Formation subdivision C3.] LONDON CLAY FORMATION Very stiff thinly laminated very closely to closely fissured greyish brown silty CLAY. Fissures are dry, smooth, dull, very tight, clean, unweathered, with very stiff walls. Fissures at various angles between horizontal and approx. 80 degrees from horizontal. [Preliminary London Clay Formation subdivision C3.] LONDON CLAY FORMATION <i>At 15.3m: parting of grey silty silty fine SAND. 15.4 to 15.5m: layer of slightly sandy CLAY. Sand is fine. 15.5 to 16.0m: some fissures (which are inclined at approx 40 degrees from vertical) have slight polish. 15.7 to 15.8m: layer of slightly sandy CLAY. Sand is fine.</i>	16					
				100	100	100											
		16.50 - 18.00					100mm				<i>At 16.8m: fissure through core. Inclined at 60 degrees from horizontal. Smooth, planar, dull, very tight, clean, stiff walls, unweathered. At 16.9m: fissure through core. Inclined at 60 degrees from horizontal, conjugate with fissure at 16.8m. Smooth, planar, dull, very tight, clean, stiff walls, unweathered.</i>	17					
				105	105	105											
		18.00 18.00 - 19.50	D				100mm				<i>At 17.6m: conjugate pair of fissures. 70 degree dip, smooth, planar, slight polish, very tight, clean, stiff walls, unweathered. 17.8 to 17.9m: layer of sandy clay. Sand is fine. 18.0 to 19.5m: silty, very slightly sandy. Sand is fine. At 18.2m: cobble-sized angular claystone nodule. 18.3 to 18.5m: rare medium gravel-sized tabular rounded claystone nodules. 18.3 to 19.5m: intermittent conjugate fissuring. Fissures dip 60 to 80 degrees, smooth, planar, slight polish, very tight, clean, very stiff walls, unweathered. Spacing between fissures is approx. 200 to 400 mm.</i>	18					
		18.60 - 19.00 18.60 - 19.00	C UT										19				
				93	87	87											
19.00 - 19.10	D								<i>At 19.3m: fissure through core. Inclined at 80 degrees from horizontal. Smooth, planar, slight polish, very tight, clean, very stiff walls, unweathered. 19.5 to 19.8m: core lost due to pressuremeter test. 19.8 to 20.1m: core disturbed by pressuremeter test.</i>								
19.50 - 21.00																	
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														
Remarks																	
Preliminary London Clay Formation subdivisions based on visual logs only.																	



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 5 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		20.50	D C UT	77	63	63	(31) 100mm			Very stiff thinly laminated very closely to closely fissured greyish brown silty CLAY. Fissures are dry, smooth, dull, very tight, clean, unweathered, with very stiff walls. Fissures at various angles between horizontal and approx. 80 degrees from horizontal. [Preliminary London Clay Formation subdivision C3.] LONDON CLAY FORMATION <i>At 20.4m: medium to coarse gravel-sized claystone nodules.</i> <i>20.5 to 21.0m: very slightly sandy. Sand is fine.</i>	20
		20.60 - 21.00									
		20.60 - 21.00									
		21.00 - 22.50	D								21
		21.50		100	70	70				24.25 to 24.5m: fissure. 60 degree, dip, smooth, planar, slight polish, very tight, clean, very stiff.	
		22.50 - 24.00								21.75 to 22.0m: fissure. 80 degree, dip, smooth, planar, slight polish, very tight, clean, stiff.	
		23.80		17	17	0				22.1 to 22.4m: fissure. 80 degree, dip, smooth, planar, slight polish, very tight, clean, stiff.	
		24.00 - 24.75								<i>At 22.3m: medium gravel-sized claystone nodules.</i>	
			D							No recovery. <i>22.5 to 23.75m: core lost. Flush returns were very silty.</i>	23
			D				23.75	-1.26		Very stiff thinly laminated very closely to closely fissured greyish brown silty CLAY. Fissures are dry, smooth, dull, very tight, clean, unweathered, with very stiff walls. [Preliminary London Clay Formation subdivision C2.] LONDON CLAY FORMATION <i>24.0 to 26.8m: slightly silty.</i> <i>At 24.35m: medium gravel-sized claystone nodule.</i> <i>24.55 to 24.7m: fissure. 60 degree, dip, smooth, planar, slight polish, very tight, clean, very stiff.</i>	24
				113	113	113					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80	150														
		11.70	250														
			200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 6 of 17

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description				
				TCR	SCR	RQD									
		24.70 24.75 - 25.50	D				100mm	27.70	-5.21		Very stiff thinly laminated very closely to closely fissured greyish brown silty CLAY. Fissures are dry, smooth, dull, very tight, clean, unweathered, with very stiff walls. [Preliminary London Clay Formation subdivision C2.] LONDON CLAY FORMATION 24.8 to 25.5m: closely spaces fissures (20 to 60 mm spacing, approx 40mm mean). Fissures are smooth, planar, slightly polished, very tight, clean, very stiff walls, unweathered. All dip at 10 to 40 degrees in various directions. Additional fissures with same characteristics and 80 degree dip at 24.8m, 25.35m, 26.5m, 26.8m. 24.9 to 25.0m: fissure through core. Inclined at 70 degrees from horizontal. Smooth, planar, slight polish, very tight, clean, very stiff walls, unweathered. 25.5 to 26.3m: core disturbed by pressuremeter test.	25			
		107		107	107										
		25.50 - 27.00					100mm								
		27.00 27.00 - 28.50	D				(43) 100mm				At 26.8m: rounded coarse gravel-sized claystone nodule. 26.8 to 27.0m: slightly silty, very slightly sandy. Sand is fine. 27.4 to 27.6m: fissure through core. Inclined at 70 degrees from horizontal. Smooth, planar, slight polish, very tight, clean, very stiff walls, unweathered.	27			
		28.00	D	100	73	53				Very stiff very thinly laminated very closely to closely fissured brownish grey slightly silty CLAY. Fissures are dry, smooth, dull, very tight, clean, unweathered, with very stiff walls. Most are subhorizontal, with some angled between 20 and 70 degrees from horizontal. [Preliminary London Clay Formation subdivision C1.] LONDON CLAY FORMATION At 27.7m: fissure through core. Inclined at 10 degrees from horizontal. Smooth, undulating, slight polish, very tight, clean, very stiff walls, unweathered. 27.7 to 27.8m: extremely closely fissured. 28.1 to 28.2m: pair of fissures. 90 degree dip, smooth, planar, slightly polished to polished, very tight, clean, terminating on subhorizontal discontinuation (laminations/bedding), very stiff, unweathered. Both fissures subverting, and approx 60 degrees to each other along axis of core. 28.3 to 28.4m: extremely closely fissured.	28				
28.50 - 30.00						100mm									
		29.00	D	100	100	100				28.1 to 28.2m: fissure. 90 degree dip, smooth, planar, slightly polished to polished, very tight, clean, terminating on subhorizontal discontinuities (laminations/bedding), very stiff, unweathered.	29				

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 7 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		30.00 30.00 - 31.50	D				100mm			Very stiff very thinly laminated very closely to closely fissured brownish grey slightly silty CLAY. Fissures are dry, smooth, dull, very tight, clean, unweathered, with very stiff walls. Most are subhorizontal, with some angled between 20 and 70 degrees from horizontal. [Preliminary London Clay Formation subdivision C1.] LONDON CLAY FORMATION	30
		30.80 - 31.20 30.80 - 31.20	C UT	100	90	40				29.4 to 30.0m: silty, very slightly sandy. Sand is fine. 29.5 to 29.9m: multiple fissures. Inclined at 70 to 90 degrees from horizontal. Smooth, planar, slight polish to polished, very tight, clean, very stiff walls, unweathered. Terminate out of core or against laminations. 30.0 to 31.5m: fissures are closely to medium spacing, smooth, planar, slightly polished, very tight, dip between 0 and 30 degrees, very stiff walls, unweathered. At 30.2m: fossil shell.	
		31.20	D								
		31.50 - 33.00					100mm			31.2 to 31.3m: two fissures in centre of core. 90 degree dip, smooth, planar, slightly polished to polished, very tight, clean, terminating on subhorizontal discontinuities (laminations/bedding), very stiff, unweathered.	31
		32.00	D								
				100	87	60				32.10 to 32.25m: CLAYSTONE.	32
		33.00 33.00 - 34.50	D				(48) 100mm			33.0 to 33.9m: core damaged by pressuremeter test.	33
		33.70 - 34.10	C	97	80	80				33.6 to 33.9m: fissure. 80 degree dip, smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered.	34

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 8 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		34.20	D				34.40	-11.91		Very stiff very thinly laminated very closely to closely fissured brownish grey slightly silty CLAY. Fissures are dry, smooth, dull, very tight, clean, unweathered, with very stiff walls. Most are subhorizontal, with some angled between 20 and 70 degrees from horizontal. [Preliminary London Clay Formation subdivision C1.] LONDON CLAY FORMATION	35
		34.50 - 36.00								34.2 to 34.3m: fissure. 10 degree dip, smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered.	
		35.00	D							Very stiff thinly laminated very closely to closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION	
				103	103	60				34.4 to 35.2m: gradual reduction in sand content, becoming silty CLAY. 34.5 to 35.0m: core recovered as cobble-sized blocks. Very closely to closely fissured. Fissures dip at between 60 and 90 degrees, smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered.	
		36.00								35.55 to 35.65m: very closely fissured. Fissures dip at between 20 and 60 degrees, smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered.	
		36.00 - 37.50	D							36.2 to 36.3m: slightly striated fissure. 60 degree dip, smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										36.4 to 50.0m: becoming slightly silty CLAY. 36.45 to 36.6m: extremely closely fissured.	
		37.00	D	103	103	25				36.6 to 37.5m: three sets of fissures. Set 1: 0 to 20 degree dip, very closely to closely spaced, smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Set 2: 40 to 60 degree dip, closely spaced, smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Set 3: 70 to 80 degree dip, closely spaced, smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against set 1. At 36.8m: worm fossils up to about 1mm diameter in 20mm thick horizontal layer.	
		37.50 - 39.00								37.5 to 38.6m: SPT at 37.5m. Core damaged 37.5 to 38.6m.	
		38.00	D	100	33	25				At 37.65m: fossil, possibly bone or wood fragment. 25mm long, oval profile, 8mm diameter.	
										At 38.8m: greyish brown silt parting.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80	150														
		11.70	200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 9 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		39.00 39.00 - 40.50	D				80mm			Very stiff thinly laminated very closely to closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION	39
		39.70 - 40.10	C	93	93	73				At 39.4m: fissure. 0 degree dip, smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered. 39.4 to 39.5m: fissure. 45 degree dip, smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered. 39.5 to 39.6m: fissure. 60 degree dip, smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered.	40
		40.20	D							40.25 to 40.5m: fissures closely spaced, dip 60 to 70 degrees, smooth, planar, polished, very tight, clean, very stiff, unweathered.	
		40.50 - 42.00					100mm			From 40.5m: reducing sand content, becoming slightly silty to silty CLAY. 40.5 to 41.3m: pressuremeter at 40.5m. Core disturbed 40.5 to 41.3m.	
		41.00	D	100	60	40				41.5 to 41.6m: fissure. 90 degree dip, becoming 80 degree dip with depth. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.	41
		42.00 42.00 - 43.50	D				100mm			41.8 to 41.9m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 42.0 to 42.5m: core damaged by SPT.	42
		43.00	D	100	73	47				At 42.4m: medium gravel-sized nodule (15mm diameter) of slightly pyritised claystone. 42.5 to 42.7m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	43
		43.50 - 45.00					100mm			At 43.0m: slightly pyritised fossil, possibly wood 43.0 to 45.0m: fissures medium spaced. 43.1 to 43.4m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35	Hole Type CP+RC		Level 22.49m AoD		Logged By TL	Scale 1:25	Page Number Sheet 10 of 17	

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		44.00 44.10 - 44.50	D C							Very stiff thinly laminated very closely to closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION 43.7 to 43.8m: fissure. 50 degree dip, smooth, planar, dull, very tight, clean, very stiff, unweathered.	44
				80	80	40				44.7 to 44.8m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		45.00 45.00 - 46.50	D							45.1 to 45.2m: fissure. 45 degree dip. Rough, planar, dull, very tight, clean, very stiff, unweathered.	45
										At 45.5m: two claystone nodules. Moderately strong. Tabular shape, 30 mm L x 25 mm W x 10 mm H.	
		46.00	D	100	100	44				At 45.9m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	46
										46.1 to 46.3m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		46.50 - 48.00								At 46.5m: 100mm thick claystone (entire core diameter).	
		47.00	D							At 47.0m: pyritised nobbly cylindrical fossil, possibly a root. 15mm diameter, 30mm length.	47
				93	93	87				47.2 to 47.4m: fissure. 80 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered.	
		47.50 - 47.90	C							47.4 to 47.5m: fissure. 60 degree dip. Smooth, planar to undulating, slightly polished, very tight, clean, very stiff, unweathered.	
		48.00 48.00 - 49.50	D							At 48.25m: fragment of fossilised wood. 10mm diameter, 35mm length.	48

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 11 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		49.00	D	93	93	73	50.00	-27.51		Very stiff thinly laminated very closely to closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION 48.4 to 48.7m: fissure. 85 degree dip. Smooth, planar to undulating, slightly polished, very tight, clean, very stiff, unweathered. 48.7 to 48.9m: fissure. 85 degree dip. Smooth, planar to undulating, slightly polished, very tight, clean, very stiff, unweathered. 47.4 to 47.5m: fissure. 90 degree dip. Smooth, planar to undulating, dull, very tight, clean, very stiff, unweathered.	49
		49.50 - 51.00								At 49.5m: 10mm thick layer of claystone. Core damaged 49.5 to 49.55m.	
		50.20	D	100	100	40				Very stiff very thinly laminated closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision B1.] LONDON CLAY FORMATION 50.0 to 51.2m: decreasing sand content, becoming slightly silty to silty clay below 51.2m. 50.2 to 50.4m: fissure. 40 degree dip. Smooth, curved surface, dull, very tight, clean, very stiff, unweathered. 50.4 to 50.8m: three parallel fissures spaced at 20 to 60 mm. 45 degree dip. Smooth, planar, slight polish, very tight, clean, very stiff, unweathered.	50
		51.00 51.00 - 52.50	D							At 51.0m: fossilised wood. 15mm diameter, 100mm length.	51
		51.70 - 52.10	C	97	97	97				51.2 to 51.6m: fissure. 90 degree dip. Smooth, planar, slight polish, very tight, clean, very stiff, unweathered.	
		52.20	D							51.2 to 52.5m: closely fissured. Fissures dip between 20 and 60 degrees in various directions. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	52
		52.50 - 54.00								52.25 to 52.5m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 52.4 to 54.0m: very stiff to extremely weak and silty. Fissures close to medium spaced.	
		53.00	D							53.1 to 53.2m: fissure. 90 degree dip. Smooth, curved surface, slightly polished, very tight, clean, very stiff, unweathered.	53

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 12 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		54.00 54.00 - 55.50	D	90	90	90	100mm			Very stiff very thinly laminated closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision B1.] LONDON CLAY FORMATION 53.3 to 53.4m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 53.4m: cobble-sized claystone nodule.	54
										From 54.0m: becoming silty to very silty, and slightly sandy. Sand is fine.	
										54.3 to 54.4m: fissure. 45 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 54.4m: fossilised wood fragment. 8mm diameter, 15mm length.	
		55.00	D	100	100	80				At 54.7m: fissure. 15 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 54.7 to 54.8m: fissure. 70 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.	55
										At 55.2m: fossilised wood fragment. 8mm diameter, 25mm length.	
		55.50 - 57.00					100mm			54.4 to 54.5m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 55.5 to 56.5m: core disturbed by pressuremeter test.	
		56.00	D	100	33	20					56
		57.00 57.00 - 58.50	D				100mm	56.60 -34.11		Very stiff very thinly to thinly laminated fissured brownish grey very silty CLAY. Fissures are generally closely spaced. With very thin partings of grey or dark grey silty fine SAND or sand silt (sand is fine). [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION At 56.65m: silt parting (0 degree dip, between laminations). At 57.15m: silt parting.	57
										At 57.3m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 57.4m: 5mm thick lamination of claystone.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35	Hole Type CP+RC		Level 22.49m AoD		Logged By TL	Scale 1:25	Page Number Sheet 13 of 17	

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		58.00	D							Very stiff very thinly to thinly laminated fissured brownish grey very silty CLAY. Fissures are generally closely spaced. With very thin partings of grey or dark grey silty fine SAND or sand silt (sand is fine). [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION	58
		58.50 - 60.00					100mm			58.1 to 58.2m: fissure. 30 degree dip. Smooth, planar, slight polish, very tight, clean, very stiff, unweathered. 58.2 to 58.25m: fissure. 45 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 58.3m: parting of sandy silt. Sand is fine.	
		59.00	D							At 58.6m: 20mm thick layer of light greyish brown silty CLAY.	59
				100	100	66					
		60.00	D				100mm			At 59.5m: parting of dark grey silty fine SAND.	
		60.00 - 61.50								At 59.6m: 5mm thick layer of weak sandy claystone.	
		60.40 - 60.80	C							59.7 to 59.8m: very closely fissured.	
				90	90	87				At 60.05m: 5mm thick layer of sandy claystone.	60
		61.00	D							At 60.3m: parting of light grey silt.	
		61.50 - 63.00					100mm			60.9 to 61.4m: very closely fissured. With small pockets (up to 2mm diameter) of light grey silt.	61
										61.0 to 61.2m: fissure. 70 degree dip. Smooth, planar, slight polish, very tight, clean, very stiff, unweathered.	
		62.00	D							61.1 to 61.3m: fissure. 70 degree dip. Smooth, planar, slight polish, very tight, clean, very stiff, unweathered. Parallel with fissure above (30mm spacing). 61.2 to 61.4m: fissure. 70 degree dip. Smooth, planar, slight polish, very tight, clean, very stiff, unweathered. Parallel with fissure above (50mm spacing). From 61.2 to 69.0m: becoming silty CLAY (decreasing silt content).	62
				100	100	73				At 62.1m: 10mm thick layer of extremely weak light grey silty claystone.	
										At 62.55m: 10mm thick layer of extremely weak light grey silty claystone.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80	150														
		11.70	200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 14 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		63.00 63.00 - 64.50	D				100mm			Very stiff very thinly to thinly laminated fissured brownish grey very silty CLAY. Fissures are generally closely spaced. With very thin partings of grey or dark grey silty fine SAND or sand silt (sand is fine). [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION 62.7 to 62.85m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 63.0 to 64.6m: light grey silt partings spaced 50 to 150 mm apart. 63.5 to 63.7m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 64.45m: tabular silty claystone nodule. 5 mm thick, 20 x 30 mm. 64.5 to 65.5m: core disturbed by pressuremeter test. At 65.3m: coarse gravel-sized claystone nodule. Possibly part of a claystone layer (20mm thick). At 65.6m: 15mm thick layer of weak light yellowish grey silty claystone. 63.5 to 63.7m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 66.6m: 100mm thick claystone (whole core diameter). At 66.9m: 20mm thick claystone.	63
		64.00	D	93	93	66					64
		64.50 - 66.00					100mm				65
				93	53	53					
		66.00 66.00 - 67.50	D				100mm				66
				97	83	66					
		67.00 67.00 - 67.40	D C								67

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 15 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		67.50 - 69.00	D				100mm			Very stiff very thinly to thinly laminated fissured brownish grey very silty CLAY. Fissures are generally closely spaced. With very thin partings of grey or dark grey silty fine SAND or sand silt (sand is fine). [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION <u>67.8 to 67.9m: fissure. 50 degree dip. Smooth, planar, slight polish, very tight, clean, very stiff, unweathered.</u>	68
		68.00								<u>68.0 to 68.1m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.</u> <u>At 68.1m: 100mm thick claystone (weak to moderately strong). Whole core diameter.</u>	
				100	100	47				<u>At 68.4m: 20mm thick claystone (extremely weak). Whole core diameter.</u> <u>67.8 to 67.9m: fissure. 60 degree dip. Smooth, planar, slight polish, very tight, clean, very stiff, unweathered.</u> <u>68.6 to 68.8m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.</u>	
		69.00 - 70.50	D				100mm	69.00	-46.51	<u>At 68.4m: 50mm thick claystone (very weak). Whole core diameter.</u> Very stiff to extremely weak very thinly laminated fissured brownish grey to greyish brown slightly silty to silty CLAY. [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION <u>At 68.4m: 100mm thick claystone. Whole core diameter.</u> <u>69.5 to 69.9m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.</u>	69
				80	80	53					
		70.00 - 72.00	D				100mm	70.50	-48.01	Very stiff to extremely weak brownish grey sandy silty CLAY. Sand is fine. In places faintly thinly to very thinly laminated, and mostly appears structureless. [Preliminary London Clay Formation subdivision A2.] LONDON CLAY FORMATION <u>At 70.7m: fragment of fossilised wood.</u>	70
		71.00	D								71
				100	73	20				<u>71.5 to 71.6m: very closely fissured.</u>	
		72.00 - 73.50					100mm	72.00	-49.51	NO RECOVERY <u>72.0 to 73.5m: core lost (CR41).</u>	72

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 03/09/2024		
Location: London			Contractor:			Co-ords: E515012.21 N175010.20		
Project No. : GE21665			Crew Name: AL			Drilling Equipment:		
Borehole Number MT-019-35		Hole Type CP+RC		Level 22.49m AoD		Logged By TL		Page Number Sheet 16 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		73.50 - 74.25		0	0	0	73.50	-51.01		NO RECOVERY	73
		74.25 - 75.00		0	0	0	74.25			Very stiff to extremely weak brownish grey sandy silty CLAY. Sand is fine. In places faintly thinly to very thinly laminated, and mostly appears structureless. [Preliminary London Clay Formation subdivision A2.] LONDON CLAY FORMATION <i>73.5 to 74.25m: core dropped, recovered in CR43 (from 74.25 to 75.0m).</i>	74
		75.00 - 76.50	D	200	100	100	75.00				75
		76.00 - 76.50		100	100	100	75.90	-53.41		Very stiff to extremely weak very thinly laminated brownish grey silty CLAY with occasional light grey silt partings. Partings spaced at between 50 and 150 mm. [Preliminary London Clay Formation subdivision A2.] LONDON CLAY FORMATION <i>76.0 to 76.2m: fissure. 70 degree dip. Smooth, planar, slight polish, very tight, clean, very stiff, unweathered.</i>	76
		76.50 - 78.00									

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80 11.70	150 250 200														

Remarks Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental						Rotary Core Log																							
Project Name: London Water Recycling (LWR)							Client: Thames Water Utilities Ltd					Date: 03/09/2024																	
Location: London							Contractor:					Co-ords: E515012.21 N175010.20																	
Project No. : GE21665							Crew Name: AL					Drilling Equipment:																	
Borehole Number MT-019-35			Hole Type CP+RC		Level 22.49m AoD			Logged By TL			Scale 1:25		Page Number Sheet 17 of 17																
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPL)	Depth (m)	Level (m)	Legend	Stratum Description																		
				TCR	SCR	RQD																							
		78.00 - 79.50	D				100mm				Very stiff to extremely weak very thinly laminated brownish grey silty CLAY with occasional light grey silt partings. Partings spaced at between 50 and 150 mm. [Preliminary London Clay Formation subdivision A2.] LONDON CLAY FORMATION	77																	
				100	100	100						78																	
		78.50										100mm				78.3 to 79.6m: sandy. Sand is fine.													
				100	100	100												79											
		79.50 - 81.00																100mm				At 79.0m: coarse gravel-sized fragment of pyritised fossilised wood.							
				79.60	-57.11																			80					
		80.00																						100mm				Very stiff greyish brown silty sandy CLAY with occasional shell fossils up to 15mm diameter. Gradational boundary with layer above. HARWICH FORMATION	
				80.10	-57.61																								
				100mm				At 80.08m: a black medium gravel-sized rounded flint.																					
										82																			
										100mm				Very stiff slightly friable fissured light bluish grey mottled red and light yellowish brown very silty CLAY. Fissures often are striated. LAMBETH GROUP															
																83													
																100mm				End of Borehole at 81.000m									
																						84							
																						100mm							
																												85	
				100mm																									
																												86	
										100mm																			
																												87	
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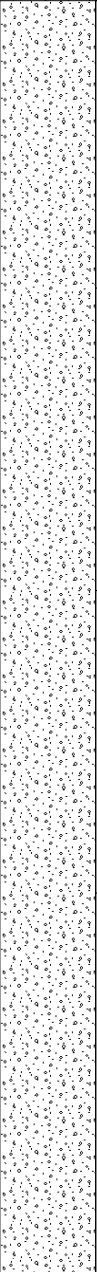
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		9.80	150														
		11.70	200														

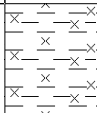
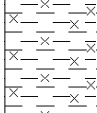
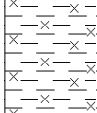
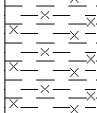
Remarks

Preliminary London Clay Formation subdivisions based on visual logs only.

