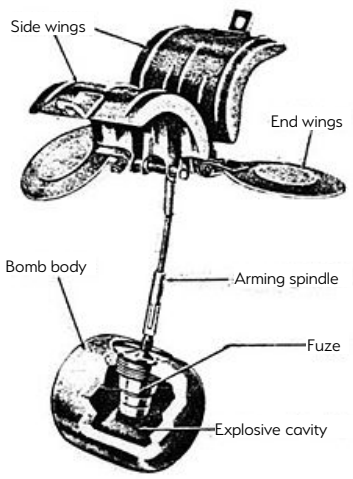
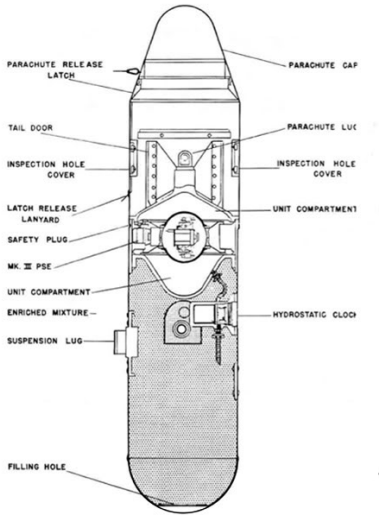
SD2 Anti-Personnel 'Butterfly Bomb'

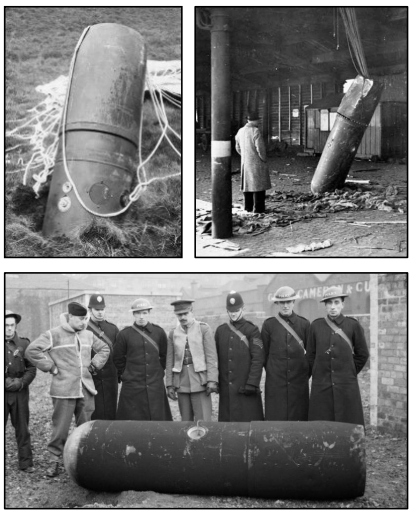
Bomb Weight	Approx. 2kg (4.41lb)
Explosive Weight	Approx. 7.5oz (225 grams) of Amatol surrounded by a layer of bituminous composition.
Fuze Type	41 fuze (time) , 67 fuze (clockwork time delay) or 70 fuze (anti-handling device)
Body Diameter	3in (7.62 cm) diameter, 3.1in (7.874) long
Use	Designed as an anti-personnel/fragmentation weapon. They were delivered by air, being dropped in containers of 23-144 sub-munitions that opened at a predetermined height, thus scattering the bombs.
Remarks	Quite rare. First used against Ipswich in 1940, but were also dropped on Kingston upon Hull, Grimsby and Cleethorpes in June 1943, amongst various other targets in UK. As the bombs fell the outer case flicked open via springs which caused four light metal drogues with a protruding 5 inch steel cable to deploy in the form of a parachute & wind vane, which armed the device as it span.



Parachute Mine (Luftmine B / LMB)

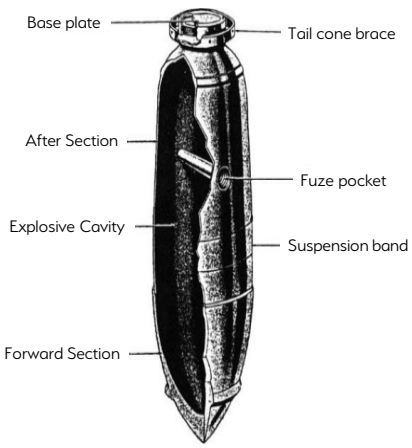
Bomb Weight	Approx. 990kg (2176lb)
Explosive Weight	Approx. 705kg (1,554lb)
Fuze Type	Impact/time delay/hydrostatic pressure fuze
Dimensions	2.64m x 0.64m (3.04m with parachute housing)
Use	Against civilian, military and industrial targets. Used as blast bombs and designed to detonate above ground level to maximise damage to a wider area.
Remarks	Deployed a parachute when dropped in order to control its descent. Had the potential to cause extensive damage within a 100m radius.





SC 1000kg High Explosive Bomb

Bomb Weight	Approx. 993-1027kg (2,189-2,264lb)
Explosive Weight	Approx. 530-620kg (1168-1367lb)
Fuze Type	Electrical impact/mechanical time delay fuze.
Filling	Mixture of 40% amatol and 60% TNT, but when used as an anti-shipping bomb it was filled with Trialen 105, a mixture of 15% RDX, 70% TNT and 15% aluminium powder.
Bomb Dimensions	2800 x 654mm (110 x 25.8in)
Body Diameter	654mm (18.5in)
Use	SC-type bombs were General Purpose Bombs used primarily for general demolition work. Constructed of parallel walls with comparatively heavy noses, they are usually of three-piece welded construction.



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Client: Concept Engineering Consultants Ltd

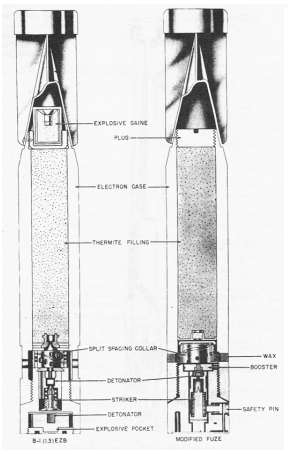
Project: Thorney Lane, Iver

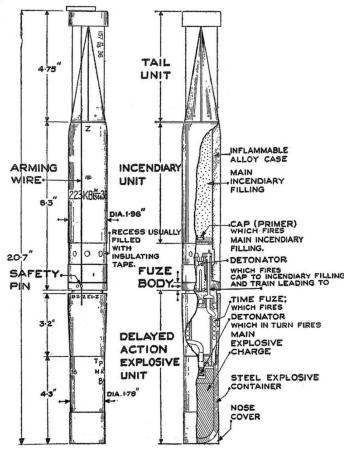
Ref: DA20371-00

Source: Various sources

1kg Incendiary Bomb

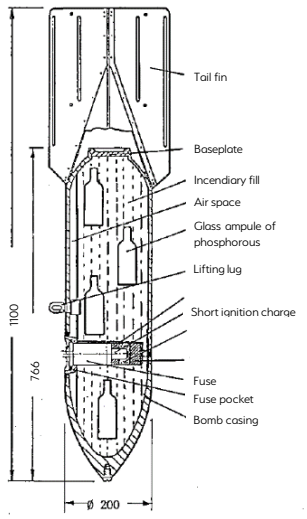
Bomb Weight	Approx. 1.0 - 1.3kg (2.2 and 2.9lb)
Explosive Weight	Approx. 680g (1.5lb) Thermite 8-15gm Explosive Nitropenta
Fuze Type	Impact fuze
Bomb Dimensions	350 x 50mm (13.8 x 1.97in)
Body Diameter	50mm (1.97in)
Use	As incendiary – dropped in clusters on towns and industrial complexes.
Remarks	Magnesium alloy case. Sometimes fitted with high explosive charge. The body is a cylindrical alloy casting threaded internally at the nose to receive the fuze holder and fuze.

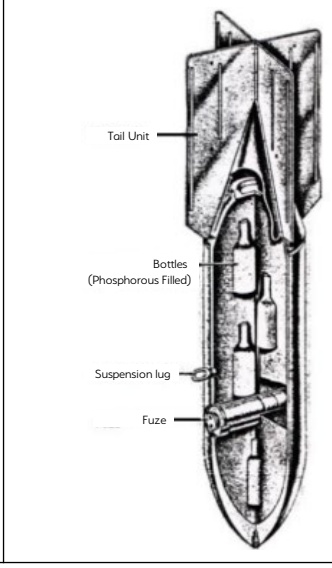




C50 A Incendiary Bomb

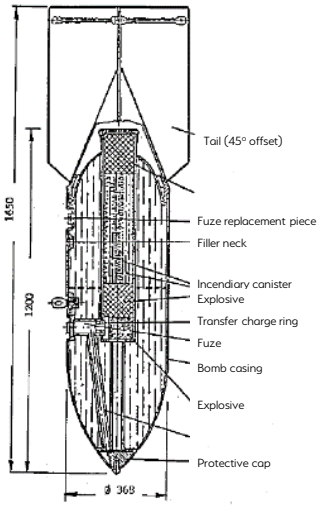
Bomb Weight	Approx. 41kg (90.4lb)
Explosive Weight	Approx. 0.03kg (0.066lb)
Incendiary Filling	12kg (25.5lb) liquid filling with phosphor igniters in glass phials. Benzine 85%; Phosphorus 4%; Pure Rubber 10%
Fuze Type	Electrical impact fuze
Bomb Dimensions	1,100 x 280mm (43.2 x 8in)
Use	Against any targets where an incendiary effect is required.
Remarks	Early fill was a phosphorous/carbon disulphide incendiary mixture.





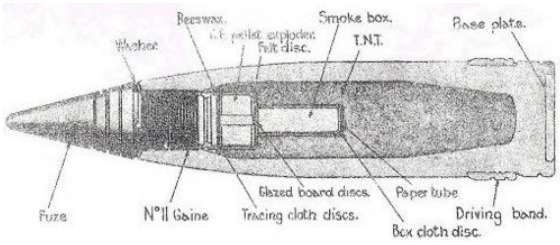
Flam C-250 Oil Bomb

Bomb Weight	480-520kg (1,058-1,146lb)
Explosive Weight	250-260kg (551-573lb)
Fuze Type	Electrical impact/mechanical time delay fuze
Bomb Dimensions	1957 x 640mm (77 x 25.2in)
Body Diameter	470mm (18.5in)
Use	Against fixed airfield installations, hangars, assembly halls, flyovers, underpasses, high-rise buildings and below-ground installations.
Remarks	40/60 or 50/50 Amatol TNT, Trialene. Bombs recovered with Trialen filling have cylindrical paper-wrapped pellets, 1-15/16in. in length and diameter.



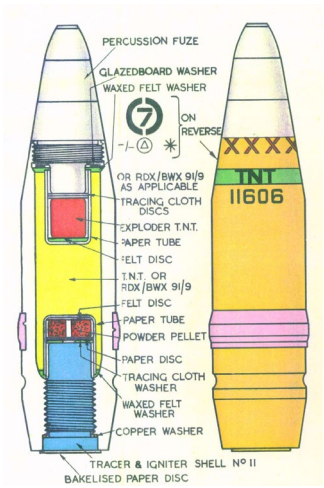
3.7 Inch QF Anti-Aircraft Projectile

Projectile Weight	28lb (12.6 kg)
Explosive Weight	2.52lbs
Fuze Type	Mechanical Time Fuze
Dimensions	3.7in x 14.7in (94mm x 360mm)
Rate of Fire	10 to 20 rounds per minute
Use	The 3.7in AA Mks 1-3 were the standard Heavy Anti-Aircraft guns of the British Army and were commonly used on the Home Front.
Ceiling	30,000ft to 59,000ft



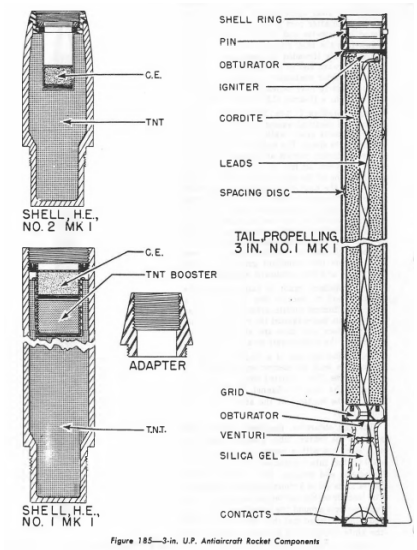
40mm Bofors Projectile

Projectile Weight	1.96lb (0.86kg)
Explosive Weight	300g (0.6lb)
Fuze Type	Impact Fuze
Rate of Fire	120 rounds per minute
Projectile Dimensions	40 x 180mm
Ceiling	23,000ft (7000m)
Remarks	Light quick fire high explosive anti-aircraft projectile. Each projectile fitted with small tracer element. If no target hit, shell would explode when tracer burnt out. Designed to engage aircraft flying below 2,000ft.



3in Unrotated Projectile (UP) Anti-Aircraft Rocket ("Z" Battery)

HE Projectile Weight	3.4kg (7.6lb)
Explosive Weight	0.96kg (2.13lb)
Filling	High Explosive – TNT. Fitted with aerial burst fuzing
Dimensions of projectile	236 x 83mm (9.29 x 3.25in)
Remarks	As a short range rocket-firing anti-aircraft weapon developed for the Royal Navy. It was used extensively by British ships during the early days of World War II. The UP was also used in ground-based single and 128-round launchers known as Z Batteries. Shell consists of a steel cylinder reduced in diameter at the base and threaded externally to screw into the shell ring of the rocket motor.



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1ST LINE DEFENCE

Front cover image credit: London Bomb Census Mapping, The National Archives (HO 193)

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B.2 Concept 2024 Additional GI factual report

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

06/02/2025

Dear Sirs,

Re: 24/3980 Thorney Lane Phase 1 Due Diligence

This letter/report is in addition to the factual report with reference 24/3980-GIR-FR01 Issue 02, dated 16/12/2024 and summarises all additional postfield works and sampling works carried out at:

Site Location:	Thorney Business Park Thorney Lane Iver, SL0 9HE
Client:	ARUP
Additional Postfield Works:	29/10/2024-13/11/2024

1. Permeability Tests

12 No. Falling Head Tests and 15 No. Rising Head Test were carried out in all the boreholes in the installations in accordance with BS 5930:2015+A1:2020 as follows:

Table 1 – Permeability Testing Schedule

Hole ID	Measured base of the RZ (m bgl)	Response Zone		Type of Test	Date
		Top (m bgl)	Bottom (m bgl)		
DS24-03	3.00	1.00	3.00	RHT	29/10/2024
DS24-03	3.00	1.00	3.00	FHT	29/10/2024
DS24-07	1.64	0.75	1.60	RHT	30/10/2024

Hole ID	Measured base of the RZ (m bgl)	Response Zone		Type of Test	Date
		Top (m bgl)	Bottom (m bgl)		
DS24-07	1.64	0.75	1.60	FHT	30/10/2024
BH24-10	3.90	1.00	4.00	RHT (X3)	30/10/2024
BH24-10	3.90	1.00	4.00	FHT (X2)	30/10/2024
DS24-04	2.96	1.00	3.00	RHT (X3)	31/10/2024
DS24-04	2.96	1.00	3.00	FHT (X1)	31/10/2024
BH24-09	3.00	1.00	3.00	RHT	31/10/2024
BH24-09	3.00	1.00	3.00	FHT	31/10/2024
DS24-03	3.00	1.00	3.00	RHT (X3)	11/11/2024
DS24-03	3.00	1.00	3.00	FHT (X3)	11/11/2024
BH24-10	3.90	1.00	4.00	RHT (X3)	12/11/2024
BH24-10	3.90	1.00	4.00	FHT (X3)	12/11/2024

The results of the tests are presented in Section 4.

2. Water Sampling

Additional water sampling was carried out during 6 No. rounds between the 29/10/2024 and 13/11/2024 as follows:

Round 1- 29/10/2024 to 31/10/2024:

29/10/2024: BH24-10, DS24-07 & DS24-08.

Duplicate sample taken from DS24-07 named DS24-012

Field Blank sample taken named DS24-013

30/10/2024: BH24-02 (dipped but couldn't be sampled as it was a 19mm piezo not 50mm pipe, BH24-07, DS24-01, DS24-04, DS112 & CP105

31/10/2024: BH24-09, DS24-03 & DS24-05 & 3 No. Canal Samples

Round 2- 11/11/2024 to 13/11/2024:

11/11/2024: BH24-07, BH24-09, DS24-01, DS24-04 & CP105

12/11/2024: BH24-10, DS24-05, DS24-07 & DS24-08

Duplicate sample taken from DS24-07 named DS24-014

Field Blank sample taken named DS24-015

13/11/2024: DS24-03, DS112 & 3 No. Canal Samples

The samples were retrieved using a peristaltic pump at a low pumping rate. The pump tubing was lowered to target the standpipe response zone and a dipmeter was used during purging to ensure that the pumping rate did not reduce the water level. Generally, the water level remained steady at pumping rates of 2 litres every 4 minutes. Water parameters (pH, conductivity, dissolved oxygen, temperature and Redox levels) were recorded during purging using a flow cell and a YSI Professional Probe and purging was considered complete when parameters stabilised based on 3 consecutive results. Generally the water was noted as clear and the purging complete after between 6 and 10 litres was removed. On completion of purging, the water samples were collected in seven containers, 1 x ALE 503 – 330ml Plastic Bottle, 1 x ALE 219 – 250ml Glass, 2 x ALE 204 – HNO3 – Filtered & Unfiltered and 3 x PFAS Digi Tubes). They were then transferred to Concept laboratory inside cool boxes protected by bubble wrap and kept in the fridge until collection from the chemical laboratory was arranged. Each borehole was purged and sampled using a new length of tubing.

Canal sampling was completed with a bailer.

PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

The water quality field records are presented in Section 5.

3. Laboratory Testing

All chemical testing was specified and scheduled by Arup and carried out by ALS in accordance with the requirements of UKAS ISO17025 and MCERTS.

Sample for borehole DS24-01 collected on the 30/10/2024 was unsuitable for the PFAS full suite. A detailed section on deviations can be found in the first page of the results presented in tabular format in Section 6 of this report.