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 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-022-35 Sheet 1 of 15			
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 516137E - 174805N		Hole Type CP+RC			
Location:		London		Energy Ratio (%): Driller's Initial: SM		Level: 7.80		Scale 1:25			
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 09/10/2024		Logged By KOD+KOD / TL			
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.30 0.30 0.30	B ES PID	PID=0.0ppm	0.70	7.10		Grass overlying dark brown gravelly very sandy CLAY with some rootlets and occasional roots 1-10mm, some tile, occasional black charred fragments (potentially clinker) and rare glass. MADE GROUND	1		
		0.80 0.80 0.80	B ES PID	PID=0.0ppm				Dense orangish brown gravelly clayey SAND/very sandy CLAY. Sand is fine. Gravel is fine to coarse sub angular flint. KEMPTON PARK GRAVEL			
		1.20 1.20 1.20 - 1.65 1.20 1.20	B ES D SPT PID	N=31 (3,5/5,5,7,14) PID=0.0ppm	1.55	6.25		1.2 to 1.65m: SPT encountered tree root.	2		
		1.70 - 2.00	B					Dense to very dense orangish brown SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse sub angular flint with some flint cobbles. KEMPTON PARK GRAVEL			
		2.00 2.00 2.00	ES CPT PID	N=31 (3,4/6,7,8,10) PID=0.0ppm	3						
		3.00 3.00 3.00 3.00	B ES CPT PID	N=50 (5,11/50 for 270mm) PID=0.0ppm							
		4.00 4.00 4.00 4.00	B ES CPT PID	N=35 (3,4/7,7,7,14) PID=0.0ppm	4						
		5.00 5.00	B ES								
		Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks			
		Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	Cased to 10.40m bgl. D samples are from SPT.			
		4.70	4.70								
AGS											

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-022-35 Sheet 2 of 15	
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 516137E - 174805N		Hole Type CP+RC	
Location:		London		Energy Ratio (%): Driller's Initial: SM		Level: 7.80		Scale 1:25	
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 09/10/2024		Logged By KOD+KOD / TL	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		5.00	CPT	N=29 (3,7/7,7,7,8) PID=0.0ppm				Dense to very dense orangish brown SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse sub angular flint with some flint cobbles. KEMPTON PARK GRAVEL	
		5.00	PID						
		6.00	B	N=18 (2,3/4,4,5,5) PID=0.0ppm				<u>6.0 to 7.0m: medium dense.</u>	
		6.00	ES						
		6.00	CPT						
		6.00	PID						
		7.00	B	N=4 (1,1/1,1,1,1) PID=0.0ppm				<u>7.0 to 8.0m: becoming very loose.</u>	
		7.00	ES						
		7.00	CPT						
		7.00	PID						
8.00	B	N=3 (1,0/1,0,1,1) PID=0.0ppm							
8.00	ES								
8.00	CPT								
8.00	PID								
9.00	B	N=14 (2,3/3,3,4,4) PID=0.0ppm							
9.00	ES								
9.00	SPT								
9.00	PID								
9.70 - 10.15	UT	Ublow=8 Recovery =0%	9.70	-1.90		Grey CLAYSTONE with occasional shell fossils. Recovered as fine to coarse gravel and cobble sized fragments. [Preliminary London Clay Formation subdivision C1.]			
10.00	B	PID=0.0ppm				Stiff dark grey silty CLAY. [Preliminary London Clay Formation subdivision C1.]			
10.00	ES								
10.00	PID								
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	Cased to 10.40m bgl. D samples are from SPT.			
		4.70	4.70						
									

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-022-35 Sheet 3 of 15	
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 516137E - 174805N		Hole Type CP+RC	
Location:		London		Energy Ratio (%): Driller's Initial: SM		Level: 7.80		Scale 1:25	
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 09/10/2024		Logged By KOD+KOD / TL	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
11		10.50 - 10.95 10.50 - 12.00 10.50	D SPT	N=21 (2,3/4,5,7)	10.70	-2.90		Stiff dark grey silty CLAY. [Preliminary London Clay Formation subdivision C1.] LONDON CLAY FORMATION	
		11.00	D					Stiff to very stiff very thinly laminated very closely to closely fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision C1.] LONDON CLAY FORMATION	
				87 60 47				10.9 to 11.0m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
								11.2 to 11.25m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
								11.4 to 11.45m: cluster of parallel impersistent fissures at 10 to 20mm spacing. 30 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	
								11.4 to 11.45m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
								11.5 to 11.6m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Conjugate with fissure at 11.55m.	
								11.55 to 11.6m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Conjugate with fissure at 11.5m.	
		12		12.00 12.00 - 13.50				D	
				100mm	11.9 to 12.0m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to other fissure at same depth.				
					At 12.0m: two fissures spaced 19mm apart. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.				
					12.05 to 12.15m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Conjugate with fissure at 11.55m.				
					At 12.25m: medium gravel-sized patches of dark grey sandy clay. Also: coarse gravel-sized nodule of pyritised claystone. 30 x 30 x 10 mm.				
					12.35 to 12.4m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.				
				100 100 60	12.4 to 12.55m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 12.35m.				
					At 12.5m: fossil shell (bivalve). Orientated vertically. Approx 25mm diameter.				
					Very stiff very thinly laminated closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. Laminations often indistinct. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION				
13				13.00	D		12.60	-4.80	
					12.6 to 13.5m: reducing sand content, becoming silty to very silty CLAY.				
					12.8 to 12.9m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations.				
					At 12.95m: parting of dark grey sandy silt. Sand is fine.				
					12.95 to 13.15m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.				
					13.15 to 13.45m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.				
					13.7 to 13.9m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.				
					13.95 to 14.1m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.				
		14		13.50 - 15.00					
					14.1 to 14.2m: slightly sandy. Sand is fine.				
15		14.00	D		12.60	-4.80		14.3 to 14.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
15		14.00	D		12.60	-4.80		14.6 to 14.7m: subhorizontal fissures spaced at 10 to 40mm. 10 to 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
								14.7 to 14.8m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
								14.75 to 15.0m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 14.7m.	
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	Cased to 10.40m bgl. D samples are from SPT.			
		4.70	4.70						
Type/Fl		TCR	SCR	RQD					
									



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 09/10/2024		
Location: London			Contractor:			Co-ords: E516137.00 N174805.00		
Project No. : GE21665			Crew Name: SM			Drilling Equipment:		
Borehole Number MT-022-35	Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL	Scale 1:25	Page Number Sheet 4 of 15	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		16.00	D	100	100	86					Very stiff very thinly laminated closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. Laminations often indistinct. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION 15.5 to 15.9m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 15.6 to 15.8m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 15.7: medium gravel-sized patch of dark grey silty fine sand. 15.75 to 15.9m: slightly sandy. Sand is fine. At 15.85m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 15.85m: fossil worm burrow. 3mm length. At 15.9m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 15.85m. At 16.0m: medium gravel-sized fossilised wood fragment, vertically aligned. At 16.05m: fossil worm burrow. 20mm length. At 16.15m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 16.3 to 16.4m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 16.35 to 16.4m: fissure. 80 degree dip, curves sharply at base to 30 degree dip in opposite direction. Smooth, slightly polished, very tight, clean, very stiff, unweathered. 16.5 to 16.65m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 16.65 to 16.7m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 16.65 to 17.1m: fissure. 80 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 16.8m: fossil worm burrows. 16.9 to 17.1m: fissure. 80 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At approx 60 degrees (clockwise along core axis) to fissure 16.65 to 17.1m. 17.05 to 17.1m: light greyish brown. 17.1 to 17.35m: moderately strong brownish grey claystone. At 16.8m: fossil worm burrow. 17.5 to 17.65m: fissure. 90 degree dip, curving gradually to 70 degree dip with depth. Smooth, slightly polished, very tight, clean, very stiff, unweathered. 17.6 to 17.7m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 17.8 to 18.0m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 18.1 to 18.3m: fissure. 80 degree dip, curves to 90 degree dip over top 40mm. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. 18.15 to 18.45m: very closely fissured. Fissures are smooth, planar, dull to slightly polished, very tight, clean, very stiff, unweathered. 18.5 to 18.8m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. 19.1 to 19.4m: fissure. 85 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 19.25m: medium gravel-sized pyritised fossil wood fragment. 30 x 15 x 10 mm. 19.4 to 19.5m: 100mm thick moderately strong brownish grey claystone, whole core diameter. 19.4 to 20.6m: fissures closely to medium spaced. At 19.85m: medium gravel-sized patch of dark grey fine sand.	16
		16.50 - 18.00					100mm					
		17.00	D	93	86	60						17
		18.00 18.00 - 19.50	D				100mm					18
		19.00	D	100	100	66						19
		19.50 - 21.00					100mm					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Cased to 10.40m bgl. D samples are from SPT.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 09/10/2024		
Location: London			Contractor:			Co-ords: E516137.00 N174805.00		
Project No. : GE21665			Crew Name: SM			Drilling Equipment:		
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Page Number Sheet 5 of 15

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		20.00	D							Very stiff very thinly laminated closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. Laminations often indistinct. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION 19.9 to 20.0m: fissure. 45 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. 19.9 to 20.1m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.4m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 20.55 to 20.65m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 20.6 to 20.9m: very closely fissured.	20
		21.00	D	100	100	93				20.85 to 20.95m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 20.9 to 20.95m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	21
		22.00	D	93	93	93				At 21.2: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 21.2 to 21.4m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 21.2 to 21.5m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.25: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 21.5 to 21.75m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.6m: fissure. 45 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 21.7m: two subparallel fissures, 20mm spacing. Fissure 1: 45 degree dip, smooth, undulating, polished, very tight, clean, very stiff, unweathered. Fissure 2: 50 degree dip, smooth, undulating, polished, very tight, clean, very stiff, unweathered. At 21.75m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to pair of fissures at 21.7m. At 21.75m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to other fissure at 21.75m. 21.8 to 21.95m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 21.85 to 21.95m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. 22.0 to 22.0m: becoming very silty. 22.1 to 22.2m: very closely fissured. 22.25 to 22.45m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 22.75m: fossil worm burrow.	22
		23.00	D	100	100	73				23.0 to 23.1m: fissure. 40 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. At 23.1: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 23.1m: coarse gravel-sized fossil wood fragment. 23.2 to 23.25m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	23
		24.00	D							23.6 to 23.9m: very closely fissured.	24
		24.00 - 25.50									

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Cased to 10.40m bgl. D samples are from SPT.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 09/10/2024		
Location: London			Contractor:			Co-ords: E516137.00 N174805.00		
Project No. : GE21665			Crew Name: SM			Drilling Equipment:		
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Page Number Sheet 6 of 15

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		25.00	D	90	53	53	100mm	27.00	-19.20		Very stiff very thinly laminated closely fissured greyish brown silty slightly sandy CLAY. Sand is fine. Laminations often indistinct. [Preliminary London Clay Formation subdivision B2.] LONDON CLAY FORMATION 24.7 to 24.75m: fissure. 30 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. 24.9 to 25.0m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. 24.9 to 24.95m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Offsets other fissure at same depth by 5mm. At 25.1m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.3m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.6m: fossil shell fragment, 20mm diameter.	25
		25.50 - 27.00										
		26.00										
		27.00 - 28.50 27.10	D	93	66	53	100mm				25.9 to 26.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 26.3 to 26.5m: several parallel fissures at 20 to 50mm spacing. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 26.5 to 27.0m: core damaged by failed core liner.	26
		28.00	D	100	100	100	100mm				Very stiff very thinly laminated very closely to closely fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1.] LONDON CLAY FORMATION 27.0 to 27.2m: fissure. 90 degree dip curving to 80 degrees with depth. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 27.2 to 27.3m: fissure. 70 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 27.25 to 27.35m: fissure. 70 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 27.2m. 27.8 to 28.2m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	27
		28.50 - 30.00	D	93	60	40	100mm				29.2 to 29.3m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 29.25 to 29.3m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 29.3 to 29.35m: very closely fissured.	28
		29.00	D									29

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Cased to 10.40m bgl. D samples are from SPT.																	
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Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 09/10/2024									
Location: London				Contractor:				Co-ords: E516137.00 N174805.00									
Project No. : GE21665				Crew Name: SM				Drilling Equipment:									
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Scale 1:25		Page Number Sheet 7 of 15							
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description						
				TCR	SCR	RQD											
		30.00 30.00 - 31.50	D				100mm				Very stiff very thinly laminated very closely to closely fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1.] LONDON CLAY FORMATION 29.5 to 29.65m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.6m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.9m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. From 30.1m: laminations indistinct. 30.3 to 30.4m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.35m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.4m: fossil wood fragment, 25mm length, 6mm diameter. At 30.6m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.65m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure above. 30.75 to 31.1m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	30					
		31.00	D	100	100	100					At 31.15m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	31					
		31.50 - 33.00					100mm					At 31.45m: medium gravel-sized fossil wood fragment. At 31.8m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 31.8 to 31.9m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 32.0 to 32.9m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 32.1 to 32.3m: fissure. 80 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered.	32				
		32.00	D	84	84	84						At 32.6m: fissure. 20 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 32.75m: fossil wood fragment. 10mm length, 5mm diameter.	33				
		33.00 33.00 - 34.50	D				100mm					33					
		34.00	D	100	86	27						34					
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
Remarks																	
Cased to 10.40m bgl. D samples are from SPT.																	



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 09/10/2024		
Location: London			Contractor:			Co-ords: E516137.00 N174805.00		
Project No. : GE21665			Crew Name: SM			Drilling Equipment:		
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Page Number Sheet 8 of 15

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		34.50 - 36.00	D				100mm	34.50	-26.70	Very stiff very thinly laminated very closely to closely fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1.] LONDON CLAY FORMATION 34.2 to 34.4m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 34.4 to 34.5m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations.	35
		35.00		93	93	80				Very stiff to extremely weak silty slightly sandy CLAY. In places slightly very thinly laminated. Sand is fine. [Preliminary London Clay subdivision A3.] LONDON CLAY FORMATION 34.6 to 34.9m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										35.2 to 35.3m: very closely fissured.	
										At 35.6m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		36.00 36.00 - 37.50	D				100mm			At 35.85m: tabular coarse gravel-sized lignite fragment.	36
										36.3 to 36.4m: extremely weak, slightly sandy (sand is fine), light brownish grey.	
										From 36.4m: with occasional partings of light brownish grey sandy silt. Sand is fine.	
				100	87	47					
		37.00	D							37.0 to 37.1m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	37
		37.20 - 37.50								At 37.2m: parting of light grey silty fine sand.	
		37.50 - 39.00	C				100mm			From 37.5m: decreasing sand content, becoming silty clay below 40.0m. At 37.5m: parting of light grey silty fine sand.	38
										At 37.8m: 20mm thick layer of light brownish grey slightly sandy silty clay, with rare fossil shell fragments.	
										At 37.9m: parting of dark grey silty fine sand.	
		38.00		93	93	47				At 38.0m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered. 38.0 to 38.1m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered. Dips in opposite direction to fissure at 38.0m.	
		38.40	C								

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Cased to 10.40m bgl. D samples are from SPT.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 09/10/2024		
Location: London			Contractor:			Co-ords: E516137.00 N174805.00		
Project No. : GE21665			Crew Name: SM			Drilling Equipment:		
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Page Number Sheet 9 of 15

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		39.00 39.00 - 40.50	D				100mm			Very stiff to extremely weak silty slightly sandy CLAY. In places slightly very thinly laminated. Sand is fine. [Preliminary London Clay subdivision A3.] LONDON CLAY FORMATION At 38.9m: 20mm thick layer of light brownish grey slightly sandy silty clay, with parting of dark grey silty fine sand at base. At 38.9 to 39.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 39.0m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 39.15m: 20mm thick layer of light brownish grey slightly sandy silty clay. At 39.2m: 2mm thick parting of dark grey silty fine sand. At 39.2 to 39.55m: extremely to very closely fissured. At 39.3 to 39.7m: fissure. 85 to 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered. At 39.85m: 30mm thick layer of extremely weak light greyish brown silty claystone, with 2mm thick parting of dark grey silty fine sand at base. At 40.1 to 40.15m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 40.35m: parting of dark grey silty fine sand. At 40.5m: parting of dark grey silty fine sand. At 40.6m: a shell fossil, 2mm diameter. At 40.5m: parting of light grey silt. At 41.1m: several lenses (20 to 30mm diameter) of light greyish brown silty fine sand. At 41.2m: parting of light greyish brown silt. At 41.25m: parting of light greyish brown silt. At 41.3 to 41.4m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 41.4m: 10mm thick layer of extremely weak light greyish brown silty CLAY. At 41.65m: parting of light greyish brown silt. At 41.7 to 41.8m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 40.5m: parting of dark grey silty fine sand. At 41.95m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 41.97m: 20mm thick lense of extremely weak light greyish brown silty CLAY. At 42.0 to 42.3m: closely fissured. At 42.15 to 42.25m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 42.95m: fissure. 40 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 43.2m: parting of light greyish brown silt. At 43.3m: parting of dark grey silty fine sand. At 43.4 to 43.4m: fissure. 60 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	39
		40.00	D	93	93	66					40
		40.50 - 42.00					100mm				
		41.00	D	100	100	93					41
		42.00 42.00 - 43.50	D				100mm			Very stiff to extremely weak greyish brown silty slightly sandy CLAY. In places slightly very thinly laminated. Sand is fine. [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION At 34.6 to 34.9m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 35.2 to 35.3m: very closely fissured. At 35.6m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 35.85m: tabular coarse gravel-sized lignite fragment. At 36.3 to 36.4m: extremely weak, slightly sandy (sand is fine), light brownish grey. From 36.4m: with occasional partings of light brownish grey sandy silt. Sand is fine. At 37.0 to 37.1m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 37.2m: parting of light grey silty fine sand. From 37.5m: decreasing sand content, becoming silty clay below 40.0m. At 37.5m: parting of light grey silty fine sand. At 37.8m: 20mm thick layer of light brownish grey slightly sandy silty clay, with rare fossil shell fragments. At 37.9m: parting of dark grey silty fine sand. At 38.0m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered. At 38.0 to 38.1m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered. Dips in opposite direction to fissure at 38.0m. At 38.9m: 20mm thick layer of light brownish grey slightly sandy silty clay, with parting of dark grey silty fine sand at base. At 38.9 to 39.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 39.0m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 39.15m: 20mm thick layer of light brownish grey slightly sandy silty clay. At 39.2m: 2mm thick parting of dark grey silty fine sand. At 39.2 to 39.55m: extremely to very closely fissured. At 39.3 to 39.7m: fissure. 85 to 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered. At 39.85m: 30mm thick layer of extremely weak light greyish brown silty claystone, with 2mm thick parting of dark grey silty fine sand at base.	42
		42.55 - 42.90	C	93	93	78					
		43.00	D								43
		43.50 - 45.00					100mm	43.50	-35.70		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Cased to 10.40m bgl. D samples are from SPT.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 09/10/2024		
Location: London			Contractor:			Co-ords: E516137.00 N174805.00		
Project No. : GE21665			Crew Name: SM			Drilling Equipment:		
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Page Number Sheet 10 of 15

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		44.00	D								Very stiff to extremely weak greyish brown silty slightly sandy CLAY. In places slightly very thinly laminated. Sand is fine. [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION At 40.1 to 40.15m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 40.35m: parting of dark grey silty fine sand. At 40.5m: parting of dark grey silty fine sand. At 40.6m: a shell fossil, 2mm diameter. At 40.5m: parting of light grey silt. At 41.1m: several lenses (20 to 30mm diameter) of light greyish brown silty fine sand. At 41.2m: parting of light greyish brown silt. At 41.25m: parting of light greyish brown silt. At 41.3 to 41.4m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 41.4m: 10mm thick layer of extremely weak light greyish brown silty CLAY. At 41.65m: parting of light greyish brown silt. At 41.7 to 41.8m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 40.5m: parting of dark grey silty fine sand. At 41.95m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 41.97m: 20mm thick lense of extremely weak light greyish brown silty CLAY. At 42.0 to 42.3m: closely fissured. At 42.15 to 42.25m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 42.95m: fissure. 40 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 43.2m: parting of light greyish brown silt. At 43.3m: parting of dark grey silty fine sand. At 43.4 to 43.4m: fissure. 60 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 44.0m: 30mm thick layer of very stiff to extremely weak light greyish brown silty clay. At 44.06m: shell fragment (bivalve, 5mm diameter). At 44.25m: 10 mm thick layer of extremely weak light greyish brown silty claystone. At 44.35m: fissure. 70 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 44.45 to 45.55m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 44.5m: 10mm thick layer of very stiff light greyish brown silty clay. At 44.6 to 44.75m: fissure. 85 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 44.7m: 3mm thick lense of light greyish brown silty clay. At 45.25 to 45.4m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 45.45m: 10mm thick layer of very stiff light greyish brown silty clay. At 45.58m: 10mm thick lense of extremely weak light greyish brown silty claystone. At 45.9m: several partings of light grey silt. At 46.05m: 10mm thick lense of extremely weak light greyish brown silty claystone. At 46.1m: fossil worm burrow, 1mm diameter. At 46.2m: 10mm thick lense of extremely weak light greyish brown silty claystone. At 46.6m: several parallel fissures. All 30mm length, terminating against laminations. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 46.8m: 30mm thick layer of weak light greyish brown claystone. Whole core diameter, reducing to 20mm thickness at outside of core. At 46.85 to 47.2m: extremely closely fissured. At 46.9 to 47.1m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 47.3m: 10mm thick lense of extremely weak light greyish brown silty claystone.	44
		45.00 45.00 - 46.50	D	100	100	80						
		46.00	D	93	93	73	100mm					
		46.50 - 48.00	D				100mm					
		47.00	D	93	93	60						
		48.00 48.00 - 49.50	D				100mm					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Cased to 10.40m bgl. D samples are from SPT.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 09/10/2024		
Location: London			Contractor:			Co-ords: E516137.00 N174805.00		
Project No. : GE21665			Crew Name: SM			Drilling Equipment:		
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Page Number Sheet 11 of 15

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description				
				TCR	SCR	RQD									
		49.00	D	100	100	86	100mm	51.10	-43.30		Very stiff to extremely weak greyish brown silty slightly sandy CLAY. In places slightly very thinly laminated. Sand is fine. [Preliminary London Clay Formation subdivision A3.] LONDON CLAY FORMATION <i>At 48.4m: parting of light greyish brown silt.</i> <i>At 48.8m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff to extremely weak, unweathered.</i>	49			
		49.50 - 51.00	D								<i>At 48.3m: 10mm thick lense of extremely weak light greyish brown silty claystone.</i>				
		50.00		100	100	93					<i>49.6 to 50.3m: fissure. 85 to 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff to extremely weak, unweathered.</i> <i>At 50.0m: fossil wood fragment</i>	50			
		51.00 51.00 - 52.50	D								100mm	<i>At 50.7m: 100mm thick moderately strong light greyish brown claystone. Core is extremely closely fissured for 50mm above top of claystone.</i>	51		
		52.00	D	100	100	100					100mm	Extremely weak greyish brown slightly sandy very silty CLAY. Sand is fine. In places with very thin laminations. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>At 51.7m: pyritised fossilised wood fragment. 90 x 45 x 10mm.</i>	52		
		52.50 - 54.00	D									<i>At 52.45m: 10mm thick layer of greenish grey silty sandy clay. Possibly glauconitic.</i> <i>At 52.6m: 5mm thick layer containing medium sand-sized shell fragments.</i> <i>At 52.75m: 5mm thick layer containing medium sand-sized shell fragments.</i> <i>At 52.8m: parting of light brown fine sand.</i>			
		53.00		D										<i>At 52.95m: a medium gravel-sized fragment of fossilised wood.</i> <i>At 53.0m: several vertically aligned fossil worm burrows.</i> <i>At 53.1m: 5mm thick layer of greyish brown silty sand clay. Sand is fine.</i>	53

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Cased to 10.40m bgl. D samples are from SPT.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 09/10/2024		
Location: London			Contractor:			Co-ords: E516137.00 N174805.00		
Project No. : GE21665			Crew Name: SM			Drilling Equipment:		
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Page Number Sheet 12 of 15

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		54.00 54.00 - 55.50	D	100	100	100	100mm	54.60	-46.80		Extremely weak greyish brown slightly sandy very silty CLAY. Sand is fine. In places with very thin laminations. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>53.4 to 54.0m: with occasional very thin lenses of light grey silt.</i>	54
		55.00	D	100	100	93	100mm	56.20	-48.40		Extremely weak greyish brown very thinly laminated very silty CLAY. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>54.8 to 55.2m: greenish brown to greenish grey, possibly glauconitic.</i>	55
		56.00	D	87	87	73	100mm	57.00	-49.20		Extremely weak brownish grey silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>56.2 to 56.3m: greenish grey, possibly glauconitic.</i>	56
		57.00 - 58.50	D				100mm	57.30	-49.50		NO RECOVERY.	57
				100	100	40				Extremely weak brownish grey silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>57.1 to 57.3m: fissure. 90 degree dip. Rough, planar, matt, very tight, clean, very stiff, unweathered.</i>		
										Extremely weak greyish brown very thinly laminated very silty CLAY. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>At 57.5m: medium gravel-sized rounded claystone nodule.</i> <i>At 57.65m: medium gravel-sized rounded claystone nodule.</i>		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

Cased to 10.40m bgl. D samples are from SPT.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 09/10/2024			
Location: London				Contractor:				Co-ords: E516137.00 N174805.00			
Project No. : GE21665				Crew Name: SM				Drilling Equipment:			
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Scale 1:25		Page Number Sheet 13 of 15	

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		58.00	D							Extremely weak greyish brown very thinly laminated very silty CLAY. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION	58
							58.20	-50.40		Extremely weak brownish grey silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION	
		58.50 - 60.00					58.55	-50.75		Extremely weak greyish brown very thinly laminated very silty fine sand and rare fossil shell fragments. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION	
		59.00	D							59.05 to 59.3m: fissure. 85 degree dip. Rough, planar, dull, very tight, clean, very stiff, unweathered.	59
				100	100	93	59.30	-51.50		Extremely weak brownish grey silty slightly sandy CLAY. Sand is fine. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION 59.4 to 59.5m: greenish brown and sandy, possibly glauconitic. Sand is fine.	
										59.8 to 59.98m: weak to moderately strong claystone.	
		60.00	D							60.2 to 60.4m: silty to very silty, very thinly laminated.	60
		60.00 - 61.50								At 60.5m: rounded medium gravel-sized claystone nodule.	
				93	93	73				At 60.7m: shell fragment (bivalve). 60.75 to 60.95m: fissure. 90 degree dip. Rough, planar, matt, very tight, clean, very stiff, unweathered.	
		61.00	D							At 61.0m: shell fragment (bivalve).	61
										61.15 to 61.45m: moderately strong claystone. 10mm thick layer of glauconitic sandy clay at top. Several black rounded medium flint gravel at 61.45m, on top of claystone.	
		61.50 - 63.00					61.50	-53.70		Greyish brown to greenish brown fine to medium SAND. LONDON CLAY FORMATION	
										62.1 to 62.15m: lense of firm greenish grey very sandy CLAY. Sand is fine to medium.	62
		62.00	D	93	93					Firm to stiff greenish grey glauconitic very sandy CLAY. LONDON CLAY FORMATION	
							62.60	-54.80			

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Cased to 10.40m bgl. D samples are from SPT.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 09/10/2024		
Location: London			Contractor:			Co-ords: E516137.00 N174805.00		
Project No. : GE21665			Crew Name: SM			Drilling Equipment:		
Borehole Number MT-022-35	Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Scale 1:25	Page Number Sheet 14 of 15

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		62.70	D				62.70	-54.90		Firm to stiff greenish grey glauconitic very sandy CLAY. LONDON CLAY FORMATION NO RECOVERY.	63
		63.00 - 64.50					63.00	-55.20		Stiff to very stiff thinly laminated greenish grey glauconitic sandy CLAY. LONDON CLAY FORMATION	
							63.20	-55.40		At 63.15m: coarse gravel-sized fragment of lignite. Very stiff greenish grey glauconitic sandy CLAY with occasional coarse sand-sized to fine gravel-sized patches of light yellowish brown sandy silt (sand is fine). In places with faint thin laminations. LONDON CLAY FORMATION	64
		64.00	D	93	77	66				At 63.9m: three medium gravel-sized fragment of lignite. Tabular form, parallel with laminations. At 64.0m: medium gravel-sized fragment of lignite. At 64.1m: thick lamination of dark grey to black fine sand containing lignite.	
		64.50 - 66.00					64.55	-56.75		At 64.4m: medium gravel-sized fragment of lignite. At 64.5m: fissure. 20 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	65
		65.00	D	100	100	86	64.80	-57.00		Very stiff to extremely weak extremely closely fissured brownish grey slightly silty CLAY. [Appears to be London Clay Formation, unknown subdivision]. LONDON CLAY FORMATION	
							65.50	-57.70		At 64.7m: cobble-sized nodule of light brown silty claystone. Very stiff to extremely weak very thinly laminated very closely fissured silty CLAY. Gradational boundary with layer below. [Appears to be London Clay Formation, unknown subdivision]. LONDON CLAY FORMATION	66
		66.00 - 67.50	D				65.90	-58.10		At 65.3m: fissure. 40 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 65.4m: cobble-sized piece of lignite / fossilised wood. 65.4 to 65.6m: gradational boundary between layers.	
							66.10	-58.30		Very stiff to extremely weak greyish brown silty slightly sandy CLAY. LONDON CLAY FORMATION	67
							66.20	-58.40		At 65.75m: 10mm thick piece of lignite.	
							66.30	-58.50		Very stiff to extremely weak bluish grey mottled light yellowish brown and red silty CLAY. LAMBETH GROUP	68
							66.45	-58.65		Extremely weak very thinly laminated very closely fissured greyish brown slightly silty CLAY. [Appears to be London Clay Formation, unknown subdivision]. LAMBETH GROUP	
										Very stiff to extremely weak bluish grey mottled light yellowish brown and red silty CLAY. LAMBETH GROUP	69
										Extremely weak very thinly laminated extremely closely fissured greyish brown slightly silty CLAY. [Appears to be London Clay Formation, unknown subdivision]. LAMBETH GROUP	
		67.00	D	100	100	100				Very stiff to extremely weak slightly friable closely fissured multicoloured slightly silty CLAY. LAMBETH GROUP	70

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Cased to 10.40m bgl. D samples are from SPT.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 09/10/2024			
Location: London				Contractor:				Co-ords: E516137.00 N174805.00			
Project No. : GE21665				Crew Name: SM				Drilling Equipment:			
Borehole Number MT-022-35		Hole Type CP+RC		Level 7.80m AoD		Logged By KOD+KOD / TL		Scale 1:25		Page Number Sheet 15 of 15	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
								67.50	-59.70		Very stiff to extremely weak slightly friable closely fissured multicoloured slightly silty CLAY. LAMBETH GROUP End of Borehole at 67.500m	68
												69
												70
												71
												72

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks
Cased to 10.40m bgl. D samples are from SPT.





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Borehole No.
MT-025-35

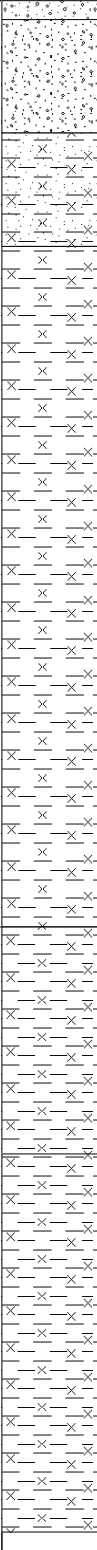
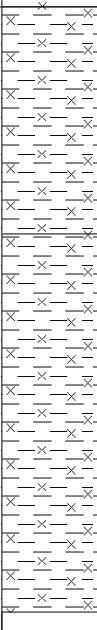
Sheet 1 of 17

Hole Type
CP+RC

Scale
1:20

Logged By
JH / KOD / TL



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-025-35 Sheet 2 of 17		
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 516954E - 173052N		Hole Type CP+RC		
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 5.88		Scale 1:20		
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 28/11/2024		Logged By JH / KOD / TL		
Well	Water Strikes	Sample and In Situ Testing				Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results						
		4.00 - 4.45	D	N=8 (2,2/2,2,2,2)		4.10	1.78		Medium dense yellowish/grey very sandy fine to coarse subangular to subrounded flint GRAVEL. KEMPTON PARK GRAVEL Medium dense yellowish grey gravelly fine to coarse SAND. Gravels are fine to coarse angular to subrounded flint. KEMPTON PARK GRAVEL Firm brown slightly sandy silty CLAY. Sands are fine to medium. Occasional fine subangular flint gravel. LONDON CLAY FORMATION Stiff laminated greyish brown silty CLAY. LONDON CLAY FORMATION Stiff laminated greyish brown silty CLAY. LONDON CLAY FORMATION	5
		4.00	SPT			4.40	1.48			
		4.00	PID	PID=0.0ppm		4.70	1.18			
		5.00								
		5.00 - 5.45	ES							
		5.00 - 5.45	B							
		5.00	D							
		5.00	SPT	N=16 (2,3/3,4,4,5)						
		5.00	PID	PID=0.0ppm						
		6.00 - 6.50	UT			6.00	-0.12			
		6.00 - 7.50				6.50	-0.62		Very stiff fissured greyish brown silty CLAY. LONDON CLAY FORMATION 6.85 to 7.1m: extremely closely fissured. Very silty, has slight gritty feel when cut with sharp knife. Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision C1]. LONDON CLAY FORMATION At 7.2m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 7.3m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 7.35m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in same direction as fissure at 7.3m. 7.4 to 7.45m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 7.4 to 7.45m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at same depth. At 7.5m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 7.6 to 7.7m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 7.75 to 9.0m: very closely fissured. Fissures appear randomly orientated, and are smooth, slightly polished, very tight, planar to undulating, very tight, clean, undulating. Core fragmented into fine gravel to cobbled-sized pieces defined by larger fissures. At 7.8m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	7
7.00	D	47	47	40	7.10	-1.22				
7.50	D									
7.50 - 9.00				100mm						
8.00	D									
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks				
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.				
150	6.50									
										



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Page Number Sheet 3 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		8.50	D	100	100	30	9.00	-3.12		Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision C1]. LONDON CLAY FORMATION At 8.1m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 8.1m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 8.15m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 8.25m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 8.3m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 8.25m. 8.4 to 8.55m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 8.25m. At 8.4m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 8.25m. At 8.75m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 8.25m. At 8.8m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 8.25m. 8.4 to 8.55m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	9
		9.00 9.00 - 10.50	D							Very stiff very thinly laminated fissured greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision C1]. LONDON CLAY FORMATION 9.0 to m: very silty, reducing to silty with depth. 9.0 to 9.25m: fissure. 70 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 9.0 to 9.2m: fissure. 80 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Orientated at about 90 degrees to other fissure at same depth. 9.2 to 9.3m: extremely closely fissured. 9.3 to 9.4m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against other fissures. At 9.4m: fissure. 20 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 9.5m: fissure. 20 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 9.4m. 9.55 to 9.80m: fissure. 70 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 9.6 to 9.75m: fissure. 65 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is same as fissure at 9.55m. 9.55 to 9.80m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 9.8m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 9.95 to 10.05m: fissure. 70 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 10.25m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 10.25 to 10.3m: fissure. 50 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 10.35m: coarse sand-sized shell fragment, and a fine gravel-sized fragment of fossilised wood. At 10.35m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 10.4m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 10.35m. 10.5 to 12.0m: core disturbed by pressuremeter. No samples possible.	
		9.50	D	100	100	20					
		10.00	D								
		10.50 10.50 - 12.00	D								
				73	0	0				11.7 to 11.8m: claystone.	11

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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						Rotary Core Log																						
Project Name: London Water Recycling (LWR)							Client: Thames Water Utilities Ltd					Date: 28/11/2024																
Location: London							Contractor:					Co-ords: E516954.42 N173051.93																
Project No.: GE21665							Crew Name:					Drilling Equipment:																
Borehole Number MT-025-35			Hole Type CP+RC		Level 5.88m AoD			Logged By JH / KOD / TL			Scale 1:20		Page Number Sheet 4 of 17															
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description																	
				TCR	SCR	RQD																						
		12.00 - 13.50	D				100mm		-8.12		Very stiff very thinly laminated fissured greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision C1]. LONDON CLAY FORMATION At 12.05m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 12.05-12.06m. At 12.05 to 12.06m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Perpendicular to fissure at 12.05m. At 12.15m: fissure. 20 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 12.16m. At 12.16m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 12.15m. At 12.20 to 12.25m: fine gravel-sized pockets of dark grey silt. At 12.30 to 12.35m: fissure. 40 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 12.40m: fissure. 45 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 12.42 to 12.50m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 12.40m At 12.55m: fissure. 20 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 12.56m. At 12.56m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 12.55m At 12.57 to 12.65m: fissure. 45 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 12.60m.	12																
		12.10																										
		12.50	D				(35) 100mm						-8.12		At 12.60m: fissure. 70 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 12.70m: fissure. 45 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 12.71 to 12.80m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 12.70m At 12.81 to 12.90m: fissure. 45 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Generally parallel to fissure at 12.83-12.95m. At 12.82m: fissure. 30 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 12.83 to 12.95m: fissure. 45 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Generally parallel to fissure at 12.81-12.90m. At 12.82 to 12.93m: fissure. 80 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Perpendicular to fissures at 12.81-12.90m and 12.83-12.95m. At 12.95 to 13.08m: fissure. 85 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 13.08m. At 12.96 to 13.08m: Multiple extremely closely spaced fissures. Set 1 dipping at roughly 20 degrees. Set 2 dipping at roughly 45 degrees. Both sets are smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminating against fissure at 12.95-13.08m. At 13.08 to 13.2m: fissure. 80 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 13.08m. At 13.08m: fissure. 0 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 13.20m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 13.25m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 13.27 to 13.31m: fissure. 70 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 13.28 to 13.40m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 13.31m: fine gravel-sized pyritised fossil shell fragments. At 13.35 to 13.40m: fissure. 85 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 13.28-13.40m. At 13.55 to 13.60m: coarse sand-sized to fine gravel-sized shell fragments.	13												
		13.00	D																									
		13.50 13.50 - 15.00	D				100mm										-8.12		Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION At 14.00 to 14.05m: coarse gravel-sized bivalve shell fossils At 14.0 to 15.8m: very silty, laminations indistinct At 14.05m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 14.15m: fossilised worm burrows about 1mm diameter. At 14.20 to 14.25m: three fissure. 10 to 20 degree dips. All smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 14.20 to 19.7m: partings and fine gravel-sized pockets of dark grey silt to fine sand At 14.20 to 14.23m: medium gravel-sized pyritised wood fossil At 14.35 to 14.25m: several fissures. 5 to 20 degree dips. All smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 14.55m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	14								
		14.00	D																									
		14.50	D				100mm														-8.12			15				
		15.00 15.00 - 16.50	D																									
		15.50	D				100mm																		-8.12			
					100mm		-8.12																					
					100mm						-8.12																	
					100mm										-8.12													
					100mm														-8.12									
					100mm																		-8.12					
					100mm		-8.12																					
					100mm						-8.12																	
					100mm										-8.12													
					100mm														-8.12									



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Page Number Sheet 5 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		16.00	D	100	100	27				Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION At 14.65m: fissure. 60 degree dips. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 14.66 to 14.67m: two parallel fissures. 10 degree dip. Both smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 14.67 to 14.73m: fissure. 45 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 14.75 to 14.90m: multiple extremely closely spaced fissures. 0 to 20 degree dips. All smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 15.0 to 16.0m: core disturbed by drilling. Surface washed out in places. Core split easily along large fissures into fragments up to 100mm diameter. Fissures very closely spaced, without dominant sets. Some vertical fissures. Fissures are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 15.5m: fine gravel-sized patch of dark grey silt. At 15.75m: 10mm thick lense of dark grey very silty clay. Thins to 2mm towards side of core. At 15.9 to 16.1m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 15.95m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 16.15 to 16.2m: several very thin lenses (up to 1mm thickness, 30to 50mm diameter) of dark grey silt. At 16.2m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 16.2 to 16.35m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 16.2 to 17.1m: slightly sandy. Sand is fine. At 16.25 to 16.5m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 16.5 to 18.0m: drilled using T6-H barrel to form test pocket for pressuremeter. At 16.8m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 16.85m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 16.85m: fissure. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to other fissure at same depth. At 16.87m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 16.85m. At 16.9m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 16.85m. At 16.95m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 16.85m. At 17.1m: fissure. Dips at 80 degrees, curving to 80 degrees in opposite direction. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 17.1m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 17.15m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure with 40 degree dip at 17.1m. At 17.15 to 17.25m: three subparallel fissures spaced at 10 to 20mm. 30 to 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 17.2m: coarse sand-sized patch of dark grey silt. At 17.2m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to three fissures at 17.15m. At 17.2 to 17.35m: fissure. 65 degree dip. Smooth, undulating slightly polished, very tight, clean, very stiff, unweathered. At 17.45 to 17.5m: fissure. 49 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 17.45 to 17.55m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 17.45 to 17.55m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Aligned at 90 degrees to other vertical fissure at same depth. At 17.6 to 17.7m: extremely closely fissured. At 17.85m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 17.85 to 18.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 17.9m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.0 to 19.5m: Dark grey moderately strong claystone. At 18.5m: c.1mm diameter fossilised worm burrows At 18.55m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.65m: fine gravel-sized fossilised wood. At 18.70 to 18.90m: multiple extremely closely spaced fissures. 20 to 50 degree dips. Smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 19.0m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	16
		16.50 16.50 - 18.00	D				79mm				
		17.00	D	100	100	53					17
		17.50	D								
		18.00 18.00 - 19.50	D				100mm				18
		18.50	D	93	87	33					
		19.00	D								19
		19.50 19.50 - 21.00	D				100mm				

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Page Number Sheet 6 of 17

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		20.00	D								Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION 19.0 to 19.1m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.1m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 19.10 to 19.15m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 19.1m. At 19.10m: medium gravel-sized pale brown extremely weak claystone nodule At 19.21m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 19.22m. At 19.22m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 19.5 to 19.6m: two fissures. 0 degree and 10 degree dips. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 19.3 to 19.4m: multiple fissures. 50 to 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminating against fissure at 19.4m. At 19.4m: two parallel fissures. 0 degree dip. Both smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 19.45m: medium gravel sized pale brown extremely weak claystone nodule At 19.46 to 19.48m: two fissures. 40 to 45 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminating against fissure at 19.45m. 19.55 to 19.60m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.60m: fissure. 85 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 19.63m. At 19.63m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.65m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.7m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 19.63m. 19.70 to 20.0m: two fissures. 45 degree and 60 degree dips. Both smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Both terminate against fissures at 19.85 to 19.90m and 20.05m 19.7 to 20.0m: Dark grey colouration on fissure surfaces. At 19.8m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 19.85 to 19.90m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 19.0 to 20.0m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.05m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Both terminate against fissure at 19.85 to 19.90m. 20.1 to 20.3m: core broke into fragmented pieces during handling. At 20.30m: two fissures. 5 degree and 20 degree dips. Fissures meet at one end. Both smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.35m: fissure. 10 degree dips. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 20.40 to 20.50m: multiple extremely closely spaced fissures. 10 to 70 degree dips. All smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.6m: two fissures. 30 degree dips. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.85m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.88m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.95m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 21.0 to 21.30m: subvertical fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.10m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 21.0-21.3m. 21.25m: two fissures. 20 and 60 degree dips, dipping in opposite directions. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.30m: two fissures. 30 and 60 degree dips, roughly perpendicular to each other. Both smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.45m: fine gravel-sized pyritised wood fossil. 21.5 to 21.55m: multiple extremely closely spaced fissures. 0 to 30 degree dips. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. 21.60 to 21.75m: subvertical fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 21.75 to 21.85m: multiple extremely closely spaced fissures. 10 to 60 degree dips. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. 21.95m: fissure. Smooth, planar. Slightly polished, very tight, clean, very stiff, unweathered. 22.0 to 22.15m: three subparallel fissures. 20 to 60mm spacing. 70 to 80 degree dips. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.	20
		20.50	D									
		21.00 21.00 - 22.50	D				(49) 100mm					21
		21.50	D									
		22.00	D									22
		22.50 22.50 - 24.00	D				100mm					
		23.00	D									23

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Page Number Sheet 7 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		23.40 - 23.80	C							Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION At 22.1m: two extremely closely spaced fissures. 10 to 30 degree dips, dipping in opposite directions. Both smooth, planar to slightly polished, very tight, clean, very stiff, unweathered. Terminating against one of the fissures at 22.0 to 22.15m. Coming together at a point at other end. At 22.12m: coarse sand-sized to fine gravel-sized pyritised wood fossils. At 22.20m: coarse gravel-sized pale brown with dark grey interior claystone nodules. 22.3 to 22.35m: two subparallel extremely closely spaced fissures. 30 degree dips. Both smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 22.35m: fissure. 60 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.	24
		24.00 24.00 - 25.50	D				79mm	24.00	-18.12	At 21.45 to 21.50m: two sub perpendicular fissures. 45 degree and 70 degree dips. Both smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 22.5 to 22.7m: multiple extremely closely spaced fissures. 0 to 40 degree dips. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. 22.70 to 22.73m: subvertical fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissures at 22.7 and 22.73m. At 22.73m: subvertical fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		24.50	D					24.40	-18.52	22.73 to 22.85m: multiple extremely closely to closely spaced fissures. 30 to 60 degree dips, dipping roughly perpendicular to each other. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. 22.95 to 23.15m: multiple extremely closely to closely spaced fissures. 20 to 45 degree dips, three sub parallel sets dipping in opposite directions to each other. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.	
				73	73	20				23.15 to 23.40m: subvertical fissure. 80 degree. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.25 to 23.40m: subvertical fissure. 90 degree. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at 23.15 to 23.4m.	
		25.00	D							23.9 to 24.0m: multiple extremely closely spaced fissures. Three sets. Set 1: roughly 0 degree dip. Set 2: roughly 30 degree dip. Set 3: 50 degree dip. Dipping in opposite directions. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.	25
		25.50 25.50 - 27.00	D				100mm			NO RECOVERY. 24.0 to 24.4m: no recovery, likely due to reduced core diameter used for pressuremeter test pocket. 24.0 to 25.0m: drilled using T6-H	
		25.80 25.90 - 26.25	D C							Very stiff fissured very thinly laminated greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION 24.4 to 28.0m: very silty, slightly sandy. Sand is fine. Laminations indistinct. Occasional very thin lenses of dark grey silt. Sand content decreasing with depth. 25.05 to 25.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 25.05 to 25.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Orientated at 90 degrees to other vertical fissure at same depth. At 25.1m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.5m: pyritised fossil gastropod. Conical, 15mm reducing to 5mm diameter. 60mm length. 25.55 to 25.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.6m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 25.6 to 25.65m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.8m: parting of dark grey slightly sandy silt. Sand is fine.	
		26.50	D							At 26.5m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		27.00 27.00 - 28.50	D				(49) 100mm			26.6 to 26.7m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. At 26.7m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 26.75 to 27.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
											27

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

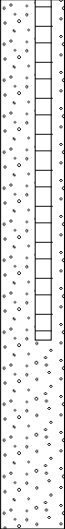
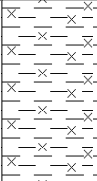
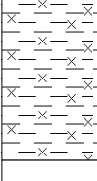
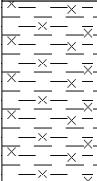
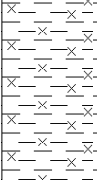
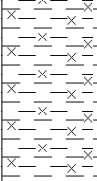
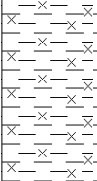
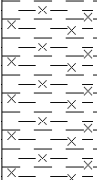
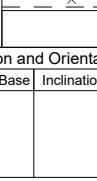
Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Page Number Sheet 8 of 17

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		27.50	D								Very stiff fissured very thinly laminated greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION	28
		27.80	D	67	53	27		28.00	-22.12		27.6 to 28.0m: extremely closely fissured. Fissures are smooth, planar, slightly polished, very tight, clean, unweathered. At 27.7m: parting of dark grey slightly sandy silt. Sand is fine. At 27.8m: parting of dark grey slightly sandy silt. Sand is fine. At 27.85m: parting of dark grey slightly sandy silt. Sand is fine. Parting includes several fossil worm burrows up to 1mm diameter. At 27.88m: parting of dark grey slightly sandy silt. Sand is fine. 27.9 to 28.0m: medium strong greyish brown claystone.	
		28.50 - 30.00					100mm	28.50	-22.62		NO RECOVERY. 28.0 to 28.5m: no recovery, possibly due to claystone at 27.9m.	
		28.60	D								Very stiff fissured very thinly laminated greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION	
		29.00	D								At 28.7m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.7m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is 90 degrees clockwise relative to other fissure at same depth. At 28.75m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.78m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.8m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.8m: fossilised wood fragment. 2mm diameter, 30mm length. At 29.0m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 29.05 to 29.15m: slightly sandy. Sand is fine. At 29.1m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 29.0m. 29.1 to 29.15m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure at top, and lamination at base. At 29.2m: fossilised wood fragment. 5mm diameter, 20mm length. At 29.3m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 29.0m.	
		29.30 - 29.70	C	100	100	40					At 29.8m: parting of dark grey slightly sandy silt. Sand is fine. 29.8 to 29.9m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		30.00	D				78mm					
		30.00 - 31.50									30.35 to 30.45m: extremely closely fissured. Laminations indistinct.	
		30.50	D	90	90	60					30.9 to 31.0m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. At 30.9m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Page Number Sheet 9 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		31.00	D							Very stiff fissured very thinly laminated greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION 31.05 to 31.25m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.1m: fossilised wood fragment. 3mm diameter, 20mm length.	31
		31.50 31.50 - 33.00	D				100mm			At 31.7m: thin lense of dark grey silt. At 31.85m: parting of dark grey slightly sandy silt. Sand is fine.	
		32.00	D								32
		32.50	D							32.3 to 32.4m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		33.00 33.00 - 34.50	D				100mm			At 32.5m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.0m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.03m: subhorizontal fissure. 0 degree. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.15m: subhorizontal fissure. 5 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Roughly parallel to fissure at 33.03m. At 33.30m: subhorizontal fissure. 5 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Roughly parallel to fissure at 33.15m.	33
		33.50	D							At 33.65m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.70m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Roughly parallel to fissure at 33.65m. At 33.80m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		34.00	D							33.85 to 33.90m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 33.95 to 34.05m: four very closely spaced sub parallel fissures. 10 degree dips. All smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 34.0m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dipping in opposite direction to fissures at 33.95 to 34.05m. At 34.15m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	34
		34.50 34.50 - 36.00	D				100mm			At 34.42m: subhorizontal fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 34.5 to 35.1m: core disoriented in barrel due to slipped core below. Unable to determine dip angle of discontinuities. At 34.55m: fissure. Unable to determine dip angle. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Page Number Sheet 10 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		35.00	D				35.30	-29.42		Very stiff fissured very thinly laminated greyish brown silty to very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION 34.70 to 34.80m: two fissures. Unable to determine dip angle. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 34.85m: fissure. Unable to determine dip angle. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 34.90m: fissure. Unable to determine dip angle. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 35.0 to 35.5m: fissure. Unable to determine dip angle. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 35.08 to 35.15m: fissure. Unable to determine dip angle. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 35.1 to 36.0m: core slipped, recovered on repeat run.	35
		35.50	D	93	93	53				Very stiff fissured very thinly laminated brownish grey silty CLAY. With occasional partings. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION 35.30 to 37.0m: becoming very silty slightly sandy. 35.30 to 38.00m: Slightly sandy with reducing sand content. 35.32 to 35.70m: multiple very closely spaced (30, 50, 60, subparallel fissures. 0 to 20 degree dips. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. 35.33 to 35.45m: fissure. 80 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 35.70m: fissure. 30 degree dip. Rough, planar, slightly polished, very tight, clean, very stiff, unweathered. At 35.85m: two sub parallel fissures. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 35.90m: sub horizontal fissure. 0 degree dip. Rough, planar, slightly polished, very tight, clean, very stiff, unweathered. At 35.97m: fissures. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 36.0 to 36.50m: subvertical fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 36.45 to 36.55m: subvertical fissure. 80 degree dip. Dip direction is 90 degrees to fissure at 36.00 to 36.50m. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 36.55 to 36.80m: multiple extremely closely spaced (5-(10)-60mm) fissures. 5 to 20 degree dips. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 36.60m: fissure. 70 degree dip. Dip direction is roughly 90 degrees to fissures at 36.55 to 36.80m. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 36.90 to 37.15m: Partings of light grey silt to fine sand. At 35.85m: two fissures. 25 degree and 45 degree dips. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminating against each other at a point. At 37.18m: Layer of light grey silt to fine sand. 37.2 to 37.21m: Dark grey to black silt to fine sand with fine gravel-sized slightly pyritised concretions. 37.21 to 37.30m: subvertical fissure. 80 degree. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. 37.27 to 37.32m: multiple extremely closely spaced subparallel fissures. 0 to 20 degree dips. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 37.35 to 37.40m: two sets of fissures. One set 20 degree dip, one set 10 degree dip, dipping in opposite directions. Both smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 37.38m: Dark grey to black silt to fine sand with fine gravel-sized slightly pyritised concretions. 37.40 to 37.45m: Dark grey to black silt to fine sand with fine gravel-sized slightly pyritised concretions. At 37.49m: sub vertical fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 37.43m: Fine gravel-sized shell fragments At 37.49m: sub horizontal fissure. 5 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. 37.49m: Dark grey to black silt to fine sand with fine gravel-sized slightly pyritised concretions. At 37.55m: fissure. 5 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. At 37.6m: parting of light brown silt. At 37.65m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 37.7m: 10mm thick layer of light brown very silty CLAY. At 37.8m: shell fossil. At 37.85m: parting of light brown slightly sandy silt. Sand is fine. At 37.95m: parting of light brown slightly sandy silt. Sand is fine. At 38.0m: parting of light brown slightly sandy silt. Sand is fine. At 38.1m: 80mm thick moderately strong claystone. Whole core diameter. 38.2 to 38.25m: sandy. Sand is fine. At 38.3m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 38.38m: parting of light brown slightly sandy silt. Sand is fine.	
		36.00	D								36
		36.00 - 37.50	D								
		36.50	D								
		37.00	D	100	100	47					
		37.50	D								
		37.50 - 39.00	D								
		38.00	D	100	100	80					38
		38.50	D								