Yours sincerely,

For Concept

4. PERMEABILITY TEST RESULTS

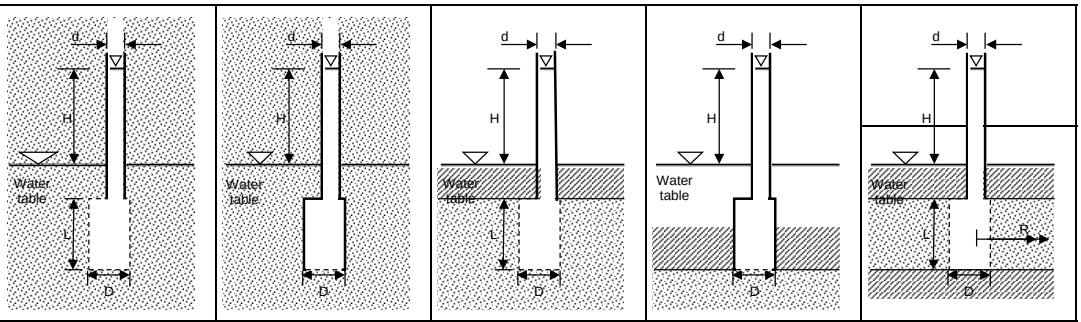
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-03**	**Test date:**	**29/10/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 1



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

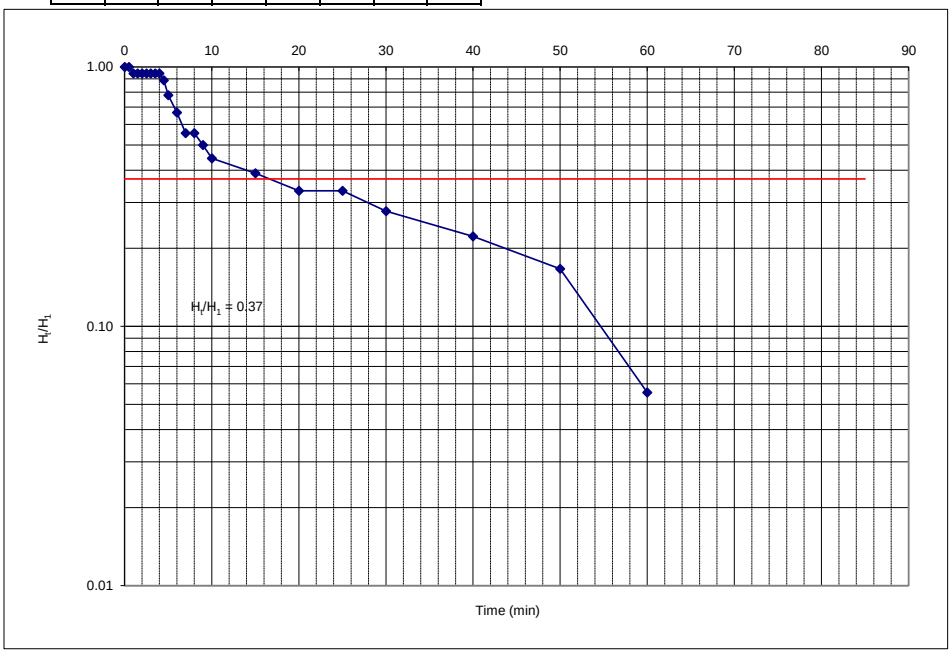
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.30	1.00
0.5	00:00:30	1.30	1.00
1	00:01:00	1.29	0.94
1.5	00:01:30	1.29	0.94
2	00:02:00	1.29	0.94
2.5	00:02:30	1.29	0.94
3	00:03:00	1.29	0.94
3.5	00:03:30	1.29	0.94
4	00:04:00	1.29	0.94
4.5	00:04:30	1.28	0.89
5	00:05:00	1.26	0.78
6	00:06:00	1.24	0.67
7	00:07:00	1.22	0.56
8	00:08:00	1.22	0.56
9	00:09:00	1.21	0.50
10	00:10:00	1.20	0.44
15	00:15:00	1.19	0.39
20	00:20:00	1.18	0.33
25	00:25:00	1.18	0.33
30	00:30:00	1.17	0.28
40	00:40:00	1.16	0.22
50	00:50:00	1.15	0.17
60	01:00:00	1.13	0.06
75	01:15:00	1.10	-0.11
85	01:25:00	1.09	-0.17

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.11	1.12		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	16.89
BASIC TIME LAG (seconds)	1013

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.00
Initial head of water, H_0	-0.18

PERMEABILITY (m/s)	**5.54E-07**

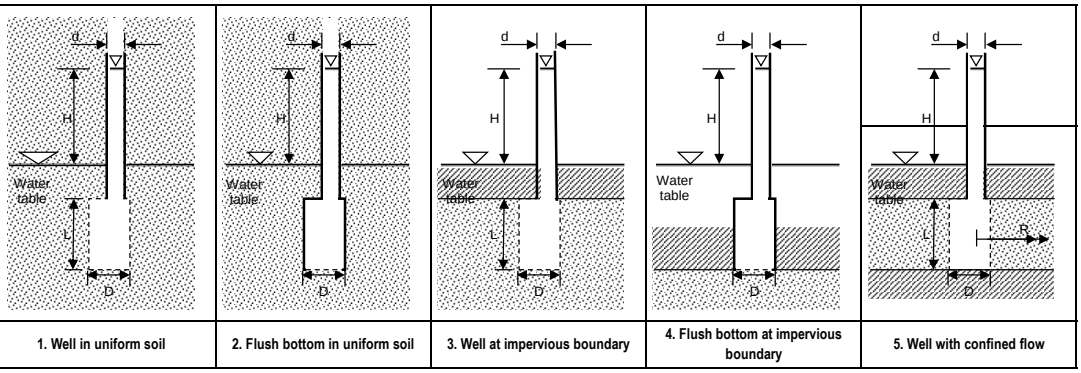
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-03**	**Test date:**	**29/10/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 2



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

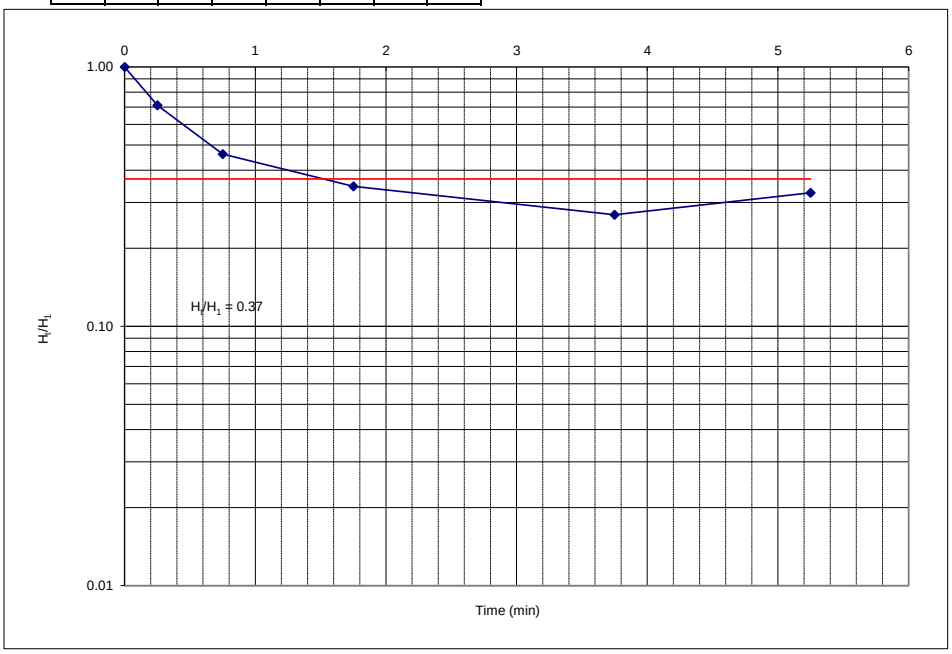
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.60	1.00
0.25	00:00:15	0.75	0.71
0.75	00:00:45	0.88	0.46
1.75	00:01:45	0.94	0.35
3.75	00:03:45	0.98	0.27
5.25	00:05:15	0.95	0.33

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.11	1.12		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	1.56
BASIC TIME LAG (seconds)	94

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.00
Initial head of water, H_0	0.52

PERMEABILITY (m/s)	**5.99E-06**

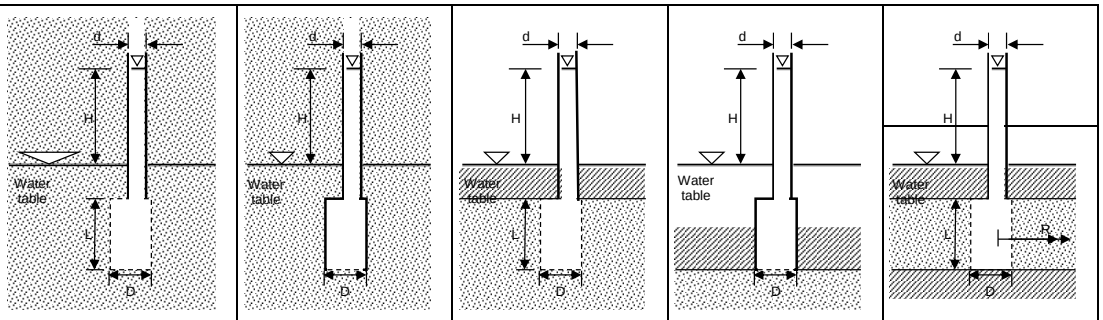
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-07**	**Test date: 30/10/2024**	**Calc. by: VP**	**Checked by:**	**DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 1



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

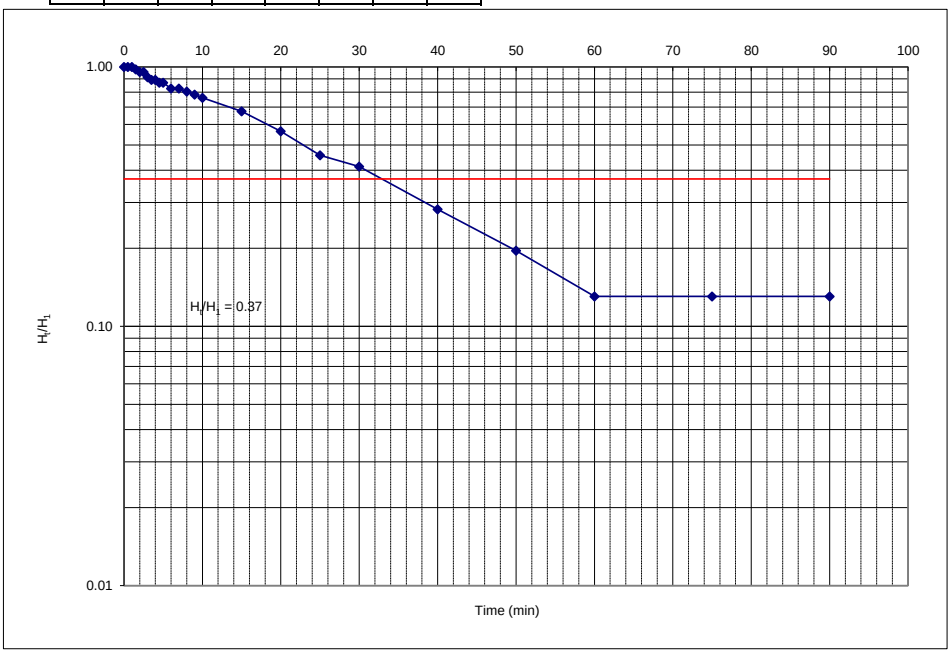
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.35	1.00
0.5	00:00:30	1.35	1.00
1	00:01:00	1.35	1.00
1.5	00:01:30	1.34	0.98
2	00:02:00	1.33	0.96
2.5	00:02:30	1.33	0.96
3	00:03:00	1.31	0.91
3.5	00:03:30	1.30	0.89
4	00:04:00	1.30	0.89
4.5	00:04:30	1.29	0.87
5	00:05:00	1.29	0.87
6	00:06:00	1.27	0.83
7	00:07:00	1.27	0.83
8	00:08:00	1.26	0.80
9	00:09:00	1.25	0.78
10	00:10:00	1.24	0.76
15	00:15:00	1.20	0.67
20	00:20:00	1.15	0.57
25	00:25:00	1.10	0.46
30	00:30:00	1.08	0.41
40	00:40:00	1.02	0.28
50	00:50:00	0.98	0.20
60	01:00:00	0.95	0.13
75	01:15:00	0.95	0.13
90	01:30:00	0.95	0.13

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
0.75	1.64	0.00	0.05	0.11	0.89		1.60

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	33.46
BASIC TIME LAG (seconds)	2008

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	0.89
Initial head of water, H_0	-0.46

PERMEABILITY (m/s)	**4.88E-07**

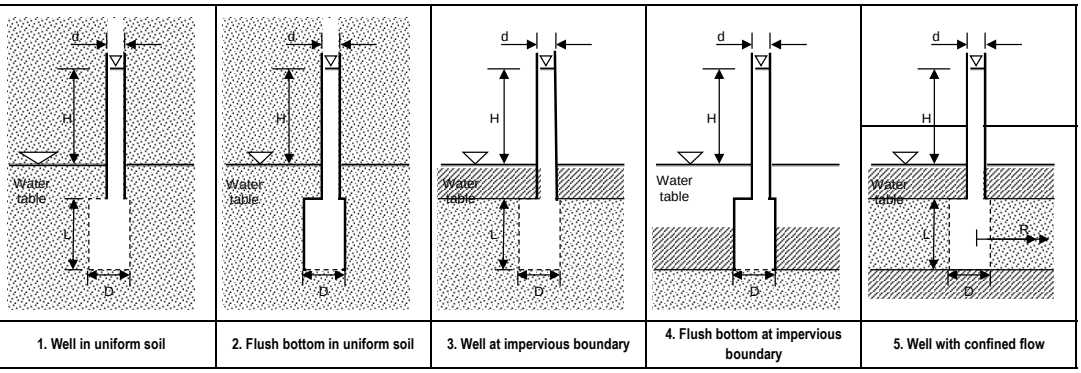
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-07**	**Test date:**	**30/10/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 2



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

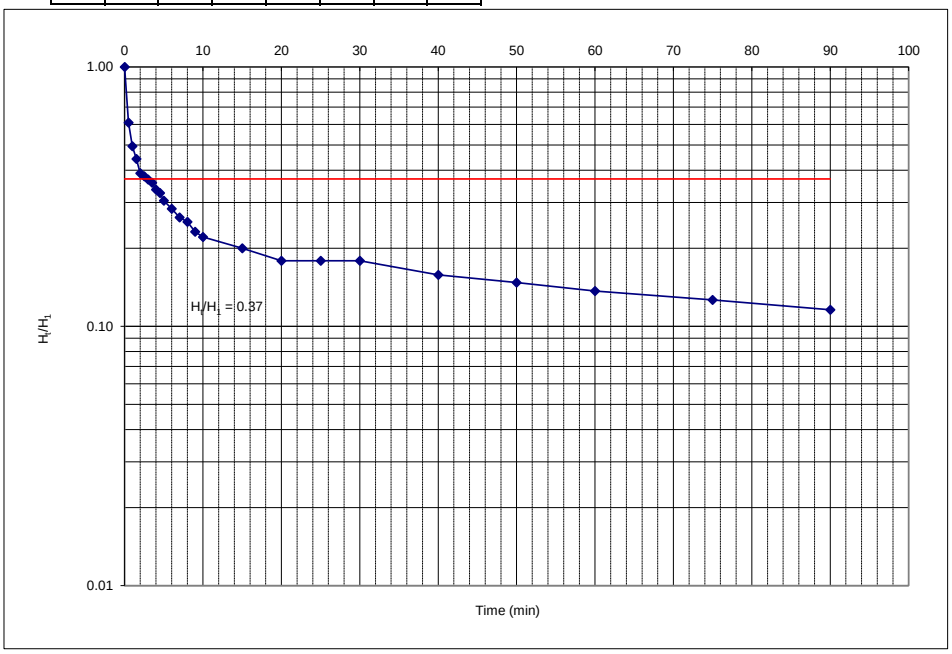
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.37	0.61
1	00:01:00	0.48	0.49
1.5	00:01:30	0.53	0.44
2	00:02:00	0.58	0.39
2.5	00:02:30	0.59	0.38
3	00:03:00	0.60	0.37
3.5	00:03:30	0.61	0.36
4	00:04:00	0.63	0.34
4.5	00:04:30	0.64	0.33
5	00:05:00	0.66	0.31
6	00:06:00	0.68	0.28
7	00:07:00	0.70	0.26
8	00:08:00	0.71	0.25
9	00:09:00	0.73	0.23
10	00:10:00	0.74	0.22
15	00:15:00	0.76	0.20
20	00:20:00	0.78	0.18
25	00:25:00	0.78	0.18
30	00:30:00	0.78	0.18
40	00:40:00	0.80	0.16
50	00:50:00	0.81	0.15
60	01:00:00	0.82	0.14
75	01:15:00	0.83	0.13
90	01:30:00	0.84	0.12

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
0.75	1.64	0.00	0.05	0.11	0.95		1.60