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Page Number Sheet 11 of 17

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description					
				TCR	SCR	RQD										
		39.00 39.00 - 40.50	D				100mm				Very stiff fissured very thinly laminated brownish grey silty CLAY. With occasional partings. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION At 38.65m: parting of light brown slightly sandy silt. Sand is fine. At 38.7m: 10mm thick layer of dark grey very silty sandy CLAY. At 38.85m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 38.95 to 39.0m: light brown very silty CLAY. 39.0 to 39.65m: multiple extremely closely spaced (15-(30)-60mm) subparallel subhorizontal fissures. 0 to 20 degree dips. All smooth to slightly rough, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. Some fissures have light grey or dark grey to black silt to fine sand on fissure surfaces. 39.0 to 39.25m: subvertical fissure. 90 degree. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 39.30m: fine gravel-sized shell fragment. At 39.35m: parting of light brown silt and fine sand. 39.40 to 39.45m: subvertical fissure. 80 degree. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 39.40 to 39.45m: partings of light brown silt and fine sand. At 39.55m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure in fissure set from 39.0 to 39.65m. At 39.63m: parting of light brown silt and fine sand. 39.65 to 41.00m: Multiple extremely closely very closely spaced partings of light grey silt to fine sand.	39				
		39.50	D				100mm									
		40.00	D	100	100	20										
		40.50 40.50 - 42.00	D				100mm									
		41.00	D													
		41.50	D	100	100	33										
		42.00 42.00 - 43.50	D				100mm									

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 28/11/2024			
Location: London				Contractor:				Co-ords: E516954.42 N173051.93			
Project No. : GE21665				Crew Name:				Drilling Equipment:			
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Scale 1:20		Page Number Sheet 12 of 17	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		42.50	D								Very stiff fissured very thinly laminated brownish grey silty CLAY. With occasional partings. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION At 42.30m: parting of light brown silt to fine sand. 42.30 to 42.40m: three extremely closely spaced sub parallel fissures. 30 degree dips. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 42.33m: Dark grey to black silt to fine sand with fine gravel-sized slightly pyritised concretions. 42.40 to 42.41m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to and terminates against fissure at 42.30 to 42.40m. At 42.45m: Dark grey to black silt to fine sand with fine to medium gravel-sized slightly pyritised concretions. 42.58m: Slightly pyritised dark brown lignite. Roughly 30mm in diameter, 3mm thick. At 42.75m: parting of light brown and dark grey to black silt and fine sand with fine gravel-sized slightly pyritised concretions. 42.77 to 43.20m: extremely closely spaced partings of light brown silt and fine sand. 42.75 to 43.5m: Core slipped. Unable to determine dip angle of discontinuities.	43
		43.00	D	100	100	67						
		43.50 43.50 - 45.00	D				100mm				43.50 to 43.90m: extremely closely spaced partings of light brown silt and fine sand. At 43.60m: Dark grey to black silt to fine sand with fine gravel-sized slightly pyritised concretions. 43.60 to 43.61m: two subparallel subhorizontal fissures. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		44.00	D								At 43.85m: Dark grey to black silt to fine sand with fine gravel-sized slightly pyritised concretions. At 43.88m: fine gravel-sized pocket of light brown silt and fine sand.	
		44.50	D								44.05 to 44.15m: three subparallel fissures. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		45.00 45.00 - 46.50	D				100mm				44.35 to 44.45m: Occasional fine to coarse sand-sized shell fragments 44.55 to 45.00m: multiple extremely closely spaced (25-(40)-60mm) subparallel subhorizontal fissures. 0 degree dips. All smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered 44.65 to 44.67m: partings of light brown silt and fine sand. 44.78 to 44.80m: partings of light brown silt and fine sand	
		45.50	D	100	100	93					45.06 to 45.10m: two subparallel subhorizontal fissures. 0 degree dips. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 45.06 to 45.10m: subvertical fissure. 90 degree dips. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Dips perpendicular to subhorizontal fissures at 45.06 to 45.10m. At 45.15m: 100mm thick moderately strong claystone Very stiff becoming extremely weak 45.21 to 45.24m: fissure. 30 degree. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissures at 45.23 to 45.33m. 45.23 to 45.33m: multiple extremely closely spaced subparallel fissures. 0 to 10 degree dips. Smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. 45.40 to 45.43m: partings of light brown silt and fine sand 45.55 to 45.62m: two subhorizontal fissures. 0 degree dips. Both smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 45.70m: Dark grey to black silt to fine sand with fine gravel-sized slightly pyritised concretions. At 45.80m: subhorizontal fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 45.95 to 50.0m: extremely closely spaced partings of light brown silt and fine sand At 45.96m: subhorizontal fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 46.05m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		46.00	D									

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Page Number Sheet 13 of 17

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		46.50 46.50 - 48.00	D				100mm				Very stiff fissured very thinly laminated brownish grey silty CLAY. With occasional partings. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION 46.15 to 46.18m: multiple extremely closely spaced subparallel fissures. 0 to 10 degree dips. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 46.48 to 46.50m: Light brown silt to fine sand. No recovery	47
		47.00	D									
		47.50	D									
		48.00 48.00 - 49.50	D	90	90	40	100mm				47.15 to 47.70m: multiple subparallel subhorizontal fissures. 0 to 10 degree dips. Smooth, planar to slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.	
		48.50	D								47.80 to 47.81m: Dark grey to black slightly pyritised concretions, 80mm in diameter. At 47.85 to 47.87m: two fissures, 30 degree dips, dipping in opposite directions. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 47.95m: fissure, 0 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 48.0 to 48.20m: frequent partings of light brown silt and fine sand At 48.03m: Fine gravel-sized pyritised nodule At 48.12m: Fine gravel-sized pyritised nodules.	
		49.00	D								At 48.32m: Pyritised nodule, 40mm diameter, 5mm thick.	
		49.50 49.50 - 51.00	D				100mm				48.56 to 48.60m: multiple extremely closely spaced subparallel subhorizontal fissures. 0 degree dips. All smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
											48.77m: Slightly pyritised dark brown lignite. Roughly 20mm in diameter, 2mm thick. 48.80 to 49.05m: multiple extremely closely spaced subparallel subhorizontal fissures. 0 to 5 degree dips. All smooth, planar to slightly undulating slightly polished, very tight, clean, very stiff, unweathered.	
											At 49.12m: partings of light brown silt and fine sand with coarse sand-sized pyritised concretions At 49.15m: Pyritised nodule, 20mm diameter, 5mm thick.	
											At 49.30m: 150mm thick moderately strong claystone, recovered partially fractured.	
											At 49.41m: subhorizontal fissure, 5 degree dips. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 49.45m: two subparallel fissures, 30 degree dips. Both smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.	49
											49.75 to 49.85m: subvertical fissure, 90 degree. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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						Rotary Core Log											
Project Name: London Water Recycling (LWR)							Client: Thames Water Utilities Ltd					Date: 28/11/2024					
Location: London							Contractor:					Co-ords: E516954.42 N173051.93					
Project No.: GE21665							Crew Name:					Drilling Equipment:					
Borehole Number MT-025-35			Hole Type CP+RC			Level 5.88m AoD			Logged By JH / KOD / TL			Scale 1:20		Page Number Sheet 14 of 17			
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description						
		50.00	D														
		50.50	D	100	100	73										50	
		51.00 - 52.50	D				100mm	51.10	-45.22							51	
		51.50	D	100	100	53		51.23	-45.35								
		52.00	D					52.20	-46.32							52	
		52.50 - 54.00	D				100mm										
		53.00	D	100	100	93		52.85	-46.97							53	
		53.50	D														
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														
Remarks																	
Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35	Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Scale 1:20	Page Number Sheet 15 of 17

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		54.00 54.00 - 55.50	D				100mm	54.00	-48.12	Extremely weak thinly laminated brownish grey silty slightly sandy CLAY. Laminations indistinct becoming more distinct. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>At 53.4m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 53.90m: light grey to black silt and fine sand. Pyritised nodule, 15mm diameter, 5mm thick.</i>	54
		54.50	D							Extremely weak brownish grey silty sandy CLAY. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>At 54.15m: fine gravel-sized pocket of dark grey to black silt to fine sand.</i> <i>At 54.38m: subhorizontal fissure. 0 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 54.55m: dark brown lignite. Roughly 15mm in diameter, 1mm thick.</i>	
		55.00	D	100	100	87		54.95	-49.07	<i>54.85 to 54.92m: three extremely closely spaced subparallel fissures. 10 degree dips. All smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 54.88m: parting of light brown silt and fine sand</i>	55
		55.50 55.50 - 57.00	D				100mm	55.15	-49.27	Extremely weak brownish grey silty very sandy CLAY. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION	
		56.00	D							Extremely weak thinly laminated brownish grey silty slightly sandy CLAY. Laminations indistinct becoming more distinct. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>55.20 to 55.28m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>55.25 to 55.30m: pocket of light brown silt and fine sand.</i> <i>At 55.35m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>55.37 to 55.40m: fissure. 50 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 55.6m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>55.64 to 55.73m: two fissures. 30 degree dips, dipping in opposite directions with upper fissure terminating against lower fissure. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 55.75m: fissure. 10 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>55.8 to 56.0m: Core recovered destructured by drilling. Slightly greenish grey.</i> <i>56.05 to 56.40m: multiple extremely closely spaced to very closely spaced subparallel subhorizontal fissures. 0 to 10 degree dips. All smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.</i>	56
		56.50	D	100	100	87		56.40	-50.52	Extremely weak brownish grey silty sandy CLAY. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>56.040 to 56.70m: multiple extremely closely spaced spaced subparallel subhorizontal fissures. 0 to 20 degree dips. All smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 56.60m: parting of light brown silt and fine sand.</i> <i>At 57.80m: pocket of light brown silt and fine sand. 25mm diameter.</i> <i>56.90 to 57.0m: greenish grey.</i> <i>56.98 to 57.05m: Slightly pyritised dark brown lignite. Roughly 15 to 60mm in diameter. 3 to 10mm thick.</i> <i>At 57.08m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	
		57.00 57.00 - 58.50	D				100mm			Extremely weak brownish grey silty very sandy CLAY. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION	57
		57.50	D					57.20	-51.32	Extremely weak fissured thinly laminated brownish grey silty CLAY. Laminations indistinct becoming more distinct. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION <i>At 57.35m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i> <i>At 57.45m: parting of dark grey to black silt to fine sand with coarse sand-sized to fine gravel-sized slightly pyritised concretions.</i> <i>At 57.48m: fissure. 30 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.</i>	
								57.35	-51.47		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks

Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 28/11/2024		
Location: London			Contractor:			Co-ords: E516954.42 N173051.93		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-025-35	Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Scale 1:20	Page Number Sheet 16 of 17

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		58.00	D	100	100	87	100mm	58.40	-52.52		Extremely weak fissured thinly laminated brownish grey silty CLAY. Laminations indistinct becoming more distinct. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION 57.60 to 57.75m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 57.70 to 58.40m: multiple extremely closely spaced to very closely spaced subparallel subhorizontal fissures. 0 to 10 degree dip. Smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered. 57.9 to 58.0m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates at both ends against fissures from 57.70 to 58.40m. At 58.25m: fossilised wood, 40mm length, 10mm diameter.	58
		58.50 58.50 - 60.00	D								Extremely weak brownish grey silty sandy CLAY. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION At 58.55m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 56.60m: pocket of black fine sand	
		59.00	D					59.20	-53.32		58.39-58.40m: two extremely closely spaced subparallel subhorizontal fissures. 0 degree dips. Both smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 59.05 to 59.10m: two extremely closely spaced subparallel fissures. 10 degree dips. Both smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.	59
		59.50	D					59.60	-53.72		Extremely weak thinly laminated brownish grey silty CLAY. Laminations indistinct. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION 59.2 to 59.3m: two very closely spaced subparallel fissures. 10 degree dips. Both smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 56.60m: lens of shell fragments. 59.4 to 59.55m: multiple extremely closely spaced subparallel fissures. 0 to 10 degree dips. All smooth, slightly undulating, slightly polished, very tight, clean, very stiff, unweathered.	
		60.00 60.00 - 61.50	D								Extremely weak brownish grey silty sandy CLAY. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION At 59.67m: parting of dark grey to black silt to fine sand. 59.80 to 59.85m: pocket of greenish grey fine sand. At 60.25m: pocket of light brown silt and fine sand. At 60.30m: pyritised fossilised wood/root fragment, >100mm long, 6 to 10mm diameter. 60.42 to 60.45m: light brown silt and fine sand.	60
		60.50	D	93	93	67						
		61.00 61.00 - 62.25	D					61.22	-55.34		61.0 to 61.5m: Core dropped. 61.15 to 61.20m: fine to medium sand-sized black fragments and bluish grey and greenish grey clay fragments. Extremely weak multicoloured (bluish grey, greenish grey, orangish brown and red) silty slightly sandy CLAY. [Lambeth Group]. LAMBETH GROUP	61

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 28/11/2024			
Location: London				Contractor:				Co-ords: E516954.42 N173051.93			
Project No. : GE21665				Crew Name:				Drilling Equipment:			
Borehole Number MT-025-35		Hole Type CP+RC		Level 5.88m AoD		Logged By JH / KOD / TL		Scale 1:20		Page Number Sheet 17 of 17	

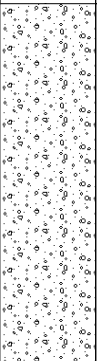
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		61.50	D								Extremely weak multicoloured (bluish grey, greenish grey, orangish brown and red) silty slightly sandy CLAY. [Lambeth Group]. LAMBETH GROUP	62
		62.00	D	75	60	60						
								62.25	-56.37		62.0 to 62.25m: Core dropped, no recovery.	
											End of Borehole at 62.250m	
												63
												64
												65

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
		6.50	150														

Remarks
Hand dug :0.0 to 1.2m. Cable Percussive: 1.2 to 6.5m. Rotary Core (Geobore-S): 6.5 to 62.25m.



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-026-35 Sheet 1 of 11					
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517002E - 172740N		Hole Type CP+RC					
Location:		London		Energy Ratio (%): Driller's Initial: MY		Level: 7.47		Scale 1:20					
Client:		Thames Water Utilities Ltd		Rig Type: Dando 2000		Dates: 29/01/2025 - 07/02/2025		Logged By KOD+TL					
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description					
		Depth (m)	Type	Results									
		0.30 0.30 - 0.35 0.30	ES B PID	PID=0.0ppm	0.40	7.07		Grass overlying MADE GROUND comprising dark brown slightly gravelly SAND with frequent rootlets and occasional brick fragments. Gravel is fine to medium subangular flint. MADE GROUND					
		0.80 0.80 - 0.85 0.80	ES B PID	PID=0.0ppm				Medium dense orangish brown fine to medium SAND with black flecking and some dark brown (suspected organic) staining. [Possible REWORKED GROUND.] MADE GROUND <i>0.4 to 1.0m: some rootlets.</i>					
		1.20 1.20 1.20 - 1.65 1.20 1.20	B ES D SPT PID	N=7 (1,2/2,2,2,1) PID=0.2ppm									
		1.65 - 2.00	B										
		2.00 2.00 - 2.45 2.00 2.00	ES D SPT PID	N=27 (1,2/3,7,8,9) PID=0.1ppm									
		2.60 - 3.00	B										
		3.00 3.00 - 3.45 3.00 3.00	ES B CPT PID	N=28 (1,3/5,6,8,9) PID=0.1ppm									
		4.00 4.00 - 4.45	ES B										
		Casing		Water Strikes (mbgl)			Chiselling (mbgl)			Remarks			
		Diameter	Depth (m)	Depth Strike			Rose to	Depth from		Depth to	Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.		
200	7.50												
150	8.50												
													

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-026-35 Sheet 2 of 11							
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517002E - 172740N		Hole Type CP+RC							
Location:		London		Energy Ratio (%): Driller's Initial: MY		Level: 7.47		Scale 1:20							
Client:		Thames Water Utilities Ltd		Rig Type: Dando 2000		Dates: 29/01/2025 - 07/02/2025		Logged By KOD+TL							
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description							
		Depth (m)	Type	Results											
		4.00 4.00	CPT PID	N=18 (1,3/4,4,5,5) PID=0.3ppm	5.00	2.47		Medium dense orangish brown sandy GRAVEL with occasional clay pockets. Sand is fine to coarse. Gravel is fine to coarse sub angular flint. [Possible REWORKED GROUND.] MADE GROUND	5						
		5.00 - 5.45 5.00	B CPT	N=5 (1,1/2,1,1,1)				Loose orangish brown gravelly SAND with some dark brown organic material (wood). Sand is fine to coarse. Gravel is fine to coarse sub angular flint. [Possible REWORKED GROUND.] MADE GROUND							
		5.20 5.20	ES PID	PID=0.2ppm				5.5 to 6.5m: some orange staining and dark brown organic staining.							
		6.00 6.00 - 6.45 6.00 6.00	ES B CPT PID	N=4 (1,0/2,1,0,1) PID=0.1ppm				6							
		7.00 7.00 - 7.45 7.00 7.00	ES B CPT PID	N=11 (1,2/2,2,3,4) PID=0.2ppm				7.0 to 7.5m: becomes more gravelly.		7					
		7.50	D					Firm brown CLAY with some orange staining. LONDON CLAY FORMATION		8					
		7.70 - 8.00	B					Stiff dark grey silty CLAY with some orange staining. LONDON CLAY FORMATION							
		8.00 8.00 - 8.45 8.00	ES D CPT	N=17 (2,2/3,4,4,6)											
		Casing		Water Strikes (mbgl)				Chiselling (mbgl)		Remarks					
		Diameter	Depth (m)	Depth Strike				Rose to		Depth from	Depth to				
200 150	7.50 8.50					Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.									



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Borehole No.
MT-026-35

Sheet 3 of 11

Project Name:	London Water Recycling (LWR)
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Project No.
GE21665

Co-ords: 517002E - 172740N

Hole Type	CP+RC
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Location:	London
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Energy Ratio (%):

Driller's Initial:	MY
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Level: 7.47

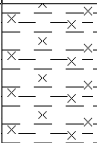
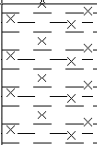
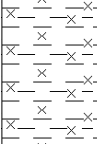
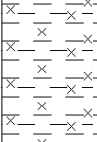
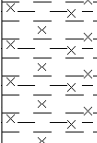
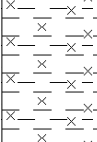
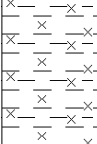
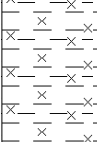
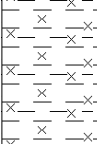
Scale
1:20

Client: Thames Water Utilities Ltd

Rig Type:
Dando 2000

Dates: 29/01/2025 - 07/02/2025

Logged By
KOD+TL

Well	Water Strikes	Sample and In Situ Testing				Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results							
		8.00	PID	PID=0.5ppm						Stiff dark grey silty CLAY with some orange staining. LONDON CLAY FORMATION	
		8.50 - 9.00	D	100	100	100	8.50	-1.03		Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION 8.5 to 9.1m: slightly sandy with gritty feeling when cut with sharp knife. Sand is fine. 8.5 to 9.1m: occasional very thin lenses of dark grey fine sand. 8.5 to 9.3m: extremely closely fissured. Fissures are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	9
		9.00 - 10.50	D			100mm					
		9.50	D	100	100	100				9.35 to 9.45m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 9.4m: 10mm thick lense of extremely weak light greyish brown silty claystone. 9.4 to 9.55m: three parallel fissures. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Spaced at 15 to 30mm. At 9.48m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 9.5m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to set of three fissures at 9.4m. 9.5 to 9.6m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 9.55 to 9.65m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 9.65 to 9.75m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 9.4 to 9.55m: three parallel fissures. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Spaced at 10 to 15mm. 9.75 to 9.8m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissure. 9.75 to 9.9m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 9.8 to 9.9m: fissure. 20 degree dip. Smooth, curved surface, polished, very tight, clean, very stiff, unweathered. 9.85 to 9.95m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 9.88m: fossilised wood fragment. 5mm diameter. At 9.9m: parting of dark grey silty fine sand. At 9.92m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 10.0 to 10.4m: extremely closely fissured. 10.35 to 10.5m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 10.5 to 12.0m: slightly sandy. Sand is fine. With occasional very thin lenses and partings of dark grey silty fine sand. Laminations indistinct.	10
		10.00	D								
		10.50 - 12.00	D			(31) 100mm					
		11.00 - 11.50	D C	100	100	50				11.62 to 11.9m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 11.65 to 11.7m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 11.7m: fissure. 45 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 11.72m: fissure. 45 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure at 11.7m. At 11.8m: fossil bivalve shell, 10mm diameter. At 11.85m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 11.85m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to other fissure at 11.85m. At 11.9m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 11.9 to 12.4m: extremely closely fissured. At 12.0m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 12.0 to 13.5m: very silty, with slightly gritty feeling when cut with sharp knife. Laminations indistinct.	11
		11.60	D								
		12.00 - 13.50	D			100mm					12
			Type/F	TCR	SCR	RQD					
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks					
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to						
200 150	7.50 8.50										
						Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.					

[illegible]



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 29/01/2025 - 07/02/2025		
Location: London			Contractor:			Co-ords: E517001.78 N172739.62		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-026-35	Hole Type CP+RC		Level 7.47m AoD		Logged By KOD+TL	Scale 1:20	Page Number Sheet 5 of 11	

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		16.00	D							Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION	16
		16.50	D							16.2 to 16.5m: very closely fissured. Fissures are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. No consistent orientations. At 16.25m: pair of conjugate fissures. Both with 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		16.50 - 18.00	D							At 16.45m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		17.00	D								
		17.10 - 17.50	D	100	66	66					
		17.60	D							At 17.6m: pyritised fossil wood fragment. 6mm diameter. 17.6 to 17.8m: fissure. 65 degree dip. Smooth, planar, polished, slightly striated, very tight, clean, very stiff, unweathered.	
		18.00	D							At 17.8m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 17.8m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to other fissure at same depth.	
		18.00 - 19.50	D							18.0 to 18.25m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 18.0 to 18.25m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to other fissure at same depth.	18
		18.50	D							At 18.4m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 18.4 to 18.55m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 18.4 to 18.55m: clay immediately below fissure is extremely closely fissured. 18.55 to 18.7m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		19.00	D	100	100	73				At 18.6m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.7m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.75m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure at 18.7m. At 18.78m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure at 18.7m. At 19.0m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	19
		19.50	D							19.0 to 19.3m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 19.1m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 19.25m: 10mm thick band of extremely closely fissured clay, bound by fissures. Binding fissures have 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 19.5 to 19.7m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	
		19.50 - 21.00	D							19.5 to 21.0m: core split easily along fissures into irregularly shaped pieces up to 150mm length. 19.6 to 19.7m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.7m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.50	200	7.50	200														
8.50	150	8.50	150														
40.50	146																

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 29/01/2025 - 07/02/2025		
Location: London			Contractor:			Co-ords: E517001.78 N172739.62		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-026-35		Hole Type CP+RC		Level 7.47m AoD		Logged By KOD+TL		Page Number Sheet 6 of 11

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		20.00	D								Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION At 19.8m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.85 to 20.0m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. At 19.95m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure at 19.85m. Core split easily along this fissure. At 19.95 to 20.05m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is opposite to fissure at 19.85m. Core split easily along this fissure. At 20.05m: fissure. 40 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 20.08m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Subparallel with fissure at 20.05m. At 20.1m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 20.1 to 20.25m: fissure. 75 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. At 20.2 to 20.35m: very closely fissured. Core splits easily along these fissures. At 20.4 to 20.6m: fissure. 75 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. At 20.5 to 20.6m: fissure. 55 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. Dip direction is perpendicular to fissure at 20.4m. At 20.6 to 20.9: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.7 to 21.0m: several subparallel fissures. All dip at 5 degrees. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.95m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	20
		20.50	D	100	100	20						
		21.00 21.00 - 22.50	D				(31) 100mm					21
		21.40 21.50 - 21.90	D C								At 21.4m: fine gravel-sized patch of dark grey silty clay.	
		22.00	D	100	100	73					22.0 to 22.1m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 22.05 to 22.25m: fissure. 90 degree dip. Smooth, curved surface, slightly polished, very tight, clean, very stiff, unweathered. At 22.2m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 22.35m: several thin laminations of dark grey silt. At 22.4m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 22.4 to 22.5m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	22
		22.50 22.50 - 24.00	D				100mm	22.50	-15.03		Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION 22.5 to 24.5m: slightly sandy and very silty. Sand is fine. Gritty feel when cut with sharp knife. Laminations indistinct. Sand content reduces with depth. Very silty below. 22.51 to 23.7m: surface of core partially washed away. At 22.6m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 22.6m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 22.65 to 22.75m: extremely closely fissured, with fine gravel-sized patches of dark grey silt. 22.7 to 22.75m: several parallel fissures. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 22.75m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 22.75m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is opposite to other fissure at same depth. At 22.8m: fissure. 85 degree dip. Smooth, planar, polished and slightly striated, very tight, clean, very stiff, unweathered. 23.1 to 23.2m: fissure. 60 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 23.1 to 23.2m: extremely closely fissured. At 23.4m: fissure. 25 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 23.4m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.4 to 23.55m: extremely closely fissured. At 23.5m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	23
		23.50	D									

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.50	200	7.50	200														
8.50	150	8.50	150														
40.50	146																

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 29/01/2025 - 07/02/2025		
Location: London			Contractor:			Co-ords: E517001.78 N172739.62		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-026-35		Hole Type CP+RC		Level 7.47m AoD		Logged By KOD+TL		Page Number Sheet 7 of 11

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		24.00 24.00 - 25.50	D				100mm			Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION <i>At 23.55m: very thin laminations of dark grey silt.</i>	24
										<i>At 24.0m: fissure. 35 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered.</i>	
										<i>At 24.1m: vertically aligned fossil wood fragment, 3mm diameter, 50mm length.</i>	
										<i>24.1 to 24.5m: with intermittent very thin lenses of dark grey silt.</i>	
										<i>At 24.15m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	
										<i>At 24.2m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	
										<i>At 24.2m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to other fissure at same depth.</i>	
										<i>At 24.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	
										<i>24.4 to 24.55m: extremely closely fissured, and surface of core partially washed away.</i>	
										<i>24.55 to 24.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	
										<i>At 24.6m: fissure. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	
										<i>At 24.7m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	
		24.50	D							<i>At 24.8m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	25
										<i>At 24.9m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure at 24.8m.</i>	
										<i>24.9 to 25.1m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</i>	
		25.00	D								26
		25.50 25.50 - 27.00	D				(50) 100mm				27
		26.00	D								28
		26.50	D								29
		27.00 27.00 - 28.50	D				100mm				30