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph					3.03
BASIC TIME LAG (seconds)					182
IF H_t/H_0=0.37 NOT REACHED	minutes	seconds		m	
CHOOSE T1 (seconds)			H_1/H_0 FOR T1		
CHOOSE T2 (seconds)			H_2/H_0 FOR T2		

CALCULATED VALUES

Length of test section, L	0.89
Initial head of water, H_0	0.95
PERMEABILITY (m/s)	**5.39E-06**

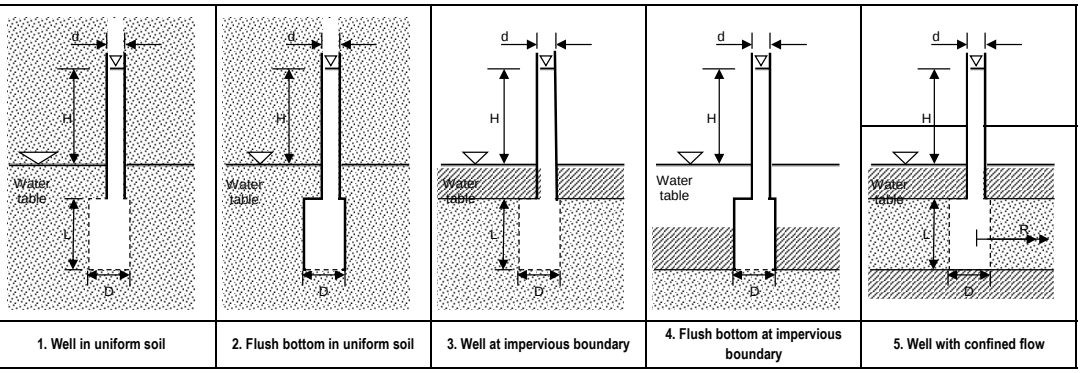
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date:**	**30/10/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 1



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

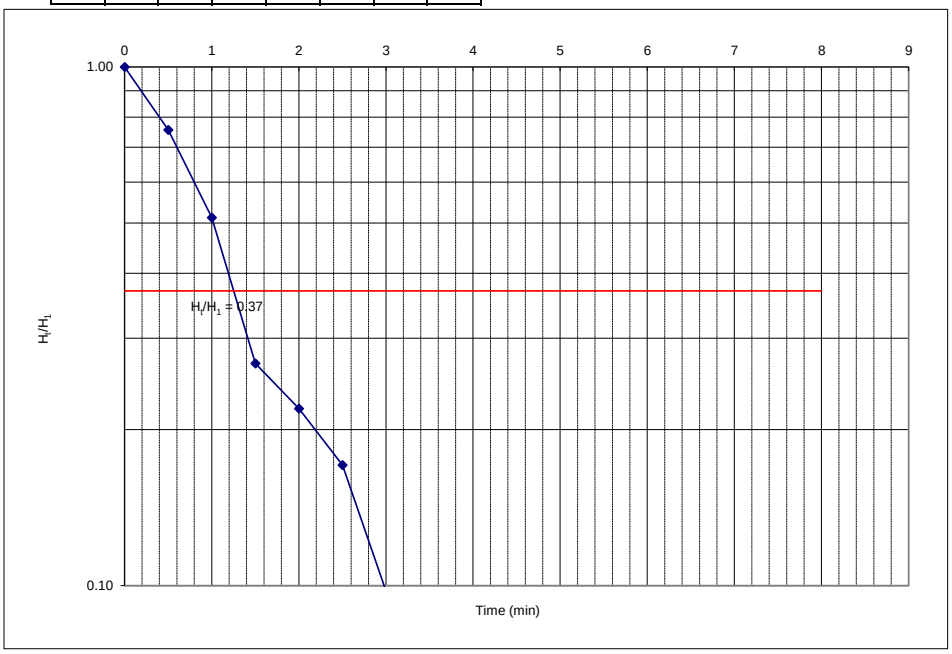
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.50	1.00
0.5	00:00:30	1.40	0.76
1	00:01:00	1.30	0.51
1.5	00:01:30	1.20	0.27
2	00:02:00	1.18	0.22
2.5	00:02:30	1.16	0.17
3	00:03:00	1.13	0.10
3.5	00:03:30	1.12	0.07
4	00:04:00	1.10	0.02
4.5	00:04:30	1.09	0.00
5	00:05:00	1.09	0.00
6	00:06:00	1.08	-0.02
7	00:07:00	1.07	-0.05
8	00:08:00	1.06	-0.07

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.09		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph					1.30
BASIC TIME LAG (seconds)					78
IF H_t/H_0=0.37 NOT REACHED	minutes	seconds		m	
CHOOSE T1 (seconds)			H_1/H_0 FOR T1		
CHOOSE T2 (seconds)			H_2/H_0 FOR T2		

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	-0.41
PERMEABILITY (m/s)	**4.67E-06**

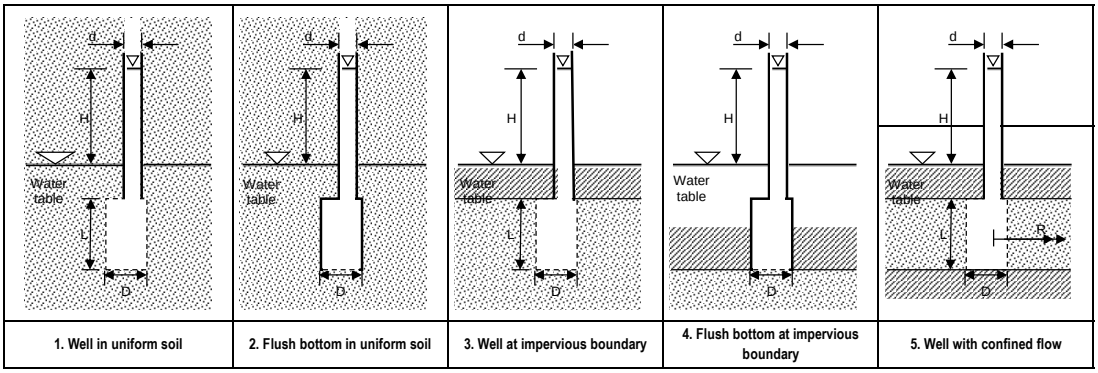
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date: 30/10/2024**	**Calc. by: VP**	**Checked by:**	**DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 2



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

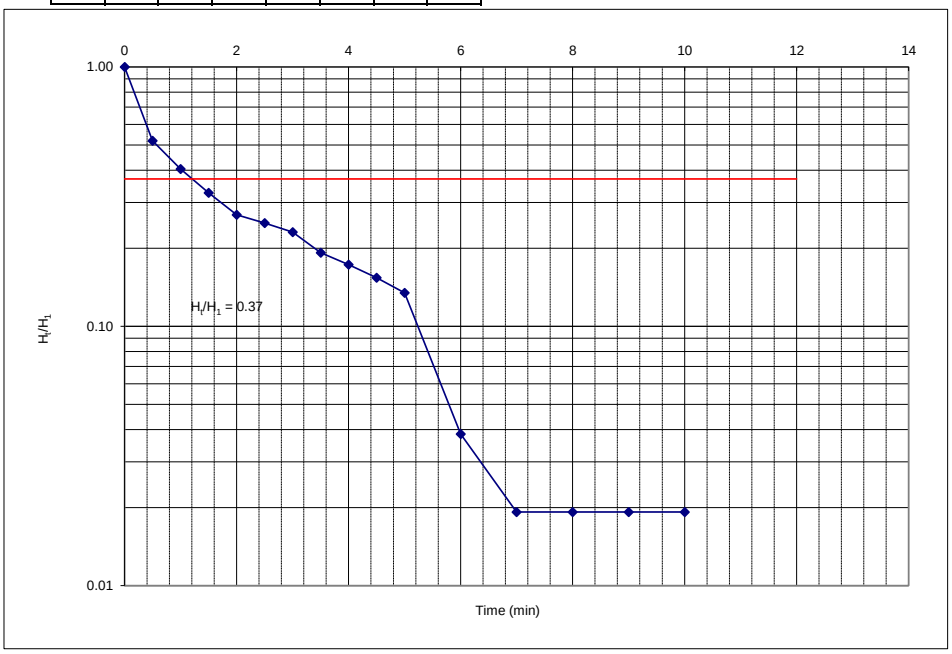
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.60	1.00
0.5	00:00:30	1.35	0.52
1	00:01:00	1.29	0.40
1.5	00:01:30	1.25	0.33
2	00:02:00	1.22	0.27
2.5	00:02:30	1.21	0.25
3	00:03:00	1.20	0.23
3.5	00:03:30	1.18	0.19
4	00:04:00	1.17	0.17
4.5	00:04:30	1.16	0.15
5	00:05:00	1.15	0.13
6	00:06:00	1.10	0.04
7	00:07:00	1.09	0.02
8	00:08:00	1.09	0.02
9	00:09:00	1.09	0.02
10	00:10:00	1.09	0.02
12	00:12:00	1.08	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.08		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	1.23
BASIC TIME LAG (seconds)	74

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	-0.52

PERMEABILITY (m/s)	**4.90E-06**

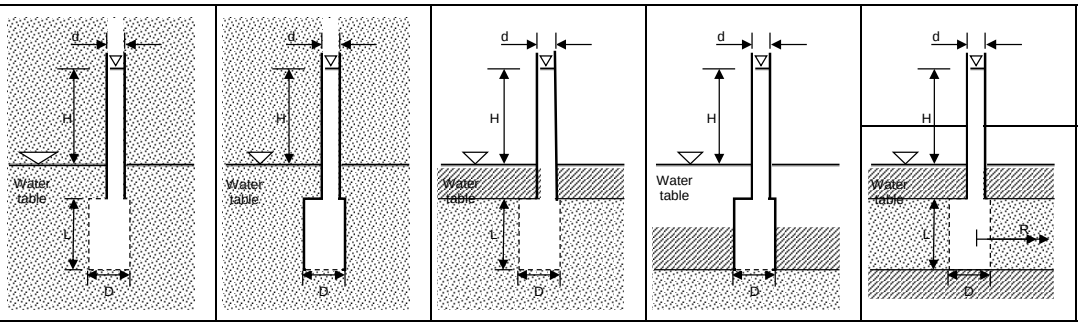
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date:**	**30/10/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 3



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

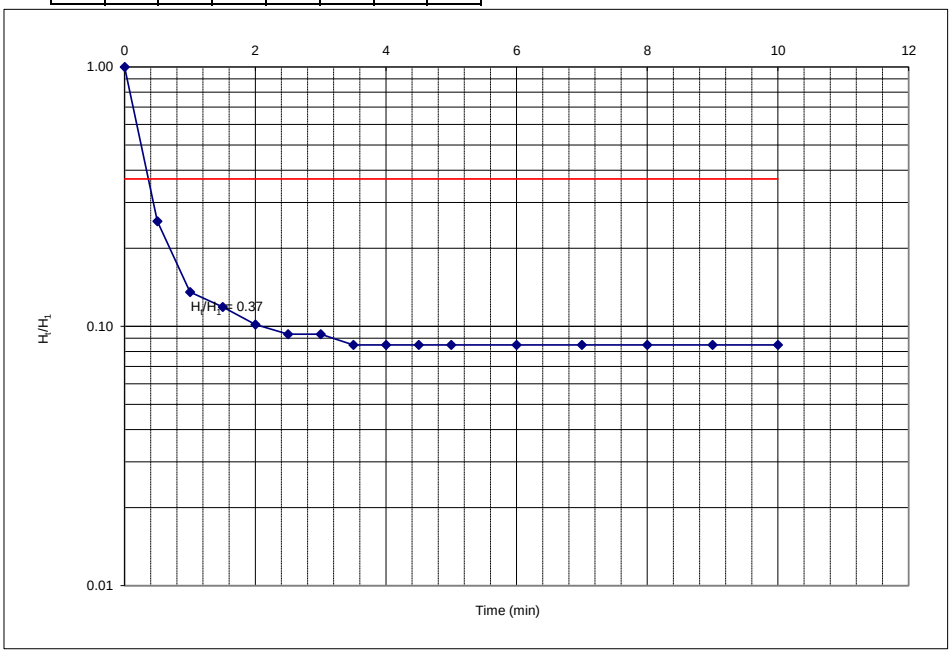
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.88	0.25
1	00:01:00	1.02	0.14
1.5	00:01:30	1.04	0.12
2	00:02:00	1.06	0.10
2.5	00:02:30	1.07	0.09
3	00:03:00	1.07	0.09
3.5	00:03:30	1.08	0.08
4	00:04:00	1.08	0.08
4.5	00:04:30	1.08	0.08
5	00:05:00	1.08	0.08
6	00:06:00	1.08	0.08
7	00:07:00	1.08	0.08
8	00:08:00	1.08	0.08
9	00:09:00	1.08	0.08
10	00:10:00	1.08	0.08

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.18		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph				0.42
BASIC TIME LAG (seconds)				25
IF H_t/H_0=0.37 NOT REACHED	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	1.18
PERMEABILITY (m/s)	**1.43E-05**

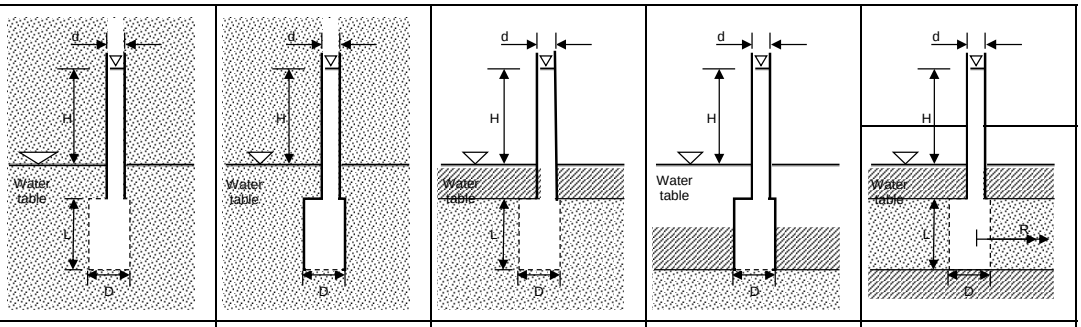
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date: 30/10/2024**	**Calc. by: VP**	**Checked by:**	**DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 4



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

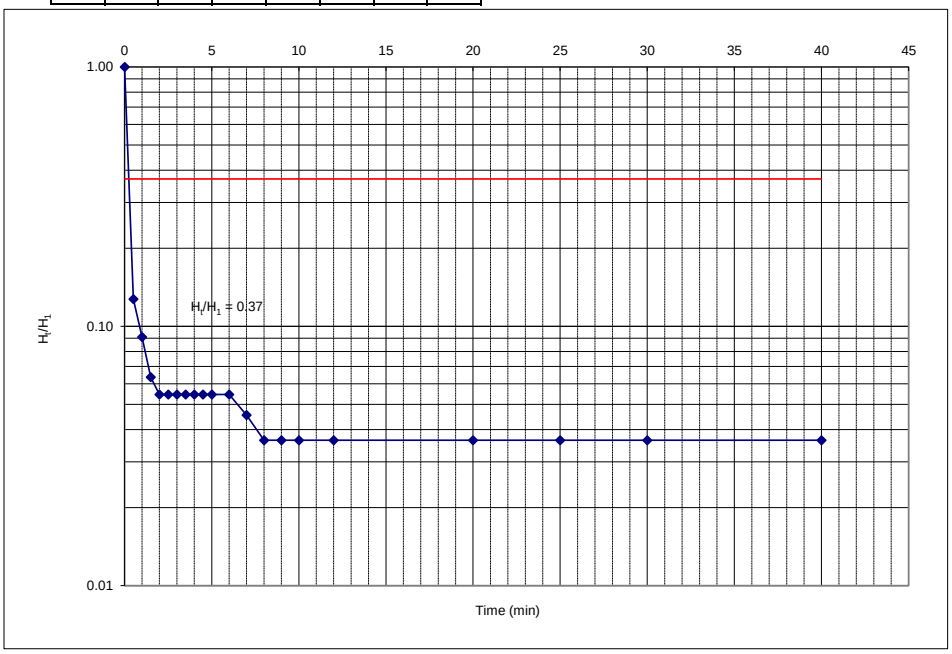
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.96	0.13
1	00:01:00	1.00	0.09
1.5	00:01:30	1.03	0.06
2	00:02:00	1.04	0.05
2.5	00:02:30	1.04	0.05
3	00:03:00	1.04	0.05
3.5	00:03:30	1.04	0.05
4	00:04:00	1.04	0.05
4.5	00:04:30	1.04	0.05
5	00:05:00	1.04	0.05
6	00:06:00	1.04	0.05
7	00:07:00	1.05	0.05
8	00:08:00	1.06	0.04
9	00:09:00	1.06	0.04
10	00:10:00	1.06	0.04
12	00:12:00	1.06	0.04
20	00:20:00	1.06	0.04
25	00:25:00	1.06	0.04
30	00:30:00	1.06	0.04
40	00:40:00	1.06	0.04

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.10		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph					0.36
BASIC TIME LAG (seconds)					22
IF H_t/H_0=0.37 NOT REACHED	minutes	seconds		m	
CHOOSE T1 (seconds)			H_1/H_0 FOR T1		
CHOOSE T2 (seconds)			H_2/H_0 FOR T2		

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	1.10
PERMEABILITY (m/s)	**1.67E-05**