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.50	200	7.50	200														
8.50	150	8.50	150														
40.50	146																

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 29/01/2025 - 07/02/2025		
Location: London			Contractor:			Co-ords: E517001.78 N172739.62		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-026-35		Hole Type CP+RC		Level 7.47m AoD		Logged By KOD+TL		Page Number Sheet 8 of 11

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		27.50	D							Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION 27.35 to 27.4m: fissure. 85 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 27.45m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 27.45 to 27.55m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissures. 27.45 to 27.6m: fissure. 60 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 27.6 to 28.0m: slightly sandy (sand is fine). 27.85 to 28.0m: fissure. 890degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against other fissures. At 27.9m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 27.92m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 27.9m. At 27.93m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 27.92m. 28.0 to 28.1m: fissure. 65 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. 28.0 to 28.1m: fissure. 80 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. Dip direction is approximately 60 degrees clockwise to fissure at 28.0m. 28.05 to 28.1m: fissure. 60 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. Dip direction is approximately 60 degrees anticlockwise to fissure at 28.0m. At 28.1m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.15m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 28.15 to 28.25m: fissure. 65 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. 28.25 to 28.5m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. At 28.4m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.6m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. At 28.65m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.68m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.7m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. 28.7 to 28.9m: fissure. 75 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. At 28.9m: fissure. 35 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. At 29.29.4m m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 29.0 to 29.1m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. 29.0 to 29.1m: fissure. 65 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees clockwise to other fissure at same depth. Core split easily along this fissure. Wedge-shaped section split out from side of core (bounded by this fissure and other fissure at same depth). 29.1 to 29.3m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 29.2 to 29.3m: fissure. 55 degree dip, curving to 90 degrees. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.4m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.42m: shell fossil (bivalve). At 29.45m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 29.5 to 29.9m: several wedge-shaped sections split easily from side of the core. Bounded by two sets of fissures: _Set 1_ 70 to 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. _Set 2_ 60 to 70 degree dip, orientated approximately at 60 degrees clockwise to set 1. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.65m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.7m: fissure. 30 degree dip, subparallelwith fissureat 29.65m. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.8m: fissure. 50 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 29.9m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 29.9 to 30.0m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. At 30.5m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.5m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	28
		28.00	D	100	93	80					
		28.50 28.50 - 30.00	D								
		29.00	D								
		29.50	D	100	100	13					
		30.00 30.00 - 31.50	D								
		30.50	D	100	100	40					
		31.00 31.10 - 31.40	D C								

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.50	200	7.50	200														
8.50	150	8.50	150														
40.50	146																

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 29/01/2025 - 07/02/2025		
Location: London			Contractor:			Co-ords: E517001.78 N172739.62		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-026-35		Hole Type CP+RC		Level 7.47m AoD		Logged By KOD+TL		Page Number Sheet 9 of 11

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		31.50 31.50 - 33.00	D				100mm				Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION At 30.55m: fissure. 40 degree dip. Smooth, planar, slightly striated, very tight, clean, very stiff, unweathered. At 30.55m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 80 degrees clockwise to other fissure at same depth. At 30.8m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.8m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is opposite to other fissure at same depth. At 30.8m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.0m: coarse gravel-sized fossil wood fragment. At 31.1m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.55m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.6m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.85m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.9m: fossil worm burrows, 1mm diameter. 31.95 to 32.25m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. Core split easily along this fissure. At 32.0m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 32.1 to 32.25m: fissure. 70 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. 32.2 to 32.3m: fissure. 70 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. Core split easily along this fissure. 32.25 to 32.35m: fissure. 50 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. Dip direction is approximately 40 degrees clockwise to fissure at 32.35m. At 32.35m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 32.4 to 32.55m: extremely closely fissured. 32.5 to 32.85m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 32.52 to 32.85m: fissure. 80 degree dip, subparallel with fissure at 32.5m. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 32.55m: fissure. 50 degree dip. Smooth, planar, polished, slightly striated, very tight, clean, very stiff, unweathered. 32.5 to 32.85m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is 90 degrees to fissure at 32.5m. At 32.8m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 33.1 to 33.4m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 33.15m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure. At 33.3m: fissure. 50 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 33.95 to 33.4m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Core split easily along this fissure.	
		32.00	D									
		32.50	D	100	100	66						
		33.00 33.00 - 34.50	D				100mm					
		33.30 33.40 - 33.70	D C									
		34.00	D									
		34.50 34.50 - 36.00	D				100mm					
								33.85	-26.38		Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY with intermittent partings dark grey silt. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION 33.85 to 34.2m: slightly sandy. Sand is fine. At 33.9m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.85m: coarse gravel-sized nodule of very weak light greyish brown claystone. 33.95 to 34.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 32.5 to 32.85m: several subparallel fissures. 0 to 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Spaced at 10 to 50mm intervals. 34.05 to 34.3m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 34.3m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.50	200	7.50	200														
8.50	150	8.50	150														
40.50	146																

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 29/01/2025 - 07/02/2025		
Location: London			Contractor:			Co-ords: E517001.78 N172739.62		
Project No. : GE21665			Crew Name: MY+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-026-35		Hole Type CP+RC		Level 7.47m AoD		Logged By KOD+TL		Page Number Sheet 10 of 11

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		35.00	D							Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY with intermittent partings dark grey silt. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION 35.1 to 35.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 35.1 to 35.4m: fissure. 75 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 90 degrees anticlockwise to other fissure at same depth. At 35.5m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	35
		35.40	D	87	87	33					
		35.70	D							At 35.7m: fissure. 50 degree dip. Smooth, u but, slightly polished, very tight, clean, very stiff, unweathered. At 35.71: fissure. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is opposite to other fissure at 35.7m. 35.75 to 36.0m: no recovery.	
		36.00 - 37.50	C				100mm			36.0 to 40.5m: laminations indistinct.	36
		36.10 - 36.50									
		36.60	D	100	100	53				At 36.6m: piece of pyritised fossil wood, 10mm diameter, spans whole core.	
		37.00	D							At 36.9m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 37.0 to 37.2m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	37
		37.50	D				100mm			37.25 to 37.5m: fissure. 80 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered.	
		37.50 - 39.00									
		38.00	D	47	14	0	38.20	-30.73		At 38.0m: fissure. 30 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. 38.0 to 38.2m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 38.15m: parting of dark grey silt. NO RECOVERY. 38.2 to 39.0m: core washed out.	38

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.50	200	7.50	200														
8.50	150	8.50	150														
40.50	146																

Remarks Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 29/01/2025 - 07/02/2025			
Location: London				Contractor:				Co-ords: E517001.78 N172739.62			
Project No. : GE21665				Crew Name: MY+PJ				Drilling Equipment: Dando 2000+Comacchio 305			
Borehole Number MT-026-35		Hole Type CP+RC		Level 7.47m AoD		Logged By KOD+TL		Scale 1:20		Page Number Sheet 11 of 11	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		39.00 39.00 - 40.50	D				100mm	39.00	-31.53		NO RECOVERY.	39
		39.50	D								Very stiff to extremely weak very thinly laminated fissured greyish brown silty CLAY with intermittent partings dark grey silt. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION 39.1 to 39.4m: core surface partially washed away. At 39.2m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 39.2 to 39.4m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure at 39.2m. 39.4 to 39.55m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is opposite to fissure at 39.2 to 39.4m. At 39.6m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		40.00	D	75	75	53						
		40.15	-32.68									
		40.50						-33.03			NO RECOVERY. 40.15 to 40.5m: core lost due to failed liner.	40
										End of Borehole at 40.500m	41	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.50	200	7.50	200														
8.50	150	8.50	150														
40.50	146																

Remarks

Hand dug ground level to 1.2m. Cable Percussion 1.2 to 8.5m. Rotary Cored (Geobore-S) 8.5 to 40.5m.



Borehole Log

Borehole No.
MT-027-35d

Sheet 1 of 10

Project No.
GE21665

Co-ords: 517025E - 172323N

Hole Type
CP+RC

Location:	London
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Energy Ratio (%):	
Driller's Initial:	JS

Level: 7.01

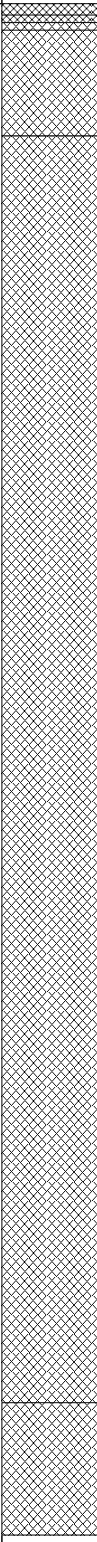
Scale
1:20

Client: Thames Water Utilities Ltd

Rig Type:
Dando 2000

Dates: 12/02/2025 - 25/02/2025

Logged By
KOD+TL

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.05 - 0.30	B	PID=0.5ppm	0.03 0.05 0.07	6.98 6.96 6.94		Black fine to medium grained well compacted TARMACADAM MADE GROUND	
		0.30 0.30	ES PID					Black fine to coarse grained moderately compacted TARMACADAM MADE GROUND	
		0.50 - 0.80	B					MADE GROUND comprising dark brown and orangish brown SAND and GRAVEL with abundant brick, concrete, some tarmacadam fragments and rare slate fragments. Gravel is fine to coarse subangular flint and some sandstone. MADE GROUND	
		0.80 0.80	ES PID	PID=0.3ppm				0.25 to 0.45m: concrete fragment, approximately 200mm diameter. MADE GROUND comprising dark brown and orangish brown SAND and GRAVEL with abundant brick, concrete, some tarmacadam fragments and rare slate fragments. Gravel is fine to coarse subangular flint and some sandstone. MADE GROUND	
		1.00 - 1.20	B			MADE GROUND comprising orangish brown very sandy very gravelly CLAY with abundant brick and concrete, some clinker and rare pieces of metal rebar. Gravel is fine to coarse subangular flint and chalk. MADE GROUND			
		1.20 1.20	ES PID	PID=0.2ppm		0.25 to 0.45m: concrete fragment, approximately 200mm diameter. MADE GROUND comprising orangish brown very sandy very gravelly CLAY with abundant brick and concrete, some clinker and rare pieces of metal rebar. Gravel is fine to coarse subangular flint and chalk. MADE GROUND			
						0.8 to 0.8m: concrete fragment approximately 200mm diameter, 100mm thickness.			
						At 1.7m: potential Asbestos Containing Material - cement sheet fragments.			
						1.9 to 3.7m: intermittent glass fragments.			
		2.00 2.00 - 2.40 2.00 2.00	ES B CPT PID	N=2 (1,1/1,1,0,0) PID=0.6ppm					
		3.00 3.00 - 3.45 3.00 3.00	ES B CPT PID	N=5 (3,2/2,1,0,2) PID=0.2ppm					
		4.00 4.00 - 4.45	ES B						
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to				
200 150	6.00 8.10	4.30 5.50	4.30 5.50						
Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.									

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-027-35d Sheet 2 of 10																						
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517025E - 172323N		Hole Type CP+RC																						
Location:		London		Energy Ratio (%): Driller's Initial: JS		Level: 7.01		Scale 1:20																						
Client:		Thames Water Utilities Ltd		Rig Type: Dando 2000		Dates: 12/02/2025 - 25/02/2025		Logged By KOD+TL																						
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description																						
		Depth (m)	Type	Results																										
		4.00 4.00	CPT PID	N=13 (1,2/2,8,2,1) PID=0.2ppm	5.50	1.51		MADE GROUND comprising dark brown to black sandy gravelly CLAY. Gravel is fine to coarse and comprises flint, brick and concrete fragments. MADE GROUND	5																					
		5.00 5.00 - 5.45 5.00 5.00	ES B CPT PID	N=7 (3,2/1,2,2,2) PID=0.2ppm				At 5.0m: a medium gravel-sized fragment of ceramic material.																						
		5.50 - 6.00	B	N=18 (2,5/7,6,3,2) PID=0.1ppm				MADE GROUND comprising dark grey to black clayey sandy fine to coarse subangular flint GRAVEL with frequent brick and rare metal. MADE GROUND																						
		6.00 6.00 6.00	ES CPT PID					Medium dense orangish brown sandy fine to coarse subangular flint GRAVEL. With several subangular flint cobbles. KEMPTON PARK GRAVEL																						
		6.70 - 7.00	B					Stiff brown to dark grey silty CLAY with occasional shell fragments. LONDON CLAY FORMATION 6.5 to 6.6m: brown with orange staining.																						
		7.00 7.00	ES PID	PID=0.0ppm				6.50		0.51			7																	
8.10	-1.09							8																						
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks																								
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.																								
200 150	6.00 8.10	4.30 5.50	4.30 5.50																											



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 12/02/2025 - 25/02/2025		
Location: London			Contractor:			Co-ords: E517024.71 N172323.41		
Project No. : GE21665			Crew Name: JS+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-027-35d		Hole Type CP+RC		Level 7.01m AoD		Logged By KOD+TL		Page Number Sheet 3 of 10

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description		
				TCR	SCR	RQD							
		8.10 - 9.00	D								Very stiff very thinly laminated fissured brownish grey silty CLAY. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION	9	
		8.50		100	100	55							
		9.00 9.00 - 10.50											
		9.50	D				100mm				8.6 to 9.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 8.6 to 10.3m: extremely closely fissured. Fissures are smooth, planar, dull to slightly polished, very tight, clean, stiff, unweathered. Most are impersistent and terminate against other fissures.		
		9.70	D	97	60	20					At 9.7m: several medium sand-sized shell fragments.	10	
		10.00											
		10.50 10.50 - 12.00	D				100mm				10.05 to 10.5m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 10.1m: coarse sand-sized pyritised fossilised wood fragment. 10.2 to 10.5m: gradually becoming greyish brown. Greyish brown below 10.5m.		
		11.00	D								At 10.65m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 10.7m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is the same as the fissure at 10.65m. 10.7 to 10.75m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against other fissures. 10.75 to 11.0m: extremely closely fissured. Fissures are predominantly sub horizontal or subvertical. Subvertical fissures mostly terminate against subhorizontal fissures.	11	
		11.50	D	100	100	80					10.9 to 11.0m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 11.0 to 11.35m: fissure. 85 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 11.0 to 11.35m: multiple subparallel subhorizontal fissures at spacings of 10 to 50mm. Fissures are smooth, planar, slightly polished, very tight, clean, stiff, unweathered. 11.0 to 11.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 80 degrees clockwise to other subvertical fissure at the same depth. At 11.4m: fissure. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 11.45 to 11m.6m: fissure. 85 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 11.55 to 11.7m: extremely closely fissured. Core contains several fine gravel-sized nodules of pyrite. At 11.7m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 11.75m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure at 11.7m. At 11.77m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure at 11.7m. At 11.8m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is similar to the fissure at 11.7m.		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.00	200	6.00	200									8.10	16.50			80	80
8.10	150	8.10	150									16.50	36.00			70	70
36.00	146																

Remarks

Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 12/02/2025 - 25/02/2025		
Location: London			Contractor:			Co-ords: E517024.71 N172323.41		
Project No. : GE21665			Crew Name: JS+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-027-35d		Hole Type CP+RC		Level 7.01m AoD		Logged By KOD+TL		Page Number Sheet 4 of 10

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		12.00 12.00 - 13.50	D				100mm	12.10	-5.09	Very stiff very thinly laminated fissured brownish grey silty CLAY. [Preliminary London Clay Formation subdivision C]. LONDON CLAY FORMATION	12
		12.35 12.40 - 12.80	D C							Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION 12.1 to 13.0m: very silty, slightly sandy. Sand is fine. Slight gritty feeling when cut with sharp knife. 12.1 to 12.4m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 12.3 to 12.4m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure from 12.1 to 12.4m, spaced 15mm apart. At 12.3m: very thin lense of dark grey silty fine sand. At 12.4m: 1mm thick layer of dark grey very sandy silty clay.	
		13.00	D							12.8 to 12.95m: extremely closely fissured.	
		13.50 13.50 - 15.00	D				100mm			13.2 to 13.3m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 13.25m: bivalve shell, 20mm diameter. At 13.4m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 13.45m: several shell fragments. At 13.55m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 13.65 to 13.8m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		14.00	D							At 13.8m: thin lense of dark grey silt. 13.95 to 14.35m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates within soil mass. At 14.1m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		14.50	D							At 14.1m: very silty, slightly sandy (sand is fine). Slightly gritty feeling when cut with sharp knife. Sand and silt content reduce gradually towards 16.0m, becoming only silty. At 14.15m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is opposite to fissure at 14.1m. At 14.2m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 14.2m: fine gravel-sized patch of dark grey silt. 14.3 to 14.35m: extremely closely fissured.	
		15.00 15.00 - 16.50	D				100mm			14.4 to 14.6m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 14.5 to 14.6m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 14.4m, spaced 10mm apart. At 14.55m: three subparallel fissures spaced 10 to 15mm apart. Fissures are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 14.7 to 15.0m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		15.50	D							At 14.7m: thick lense of dark grey very silty clay. At 14.75m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 14.75 to 14.8m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular to fissure from 14.75 to 15.0m. At 10.65m: two parallel fissures spaced at 30 mm. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 14.8 to 16.8m: with intermittent very thin lenses and coarse sand-sized to fine gravel-sized patches of dark grey silt. 14.85 to 15.0m: several intersecting subvertical fissures. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 14.95m: parting of dark grey silt.	
										At 15.2m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										At 15.4m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 15.2m.	
										At 15.55m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 15.2m.	
										15.6 to 15.9m: extremely closely fissured. Fissures dip in multiple directions and are typically smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered. Dips between 20 and 60 degrees.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.00	200	6.00	200									8.10	16.50			80	80
8.10	150	8.10	150									16.50	36.00			70	70
36.00	146																

Remarks

Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 12/02/2025 - 25/02/2025		
Location: London			Contractor:			Co-ords: E517024.71 N172323.41		
Project No. : GE21665			Crew Name: JS+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-027-35d		Hole Type CP+RC		Level 7.01m AoD		Logged By KOD+TL		Page Number Sheet 5 of 10

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		16.00	D	100	100	93				Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION 15.7 to 16.1m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 15.95m: bivalve shell, 15mm diameter. 16.0 to 16.1m: multiple parallel fissures. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Spaced at 5 to 15mm. 16.0 to 16.4m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	16
		16.50 16.50 - 18.00	D				100mm			16.3 to 16.5m: fissure. 85 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Dip direction is approximately perpendicular to subvertical fissure from 16.0 to 16.4m. 16.5 to 16.8m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 16.5 to 16.75m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees anticlockwise to other vertical fissure at 16.5m. At 16.55m: fissure. 25 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 16.65m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 16.75m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		17.00	D	100	100	47				At 16.75m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 16.8m: fissure. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 16.8 to 17.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 16.85m: coarse gravel-sized fossilised wood fragment. 16.85 to 17.0m: extremely closely fissured, with three predominant sets. _Set 1_ 0 to 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Persistent across core. _Set 2_ 85 to 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Generally terminate against set 1. _Set 3_ 70 to 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees anticlockwise to set 2. Generally terminate against set 1.	17
		17.50	D							At 16.95m: coarse gravel-sized nodule of slightly pyritised fossil wood. 17.0 to 17.15m: fissure. 90 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered. 17.15 to 17.3m: surface of core partially washed away. Core is firm to stiff and appears destructured, without clear laminations or fissuring. 17.3 to 17.6m: extremely closely fissured, with three predominant sets. _Set 1_ 5 to 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Persistent across core. _Set 2_ 85 to 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Generally terminate against set 1. _Set 3_ 70 to 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees anticlockwise to set 2. Generally terminate against set 1. 17.65 to 17.86m: surface of core partially washed away. Core is firm to stiff and appears destructured, without clear laminations or fissuring. 17.8 to 18.0m: extremely closely fissured. No clear sets.	
		18.00 18.00 - 19.50	D				100mm			18.75 to 23.3m: very silty, with some very thin lenses of dark grey silt. At 18.8m: fissure. 35 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 18.85m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.9m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 18.9m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to other fissure at same depth. 18.95 to 19.1m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.0m: coarse gravel-sized fossilised wood fragment.	18
		18.50	D	93	60	53					
		19.00	D								19
		19.50 19.50 - 21.00	D				100mm				

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.00	200	6.00	200									8.10	16.50			80	80
8.10	150	8.10	150									16.50	36.00			70	70
36.00	146																

Remarks

Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 12/02/2025 - 25/02/2025		
Location: London			Contractor:			Co-ords: E517024.71 N172323.41		
Project No. : GE21665			Crew Name: JS+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-027-35d		Hole Type CP+RC		Level 7.01m AoD		Logged By KOD+TL		Page Number Sheet 6 of 10

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		20.00	D								Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION At 19.6m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.7m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately opposite to fissure at 19.6m. At 19.8m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Subparallel with fissure at 19.7m. At 19.8m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 30 degrees anticlockwise to other fissure at same depth. At 19.8m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 19.85m: fissure. 5 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. At 19.9m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Subparallel with fissure at 19.7m. At 19.9 to 20.0m: extremely closely fissured, with three predominant sets. _Set 1_ 10 to 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. _Set 2_ 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. _Set 3_ 20 to 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees clockwise to set 2. At 20.25m: fissure. 50 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 20.25m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is perpendicular anticlockwise to other fissure at same depth. At 20.45m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.45m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to other fissure at same depth. At 20.5m: fissure. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.55m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 20.55m: thick lense of dark grey silty clay. At 20.6m: two parallel fissures spaced 5 mm apart. 55 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 20.5m. At 20.65m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.7m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.72m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.73m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.75m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.8m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 20.75m. At 20.85m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 20.95m: two subparallel fissures. 60 and 70 degree dips. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.5m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. At 21.6m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.65m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Subparallel with fissure at 21.6m. At 21.65m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 30 degrees clockwise to other fissure at same depth. At 21.7m: fissure. 45 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. At 21.7m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 40 degrees anticlockwise to other fissure at same depth. At 21.85m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.85 to 21.9m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.85 to 21.95m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees clockwise to other subvertical fissure at same depth. At 22.0 to 22.1m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 22.1 to 22.2m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is opposite to fissure at 22.0m. At 22.2m: fissure. 90 degree dip. Smooth, undulating, dull, very tight, clean, very	20
		20.50	D									
		21.00 21.00 - 21.40 21.00 - 22.50	D C				100mm					21
		21.50	D									
		22.00	D									22
		22.30	D									
		22.50 - 24.00					100mm					
		23.00	D									23
								23.30	-16.29			

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.00	200	6.00	200									8.10	16.50			80	80
8.10	150	8.10	150									16.50	36.00			70	70
36.00	146																

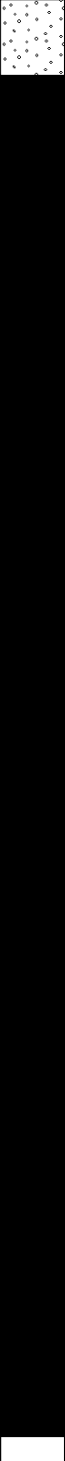
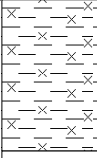
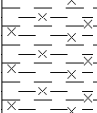
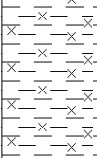
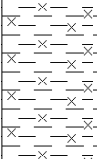
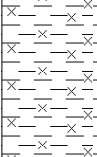
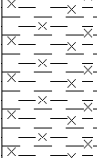
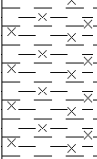
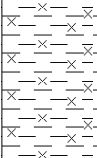
Remarks Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 12/02/2025 - 25/02/2025		
Location: London			Contractor:			Co-ords: E517024.71 N172323.41		
Project No. : GE21665			Crew Name: JS+PJ			Drilling Equipment: Dando 2000+Comacchio 305		
Borehole Number MT-027-35d		Hole Type CP+RC		Level 7.01m AoD		Logged By KOD+TL		Page Number Sheet 7 of 10

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		23.50	D				23.70	-16.69		Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION At 22.2m: fissure. 90 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. 22.25 to 22.3m: cored disturbed, possibly due to claystone below. 22.3 to 22.4m: moderately strong to strong light grey claystone. Whole core diameter. 22.4 to 22.45m: cored disturbed, possibly due to claystone above. At 23.25m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	24
		24.00 24.00 - 25.50	D				24.00	-16.99		Very stiff very thinly laminated fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION 23.3 to 23.7m: gradually becoming very silty and slightly sandy. Sand is fine. Slight gritty feeling when cut with sharp knife. At 23.3m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 23.4 to 23.5m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		24.50	D							NO RECOVERY. 23.7 to 24.0m: no recovery: core washed away.	
		25.00	D	93	93	67				Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION 24.0 to 26.2m: very silty and slightly sandy. Sand is fine. Slight gritty feeling when cut with sharp knife. With intermittent very thin to thin lenses of dark grey silt. At 24.2m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 24.25m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 20 degrees clockwise to fissure at 24.2m. At 24.4m: fissure. 60 degree dip. Smooth, planar, polished and striated, very tight, clean, very stiff, unweathered. At 24.5m: fissure. 25 degree dip, curving to 5 degrees across core. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 24.6m: medium gravel-sized patch of dark grey silt. At 24.7m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 24.4 to 25.0m: fissure. 80 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	
		25.50 25.50 - 27.00	D				100mm			25.0 to 25.2m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 25.2 to 25.4m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 25.4m: coarse gravel-sized nodule of extremely weakly cemented dark grey silty fine sand. At 25.6m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.7m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against laminations. At 25.75m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		26.00	D							26.1 to 26.4m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 26.2 to 31.7m: with occasional very thin lenses of dark grey silt. At 26.25m: coarse sand-sized shell fossil. 26.25 to 26.3m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		26.50	D	100	100	100				At 26.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissures. At 26.35m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 26.35m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.6m: two parallel of fissures spaced at 15 mm. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is opposite to fissure at 26.35m. 26.55 to 26.8m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		27.00 27.00 - 28.50	D				100mm			At 26.7m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 26.85 to 26.95m: extremely closely fissured.	
											
											

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.00 8.10 36.00	200 150 146	6.00 8.10	200 150									8.10 16.50	16.50 36.00			80 70	80 70

Remarks Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.																	
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Geo-Environmental Rotary Core Log																			
Project Name: London Water Recycling (LWR)					Client: Thames Water Utilities Ltd					Date: 12/02/2025 - 25/02/2025									
Location: London					Contractor:					Co-ords: E517024.71 N172323.41									
Project No. : GE21665					Crew Name: JS+PJ					Drilling Equipment: Dando 2000+Comacchio 305									
Borehole Number MT-027-35d		Hole Type CP+RC			Level 7.01m AoD			Logged By KOD+TL		Scale 1:20		Page Number Sheet 8 of 10							
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description								
				TCR	SCR	RQD													
		27.50	D				100mm				Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION <u>At 27.5m: medium sand-sized shell fragment.</u> <u>At 27.6m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>27.65 to 27.75m: slightly sandy (sand is fine). With several thin lenses of dark grey silty clay.</u> <u>At 27.75m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> <u>At 27.8m: shell fragment. 5 mm diameter.</u>				28				
		28.00	D																
		28.50 28.50 - 30.00 28.60 - 29.00	D C																
		29.00	D																
		29.50	D																
		30.00 30.00 - 31.50	D																
		30.50	D																
Remarks																			
Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.																			



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)		Client: Thames Water Utilities Ltd		Date: 12/02/2025 - 25/02/2025	
Location: London		Contractor:		Co-ords: E517024.71 N172323.41	
Project No. : GE21665		Crew Name: JS+PJ		Drilling Equipment: Dando 2000+Comacchio 305	
Borehole Number MT-027-35d	Hole Type CP+RC	Level 7.01m AoD	Logged By KOD+TL	Scale 1:20	Page Number Sheet 9 of 10

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		31.00	D							Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION At 31.0m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.1m: several medium sand-sized fossil wood fragments. At 31.2m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 31.2 to 21.3m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 31.25 to 31.5m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees anticlockwise to fissure at 31.2 to 31.3m. 31.3 to 31.4m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees anticlockwise to fissure at 31.25 to 31.5m.	31
		31.50 31.50 - 33.00	D				100mm				
		32.00	D								32
		32.50	D							32.15 to 32.0m: moderately strong grey claystone. Whole core diameter. Recovered fractured. 32.2 to 32.3m: core disturbed, possibly due to claystone above and below. 32.3 to 32.4m: moderately strong grey claystone. Whole core diameter. Fractured. 32.4 to 32.45m: core disturbed, possibly due to claystone above. At 32.45m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 32.45m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 80 degrees anticlockwise to other fissure at same depth. At 32.6m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 32.63m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 32.6m. At 32.65m: rounded pyritised claystone nodule, 20mm diameter. At 32.7m fine gravel-sized shell. At 32.8m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 32.8 to 33.0m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 32.8 to 33.0m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees to other subvertical fissure at same depth. 33.05 to 33.2m: extremely closely fissured, no dominant orientations. At 33.1m: coarse gravel-sized nodule of extremely weak light greyish brown silty claystone. 33.15 to 33.2m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 33.25 to 33.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.3m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 60 degrees clockwise to fissure at 33.25 to 33.4m. 33.4 to 33.55m: extremely closely fissured, with no dominant orientations. 33.65 to 33.85m: fissure. 75 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. At 33.75m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.8m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Subparallel with fissure at 33.75m. 33.85 to 34.0m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		33.00 33.00 - 34.50	D				100mm				33
		33.50	D								
		34.00	D								34
		34.50 34.50 - 36.00	D				100mm			34.15 to 34.25m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 34.3 to 34.4m: very closely fissured. 34.3 to 34.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 34.4 to 34.5m: no recovery, core washed out. At 34.75m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.00 8.10 36.00	200 150 146	6.00 8.10	200 150									8.10 16.50	16.50 36.00			80 70	80 70

Remarks

Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)				Client: Thames Water Utilities Ltd				Date: 12/02/2025 - 25/02/2025			
Location: London				Contractor:				Co-ords: E517024.71 N172323.41			
Project No. : GE21665				Crew Name: JS+PJ				Drilling Equipment: Dando 2000+Comacchio 305			
Borehole Number MT-027-35d		Hole Type CP+RC		Level 7.01m AoD		Logged By KOD+TL		Scale 1:20		Page Number Sheet 10 of 10	

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description		
				TCR	SCR	RQD							
		35.00	D								Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION At 34.8m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 34.9m: fissure. 40 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 35.0m: fossil wood fragment, 8 mm diameter, 10 mm length. At 35.05m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 35.1m: fossil wood fragment, 4 mm diameter, 40mm length, vertically aligned. 35.1 to 35.2m: fissure. 85 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. 35.15 to 35.4m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 35.2 to 35.7m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Dip direction is approximately 30 degrees clockwise to fissure at 35.15m. 35.3 to 35.5m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Subparallel with fissure at 35.15m. At 35.45m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 35.6m: fossil wood fragment, 3 x 10 x 15 mm.	35	
		35.50	D	100	100	66							
		36.00	D						36.00	-28.99			End of Borehole at 36.000m
												37	
												38	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
6.00	200	6.00	200									8.10	16.50			80	80
8.10	150	8.10	150									16.50	36.00			70	70
36.00	146																

Remarks

Hole relocated several times due to presence of asbestos containing materials in previous locations. Pavement cored ground level to 0.05m. Hand dug 0.05 to 1.2m. Cable percussive 1.2 to 8.1m. Rotary cored (Geobore-S) 8.1 to 36.0m.



Geo-Environmental

Borehole Log

Borehole No.

MT-028-35

Sheet 1 of 7

Project Name: London Water Recycling (LWR)

Project No.
GE21665

Co-ords: 517167.60 - 171979.57

Hole Type
WLS+RC

Location: London

Level: 7.29

Scale
1:25

Client: Thames Water Utilities Ltd

Dates: 28/10/2024 -

Logged By
TL

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.15			0.15	7.14		TARMACADAM.	1
								MADE GROUND	
		0.30	B		0.35	6.94		Brown slightly silty sandy fine to coarse subrounded to subangular GRAVEL. Sand is fine to coarse. Gravel comprises flint, brick and concrete.	
		0.30	ES	PID=0				MADE GROUND	
								Dark brown to brown sandy gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse subrounded to subangular flint.	
		0.80	B		1.00	6.29		KEMPTON PARK GRAVEL	
		0.80	ES	PID=0					
								Soft dark brown silty slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded to angular flint. Rare fine rootlets.	
		1.20	B					KEMPTON PARK GRAVEL	
		1.20	ES	N=39 (2,8/11,10,8,10) PID=0					
		1.20							
		1.20 - 1.50	B		1.90	5.39		Yellowing brown slightly gravelly fine to coarse SAND. Gravel is fine to coarse subangular to subrounded flint.	
		1.50 - 1.90	B					KEMPTON PARK GRAVEL	
		1.50 - 17.50	D						
		1.90 - 3.00	B						
		2.00	ES						
		2.50 - 26.50	D						
		3.00 - 4.20	B		3.00	4.29		Recovered as: fine to coarse subangular to subrounded flint GRAVEL. KEMPTON PARK GRAVEL	3
								700mm recovery, unable to determine depths of layer changes in this sampler run.	
		4.20 - 4.50	ES		4.20	3.09		Recovered as: yellowish brown slightly gravelly fine to coarse SAND. Gravel is fine to coarse subangular to subrounded flint. KEMPTON PARK GRAVEL	4
		4.50			4.50	2.79		Fine to coarse subangular to subrounded flint GRAVEL. KEMPTON PARK GRAVEL	
		4.50 - 5.30	B	N=37 (3,4/6,10,10,11)	4.80	2.49		Yellowish brown gravelly fine to coarse SAND. Gravel is fine to coarse subangular to subrounded flint. KEMPTON PARK GRAVEL	5

Continued on next sheet

Remarks

Pavement cored 0.0 to 0.15m. Hand dug 0.15 to 1.2m. Dynamic sampled 1.2 to 6.0m. Rotary cored (Geobore-S) 6.0m to 31.5m.





Borehole No.
MT-028-35

Sheet 2 of 7

Hole Type
WI S+RC

Scale
1:25

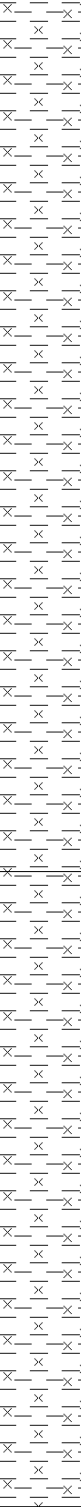
Logged By
TL

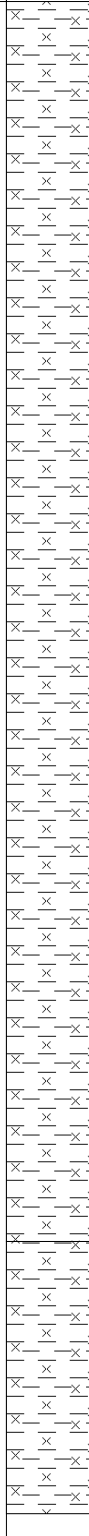
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		5.45 - 6.00	B	N=20 (1,2/3,6,6,5)	5.30	1.99		Firm yellowish brown mottled brownish grey weathered CLAY. LONDON CLAY FORMATION	6	
					5.45	1.84				Firm to stiff brownish grey slightly weathered slightly silty slightly sandy CLAY. Sand is fine. LONDON CLAY FORMATION
					5.80	ES				NO RECOVERY
		6.00	D		6.00	1.29		NO RECOVERY		
		7.50	D		7.50	-0.21		Stiff to very stiff very thinly laminated brownish grey silty CLAY. LONDON CLAY FORMATION		
		8.00	D		8.25	-0.96		NO RECOVERY. 8.25 to 8.35m: claystone.		
		9.00	D		9.00	-1.71		Stiff to very stiff very thinly laminated very closely fissured brownish grey silty CLAY. [Preliminary London Clay Formation subdivision C3]. LONDON CLAY FORMATION 9.0 to 9.2m: extremely closely fissured. Several fissures dip 60 degrees, spaced at 10 to 15mm. 9.2 to 9.3m: two parallel fissures. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. At 9.3m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. 9.3 to 9.4m: extremely closely fissured. At 9.4m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. 9.5 to 9.65m: extremely closely fissured. At 9.6m: fossil worm burrow. 9.6 to 9.85m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. 9.75 to 9.85m: extremely closely fissured. At 9.85m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. At 9.9m: fossil worm burrow. 9.95 to 10.35m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered.	9	
		9.50	D							
		10.00	D						10	
		Continued on next sheet								

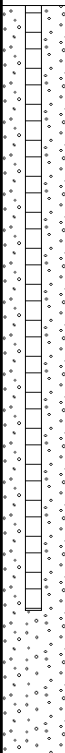
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Remarks
Pavement cored 0.0 to 0.15m. Hand dug 0.15 to 1.2m. Dynamic sampled 1.2 to 6.0m. Rotary cored (Geobore-S) 6.0m to 31.5m.



 Geo-Environmental					Borehole Log			Borehole No. MT-028-35	
Project Name: London Water Recycling (LWR)					Project No. GE21665		Co-ords: 517167.60 - 171979.57		Hole Type WLS+RC
Location: London					Level: 7.29		Scale 1:25		
Client: Thames Water Utilities Ltd					Dates: 28/10/2024 -		Logged By TL		
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		10.50	D		12.90	-5.61		At 10.1m: <u>shell fragments.</u> At 10.2: <u>several fossil worm burrows.</u> At 10.25: <u>several fossil worm burrows.</u> At 10.35: <u>several fossil worm burrows.</u> 10.35 to 10.45m: <u>extremely closely fissured.</u> At 10.45m: <u>gastropod shell.</u> 10.5 to 11.5m: <u>becoming slightly silty. Slightly silty below 11.5m.</u>	11
		11.00	D						
		11.50	D						
		12.00	D	N=25 (2,4/5,6,7,7)					
		12.00							
		12.50	D						
		13.00	D						
		13.50	D						
		14.00	D						
		14.50	D						
		15.00	D				11.7 to 12.0m: <u>set of subparallel fissures spaced at 20 to 50mm. Fissures dip between 60 and 75 degrees and are smooth, planar, slightly polished, very tight, clean, stiff, unweathered. Fissure offset laminations.</u> At 12.0m: <u>medium gravel-sized rounded nobbly fossil. Possibly wood.</u> 12.0 to 12.1m: <u>extremely closely fissured.</u> At 12.15m: <u>medium gravel-sized patch containing several fossil worm burrows.</u> 12.35 to 12.9m: <u>very closely fissured. Includes set of subparallel fissures spaced at 5 to 30mm. Set of fissures have 20 to 30 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered.</u> 12.5 to 12.65m: <u>fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered.</u> 12.65 to 12.9m: <u>extremely to very closely fissured.</u> 12.8 to 12.9m: <u>fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> Very stiff very thinly laminated closely fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision C2]. LONDON CLAY FORMATION 12.9 to 13.8m: <u>slightly sandy (sand is fine). Has slightly gritty feeling when cut with sharp knife</u> 13.05 to 13.25m: <u>fissure. 90 degree dip at top, curves to 0 degrees over lower 100mm of fissure.. Smooth, slightly polished, very tight, clean, very stiff, unweathered.</u> 13.6 to 13.75m: <u>fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> At 13.8m: <u>parting of dark grey silty fine sand.</u> 14.0 to 14.15m: <u>two parallel fissures spaced 20mm apart. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> At 14.1m: <u>fissure. 60 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.</u> At 14.3m: <u>fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> 14.5 to 14.6m: <u>fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> 14.6 to 14.7m: <u>fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.</u> Dips in opposite direction to fissure at 14.5m. 14.9 to 15.0m: <u>extremely closely fissured.</u>	15	
Continued on next sheet									
Remarks Pavement cored 0.0 to 0.15m. Hand dug 0.15 to 1.2m. Dynamic sampled 1.2 to 6.0m. Rotary cored (Geobore-S) 6.0m to 31.5m.									

 Geo-Environmental					Borehole Log			Borehole No. MT-028-35 Sheet 4 of 7					
Project Name: London Water Recycling (LWR)					Project No. GE21665		Co-ords: 517167.60 - 171979.57		Hole Type WLS+RC				
Location: London					Level: 7.29		Scale 1:25		Logged By TL				
Client: Thames Water Utilities Ltd					Dates: 28/10/2024 -								
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description					
		Depth (m)	Type	Results									
		15.50	D	N=40 (5,6/9,9,11,11)				15.2 to 15.3m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 15.25m: fissure. 0 degree dip. Smooth, undulating, dull, very tight, clean, very stiff, unweathered. At 15.25m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 15.4 to 15.6m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 15.5 to 15.65m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 15.5 to 15.6m: laminations indistinct. At 15.65m: fissure. 35 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 15.65 to 15.8m: laminations indistinct. 15.9 to 16.0m: with occasional very thin lenses of dark grey silty fine sand. Lenses are up to 30mm diameter. 16.2 to 16.5m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.		16			
	16.00	D											
	16.50 16.50	D							At 16.85m: pyritised fossil wood fragment. 30 x 10 x 5mm.	17			
	17.00	D							At 17.3m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 17.35m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 17.3m. At 17.38m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissures at 17.3 and 17.35m. 17.6 to 18.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	18			
	18.00	D							18.0 to 18.5m: moderately strong fractured CLAYSTONE (whole core diameter).				
	18.55	D							18.0 to 18.6m: extremely closely fissured. At 18.65m: fissure. 40 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 18.7 to 19.1m: fissure. 90 degree dip. Smooth, planar, slightly polished and slightly striated, very tight, clean, very stiff, unweathered. Striations are vertically aligned.	19			
	19.00	D						19.10	-11.81	Very stiff very thinly laminated closely fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision C1]. LONDON CLAY FORMATION 19.1 to 21.0m: silty to very silty. Core has slight gritty feeling when cut with knife.			
	19.50	D								19.6 to 19.9m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.6m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 19.7 to 19.9m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Aligned 40 degrees clockwise (vertically around core axis) to vertical fissure at 19.6m. 19.85 to 19.95m: extremely closely fissured. 19.95 to 20.05m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 19.95 to 20.2m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	20		
	20.00	D								Continued on next sheet			
	Remarks Pavement cored 0.0 to 0.15m. Hand dug 0.15 to 1.2m. Dynamic sampled 1.2 to 6.0m. Rotary cored (Geobore-S) 6.0m to 31.5m.												

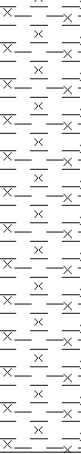
 Geo-Environmental					Borehole Log			Borehole No. MT-028-35			
Project Name: London Water Recycling (LWR)					Project No. GE21665		Co-ords: 517167.60 - 171979.57		Hole Type WLS+RC		
Location: London					Level: 7.29		Scale 1:25				
Client: Thames Water Utilities Ltd					Dates: 28/10/2024 -		Logged By TL				
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		20.50	D	N=44 (7,8/11,11,11,11)			                	20.2 to 20.45m: extremely closely fissured. 20.3 to 20.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 20.3 to 20.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Aligned 40 degrees clockwise (vertically around core axis) to other vertical fissure at same depth. 20.65 to 20.8m: extremely closely fissured. At 21.6m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.8m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.85m: pyritised fossil wood fragment, 40 x 20 x 5 mm. At 21.85m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. 22.0 to 22.05m: very closely fissured. 22.7 to 22.8m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 22.7 to 22.9m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 22.75m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. Dips in opposite direction to 20 degree-dipping fissure at 22.7m. At 22.95m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.0 to 23.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.0 to 23.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Aligned at 40 degrees clockwise to other vertical fissure at 23.3m. At 23.1m: bivalve shell. At 23.35m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.35 to 23.8m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against subhorizontal fissures. At 23.38m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 23.35m. At 23.85 to 23.9m: fissure. 65 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Curves to 90 degree dip at base. At 23.95m: fissure. 65 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	21		
		21.00	D								
		21.00	D								
		21.50	D								
		22.00	D								
		22.50	D								
		23.00	D								
		23.50	D								
		24.00	D				24.00	-16.71		Very stiff very thinly laminated closely fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision C1]. LONDON CLAY FORMATION 19.1 to 21.0m: silty to very silty. Core has slight gritty feeling when cut with knife. 19.6 to 19.9m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 19.6m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 19.7 to 19.9m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Aligned 40 degrees clockwise (vertically around core axis) to vertical fissure at 19.6m. 19.85 to 19.95m: extremely closely fissured. 19.95 to 20.05m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 19.95 to 20.2m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 20.2 to 20.45m: extremely closely fissured. 20.3 to 20.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 20.3 to 20.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Aligned 40 degrees clockwise (vertically around core axis) to other vertical fissure at same depth. 20.65 to 20.8m: extremely closely fissured. At 21.6m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.8m: fissure. 30 degree dip. Smooth, planar, slightly	22
		24.50	D								
	25.00	D									

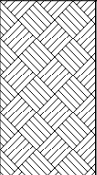
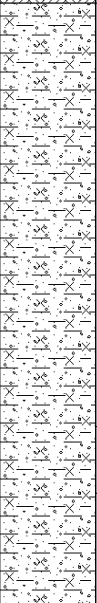
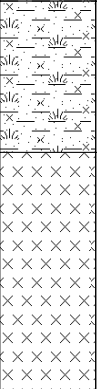
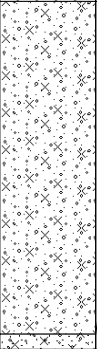
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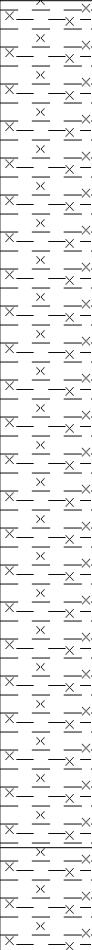
Remarks Pavement cored 0.0 to 0.15m. Hand dug 0.15 to 1.2m. Dynamic sampled 1.2 to 6.0m. Rotary cored (Geobore-S) 6.0m to 31.5m.		
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 Geo-Environmental					Borehole Log			Borehole No. MT-028-35 Sheet 6 of 7		
Project Name: London Water Recycling (LWR)					Project No. GE21665		Co-ords: 517167.60 - 171979.57		Hole Type WLS+RC	
Location: London					Level: 7.29		Scale 1:25			
Client: Thames Water Utilities Ltd					Dates: 28/10/2024 -		Logged By TL			
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		25.50	D	N=50 (9,10/50 for 295mm)	25.50	-18.21	                                                                              	polished, very tight, clean, very stiff, unweathered. At 21.85m: pyritised fossil wood fragment, 40 x 20 x 5 mm. At 21.85m: fissure. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. 22.0 to 22.05m: very closely fissured. 22.7 to 22.8m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 22.7 to 22.9m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 22.75m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. Dips in opposite direction to 20 degree-dipping fissure at 22.7m. At 22.95m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.0 to 23.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.0 to 23.3m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Aligned at 40 degrees clockwise to other vertical fissure at 23.3m. At 23.1m: bivalve shell. At 23.35m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 23.35 to 23.8m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against subhorizontal fissures. At 23.38m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 23.35m. At 23.85 to 23.9m: fissure. 65 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Curves to 90 degree dip at base. At 23.95m: fissure. 65 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. From 24.0m: very silty, with occasional fine to medium gravel-sized patches of dark grey very silty clay. From 24.0 to 28.1m: very silty, with occasional fine to medium gravel-sized patches of dark grey very silty clay. At 24.2m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 24.3m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 24.2m. At 24.4m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 24.2m. At 24.5m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 24.3m. At 24.6m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 24.6m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against other fissures. At 25.2m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.3m: fissure. 55 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. Very stiff very thinly laminated closely fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION From 24.0m: very silty, with occasional fine to medium gravel-sized patches of dark grey very silty clay. From 24.0 to 28.1m: very silty, with occasional fine to medium gravel-sized patches of dark grey very silty clay. At 24.2m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 24.3m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 24.2m. At 24.4m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 24.2m. At 24.5m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel with fissure at 24.3m. At 24.6m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	26	
			26.00				D			
			27.00	D						
			27.50	D						
			28.00	D						
			28.50	D						
			29.00	D						
			29.50	D						
			30.00	D						
	Continued on next sheet									
Remarks Pavement cored 0.0 to 0.15m. Hand dug 0.15 to 1.2m. Dynamic sampled 1.2 to 6.0m. Rotary cored (Geobore-S) 6.0m to 31.5m.										

 Geo-Environmental				Borehole Log				Borehole No. MT-028-35 Sheet 7 of 7						
Project Name: London Water Recycling (LWR)				Project No. GE21665		Co-ords: 517167.60 - 171979.57		Hole Type WLS+RC						
Location: London				Level: 7.29		Scale 1:25		Logged By TL						
Client: Thames Water Utilities Ltd				Dates: 28/10/2024 -										
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description						
		Depth (m)	Type	Results										
		30.00	D	N=50 (9,10/50 for 290mm)	31.50	-24.21		At 24.6m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against other fissures.	31					
		30.50						At 25.2m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.						
		31.00	D	At 25.3m: fissure. 55 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.										
				At 26.2m: gastropod shell, 10mm diameter.										
		31.50	D	At 26.5 to 26.75m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.										
				At 26.55m: 10mm thick layer of dark brownish grey slightly sandy very silty CLAY. Sand is fine.										
													At 26.6m: parting of dark grey sandy silt. Sand is fine.	32
													At 26.6 to 26.8m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered.	
													At 26.7m: parting of dark grey sandy silt. Sand is fine.	
													At 26.75m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
At 27.2 to 27.4m: fissure. 85 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.														
At 27.45 to 27.5m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.														
At 27.45m: fissure. 30 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.														
At 27.5 to 27.95m: laminations indistinct.														
At 27.7 to 27.8m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.														
At 28.7m: 5mm thick lense of dark grey silty fine sand.														
At 28.9 to 29.1m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.														
At 28.9 to 29.4m: surface of core degraded (slightly washed out) during drilling. Extremely closely fissured.														
At 29.1m: fossil worm burrow.														
At 29.4m: medium gravel-sized fossilised wood fragment. Subrounded.														
At 29.45 to 29.55m: slightly sandy. Sand is fine.														
At 29.55 to 29.7m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.														
At 29.8 to 30.0m: slightly sandy. Sand is fine.														
At 29.95m: bivalve shell, 15mm diameter.														
At 30.55m: 30mm thick nodule of very weak light brown silty claystone.														
At 30.6m: 5mm thick layer of dark grey silty sandy clay. Sand is fine.														
At 30.7m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.														
End of borehole at 31.50 m									33					
									34					
									35					
Remarks Pavement cored 0.0 to 0.15m. Hand dug 0.15 to 1.2m. Dynamic sampled 1.2 to 6.0m. Rotary cored (Geobore-S) 6.0m to 31.5m.														