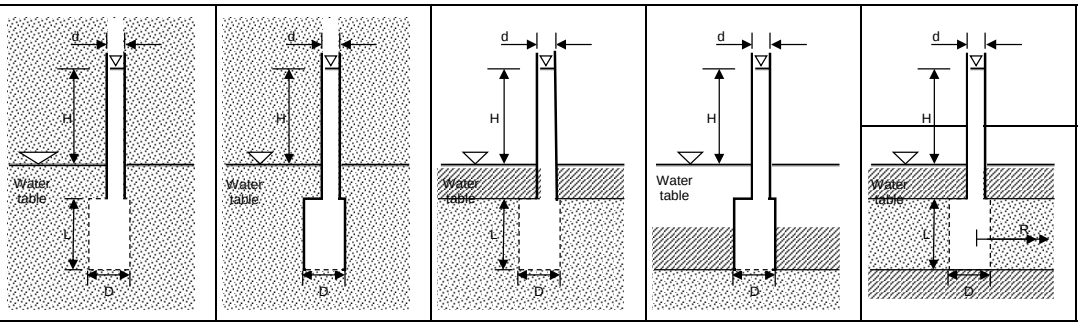
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date:**	**30/10/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 5



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

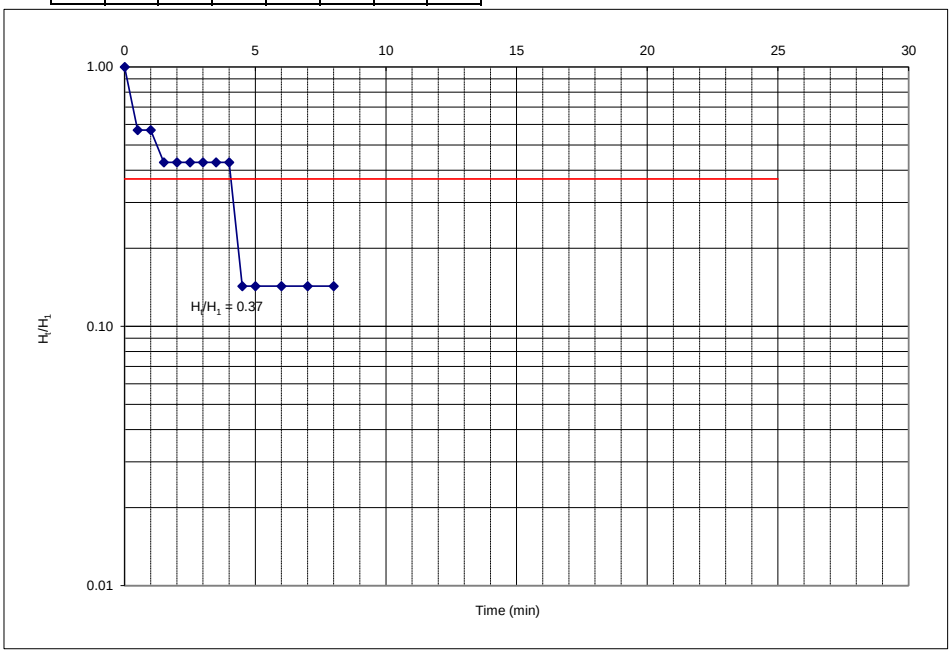
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.15	1.00
0.5	00:00:30	1.12	0.57
1	00:01:00	1.12	0.57
1.5	00:01:30	1.11	0.43
2	00:02:00	1.11	0.43
2.5	00:02:30	1.11	0.43
3	00:03:00	1.11	0.43
3.5	00:03:30	1.11	0.43
4	00:04:00	1.11	0.43
4.5	00:04:30	1.09	0.14
5	00:05:00	1.09	0.14
6	00:06:00	1.09	0.14
7	00:07:00	1.09	0.14
8	00:08:00	1.09	0.14
9	00:09:00	1.08	0.00
10	00:10:00	1.08	0.00
15	00:15:00	1.07	-0.14
20	00:20:00	1.07	-0.14
25	00:25:00	1.07	-0.14

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.08		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph				4.11
BASIC TIME LAG (seconds)				246
IF H_t/H_0=0.37 NOT REACHED	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	-0.07
PERMEABILITY (m/s)	**1.47E-06**

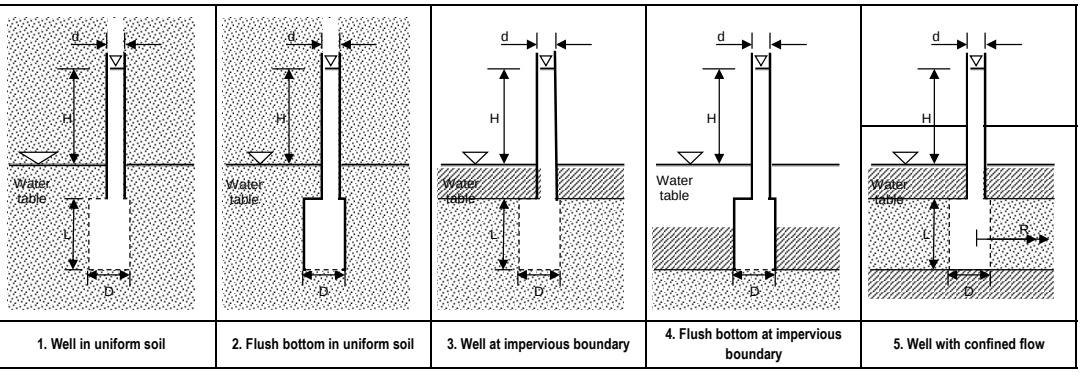
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-04**	**Test date: 31/10/2024**	**Calc. by: VP**	**Checked by:**	**DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 1



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

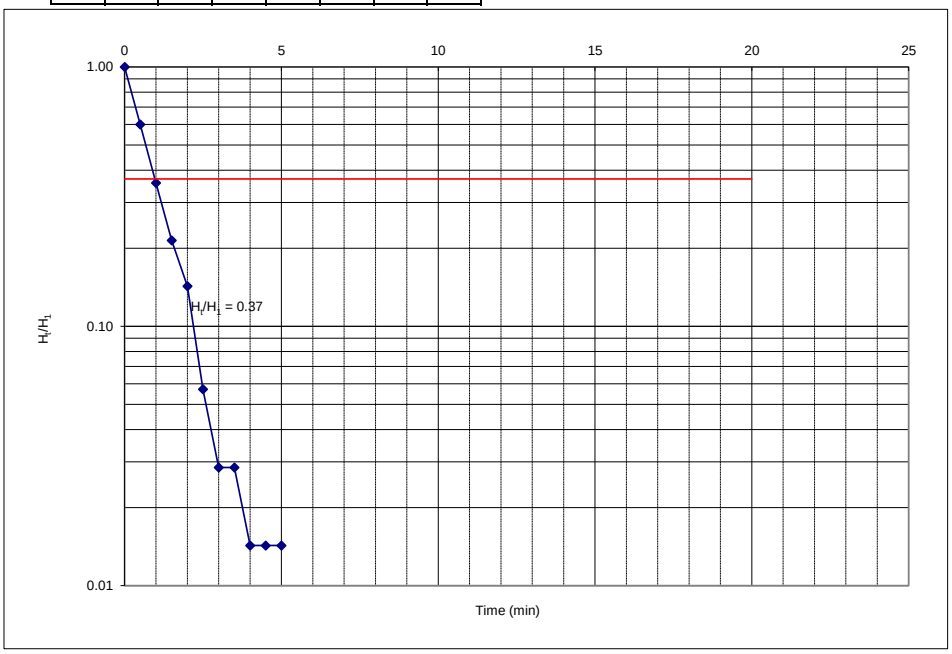
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	2.10	1.00
0.5	00:00:30	1.82	0.60
1	00:01:00	1.65	0.36
1.5	00:01:30	1.55	0.21
2	00:02:00	1.50	0.14
2.5	00:02:30	1.44	0.06
3	00:03:00	1.42	0.03
3.5	00:03:30	1.42	0.03
4	00:04:00	1.41	0.01
4.5	00:04:30	1.41	0.01
5	00:05:00	1.41	0.01
6	00:06:00	1.40	0.00
7	00:07:00	1.39	-0.01
8	00:08:00	1.38	-0.03
9	00:09:00	1.38	-0.03
10	00:10:00	1.38	-0.03
15	00:15:00	1.38	-0.03
20	00:20:00	1.38	-0.03

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	2.96	0.00	0.05	0.11	1.40		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.98
BASIC TIME LAG (seconds)	59

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	1.96
Initial head of water, H_0	-0.70

PERMEABILITY (m/s)	**9.71E-06**

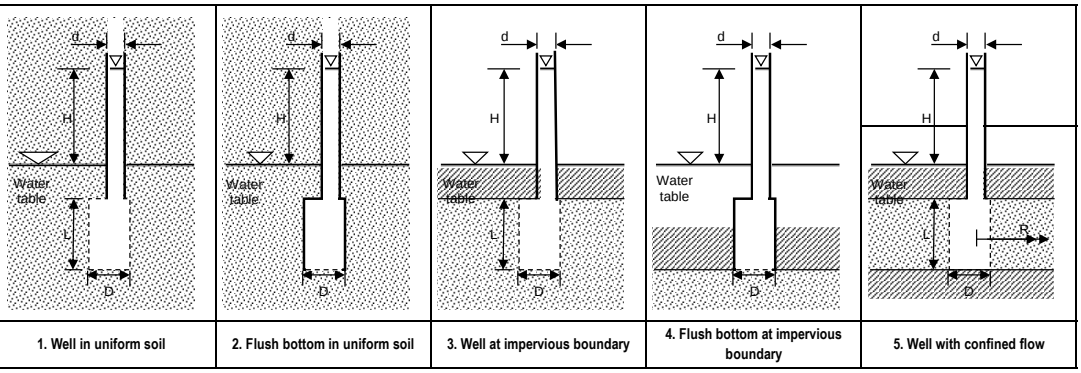
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-04**	**Test date:**	**31/10/2024**	**Calc. by:**	**VP**
				Checked by:	**DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 2



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

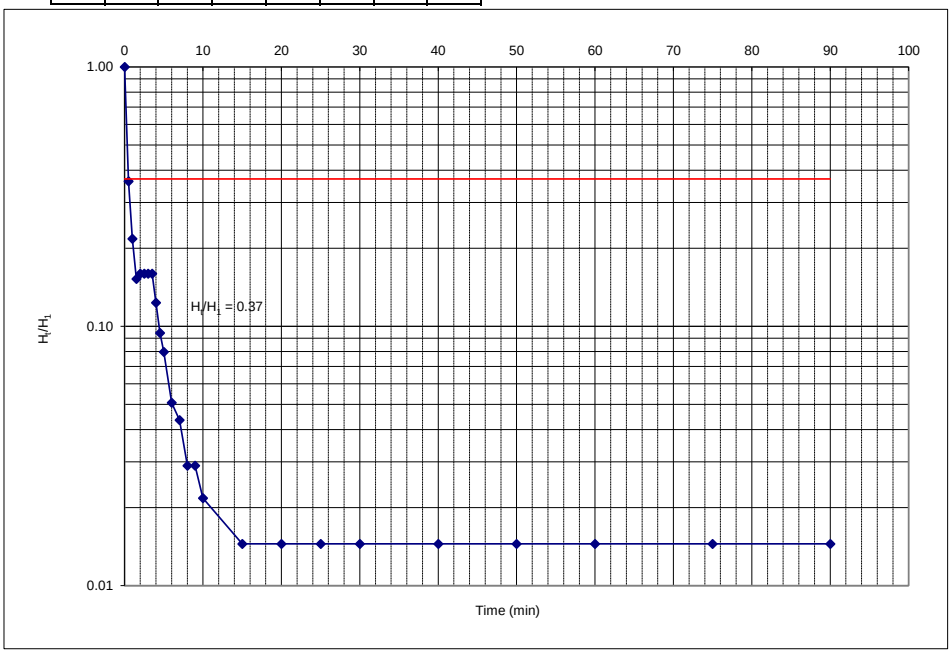
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.88	0.36
1	00:01:00	1.08	0.22
1.5	00:01:30	1.17	0.15
2	00:02:00	1.16	0.16
2.5	00:02:30	1.16	0.16
3	00:03:00	1.16	0.16
3.5	00:03:30	1.16	0.16
4	00:04:00	1.21	0.12
4.5	00:04:30	1.25	0.09
5	00:05:00	1.27	0.08
6	00:06:00	1.31	0.05
7	00:07:00	1.32	0.04
8	00:08:00	1.34	0.03
9	00:09:00	1.34	0.03
10	00:10:00	1.35	0.02
15	00:15:00	1.36	0.01
20	00:20:00	1.36	0.01
25	00:25:00	1.36	0.01
30	00:30:00	1.36	0.01
40	00:40:00	1.36	0.01
50	00:50:00	1.36	0.01
60	01:00:00	1.36	0.01
75	01:15:00	1.36	0.01
90	01:30:00	1.36	0.01

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	2.96	0.00	0.05	0.11	1.38		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph					0.50
BASIC TIME LAG (seconds)					30
IF H_t/H_0=0.37 NOT REACHED	minutes	seconds		m	
CHOOSE T1 (seconds)			H_1/H_0 FOR T1		
CHOOSE T2 (seconds)			H_2/H_0 FOR T2		

CALCULATED VALUES

Length of test section, L	1.96
Initial head of water, H_0	1.38
PERMEABILITY (m/s)	**1.92E-05**

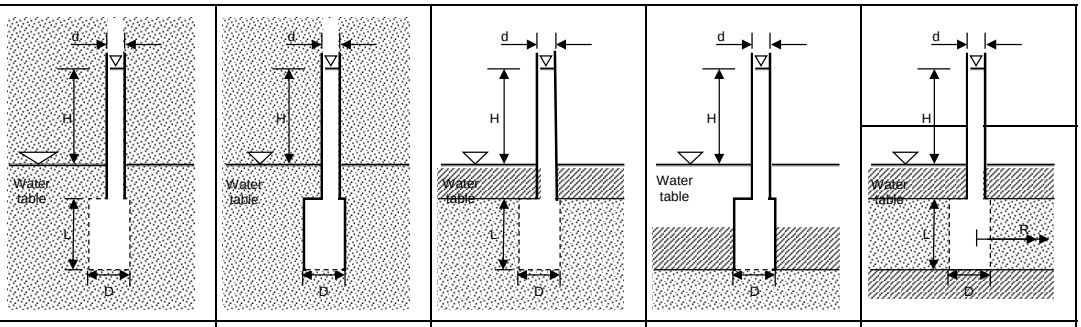
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-04**	**Test date: 31/10/2024**	**Calc. by: VP**	**Checked by:**	**DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 3



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

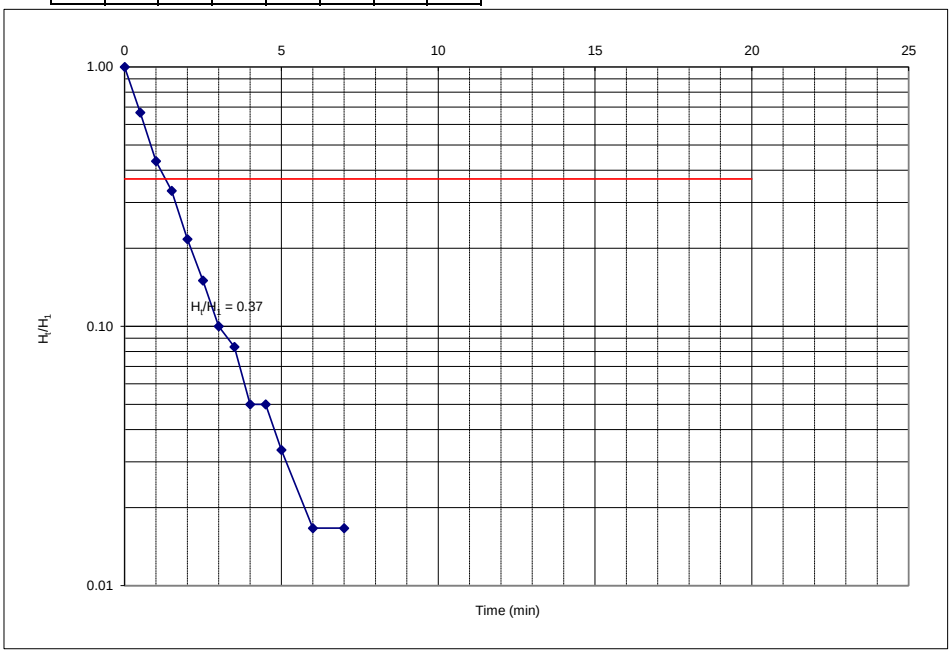
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.98	1.00
0.5	00:00:30	1.78	0.67
1	00:01:00	1.64	0.43
1.5	00:01:30	1.58	0.33
2	00:02:00	1.51	0.22
2.5	00:02:30	1.47	0.15
3	00:03:00	1.44	0.10
3.5	00:03:30	1.43	0.08
4	00:04:00	1.41	0.05
4.5	00:04:30	1.41	0.05
5	00:05:00	1.40	0.03
6	00:06:00	1.39	0.02
7	00:07:00	1.39	0.02
8	00:08:00	1.38	0.00
9	00:09:00	1.38	0.00
10	00:10:00	1.38	0.00
15	00:15:00	1.38	0.00
20	00:20:00	1.38	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	2.96	0.00	0.05	0.11	1.38		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	1.33
BASIC TIME LAG (seconds)	80