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-030-35 Sheet 1 of 10				
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 516384E - 174243N		Hole Type CP+RC				
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 5.71		Scale 1:25				
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 06/11/2024		Logged By CG / TL				
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description				
		Depth (m)	Type	Results								
		0.30 0.30 0.30	B ES PID	PID=0.0ppm	0.60	5.11		Dark brown silty slightly clayey gravelly SAND. Sand is fine to medium. Gravel is fine to medium subangular to subrounded flint, brick with broken glass, possible clinker. MADE GROUND				
		0.80 0.80 0.80	B ES PID	PID=0.0ppm				Firm greyish brown and red silty sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to medium subangular to subrounded flint. ALLUVIUM				
		1.20 1.20 1.20 1.20	B ES SPT PID	N=7 (1,1/1,1,2,3) PID=0.0ppm	2.60	3.10		2.0 to 2.6m: becoming very sandy. At 32.22m: fissure. 15 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.				
		2.00 2.00 2.00 2.00	B ES SPT PID	N=4 (1,1/1,1,1,1) PID=0.1ppm				Firm greyish brown and red silty sandy slightly gravelly CLAY interbedded with PEAT, 100mm layers. Peat is dark brown silty, slight organic content. Low grade. Gravel is fine to medium subangular to subrounded flint. ALLUVIUM				
		3.00 3.00 3.00	B ES SPT PID	N=0 (1,0/0,0,0,0) PID=0.2ppm	3.90	1.80		Soft grey SILT. ALLUVIUM				
		4.00 4.00 4.00 4.00	B ES CPT PID	N=16 (1,2/2,3,5,6) PID=0.0ppm				Medium dense greyish brown sandy silty GRAVEL. Sand is fine to medium. Gravel is fine to coarse subangular to rounded flint. KEMPTON PARK GRAVEL				
		5.00 5.00	B ES		5.00	0.70		Medium dense brown silty very gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse subangular to rounded flint. Occasional flint cobbles. KEMPTON PARK GRAVEL				
		Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks				
		Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.				
				3.20	2.80							

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-030-35 Sheet 2 of 10					
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 516384E - 174243N		Hole Type CP+RC					
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 5.71		Scale 1:25					
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 06/11/2024		Logged By CG / TL					
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description					
		Depth (m)	Type	Results									
		5.00 5.00	CPT PID	N=23 (3,4/5,6,6,6) PID=0.5ppm	7.00	-1.30		Medium dense brown silty very gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse subangular to rounded flint. Occasional flint cobbles. KEMPTON PARK GRAVEL					
	6.00 6.00 6.00 6.00	B ES CPT PID	N=26 (4,5/6,8,6,6) PID=0.4ppm	6.0 to 7.0m: increasing abundance of coarse gravel.									
	7.00 7.00 7.00 7.00	B ES CPT PID	N=11 (2,3/2,3,3,3) PID=0.1ppm	Medium dense greyish brown silty very gravelly SAND. Sand is fine to coarse. Gravel is mostly fine with some medium subangular to rounded flint. KEMPTON PARK GRAVEL									
	8.00 8.00 8.00 8.00	B ES CPT PID	N=14 (2,3/2,3,4,5) PID=0.2ppm										
	9.00 9.00 9.00 9.00	B ES SPT PID	N=12 (2,2/3,2,3,4) PID=0.0ppm										
	10.00 10.00 10.00	B ES SPT	N=16 (2,2/3,4,4,5)	Stiff grey silty slightly sandy CLAY with several nodules of greenish grey claystone. LONDON CLAY FORMATION									
	Casing			Water Strikes (mbgl)				Chiselling (mbgl)		Remarks			
	Diameter	Depth (m)	Depth Strike	Rose to				Depth from		Depth to	Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.		
			3.20	2.80									
													

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net				Borehole Log				Borehole No. MT-030-35 Sheet 3 of 10								
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 516384E - 174243N		Hole Type CP+RC								
Location:		London		Energy Ratio (%): Driller's Initial:		Level: 5.71		Scale 1:25								
Client:		Thames Water Utilities Ltd		Rig Type:		Dates: 06/11/2024		Logged By CG / TL								
Well	Water Strikes	Sample and In Situ Testing				Depth (m)	Level (m)	Legend	Stratum Description							
		Depth (m)	Type	Results												
		10.00	PID	PID=0.0ppm			12.90	-7.20		Stiff grey silty slightly sandy CLAY with several nodules of greenish grey claystone. LONDON CLAY FORMATION	11					
		12.00	SPT	N=12 (1,2/2,3,3,4)												
		12.90 - 13.50	D	100	100	0						100mm				
		13.50 - 15.00														
		14.00	D	100	100	0										
		14.50	D													
		15.00 - 16.50	D									100mm				
		Type/Fl			TCR	SCR						RQD				
		Casing		Water Strikes (mbgl)		Chiselling (mbgl)						Remarks Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.				
		Diameter	Depth (m)	Depth Strike	Rose to	Depth from										Depth to
		3.20	2.80													



Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/11/2024		
Location: London			Contractor:			Co-ords: E516383.80 N174243.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-030-35		Hole Type CP+RC		Level 5.70m AoD		Logged By CG / TL		Page Number Sheet 4 of 10

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		15.50	D							Stiff very thinly laminated very closely fissured greyish brown silty CLAY. [Preliminary London Clay Formation subdivision B2]. LONDON CLAY FORMATION 15.35 to 15.6m: fissure. 90 degree dip. Smooth, undulating, dull, very tight, clean, stiff, unweathered.	16
				100	93	86				15.6 to 15.75m: 150mm thick nodule of strong brownish grey claystone. Whole core diameter. Core is disturbed for 50mm above and below nodule.	
		16.00	D								
		16.50 16.50 - 18.00	D							16.2 to 16.5m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, stiff, unweathered. 16.25 to 16.35m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, stiff, unweathered. Aligned 50 degrees anticlockwise (when viewed down-core) to fissure at 16.2m.	17
		17.00	D								
				73	33	13				17.1 to 17.45m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, stiff, unweathered. Curves to 10 degree dip over lower 50mm of fissure.	
		17.50	D							At 17.4m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. At 17.41m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. Dips in opposite direction to fissure at 17.4m. At 17.5m: fissure. 15 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered.	
										17.5 to 17.55m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered.	
		18.00 18.00 - 19.50	D				18.00	-12.30		At 17.52m: fissure. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. Parallel with fissure at 17.5m. 17.6 to 18.0m: core lost due to damaged core catcher. Recovered at top of next run. Recovered as disturbed and destructured silty clay.	18
										Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION 18.0 to 19.3m: core disturbed by drilling, with some localised horizons with increased wash out. Very silty. 18.0 to 18.5m: extremely closely fissured.	
		18.50	D							18.5 to 18.65m: very closely fissured. Horizontal and vertical fissures present. Fissures are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 18.65 to 18.75m: extremely closely fissured.	
				86	86	0				18.0 to 18.5m: very closely fissured. Horizontal and vertical fissures present. Fissures are smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
		19.00	D								
		19.50 19.50 - 21.00	D							18.0 to 18.5m: extremely closely fissured. 19.3 to 19.5m: 200mm thick nodule of strong claystone. Whole core diameter.	19
										At 19.55m: coarse gravel-sized nodule of light grey extremely weak claystone. 19.65 to 19.75m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	
										19.65 to 19.8m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Aligned at 90 degrees to other vertical fissure at 19.65m. 19.75 to 20.05m: extremely closely fissured. At 19.85m: fine gravel-sized nodule of pyrite.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/11/2024		
Location: London			Contractor:			Co-ords: E516383.80 N174243.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-030-35		Hole Type CP+RC		Level 5.70m AoD		Logged By CG / TL		Page Number Sheet 5 of 10

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		20.00	D								Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION From 19.9 to 21.7m: very silty, slightly sandy. Sand is fine. With occasional partings of dark grey silt. Laminations indistinct. 19.95 to 20.25m: fissure. 85 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. 20.25 to 20.3m: fissure. 75 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. 20.3 to 20.55m: very closely fissured. At 20.55m: medium gravel-sized patch of dark grey fine sand.	20
		20.50	D	100	100	73						
		21.00 21.00 - 22.50	D				(34) 100mm					21
		21.50	D								21.3 to 21.45m: fissure. 70 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. 21.4 to 21.6m: fissure. 85 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered.	
		22.00	D								21.55 to 21.7m: fissure. 60 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Dip curves to 60 degree dip in opposite direction evenly along length of fissure. At 21.7m: 10mm thick layer of dark grey silty sandy clay containing a tabular coarse gravel-sized fragment of lignite. From 21.7 to m: brownish grey. At 21.8m: fissure. 20 degree dip. Smooth, undulating, slightly polished, very light, clean, very stiff, unweathered. At 21.8m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 21.84m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	22
		22.50 22.50 - 24.00	D				100mm				21.85 to 21.92m: fissure. 90 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. At 21.85m: 15mm thick layer of very stiff very thinly laminated light greyish brown silty slightly sandy clay. Sand is fine. 21.95 to 22.0m: moderately strong claystone nodule. 22.0 to 22.5m: very closely fissured. 22.05 to 22.15m: fissure. 75 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. At 22.15m: parting of light brown slightly sandy silt. At 22.2m: parting of light brown slightly sandy silt. At 22.3m: parting of light brown slightly sandy silt. At 22.45m: parting of light brown slightly sandy silt. At 22.5m: 10mm thick layer of light brownish grey sandy silt. Sand is fine. 22.55 to 22.9m: fissure. 85 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.	
		23.00	D								22.55 to 23.5m: extremely closely fissured. 22.9 to 23.0m: contains several coarse sand-sized shell fragments. 22.95 to 23.0m: slightly sandy (sand is fine) and greyish brown. At 23.0m: parting of dark grey slightly sandy silt. 23.2 to 23.35m: slightly sandy. Sand is fine. With several partings of light greyish brown sandy silt.	23
		23.50	D								23.35 to 23.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. Terminates against laminations. 23.34 to 23.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very light, clean, very stiff, unweathered. Aligned at 90 degrees to other vertical fissure at 23.35m. Terminates against laminations. 23.5 to 24.2m: closely fissured. At 23.53m: 10mm thick lense (half core diameter) of light greyish brown silty clay. At 23.65m: parting of dark slightly sandy silt, and a shell fragment. At 23.7m: parting of light brown slightly sandy silt. At 23.8m: 20mm thick layer of extremely weak light greyish brown silty clay. 23.9 to 24.0m: with partings of light brownish grey silt spaced 20 to 30mm apart.	
		24.00 24.00 - 25.50	D				100mm				24.2 to 24.45m: extremely closely fissured. With occasional partings of dark grey silt. At 24.25m: fossil wood fragment. 5mm x 30mm x 40mm. At 24.4m: coarse sand-sized shell fragment.	24
		24.50	D								24.5 to 24.55m: dark grey, sandy. Sand is fine. Laminations indistinct.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/11/2024		
Location: London			Contractor:			Co-ords: E516383.80 N174243.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-030-35		Hole Type CP+RC		Level 5.70m AoD		Logged By CG / TL		Page Number Sheet 6 of 10

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		25.00	D	93	93	40				Very stiff very thinly laminated fissured greyish brown very silty CLAY. [Preliminary London Clay Formation subdivision B1]. LONDON CLAY FORMATION At 24.7 to 24.8m: fissure. 70 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 24.7 to 23.85m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 24.85 to 24.95m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 24.9m: 30mm thick layer of brown silty slightly sandy clay. Sand is fine. At 24.93m: 10mm thick lense of weak claystone. Lense is half core diameter. At 24.95 to 25.0m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.0m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel to fissure at 24.95m. At 25.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against other fissures. At 25.0m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Parallel to fissure at 24.95m. At 25.17 to 25.25m: set of four parallel fissures spaced 5 to 15mm apart. 20 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.25 to 25.3m: fissure. 60 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. At 25.3m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to set of parallel fissures at 25.17m. At 25.35 to 25.5m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 25.5 to 26.3m: core lost, possibly due to damage from SPT at 25.5m. At 26.3 to 27m: core disturbed. Recovered as firm to stiff brownish grey slightly silty CLAY.	25
		25.50 25.50 - 27.00	D								26
		27.00 - 27.75 27.10	D	100	66	66				27.0 to 28.5m: very stiff very thinly laminated fissured brownish grey silty CLAY. Fissures are closely spaced. At 27.45 to 27.75m: core disturbed. Recovered as firm to stiff brownish grey slightly silty CLAY.	27
		27.75 - 28.50 28.00	D	100	100	0				27.75 to 28.6m: surface of core disturbed, with localised sections of partial washout. Core has greater density of fissures. Fissures are in three sets: _Set 1_ Subhorizontal, 0 to 10 degree dip in varying directions. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Spaced at 20 to 60mm. _Set 2_ Subvertical, 80 to 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Average spacing uncertain due to diameter of core; minimum visible spacing is 20mm. _Set 3_ Subvertical, 80 to 90 degree dip. Aligned 40 degrees clockwise around core axis with respect to Set 2 (viewed down-core). Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Average spacing uncertain due to diameter of core; minimum visible spacing is 30mm.	28
		28.50 28.50 - 30.00	D								29
		29.00	D	93	93	93				Very stiff very thinly laminated fissured brownish grey silty to very silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION At 28.65m: 30mm thick layer of light brownish grey very silty clay. At 28.8 to 29.4m: laminations indistinct, locally not present. Slightly gritty feeling when cut with a sharp knife. At 29.3m: 30mm thick layer of light brownish grey very silty clay. At 29.35m: coarse gravel-sized nodule of claystone. Subangular, 15 x 30 x 30mm.	
		29.40 - 29.80	C								

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/11/2024		
Location: London			Contractor:			Co-ords: E516383.80 N174243.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-030-35		Hole Type CP+RC		Level 5.70m AoD		Logged By CG / TL		Page Number Sheet 7 of 10

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		30.00 30.00 - 31.50	D				(33) 100mm				Very stiff very thinly laminated fissured brownish grey silty to very silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION At 29.9m: fissure. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 29.95m: 20mm thick layer of light brownish grey very silty clay. At 30.3m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.4m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, stiff, unweathered. Parallel with fissure at 30.4m. At 30.4 to 30.5m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.6 to 30.7m: extremely closely fissured. At 30.75m: parting of dark grey silt. At 30.85m: parting of dark grey silt. At 30.85m: fissure. 65 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.9 to 31.2m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 30.95m: parting of dark grey silt. At 31.15m: coarse gravel-sized claystone nodule. Subangular, 15 x 30 x 60mm. At 31.2m: 5mm thick layer of light greyish brown weakly cemented silty clay. At 31.2 to 31.3m: two parallel fissures spaced 15mm apart. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.2 to 31.4m: very closely fissured. At 31.25m: parting of dark grey silt. At 31.35 to 31.4m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.4m: 15mm thick layer of very silty sandy CLAY with partings of light grey silt. At 31.5m: parting of light grey silt. At 31.6 to 31.65m: fissure. 35 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered. From 31.6m: becoming silty. At 31.62m: coarse sand-sized shell fragment. At 31.65m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.65m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Aligned at 60 degrees clockwise to other fissure at same depth (viewed down-core). At 31.67m: fissure. 10 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 31.7 to 31.8m: very silty slightly sandy. Sand is fine. With several partings of light greyish brown silt. Extremely closely fissured. At 31.75m: fissure. 60 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.65m: 10mm thick layer of light brownish grey very silty clay. At 31.9 to 32.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Terminates against fissures. At 31.9 to 32.0m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. Curves to 20 degree dip evenly over length of fissure. At 31.95m: fissure. 0 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 32.0 to 32.2m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 32.15 to 32.2m: very silty slightly sandy. Sand is fine. With several partings of light greyish brown silt. Extremely closely fissured. No clear laminations. At 32.2m: two subangular tabular coarse gravel-sized claystone nodules. Both 5 x 20 x 20mm. At 32.2 to 32.25m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. At 32.3 to 32.6m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Locally offset by 1 to 3mm by subhorizontal fissures, giving stepped profile in places. At 32.35m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 28.65m: 10mm thick layer of light brownish grey very silty clay. At 32.5 to 32.8m: extremely closely fissured. At 32.55m: 40mm thick layer of extremely weak light greyish brown silty claystone. At 32.95 to 33.0m: three parallel fissures spaced 20mm apart. 30 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 32.95 to 33.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.0m: 40mm thick very weak light greyish brown silty. At 33.1 to 33.2m: two parallel fissures spaced 10mm apart. 80 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Both terminate against laminations. At 33.1m: two parallel fissures spaced 10mm apart. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.15m: fissure. 90 degree dip. Smooth, undulating, slightly polished, very tight, clean, very stiff, unweathered. At 33.2m: fissure. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.1m: four parallel fissures spaced 5 to 10mm apart. 5 degree dip. Smooth,	30
		30.50	D									
		31.00	D	100	60	20						
		31.50 31.50 - 33.00	D				100mm					
		32.00	D	100	100	73						
		32.50	D									
		33.00 33.00 - 34.50	D				100mm					
		33.50	D	100	100	67						
		34.00	D									

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/11/2024		
Location: London			Contractor:			Co-ords: E516383.80 N174243.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-030-35		Hole Type CP+RC		Level 5.70m AoD		Logged By CG / TL		Page Number Sheet 8 of 10

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		34.50 34.50 - 36.00	D				(36) 100mm	37.60	-31.90	Very stiff very thinly laminated fissured brownish grey silty to very silty CLAY. [Preliminary London Clay Formation subdivision A3]. LONDON CLAY FORMATION At 33.1m: four parallel fissures spaced 5 to 10mm apart. 5 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.45m: fissure. 25 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 33.45m: fissure. 45 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Dips in opposite direction to fissure at 34.45m, creating wedge-shaped section of core in between the two fissures. Wedge-shaped section of core is extremely closely fissured. 33.6 to 34.1m: subhorizontal, subparallel fissures spaced at 10 to 80mm. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 33.65 to 33.8m: fissure. 75 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 34.0 to 34.9m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 34.1 to 34.2m: extremely closely fissured. At 34.25m: fissure. 0 degree dip, curving to 70 degrees towards edge of core. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 34.1 to 34.2m: very closely fissured. At 35.05m: several medium gravel-sized claystone nodules. At 35.3m: fissure. 40 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. At 35.4m: fissure. 85 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 35.5 to 35.65m: fissure. 90 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered.	35
		35.00	D	100	67	67					
		35.50	D								
		36.00 36.00 - 37.50	D				100mm				36
		36.50	D	100	100	87				36.3 to 36.5m: fissure. 85 degree dip. Smooth, undulating, polished, very tight, clean, very stiff, unweathered. 36.4 to 36.5m: fissure. 50 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 36.4 to 37.1m: laminations indistinct, very closely fissured. Fissures are of varying dip and dip direction. Smooth, planar, slightly polished to polished, very tight, clean, very stiff, unweathered. 36.5 to 36.55m: fissure. 50 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered. 36.5 to 36.8m: fissure. 90 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	
		37.00	D								
		37.50 37.50 - 39.00	D				100mm			37.15 to 37.6m: slightly sandy. Sand is fine. Fissures medium spaced.	
		38.00	D	97	97	80				Very stiff fissured brownish grey very silty slightly sandy CLAY with rare very thin laminations, lenses or partings of light greyish brown silt. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION 37.6 to 40.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. 37.6 to 40.7m: no clear structuring or consistent laminations. 37.6 to 40.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered. Orientated at 90 degrees to other vertical fissure at same depth.	38
		38.50	D							37.6 to 40.0m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.





Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/11/2024		
Location: London			Contractor:			Co-ords: E516383.80 N174243.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-030-35		Hole Type CP+RC		Level 5.70m AoD		Logged By CG / TL		Page Number Sheet 9 of 10

Well	Water	Depth (m)	Type /FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
		39.00 39.00 - 40.50	D				100mm			Very stiff fissured brownish grey very silty slightly sandy CLAY with rare very thin laminations, lenses or partings of light greyish brown silt. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION	39
		39.50	D								
		40.00	D	97	67	67					
		40.50 40.50 - 42.00	D				100mm			40.0 to 40.4m: fissure. 90 degree dip. Smooth, planar, dull, very tight, clean, very stiff, unweathered.	40
		41.00	D							40.7 to 41.85m: faintly laminated. Laminations are very thin to thin.	
		41.50	D	100	100	93				41.1 to 41.3m: dark greenish grey, glauconitic.	41
		42.00 42.00 - 43.50	D				100mm			At 41.65m: fissure. 45 degree dip. Smooth, planar, polished, very tight, clean, very stiff, unweathered.	
		42.50	D	100	100	100				41.85 to 42.1m: dark greenish grey, glauconitic.	42
		43.00	D							42.1 to 42.2m: very thinly laminated, silty to very silty. No sand present. 42.2 to 43.1m: no laminations present. Very silty, slightly sandy (sand is fine).	
		43.50 43.50 - 45.00	D				100mm			At 42.5m: two fragments of slightly pyritised fossilised wood. 1) 7mm diameter, 40mm length. 2) semicircular cross section, 15mm diameter, 20mm length.	
										43.1 to 44.3m: very thinly laminated, silty to very silty. No sand present. Closely fissured.	43
										43.35 to 43.5m: fissure. 90 degree dip. Smooth, planar, slightly polished, very tight, clean, very stiff, unweathered.	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.																	
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Geo-Environmental

Rotary Core Log

Project Name: London Water Recycling (LWR)			Client: Thames Water Utilities Ltd			Date: 06/11/2024		
Location: London			Contractor:			Co-ords: E516383.80 N174243.30		
Project No. : GE21665			Crew Name:			Drilling Equipment:		
Borehole Number MT-030-35		Hole Type CP+RC		Level 5.70m AoD		Logged By CG / TL		Page Number Sheet 10 of 10

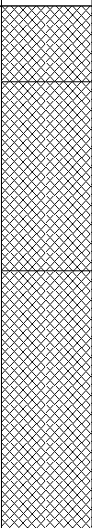
Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SP1)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		44.00	D								Very stiff fissured brownish grey very silty slightly sandy CLAY with rare very thin laminations, lenses or partings of light greyish brown silt. [Preliminary London Clay Formation subdivision A2]. LONDON CLAY FORMATION	44
		44.50	D	93	67	67					At 44.05m: coarse gravel-sized patch of light grey slightly sandy silt. Sand is fine.	
		45.00	D					45.00	-39.30		44.3 to 45.0m: sandy, without clear laminations. Sand is fine. Occasional very thin lenses of light grey silt.	45
											End of Borehole at 45.000m	46
												47
												48

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks
Hand dug ground level to 1.2m Cable Percussive 1.2 to 13.2m Rotary Cored (Geobore-S) 13.2 to 45.0m. Preliminary London Clay Formation subdivisions based on visual logs only.



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log		Borehole No. MT-031-35f Sheet 1 of 7	
Project Name: London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517611E - 171420N	
Location: London		Energy Ratio (%):		Level: 8.28	
		Driller's Initial: JS			
Client: Thames Water Utilities Ltd		Rig Type: Dando 2000		Dates: 17/01/2025 - 24/01/2025	
Logged By: TL					

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.20		8.08			Grass over MADE GROUND comprising dark brown sandy gravelly SILT. Gravel is fine to medium subangular to subrounded flint and brick. Occasional rootlets and rare roots up to 2mm diameter.	1	
	MADE GROUND						MADE GROUND comprising dark brown gravelly clayey SAND. Gravel is fine to coarse angular to subrounded flint, brick, concrete, clinker. Occasional cobbles of brick, rare boulder. Rare roots 2mm.		
	MADE GROUND						MADE GROUND		
	MADE GROUND						MADE GROUND		
		0.30 0.30 - 0.50 0.30	ES B PID	PID=0.2ppm	0.70	7.58		MADE GROUND comprising brown gravelly slightly clayey SAND. Gravel is fine to coarse angular to subrounded flint, brick and clinker.	
		0.80 0.80 - 1.00 0.80	ES B PID	PID=0.1ppm				MADE GROUND	
		1.00 - 1.20	B					MADE GROUND	
		1.20 1.20 1.20	ES SPT PID	N=22 (1,3/6,3,5,8) PID=0.0ppm	1.40	6.88		MADE GROUND	
		2.00 2.00 - 2.45 2.00 2.00	ES B CPT PID	N=31 (4,4/5,10,9,7) PID=0.0ppm	2.70	5.58		Dense brown SAND and GRAVEL. Gravel is mostly fine to medium, occasional coarse angular to subrounded flint. Sand is medium to coarse. KEMPTON PARK GRAVEL	2
		3.00 3.00 - 3.45 3.00 3.00	ES B CPT PID	N=33 (2,2/6,6,10,11) PID=0.0ppm	3.70	4.58		Dense brown gravelly SAND. Gravel is fine to medium angular to subrounded flint. Sand is mostly fine to medium occasional coarse. KEMPTON PARK GRAVEL	3
	3.40 - 6.00	EW					Medium dense locally soft brown SAND and GRAVEL. Gravel is mostly fine to medium, occasional coarse angular to subrounded flint. Sand is medium to coarse. KEMPTON PARK GRAVEL	4	
	4.00	ES							

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		
200	10.50	5.20	3.45			Hand dug ground level to 1.2m. Cable Percussive 1.2 to 25.5m. Preliminary London Clay Formation subdivisions based on visual logs only.	
150	14.50						



Geo-Environmental www.gesl.net

Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

Borehole Log

Borehole No.
MT-031-35f

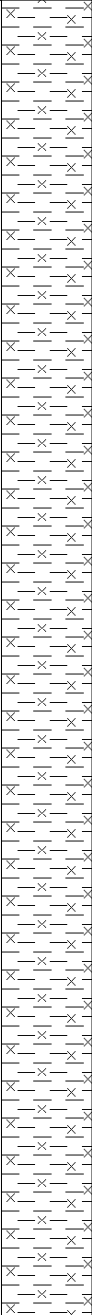
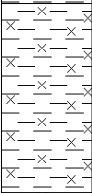
Sheet 2 of 7

Project Name:	London Water Recycling (LWR)	Project No. GE21665	Co-ords: 517611E - 171420N	Hole Type CP
Location:	London	Energy Ratio (%): Driller's Initial: JS	Level: 8.28	Scale 1:20
Client:	Thames Water Utilities Ltd	Rig Type: Dando 2000	Dates: 17/01/2025 - 24/01/2025	Logged By TL

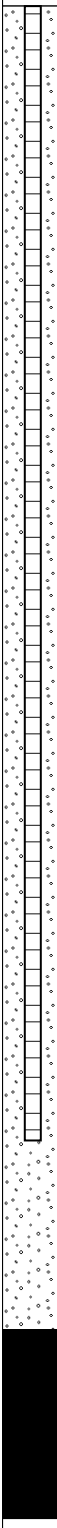
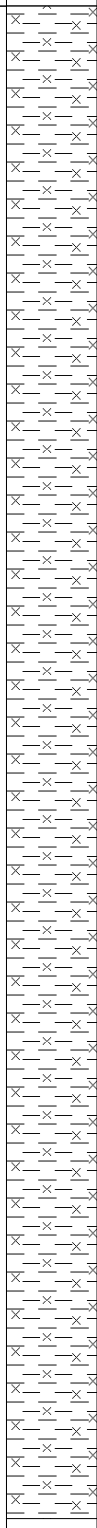
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		4.00 - 4.45 4.00 4.00	B CPT PID	N=14 (2,2/3,3,4,4) PID=0.0ppm	6.30	1.98		Medium dense locally soft brown SAND and GRAVEL. Gravel is mostly fine to medium, occasional coarse angular to subrounded flint. Sand is medium to coarse. KEMPTON PARK GRAVEL	5
		5.00 5.00 - 5.45 5.00 5.00	ES B CPT PID	N=1 (2,1/0,0,1,0) PID=0.0ppm				5.0 to 6.0m: several flint cobbles.	
		6.00 6.00	CPT PID	N=10 (4,2/2,3,2,3) PID=0.0ppm					
		6.50	D					Very stiff very thinly laminated extremely to very closely fissured brownish grey silty slightly sandy CLAY. Sand is fine. With patches and very thin lenses of light grey silty fine sand. Fissures generally planar, smooth, clean and slightly polished. [Preliminary London Clay Formation Subdivision C. Unable to differentiate subunit]. LONDON CLAY FORMATION	
		7.00 - 7.45	UT						
		7.50	D		6.30	1.98			7
		8.00 - 8.10	D						

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		
200 150	10.50 14.50	5.20	3.45				

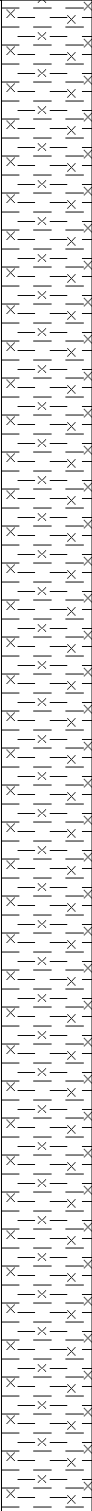
Hand dug ground level to 1.2m. Cable Percussive 1.2 to 25.5m. Preliminary London Clay Formation subdivisions based on visual logs only.