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	1.96
Initial head of water, H_0	-0.60

PERMEABILITY (m/s)	**7.16E-06**

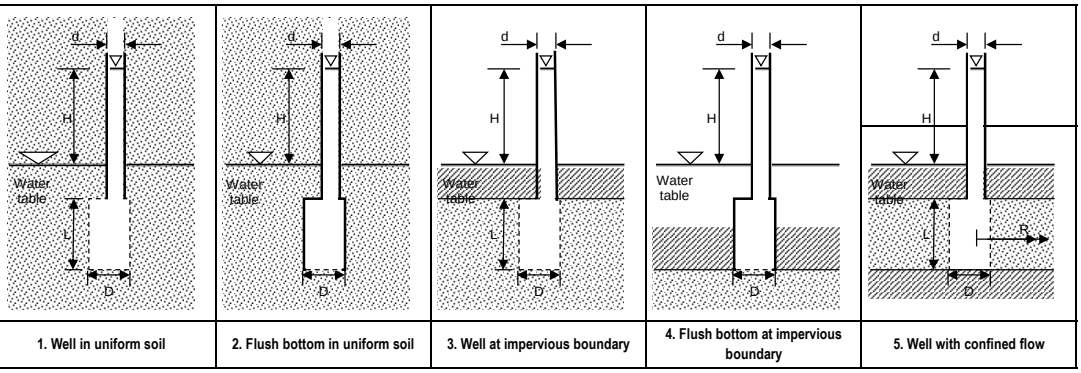
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-04**	**Test date: 31/10/2024**	**Calc. by: VP**	**Checked by:**	**DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 4



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

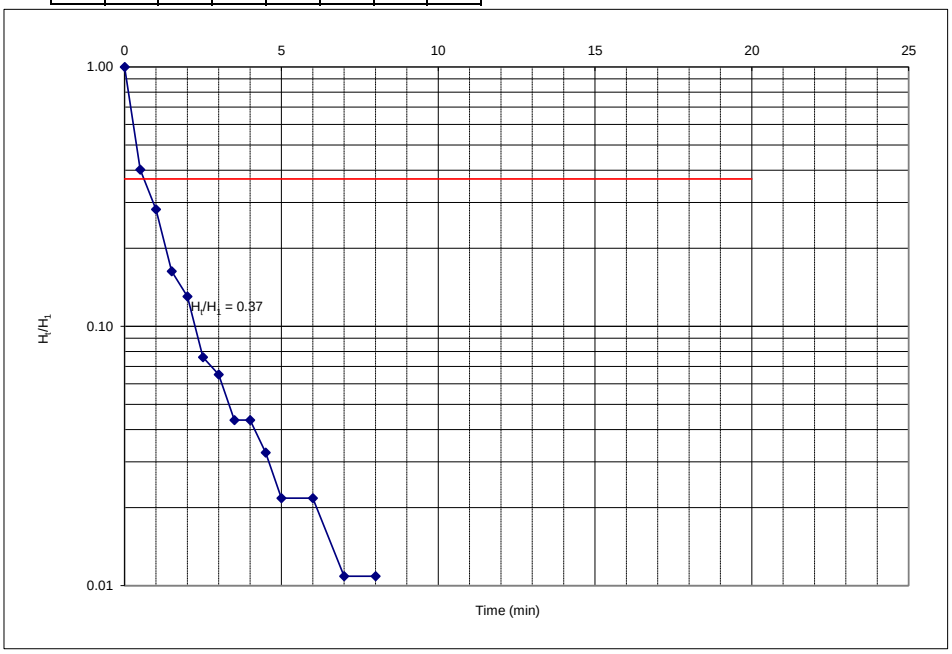
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	2.30	1.00
0.5	00:00:30	1.75	0.40
1	00:01:00	1.64	0.28
1.5	00:01:30	1.53	0.16
2	00:02:00	1.50	0.13
2.5	00:02:30	1.45	0.08
3	00:03:00	1.44	0.07
3.5	00:03:30	1.42	0.04
4	00:04:00	1.42	0.04
4.5	00:04:30	1.41	0.03
5	00:05:00	1.40	0.02
6	00:06:00	1.40	0.02
7	00:07:00	1.39	0.01
8	00:08:00	1.39	0.01
9	00:09:00	1.38	0.00
10	00:10:00	1.38	0.00
15	00:15:00	1.38	0.00
20	00:20:00	1.38	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	2.96	0.00	0.05	0.11	1.38		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.64
BASIC TIME LAG (seconds)	39

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		
CHOOSE T1 (seconds)		0	H_1/H_0 FOR T1	
CHOOSE T2 (seconds)		0	H_2/H_0 FOR T2	

m

CALCULATED VALUES

Length of test section, L	1.96
Initial head of water, H_0	-0.92

PERMEABILITY (m/s)	**1.48E-05**

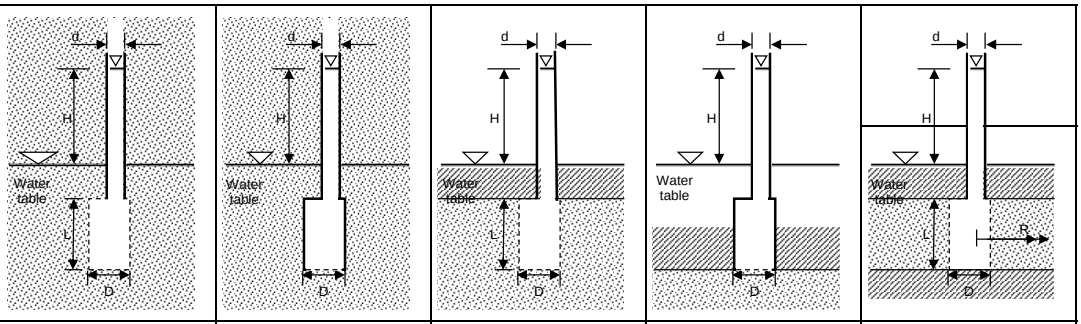
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-09**	**Test date:**	**31/10/2024**	**Calc. by:**	**VP**
				Checked by:	**DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 1



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

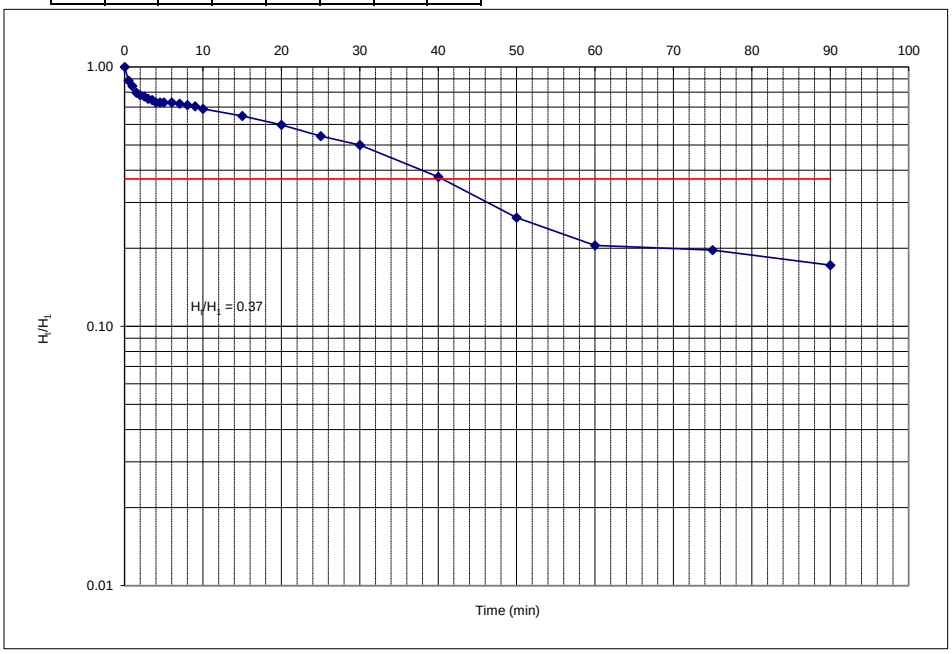
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.12	1.00
0.5	00:00:30	0.26	0.89
1	00:01:00	0.31	0.84
1.5	00:01:30	0.37	0.80
2	00:02:00	0.39	0.78
2.5	00:02:30	0.40	0.77
3	00:03:00	0.42	0.75
3.5	00:03:30	0.43	0.75
4	00:04:00	0.45	0.73
4.5	00:04:30	0.45	0.73
5	00:05:00	0.45	0.73
6	00:06:00	0.45	0.73
7	00:07:00	0.46	0.72
8	00:08:00	0.47	0.71
9	00:09:00	0.48	0.70
10	00:10:00	0.50	0.69
15	00:15:00	0.55	0.65
20	00:20:00	0.61	0.60
25	00:25:00	0.68	0.54
30	00:30:00	0.73	0.50
40	00:40:00	0.88	0.38
50	00:50:00	1.02	0.26
60	01:00:00	1.09	0.20
75	01:15:00	1.10	0.20
90	01:30:00	1.13	0.17

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.20	1.34		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph					40.80
BASIC TIME LAG (seconds)					2448
IF H_t/H_0=0.37 NOT REACHED	minutes	seconds		m	
CHOOSE T1 (seconds)			H_1/H_0 FOR T1		
CHOOSE T2 (seconds)			H_2/H_0 FOR T2		

CALCULATED VALUES

Length of test section, L	2.00
Initial head of water, H_0	1.22
PERMEABILITY (m/s)	**1.91E-07**

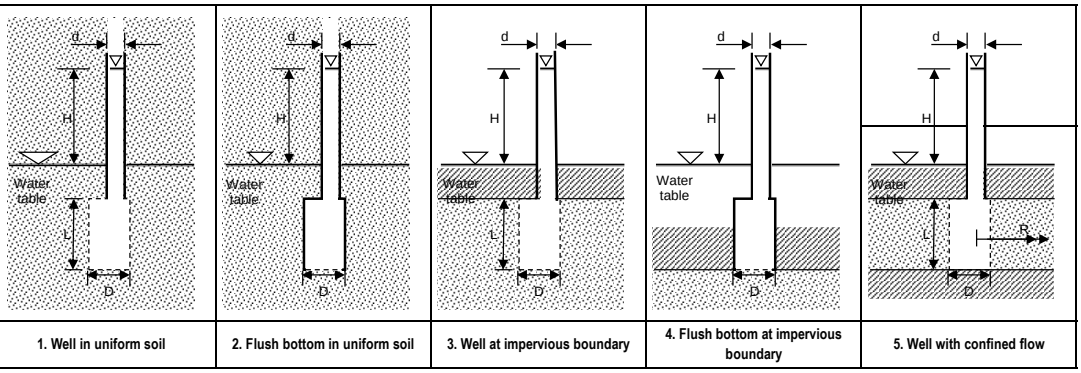
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-09**	**Test date: 31/10/2024**	**Calc. by: VP**	**Checked by:**	**DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 2



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

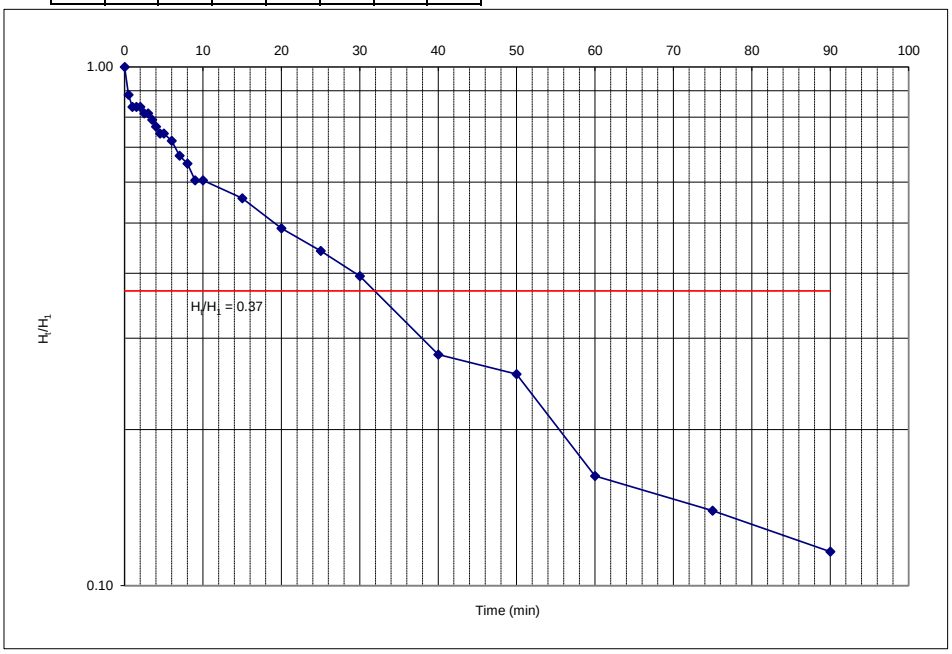
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.72	1.00
0.5	00:00:30	1.67	0.88
1	00:01:00	1.65	0.84
1.5	00:01:30	1.65	0.84
2	00:02:00	1.65	0.84
2.5	00:02:30	1.64	0.81
3	00:03:00	1.64	0.81
3.5	00:03:30	1.63	0.79
4	00:04:00	1.62	0.77
4.5	00:04:30	1.61	0.74
5	00:05:00	1.61	0.74
6	00:06:00	1.60	0.72
7	00:07:00	1.58	0.67
8	00:08:00	1.57	0.65
9	00:09:00	1.55	0.60
10	00:10:00	1.55	0.60
15	00:15:00	1.53	0.56
20	00:20:00	1.50	0.49
25	00:25:00	1.48	0.44
30	00:30:00	1.46	0.40
40	00:40:00	1.41	0.28
50	00:50:00	1.40	0.26
60	01:00:00	1.36	0.16
75	01:15:00	1.35	0.14
90	01:30:00	1.34	0.12

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.20	1.29		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph					32.36
BASIC TIME LAG (seconds)					1942
IF H_t/H_0=0.37 NOT REACHED	minutes	seconds		m	
CHOOSE T1 (seconds)			H_1/H_0 FOR T1		
CHOOSE T2 (seconds)			H_2/H_0 FOR T2		

CALCULATED VALUES

Length of test section, L	2.00
Initial head of water, H_0	-0.43
PERMEABILITY (m/s)	**2.41E-07**

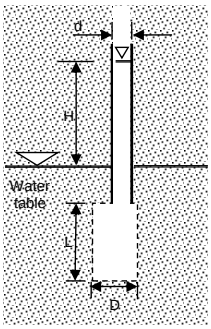
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

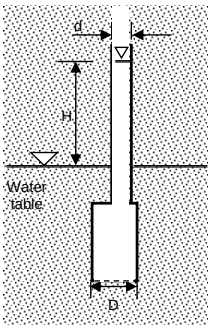
Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-03**	**Test date:**	**11/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

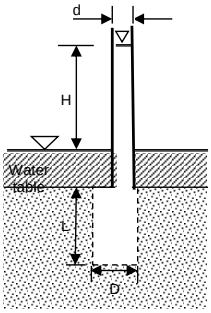
Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 1



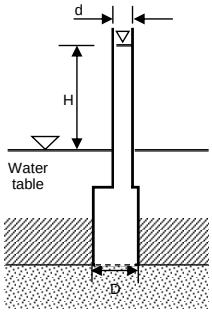
1. Well in uniform soil



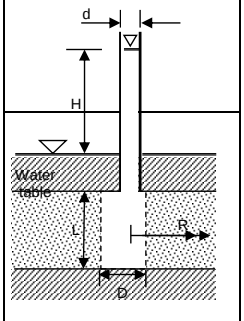
2. Flush bottom in uniform soil



3. Well at impervious boundary



4. Flush bottom at impervious boundary



5. Well with confined flow

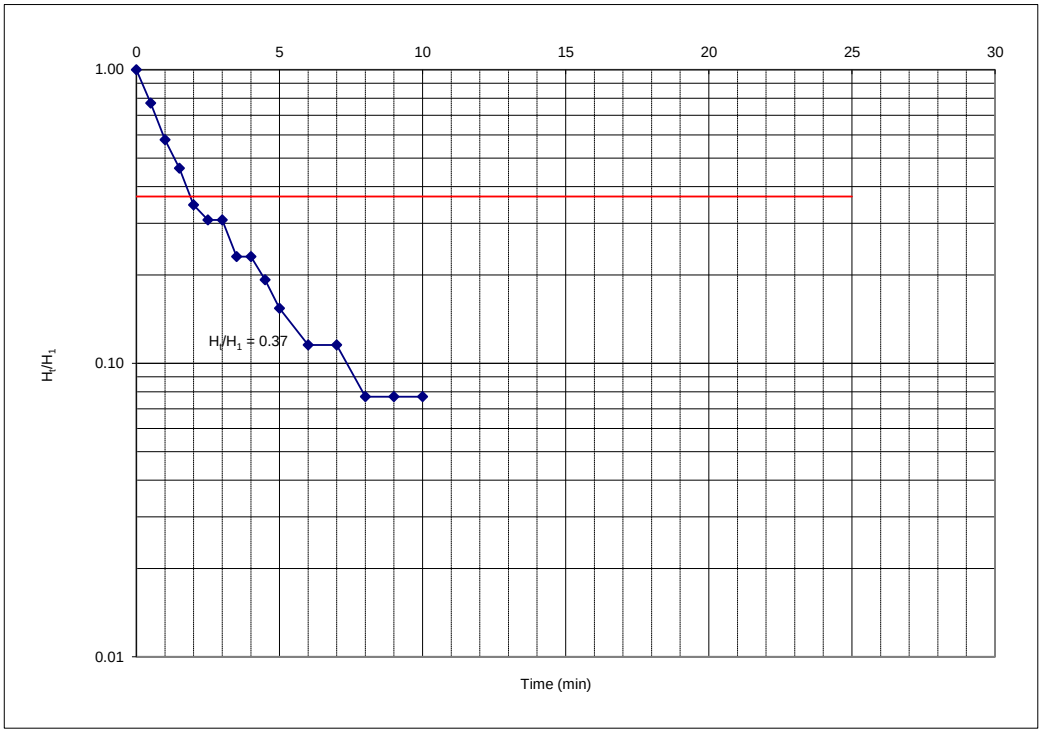
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.45	1.00
0.5	00:00:30	1.39	0.77
1	00:01:00	1.34	0.58
1.5	00:01:30	1.31	0.46
2	00:02:00	1.28	0.35
2.5	00:02:30	1.27	0.31
3	00:03:00	1.27	0.31
3.5	00:03:30	1.25	0.23
4	00:04:00	1.25	0.23
4.5	00:04:30	1.24	0.19
5	00:05:00	1.23	0.15
6	00:06:00	1.22	0.12
7	00:07:00	1.22	0.12
8	00:08:00	1.21	0.08
9	00:09:00	1.21	0.08
10	00:10:00	1.21	0.08
15	00:15:00	1.19	0.00
20	00:20:00	1.19	0.00
25	00:25:00	1.19	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.11	1.19		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	1.91
BASIC TIME LAG (seconds)	114

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

	m
Length of test section, L	2.00
Initial head of water, H_0	-0.26

PERMEABILITY (m/s)	**4.91E-06**

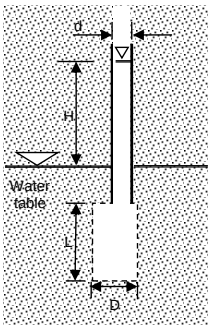
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

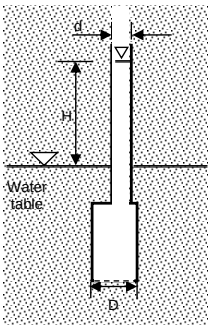
Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-03**	**Test date:**	**11/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

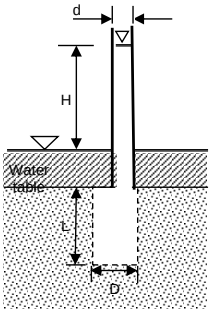
Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 2



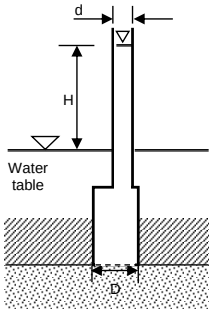
1. Well in uniform soil



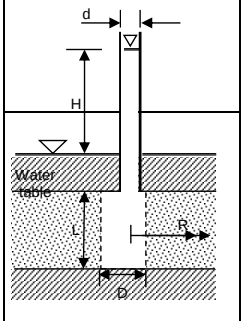
2. Flush bottom in uniform soil



3. Well at impervious boundary



4. Flush bottom at impervious boundary



5. Well with confined flow

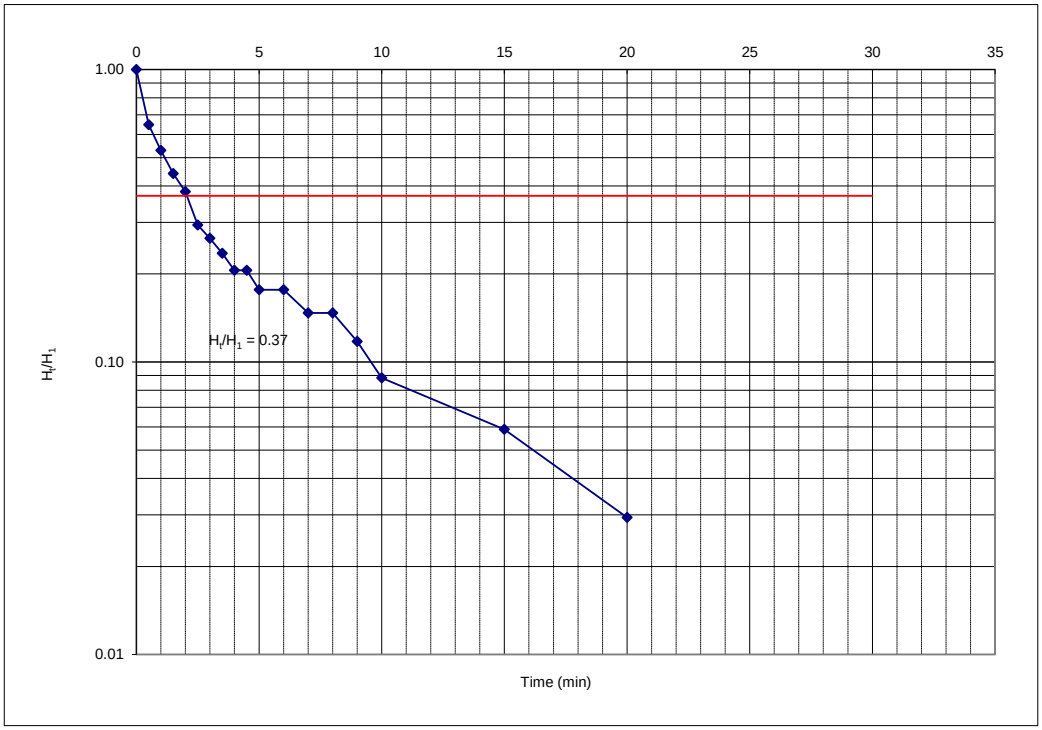
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.53	1.00
0.5	00:00:30	1.41	0.65
1	00:01:00	1.37	0.53
1.5	00:01:30	1.34	0.44
2	00:02:00	1.32	0.38
2.5	00:02:30	1.29	0.29
3	00:03:00	1.28	0.26
3.5	00:03:30	1.27	0.24
4	00:04:00	1.26	0.21
4.5	00:04:30	1.26	0.21
5	00:05:00	1.25	0.18
6	00:06:00	1.25	0.18
7	00:07:00	1.24	0.15
8	00:08:00	1.24	0.15
9	00:09:00	1.23	0.12
10	00:10:00	1.22	0.09
15	00:15:00	1.21	0.06
20	00:20:00	1.20	0.03
25	00:25:00	1.19	0.00
30	00:30:00	1.19	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.11	1.19		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	2.08
BASIC TIME LAG (seconds)	125

IF H_t/H_0=0.37 NOT REACHED	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.00
Initial head of water, H_0	-0.34

PERMEABILITY (m/s)	**4.50E-06**

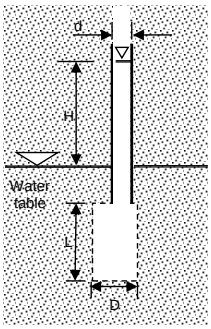
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

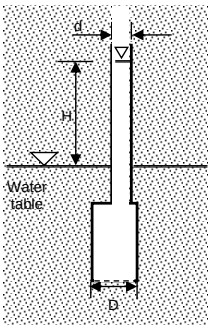
Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-03**	**Test date:**	**11/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

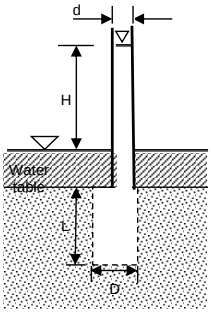
Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 3



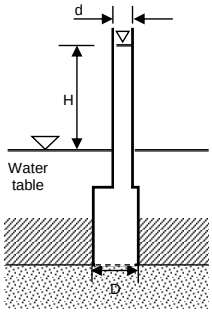
1. Well in uniform soil



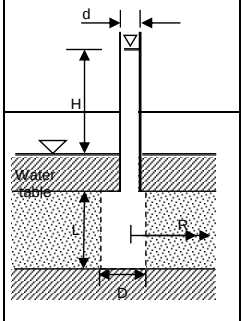
2. Flush bottom in uniform soil



3. Well at impervious boundary



4. Flush bottom at impervious boundary



5. Well with confined flow

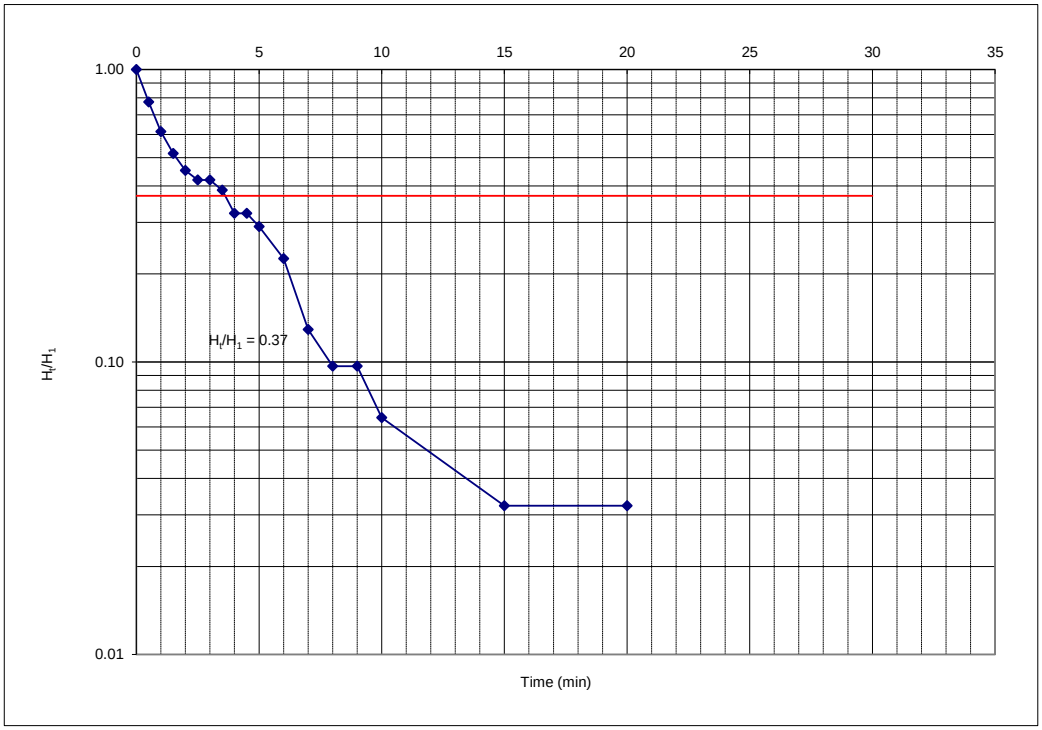
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.50	1.00
0.5	00:00:30	1.43	0.77
1	00:01:00	1.38	0.61
1.5	00:01:30	1.35	0.52
2	00:02:00	1.33	0.45
2.5	00:02:30	1.32	0.42
3	00:03:00	1.32	0.42
3.5	00:03:30	1.31	0.39
4	00:04:00	1.29	0.32
4.5	00:04:30	1.29	0.32
5	00:05:00	1.28	0.29
6	00:06:00	1.26	0.23
7	00:07:00	1.23	0.13
8	00:08:00	1.22	0.10
9	00:09:00	1.22	0.10
10	00:10:00	1.21	0.06
15	00:15:00	1.20	0.03
20	00:20:00	1.20	0.03
25	00:25:00	1.19	0.00
30	00:30:00	1.19	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.11	1.19		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	3.65
BASIC TIME LAG (seconds)	219

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.00
Initial head of water, H_0	-0.31

PERMEABILITY (m/s)	**2.57E-06**

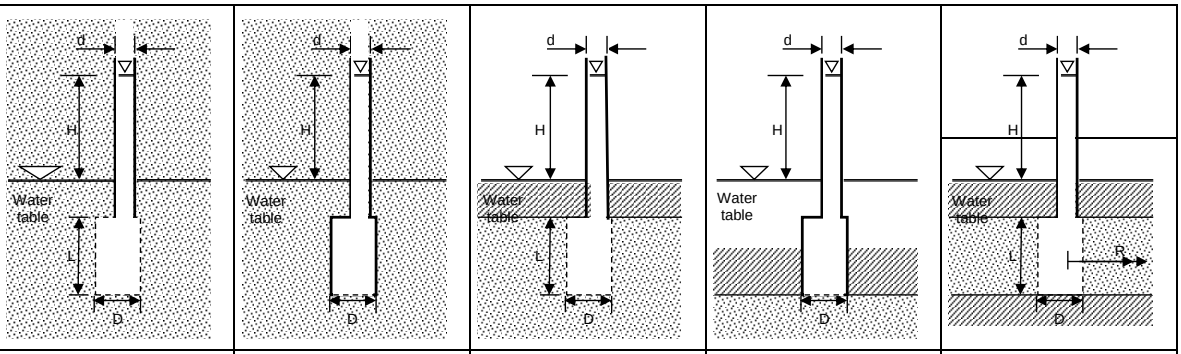
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-03**	**Test date:**	**11/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 4



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

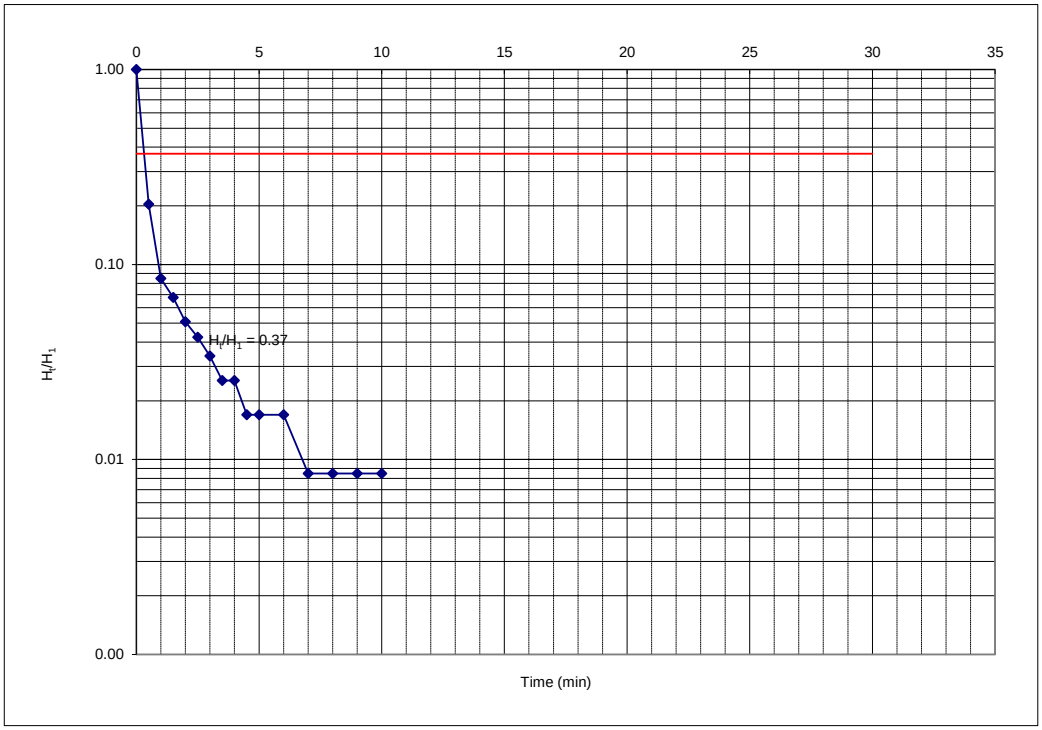
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.94	0.20
1	00:01:00	1.08	0.08
1.5	00:01:30	1.10	0.07
2	00:02:00	1.12	0.05
2.5	00:02:30	1.13	0.04
3	00:03:00	1.14	0.03
3.5	00:03:30	1.15	0.03
4	00:04:00	1.15	0.03
4.5	00:04:30	1.16	0.02
5	00:05:00	1.16	0.02
6	00:06:00	1.16	0.02
7	00:07:00	1.17	0.01
8	00:08:00	1.17	0.01
9	00:09:00	1.17	0.01
10	00:10:00	1.17	0.01
15	00:15:00	1.18	0.00
20	00:20:00	1.18	0.00
25	00:25:00	1.18	0.00
30	00:30:00	1.18	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.11	1.18		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.40
BASIC TIME LAG (seconds)	24

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.00
Initial head of water, H_0	1.18

PERMEABILITY (m/s)	**2.36E-05**

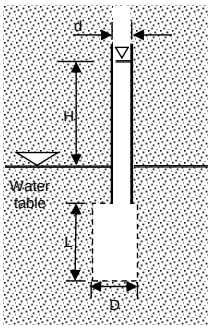
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

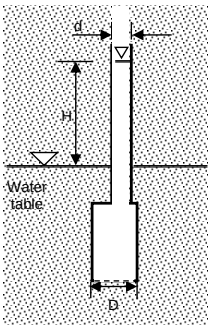
Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-03**	**Test date:**	**11/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

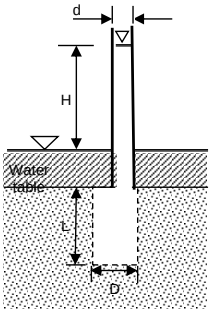
Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 5