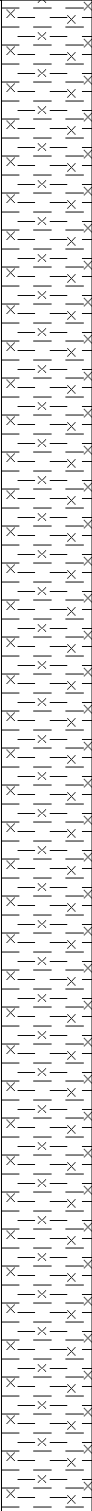
 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log			Borehole No. MT-031-35f Sheet 3 of 7				
Project Name: London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517611E - 171420N		Hole Type CP			
Location: London		Energy Ratio (%):		Level: 8.28		Scale 1:20			
Client: Thames Water Utilities Ltd		Driller's Initial: JS		Dates: 17/01/2025 - 24/01/2025		Logged By TL			
Rig Type: Dando 2000									
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		8.50	D					Very stiff very thinly laminated extremely to very closely fissured brownish grey silty slightly sandy CLAY. Sand is fine. With patches and very thin lenses of light grey silty fine sand. Fissures generally planar, smooth, clean and slightly polished. [Preliminary London Clay Formation Subdivision C. Unable to differentiate subunit]. LONDON CLAY FORMATION	9
		9.00	D						
		9.50	D						
		10.00 10.00 - 10.45	D UT						
		10.50	D						
		11.50 - 11.95 11.50	D SPT	N=18 (2,3/4,5,6)	11.50	-3.22		Very stiff extremely to very closely fissured greyish brown silty CLAY. Fissures generally planar, smooth, clean and slightly polished. [Preliminary London Clay Formation Subdivision C. Unable to differentiate subunit]. LONDON CLAY FORMATION <i>At 11.5m: medium gravel-sized claystone nodule.</i>	12
12.00	D								
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks Hand dug ground level to 1.2m. Cable Percussive 1.2 to 25.5m. Preliminary London Clay Formation subdivisions based on visual logs only.			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to				
200 150	10.50 14.50	5.20	3.45						



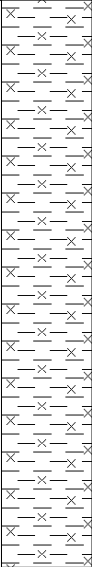
 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log			Borehole No. MT-031-35f Sheet 4 of 7					
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517611E - 171420N		Hole Type CP		
Location:		London		Energy Ratio (%): Driller's Initial: JS		Level: 8.28		Scale 1:20		
Client:		Thames Water Utilities Ltd		Rig Type: Dando 2000		Dates: 17/01/2025 - 24/01/2025		Logged By TL		
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		12.50	D					Very stiff extremely to very closely fissured greyish brown silty CLAY. Fissures generally planar, smooth, clean and slightly polished. [Preliminary London Clay Formation Subdivision C. Unable to differentiate subunit]. LONDON CLAY FORMATION	13	
		13.00 13.00 - 13.45	D UT							13.0 to 14.0m: <i>slightly laminated.</i> 13.0 to 20.0m: <i>silty (no sand content).</i>
		13.50	D							
		14.00	D			At 14.0m: <i>fine gravel-sized shell fragment.</i>				
		14.50	D							
		15.00	D			15.0 to 20.5m: <i>slightly laminated.</i>				
		15.50	D							
	16.00	D					16			
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks Hand dug ground level to 1.2m. Cable Percussive 1.2 to 25.5m. Preliminary London Clay Formation subdivisions based on visual logs only.				
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to					
200 150	10.50 14.50	5.20	3.45							



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log				Borehole No. MT-031-35f Sheet 5 of 7			
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517611E - 171420N		Hole Type CP	
Location:		London		Energy Ratio (%): Driller's Initial: JS		Level: 8.28		Scale 1:20	
Client:		Thames Water Utilities Ltd		Rig Type: Dando 2000		Dates: 17/01/2025 - 24/01/2025		Logged By TL	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		16.00 - 16.45 16.00	D SPT	N=30 (3,3/5,7,9,9)				Very stiff extremely to very closely fissured greyish brown silty CLAY. Fissures generally planar, smooth, clean and slightly polished. [Preliminary London Clay Formation Subdivision C. Unable to differentiate subunit]. LONDON CLAY FORMATION <i>16.0 to 20.0m: possible bioturbation.</i>	17
		16.50	D						
		17.00 - 17.45	UT			<i>17.0 to 18.0m: slightly sandy (fine), with indistinct laminations.</i>			
		17.45 - 17.50 17.50	D D			<i>At 17.5m: possible fracture.</i>			
		18.00	D			<i>At 18.0m: coarse gravel-sized claystone nodule.</i>			
		18.50	D			<i>18.5 to 20.5m: very slightly sandy. Sand is fine.</i>			
		19.00	D						
		19.50	D						
		20.00	D						
			20.00	-11.72					
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks Hand dug ground level to 1.2m. Cable Percussive 1.2 to 25.5m. Preliminary London Clay Formation subdivisions based on visual logs only.			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to				
200 150	10.50 14.50	5.20	3.45						
									

 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log			Borehole No. MT-031-35f Sheet 6 of 7								
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517611E - 171420N		Hole Type CP					
Location:		London		Energy Ratio (%):		Level: 8.28		Scale 1:20					
Client:		Thames Water Utilities Ltd		Driller's Initial: JS		Rig Type:		Dates: 17/01/2025 - 24/01/2025					
				Dando 2000				Logged By TL					
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description					
		Depth (m)	Type	Results									
		20.50	D	N=35 (3,5/6,8,9,12)				Very stiff extremely to very closely fissured greyish brown silty CLAY. Fissures generally planar, smooth, clean and slightly polished. [Preliminary London Clay Formation Subdivision C. Unable to differentiate subunit]. LONDON CLAY FORMATION <u>At 20.0m: gastropod fossil.</u>	21				
		20.50 - 20.95	D										
		20.50	SPT										
		21.00	D										22
		21.00 - 21.45	UT										
		21.50	D										
		22.00	D										23
		22.50	D										
23.00	D												
23.50	D					24							
24.00	D												
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks Hand dug ground level to 1.2m. Cable Percussive 1.2 to 25.5m. Preliminary London Clay Formation subdivisions based on visual logs only.							
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to								
200 150	10.50 14.50	5.20	3.45										



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log				Borehole No. MT-031-35f Sheet 7 of 7			
Project Name:		London Water Recycling (LWR)		Project No. GE21665		Co-ords: 517611E - 171420N		Hole Type CP	
Location:		London		Energy Ratio (%):		Level: 8.28		Scale 1:20	
Client:		Thames Water Utilities Ltd		Driller's Initial: JS		Dates: 17/01/2025 - 24/01/2025		Logged By TL	
		Rig Type: Dando 2000							
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		24.50	D		25.50	-17.22		Very stiff extremely to very closely fissured greyish brown silty CLAY. Fissures generally planar, smooth, clean and slightly polished. [Preliminary London Clay Formation Subdivision C. Unable to differentiate subunit]. LONDON CLAY FORMATION	25
		25.00 - 25.50 25.00	D SPT	N=36 (5,5/5,7,11,13)					
								End of Borehole at 25.500m	26
									27
									28
Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks Hand dug ground level to 1.2m. Cable Percussive 1.2 to 25.5m. Preliminary London Clay Formation subdivisions based on visual logs only.			
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to				
200 150	10.50 14.50	5.20	3.45						



Annex B1. Soil Chemical Data Screening

Analytical Report Number: 24-040785
Project / Site name: LWR
London Water Recycling SRO Soil Screening

Lab Sample Number										310110	310111	310333	318551	318552	319201	319202	319204	319205	319206	319207	324860	324861	348504	348505	348506	348507	348508	322823	322824	381763	379636										
Sample Reference										MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-003	MT-003	MT-003	MT-003	MT-005	MT-005	MT-022-35	MT-022-35	MT-022-35	MT-022-35	MT-022-35	MT-022-35	MT-004	MT-004	MT-028-35	MT-030-35									
Sample Number										None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	ES	ES	ES	ES	ES	ES	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	ES	ES	None Supplied	None Supplied										
Depth (m)										9.00	11.50	13.70	2.00	5.00	0.30	1.20	0.50	3.70	7.70	11.70	0.30	1.20	0.30	1.20	4.00	7.00	10.00	7.50	9.50	0.3	0.30										
Date Sampled										05/09/2024	05/09/2024	08/09/2024	04/09/2024	04/09/2024	03/09/2024	03/09/2024	12/09/2024	12/09/2024	13/09/2024	13/09/2024	19/09/2024	19/09/2024	09/10/2024	09/10/2024	09/10/2024	09/10/2024	09/10/2024	17/09/2024	17/09/2024	28/10/2024	06/11/2024										
Time Taken										None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied									
Analytical Parameter (Soil Analysis)										GAC Public Open Space Residential	GAC Commercial/Industrial	Test Accreditation Status	Test Limit of detection	Units <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																											
Stone Content										%	0.1	NONE				< 0.1	25.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	63.3	24.1	42.5	56.5	54	< 0.1	18.2								
Moisture Content										%	0.01	NONE				11	13	15	16	16	6.6	19	2.9	16	18	15	3.6	14	12	6.7	5.3	9.9	8.1	6.4	7	13	11				
Total mass of sample received										kg	0.1	NONE				1.2	1.2	1.3	0.8	0.8	0.9	0.9	0.9	1.2	0.9	1.2	2	2	1.1	1.1	1	1.1	1.3	1.1	1.1	0.5	0.7				

Asbestos																															
Asbestos in Soil Detected/Not Detected					Type	N/A	ISO 17025			Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID					N/A	N/A	N/A			JSW	JSW	MWI	DSA	DSA	MJN	MJN	SSZ	SSZ	SSZ	SSZ	WEM	WEM	KSZ	KSZ	KSZ	KSZ	KSZ	KWB	KWB	PDO	PDO

General Inorganics																													
	pH Units	N/A	MCERTS			7.7	7.5	8	7.6	8.3	8	7.9	7.4	7.3	7.8	7.6	8.3	6.6	7.3	7.6	7.8	8.4	8.7	7.8	7.4	8.9	8		
pH (L099)																													
Total Cyanide	mg/kg	1	MCERTS			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0			
Free Cyanide	mg/kg	1	MCERTS			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0			
Thiocyanate as SCN	mg/kg	5	NONE			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS			1000	86	140	2100	1200	230	3600	190	84	110	160	160	4500	84	9.1	30	16	32	120	62	200	34		
Water Soluble SO4 16hr extraction (2:1)	mg/l	1.25	MCERTS			510	43	67.9	1060	587	115	1790	95.5	42	53.6	79.5	79.3	2270	41.7	4.55	15.2	7.9	16.1	62.3	31	102	17.2		
Ammoniacal Nitrogen as N	mg/kg	0.5	MCERTS			24	< 0.5	1.6	11	12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	52	< 0.5	< 0.5	< 0.5	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			
Organic Matter (automated)	%	0.1	MCERTS			2	0.7	0.3	1.2	1.3	2.2	1.3	1.2	2.8	3.1	3.8	0.6	1	4.7	0.7	< 0.1	< 0.1	< 0.1	< 0.1	0.3	1.9	2.5		
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS						0.7	0.7	1.3	0.7	0.7	1.6	1.8	2.2	0.3	0.6	2.7	0.4	< 0.1	< 0.1	< 0.1	< 0.1	0.2	1.1	1.5		

Phenols by HPLC																												
Catechol	mg/kg	0.1	MCERTS			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Resorcinol	mg/kg	0.1	MCERTS			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Cresols (o-, m-, p-)	mg/kg	0.3	MCERTS	160000		< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Total Naphthols (sum of 1- and 2- Naphthol)	mg/kg	0.2	MCERTS			< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
2-Isopropylphenol	mg/kg	0.1	MCERTS			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenol	mg/kg	0.1	MCERTS	440	440	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trimethylphenol (2,3,5-)	mg/kg	0.1	MCERTS			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Xylenols and Ethylphenols	mg/kg	0.4	MCERTS			< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40

Total Phenols																													
Total Phenols (HPLC)					mg/kg	1.4	NONE	440	440	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4

Speciated PAHs																														
Naphthalene	mg/kg	0.05	MCERTS			0.14	1.4	< 0.05	< 0.05	0.06	< 0.05	0.09	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	5.5	0.74
Acenaphthylene	mg/kg	0.05	MCERTS	83000	15000	0.09	< 0.05	< 0.05	< 0.05	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	8.7	1.9
Acenaphthene	mg/kg	0.05	MCERTS	84000	15000	0.24	4.8	< 0.05	< 0.05	0.25	0.12	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	3.6	0.38
Fluorene	mg/kg	0.05	MCERTS	6300	9900	0.17	2.9	< 0.05	< 0.05	0.34	0.08	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	8.1	0.6
Phenanthrene	mg/kg	0.05	MCERTS	22000	3100	1.9	19	< 0.05	0.42	2.8	1	0.18	0.13	0.12	0.22	0.12	0.53	0.1	0.57	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	65	12
Anthracene	mg/kg	0.05	MCERTS	520000	74000	0.48	3.2	< 0.05	0.1	0.62	0.19	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	< 0.05	0.09	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	20	3
Fluoranthene	mg/kg	0.05	MCERTS	23000	31000	4.1	21	0.09	0.91	3.7	1.3	0.35	0.29	0.19	0.43	0.14	1.2	0.2	1.9	0.08	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	94	31
Pyrene	mg/kg	0.05	MCERTS	54000	7400	3.6	18	0.09	0.82	2.9	1.2	0.32	0.25	0.17	0.4	0.13	0.99	0.18	1.8	0.11	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	79	26
Benzo(a)anthracene	mg/kg	0.05	MCERTS	170	29	1.7	7.4	< 0.05	0.4	1.2	0.59	0.13	0.13	0.12	0.2	0.08	0.45	0.07	0.85	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	43	17
Chrysene	mg/kg	0.05	MCERTS	350	57	1.7	6.9	< 0.05	0.41	1.3	0.6	0.17	0.13	0.11	0.26	0.08	0.42	0.07	0.9	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	34	14
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	44	7.1	2	8.7	< 0.05	0.46	1.3	0.69	0.19	0.12	0.15	0.34	0.12	0.63	0.09	1.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	45	19
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1200	190	1	3	< 0.05	0.26	0.58	0.36	0.09	0.08	0.05	0.16	< 0.05	0.23	< 0.05	0.56	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	21	11
Benzo(a)pyrene	mg/kg	0.05	MCERTS	77	10	2	7.6	< 0.05	0.44	1.2	0.64	0.17	0.11	0.1	0.27	< 0.05	0.49	< 0.05	0.93	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	41	19
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	500	82	1.1	3.9	< 0.05	0.25	0.6	0.35	0.1	0.09	0.08	0.18	0.06	0.23	0.05	0.73	0.07	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	22	10
Dibenzo(a,h)anthracene	mg/kg	0.05	MCERTS	3.5	0.57	0.21	0.86	< 0.05	< 0.05	0.11	0.07	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.25	< 0.05	0.27	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	4.5	2.8
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	3900	640	1.3	4.4	< 0.05	0.27	0.67	0.41	0.11	0.1	0.07	0.22	0.08	0.27	0.06	0.93	0.09	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	23	11

Analytical Report Number: 24-040785
Project / Site name: LWR
London Water Recycling SRO Soil Screening

Lab Sample Number					310110	310111	310333	318551	318552	319201	319202	319204	319205	319206	319207	324860	324861	348504	348505	348506	348507	348508	322823	322824	381763	379636
Sample Reference					MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-003	MT-003	MT-003	MT-003	MT-005	MT-005	MT-022-35	MT-022-35	MT-022-35	MT-022-35	MT-022-35	MT-004	MT-004	MT-028-35	MT-030-35
Sample Number					None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	ES	ES	ES	ES	ES	ES	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	ES	ES	None Supplied	None Supplied
Depth (m)					9.00	11.50	13.70	2.00	5.00	0.30	1.20	0.50	3.70	7.70	11.70	0.30	1.20	0.30	1.20	4.00	7.00	10.00	7.50	9.50	0.3	0.30
Date Sampled					05/09/2024	05/09/2024	08/09/2024	04/09/2024	04/09/2024	03/09/2024	03/09/2024	12/09/2024	12/09/2024	13/09/2024	13/09/2024	19/09/2024	19/09/2024	09/10/2024	09/10/2024	09/10/2024	09/10/2024	09/10/2024	17/09/2024	17/09/2024	28/10/2024	06/11/2024
Time Taken					None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)																										
	Units	Test Limit of detection	Test Accreditation Status	Commercial / Industrial	GAC	GAC Public Open Space Residential																				

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	640	79	16	4.7	16	14	13	14	10	13	15	13	12	14	12	20	11	18	21	13	25	11	12	15
Barium (aqua regia extractable)	mg/kg	1	MCERTS	22000		130	50	81	75	60	130	74	50	130	110	100	28	45	130	41	18	20	7.9	29	28	190	110
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	12	2.2	0.86	0.63	1.1	1	1	0.88	1.1	0.62	0.87	0.73	0.76	0.47	1.3	1.8	0.54	0.41	0.52	0.37	0.73	0.51	1.3	0.52
Boron (water soluble)	mg/kg	0.2	MCERTS	240000	21000	1.8	0.6	0.7	1.6	2.2	0.9	3	0.4	1.9	1.3	2.8	0.5	1.8	1.1	0.7	0.4	0.3	0.3	0.4	0.5	1.1	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	410	220	1.6	< 0.2	< 0.2	0.7	0.3	1.1	0.7	< 0.2	0.3	0.3	< 0.2	< 0.2	0.2	0.4	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.4
Chromium (hexavalent)	mg/kg	1.8	MCERTS	49	21	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	8600	1500	40	25	46	42	37	39	49	20	21	18	20	19	51	19	17	14	16	16	30	18	41	22
Copper (aqua regia extractable)	mg/kg	1	MCERTS	68000	12000	80	10	19	43	28	55	36	16	52	43	27	51	12	51	12	4	3.6	2.8	7	5.4	43	54
Iron (aqua regia extractable)	mg/kg	40	MCERTS			35000	15000	46000	41000	40000	30000	37000	24000	24000	19000	20000	25000	49000	32000	22000	27000	34000	24000	44000	23000	24000	33000
Lead (aqua regia extractable)	mg/kg	1	MCERTS	2300	630	120	14	13	54	56	110	33	38	430	240	210	17	18	770	29	4.8	5.9	4	7.6	5.4	70	220
Manganese (aqua regia extractable)	mg/kg	1	MCERTS			260	58	400	270	270	390	260	370	730	380	290	150	260	460	390	440	380	180	440	260	700	270
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1100	120	0.8	< 0.3	< 0.3	< 0.3	< 0.3	0.6	< 0.3	0.5	1.6	1.5	1.2	< 0.3	< 0.3	0.9	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	0.6
Molybdenum (aqua regia extractable)	mg/kg	0.25	MCERTS	17000		1	< 0.25	1	0.78	0.64	1	0.52	0.77	1.2	0.96	1	0.55	0.53	1.4	0.55	0.8	0.73	1.2	0.92	0.4	3.9	0.66
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	980	230	29	12	32	35	33	28	33	17	19	16	17	15	44	24	11	16	19	14	27	17	23	19
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	12000	1100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	9000	2000	52	26	79	66	65	52	69	36	42	36	38	36	85	42	33	27	46	29	61	30	45	60
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	730000	81000	250	40	76	100	92	140	97	47	92	82	74	39	81	91	35	19	25	17	35	22	110	100

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS,ID,AL}	mg/kg	0.01	MCERTS	3200	570000	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS,ID,AL}	mg/kg	0.01	MCERTS	7800	600000	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS,ID,AL}	mg/kg	0.01	MCERTS	2000	13000	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH,OU,ID,AL}	mg/kg	1	MCERTS	9700	13000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH,OU,ID,AL}	mg/kg	2	MCERTS	59000	13000	6.1	< 2.0	< 2.0	< 2.0	2.3	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH,OU,ID,AL}	mg/kg	8	MCERTS	1600000	250000	17	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH,OU,ID,AL}	mg/kg	8	MCERTS	160000	250000	47	< 8.0	< 8.0	8.8	17	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	16	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	35
TPHCWG - Aliphatic >EC35 - EC44 _{EH,OU,ID,AL}	mg/kg	8.4	NONE	1600000	250000	13	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	29
TPHCWG - Aliphatic >EC5 - EC35 _{EH,OU+HS,ID,AL}	mg/kg	10	NONE			70	< 10	< 10	< 10	19	< 10	< 10	< 10	< 10	< 10	< 10	< 10	16	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	38
TPHCWG - Aliphatic >EC5 - EC44 _{EH,OU+HS,ID,AL}	mg/kg	10	NONE			83	< 10	< 10	< 10	19	< 10	< 10	< 10	< 10	< 10	< 10	< 10	16	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	67

TPHCWG - Aromatic >EC5 - EC7 _{HS,ID,AR}	mg/kg	0.01	MCERTS	26000	3800	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS,ID,AR}	mg/kg	0.01	MCERTS	56000	56000	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS,ID,AR}	mg/kg	0.02	MCERTS	3500	5000	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH,OU,ID,AR}	mg/kg	1	MCERTS	16000	5000	< 1.0	2.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.8	1.4
TPHCWG - Aromatic >EC12 - EC16 _{EH,OU,ID,AR}	mg/kg	2	MCERTS	36000	5100	< 2.0	16	< 2.0	< 2.0	4.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	40	5.8
TPHCWG - Aromatic >EC16 - EC21 _{EH,OU,ID,AR}	mg/kg	10	MCERTS	28000	3800	13	67	< 10	< 10	14	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	290	71
TPHCWG - Aromatic >EC21 - EC35 _{EH,OU,ID,AR}	mg/kg	10	MCERTS	28000	3800	27	71	< 10	< 10	27	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	320	140
TPHCWG - Aromatic >EC35 - EC44 _{EH,OU,ID,AR}	mg/kg	8.4	NONE	28000	3800	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	63	28
TPHCWG - Aromatic >EC5 - EC35 _{EH,OU+HS,ID,AR}	mg/kg	10	NONE			39	160	< 10	< 10	46	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	650	220
TPHCWG - Aromatic >EC5 - EC44 _{EH,OU+HS,ID,AR}	mg/kg	10	NONE			39	160	< 10	< 10	46	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	720	250

Analytical Report Number: 24-040785
Project / Site name: LWR
London Water Recycling SRO Soil Screening

Lab Sample Number					310110	310111	310333	318551	318552	319201	319202	319204	319205	319206	319207	324860	324861	348504	348505	348506	348507	348508	322823	322824	381763	379636
Sample Reference					MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-019-35	MT-003	MT-003	MT-003	MT-003	MT-005	MT-005	MT-022-35	MT-022-35	MT-022-35	MT-022-35	MT-022-35	MT-004	MT-004	MT-028-35	MT-030-35
Sample Number					None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	ES	ES	ES	ES	ES	ES	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	ES	ES	None Supplied	None Supplied
Depth (m)					9.00	11.50	13.70	2.00	5.00	0.30	1.20	0.50	3.70	7.70	11.70	0.30	1.20	0.30	1.20	4.00	7.00	10.00	7.50	9.50	0.3	0.30
Date Sampled					05/09/2024	05/09/2024	08/09/2024	04/09/2024	04/09/2024	03/09/2024	03/09/2024	12/09/2024	12/09/2024	13/09/2024	13/09/2024	19/09/2024	19/09/2024	09/10/2024	09/10/2024	09/10/2024	09/10/2024	09/10/2024	17/09/2024	17/09/2024	28/10/2024	06/11/2024
Time Taken					None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)																										
		Units	Test Limit of detection	Test Accreditation	Commercial / Industrial	GAC	GAC Public Open Space Residential																			

VOCs

Chloromethane	µg/kg	5	MCERTS	1000		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	µg/kg	5	MCERTS	960000		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromomethane	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	µg/kg	5	NONE	1100	7800	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichlorofluoromethane	µg/kg	5	NONE			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	µg/kg	5	NONE	26000	300000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trans 1,2-dichloroethylene	µg/kg	5	NONE	22000		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	790000		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	28000		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2,2-Dichloropropane	µg/kg	5	NONE			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	660000	140000000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	µg/kg	5	ISO 17025	12000	300000	< 5.0	< 5.0	< 5.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0
1,1-Dichloropropene	µg/kg	5	ISO 17025	3300		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	14000		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	27000	140000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbontetrachloride	µg/kg	5	NONE	2900	890000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	µg/kg	5	ISO 17025	3300		< 5.0	< 5.0	< 5.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0
Trichloroethene	µg/kg	5	ISO 17025	730	2500000	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10 **	< 10 **	< 10 **	< 10 **	< 10 **	< 5.0	< 5.0	< 10	< 10	< 10	< 10	< 10	< 5.0	< 5.0	< 10
Dibromomethane	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromodichloromethane	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 5.0	< 5.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	µg/kg	5	MCERTS	56000	56000000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	94000		< 5.0	< 5.0	< 5.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 5.0	< 5.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0
1,3-Dichloropropane	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Dibromochloromethane	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Tetrachloroethene	µg/kg	5	NONE	24000	3200000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dibromoethane	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	µg/kg	5	ISO 17025	56000	11000000	< 5.0	< 5.0	< 5.0	26	< 5.0	< 5.0	26	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	110000	1400000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	5700000	24000000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	5900000	41000000	< 5.0	< 5.0	< 5.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 5.0	< 5.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
Styrene	µg/kg	5	ISO 17025	3300000		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromoform	µg/kg	5	NONE	760000		< 5.0	< 5.0	< 5.0	< 5.0 **	< 5.0 **	< 5.0 **	< 5.0 **	< 5.0 **	< 5.0 **	< 5.0 **	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	6600000	41000000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	1400000		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	270000	1400000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromobenzene	µg/kg	5	NONE	97000		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
n-Propylbenzene	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Chlorotoluene	µg/kg	5	ISO 17025			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Chlorotoluene	µg/kg	5	ISO 17																						

Project / Site name: LWR
London Water Recycling SRO Soil Screening

[illegible]

Aniline	mg/kg	0.1	NONE				< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025				< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS				< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS				< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	30	300		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	2000	90000		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	4400	17000		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS				< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS				< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	ISO 17025				< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS				< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE				< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS				< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	NONE				< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	16000			< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS				< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	220	15000																			

Exceedence of Commercial/Industrial GAC

Exceedence of Public Open Space Residential GAC

concentration is less than the detection limit