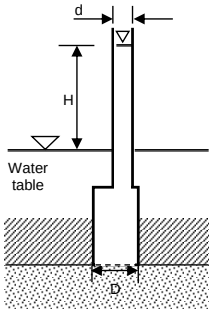
1. Well in uniform soil



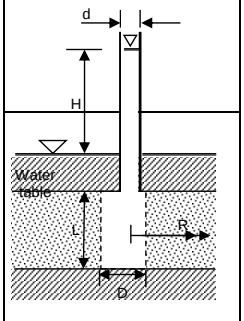
2. Flush bottom in uniform soil



3. Well at impervious boundary



4. Flush bottom at impervious boundary



5. Well with confined flow

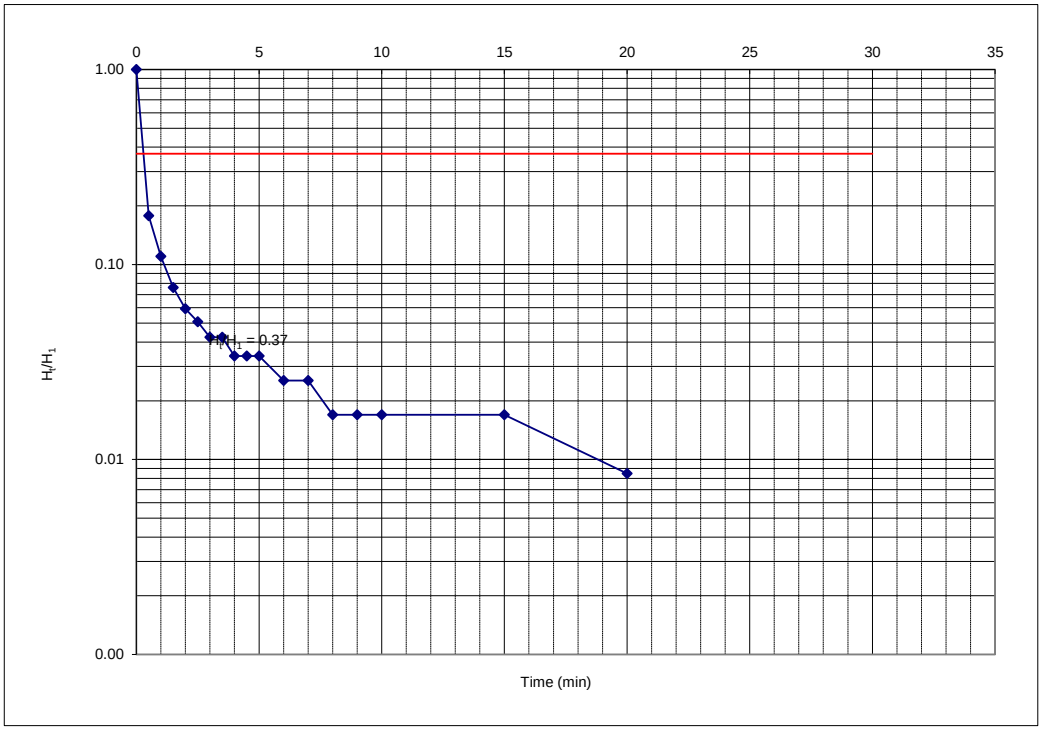
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.97	0.18
1	00:01:00	1.05	0.11
1.5	00:01:30	1.09	0.08
2	00:02:00	1.11	0.06
2.5	00:02:30	1.12	0.05
3	00:03:00	1.13	0.04
3.5	00:03:30	1.13	0.04
4	00:04:00	1.14	0.03
4.5	00:04:30	1.14	0.03
5	00:05:00	1.14	0.03
6	00:06:00	1.15	0.03
7	00:07:00	1.15	0.03
8	00:08:00	1.16	0.02
9	00:09:00	1.16	0.02
10	00:10:00	1.16	0.02
15	00:15:00	1.16	0.02
20	00:20:00	1.17	0.01
25	00:25:00	1.18	0.00
30	00:30:00	1.18	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.11	1.18		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.38
BASIC TIME LAG (seconds)	23

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.00
Initial head of water, H_0	1.18

PERMEABILITY (m/s)	**2.43E-05**

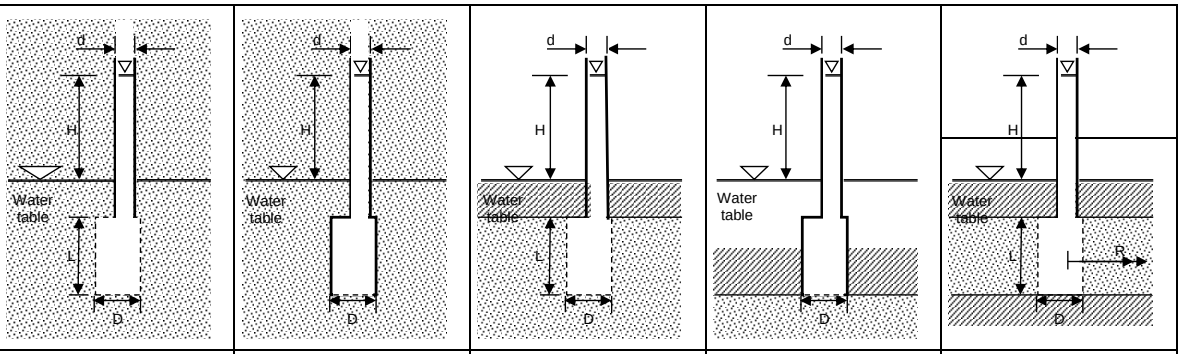
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**DS24-03**	**Test date:**	**11/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 6



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

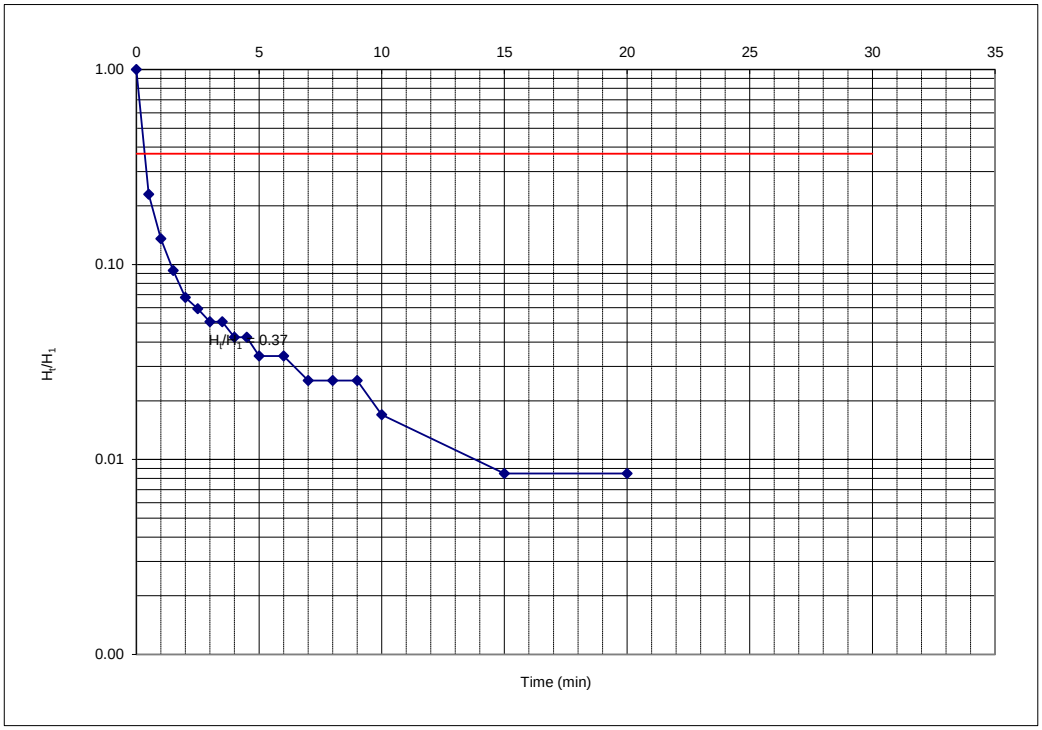
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.91	0.23
1	00:01:00	1.02	0.14
1.5	00:01:30	1.07	0.09
2	00:02:00	1.10	0.07
2.5	00:02:30	1.11	0.06
3	00:03:00	1.12	0.05
3.5	00:03:30	1.12	0.05
4	00:04:00	1.13	0.04
4.5	00:04:30	1.13	0.04
5	00:05:00	1.14	0.03
6	00:06:00	1.14	0.03
7	00:07:00	1.15	0.03
8	00:08:00	1.15	0.03
9	00:09:00	1.15	0.03
10	00:10:00	1.16	0.02
15	00:15:00	1.17	0.01
20	00:20:00	1.17	0.01
25	00:25:00	1.18	0.00
30	00:30:00	1.18	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.00	0.00	0.05	0.11	1.18		3.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.41
BASIC TIME LAG (seconds)	25

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.00
Initial head of water, H_0	1.18

PERMEABILITY (m/s)	**2.28E-05**

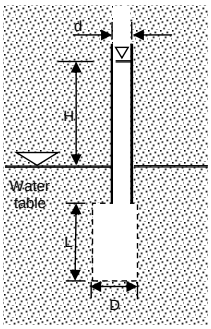
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

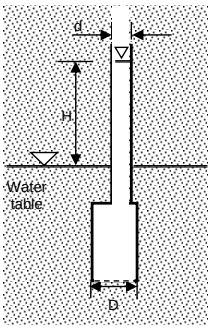
Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date:**	**12/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

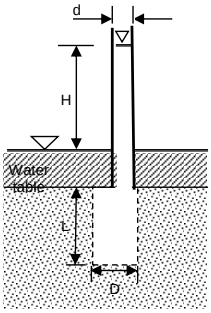
Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 1



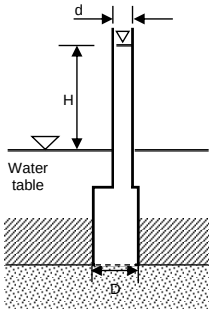
1. Well in uniform soil



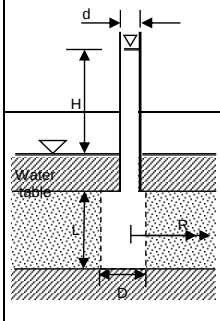
2. Flush bottom in uniform soil



3. Well at impervious boundary



4. Flush bottom at impervious boundary



5. Well with confined flow

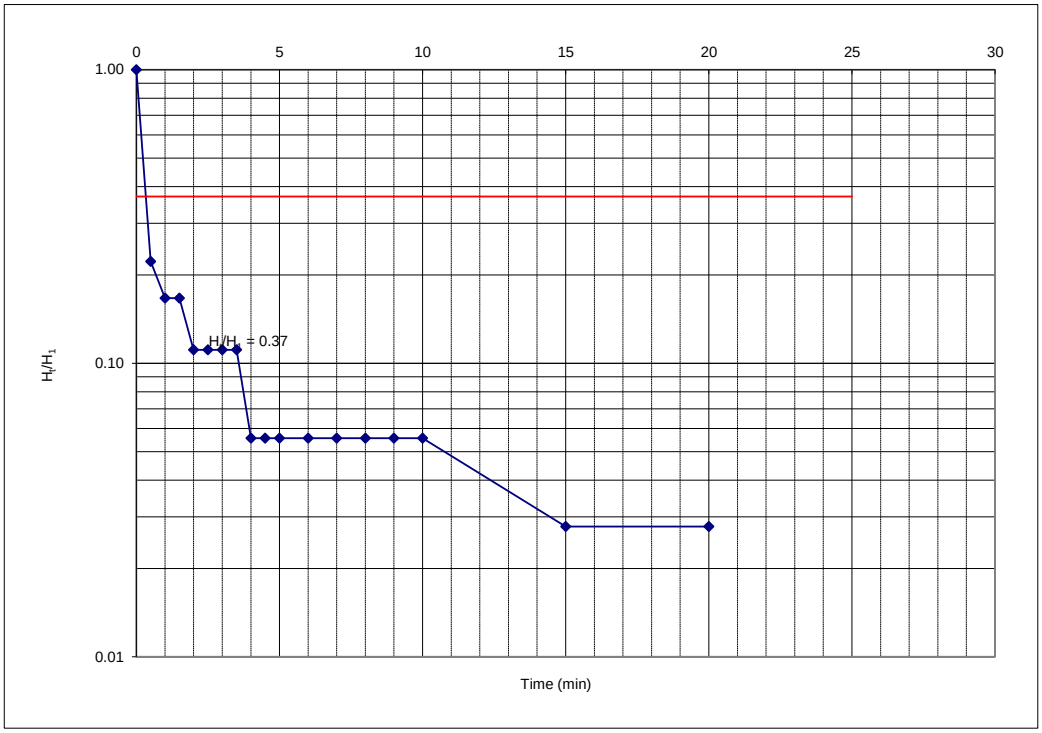
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.33	1.00
0.5	00:00:30	1.19	0.22
1	00:01:00	1.18	0.17
1.5	00:01:30	1.18	0.17
2	00:02:00	1.17	0.11
2.5	00:02:30	1.17	0.11
3	00:03:00	1.17	0.11
3.5	00:03:30	1.17	0.11
4	00:04:00	1.16	0.06
4.5	00:04:30	1.16	0.06
5	00:05:00	1.16	0.06
6	00:06:00	1.16	0.06
7	00:07:00	1.16	0.06
8	00:08:00	1.16	0.06
9	00:09:00	1.16	0.06
10	00:10:00	1.16	0.06
15	00:15:00	1.16	0.03
20	00:20:00	1.16	0.03
25	00:25:00	1.15	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.15		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.41
BASIC TIME LAG (seconds)	24

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	-0.18

PERMEABILITY (m/s)	**1.49E-05**

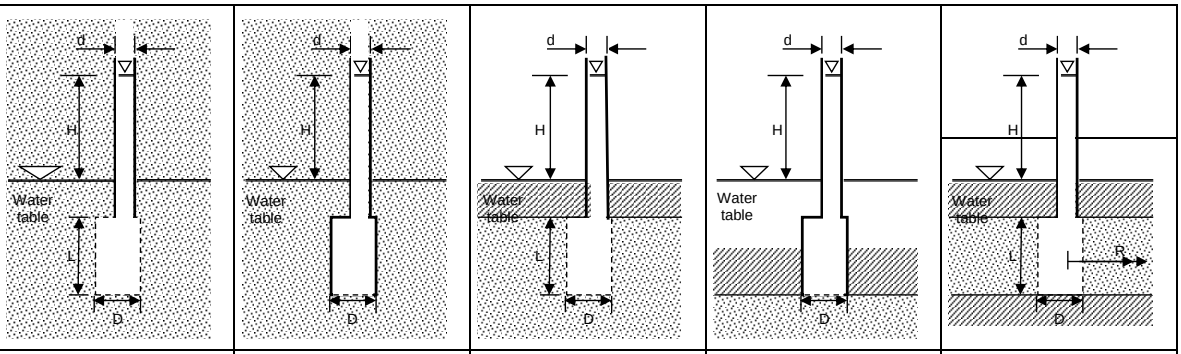
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date:**	**12/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 2



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

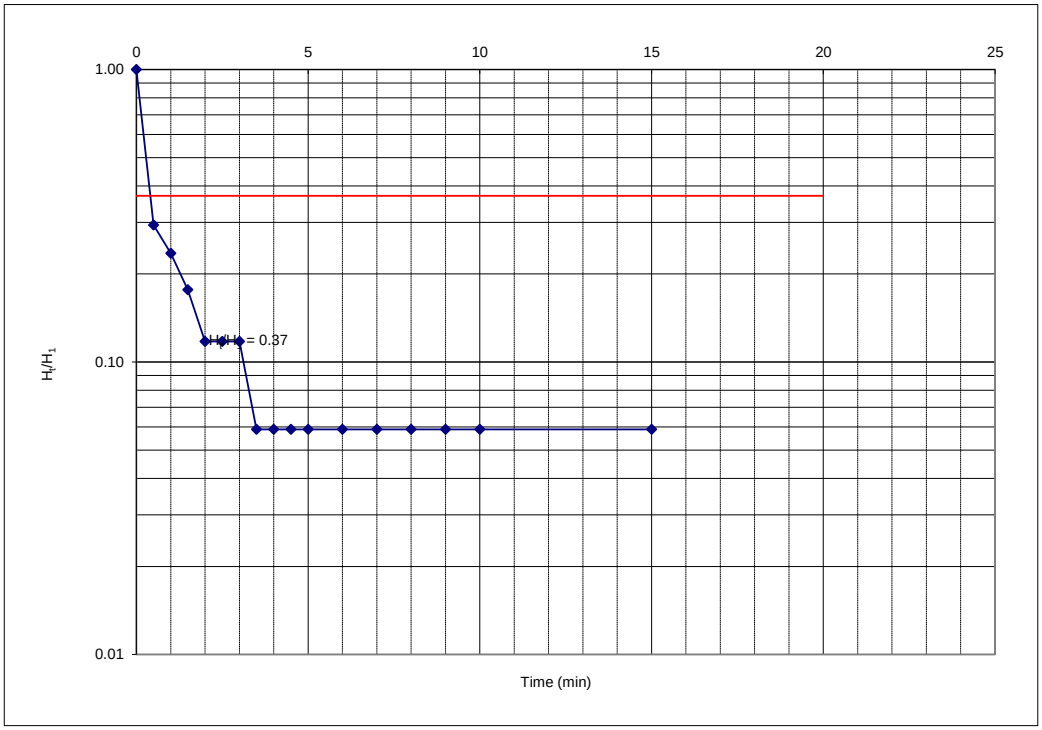
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.32	1.00
0.5	00:00:30	1.20	0.29
1	00:01:00	1.19	0.24
1.5	00:01:30	1.18	0.18
2	00:02:00	1.17	0.12
2.5	00:02:30	1.17	0.12
3	00:03:00	1.17	0.12
3.5	00:03:30	1.16	0.06
4	00:04:00	1.16	0.06
4.5	00:04:30	1.16	0.06
5	00:05:00	1.16	0.06
6	00:06:00	1.16	0.06
7	00:07:00	1.16	0.06
8	00:08:00	1.16	0.06
9	00:09:00	1.16	0.06
10	00:10:00	1.16	0.06
15	00:15:00	1.16	0.06
20	00:20:00	1.15	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.15		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.45
BASIC TIME LAG (seconds)	27

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	-0.17

PERMEABILITY (m/s)	**1.35E-05**

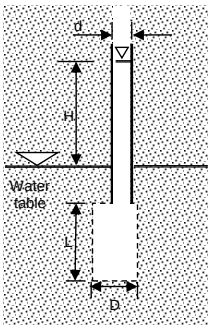
RISING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

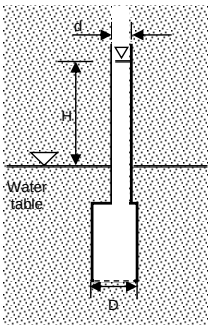
Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date:**	**12/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

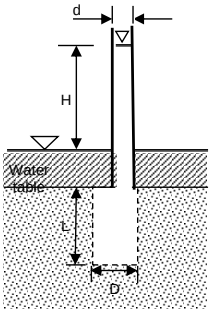
Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 3



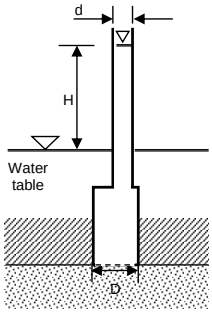
1. Well in uniform soil



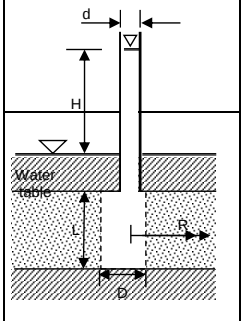
2. Flush bottom in uniform soil



3. Well at impervious boundary



4. Flush bottom at impervious boundary



5. Well with confined flow

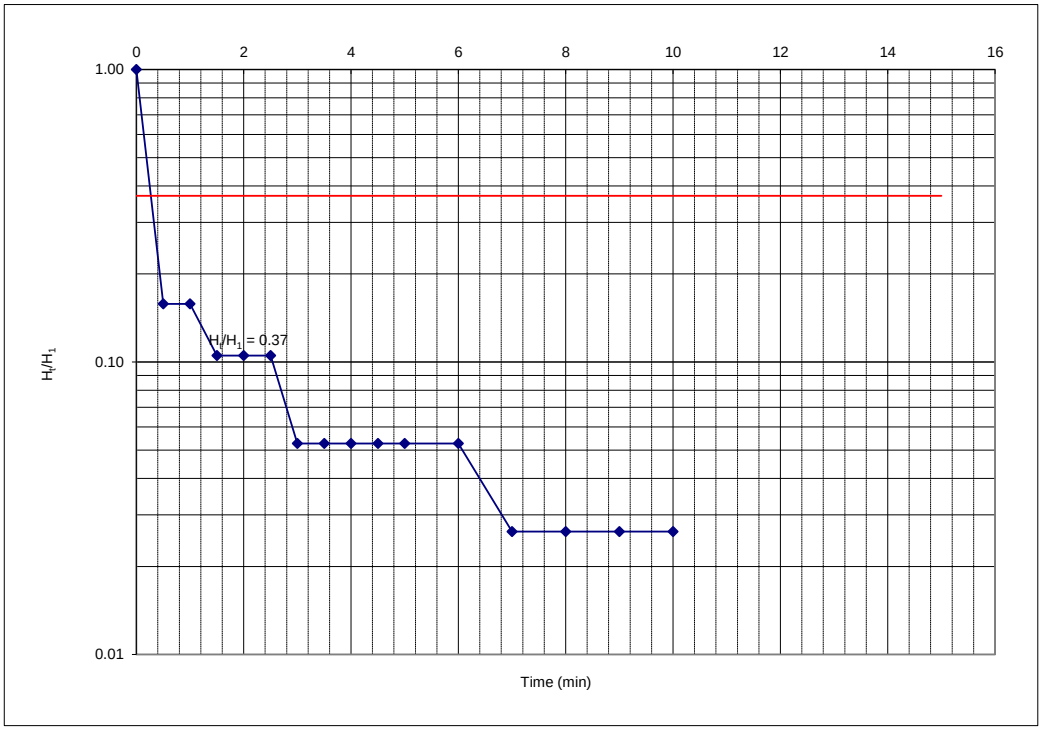
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	1.34	1.00
0.5	00:00:30	1.18	0.16
1	00:01:00	1.18	0.16
1.5	00:01:30	1.17	0.11
2	00:02:00	1.17	0.11
2.5	00:02:30	1.17	0.11
3	00:03:00	1.16	0.05
3.5	00:03:30	1.16	0.05
4	00:04:00	1.16	0.05
4.5	00:04:30	1.16	0.05
5	00:05:00	1.16	0.05
6	00:06:00	1.16	0.05
7	00:07:00	1.16	0.03
8	00:08:00	1.16	0.03
9	00:09:00	1.16	0.03
10	00:10:00	1.16	0.03
15	00:15:00	1.15	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.15		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.38
BASIC TIME LAG (seconds)	23

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

	m
Length of test section, L	2.90
Initial head of water, H_0	-0.19

PERMEABILITY (m/s)	**1.61E-05**

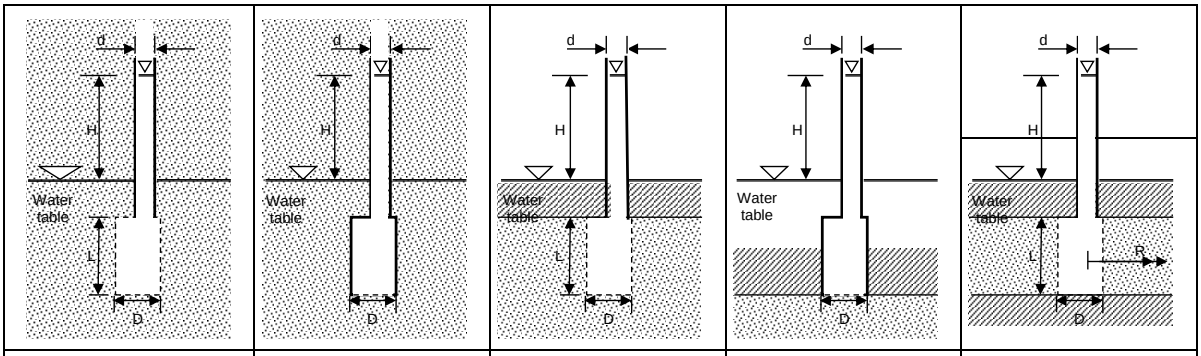
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date:**	**12/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 4



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

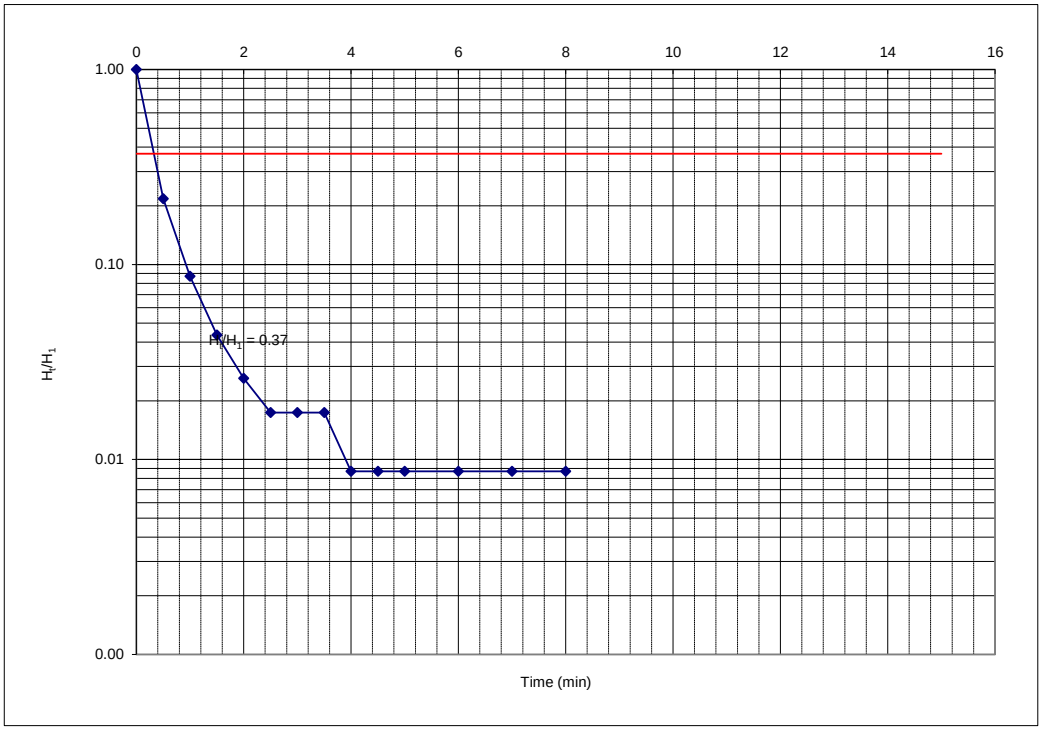
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.90	0.22
1	00:01:00	1.05	0.09
1.5	00:01:30	1.10	0.04
2	00:02:00	1.12	0.03
2.5	00:02:30	1.13	0.02
3	00:03:00	1.13	0.02
3.5	00:03:30	1.13	0.02
4	00:04:00	1.14	0.01
4.5	00:04:30	1.14	0.01
5	00:05:00	1.14	0.01
6	00:06:00	1.14	0.01
7	00:07:00	1.14	0.01
8	00:08:00	1.14	0.01
9	00:09:00	1.15	0.00
10	00:10:00	1.15	0.00
15	00:15:00	1.15	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.15		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.40
BASIC TIME LAG (seconds)	24

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	1.15

PERMEABILITY (m/s)	**1.50E-05**

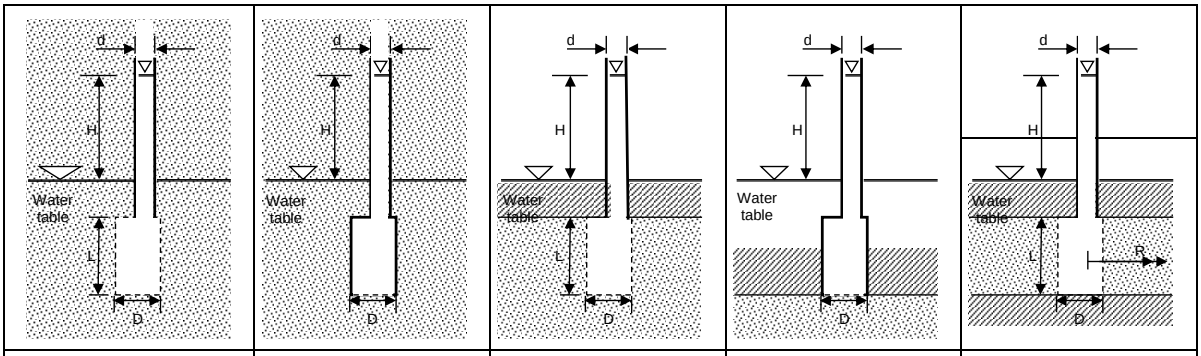
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date:**	**12/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 5



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

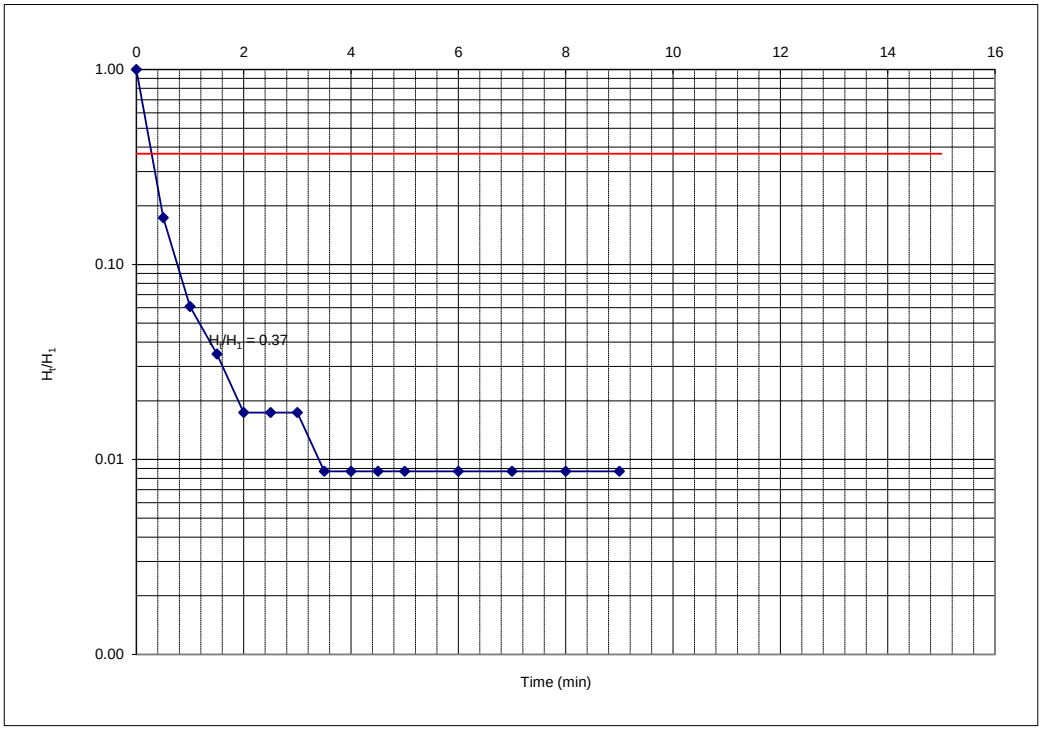
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.95	0.17
1	00:01:00	1.08	0.06
1.5	00:01:30	1.11	0.03
2	00:02:00	1.13	0.02
2.5	00:02:30	1.13	0.02
3	00:03:00	1.13	0.02
3.5	00:03:30	1.14	0.01
4	00:04:00	1.14	0.01
4.5	00:04:30	1.14	0.01
5	00:05:00	1.14	0.01
6	00:06:00	1.14	0.01
7	00:07:00	1.14	0.01
8	00:08:00	1.14	0.01
9	00:09:00	1.14	0.01
10	00:10:00	1.15	0.00
15	00:15:00	1.15	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.15		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.38
BASIC TIME LAG (seconds)	23

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	1.15

PERMEABILITY (m/s)	**1.58E-05**

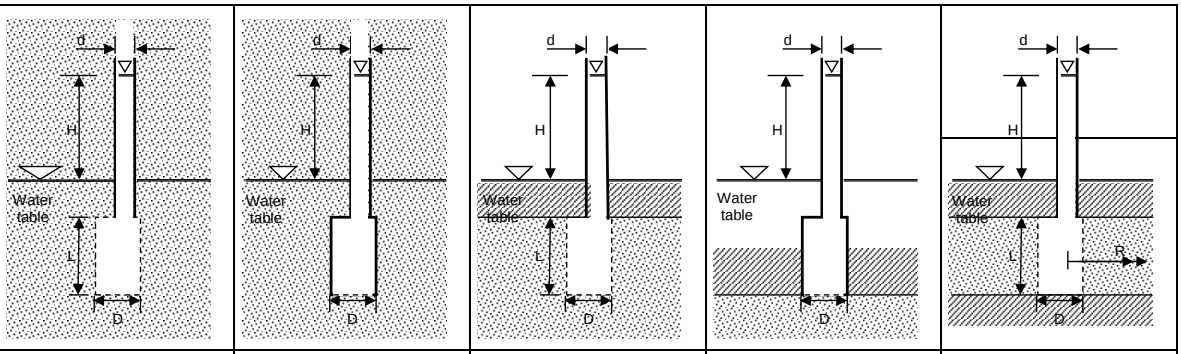
FALLING HEAD FIELD PERMEABILITY CALCULATIONS

In accordance with BS 5930: 1999

Project:	**Thorney Lane Phase 1 Due Diligence**			**Project no.:**	**24/3980**
Borehole:	**BH24-10**	**Test date:**	**12/11/2024**	**Calc. by:** **VP**	**Checked by:** **DF**

Note: input data only into yellow-highlighted cells: do not amend any other cell, even if it appears blank.

Select test conditions, 1 to 5, from the list below: 1 **Test Number:** 6



1. Well in uniform soil	2. Flush bottom in uniform soil	3. Well at impervious boundary	4. Flush bottom at impervious boundary	5. Well with confined flow

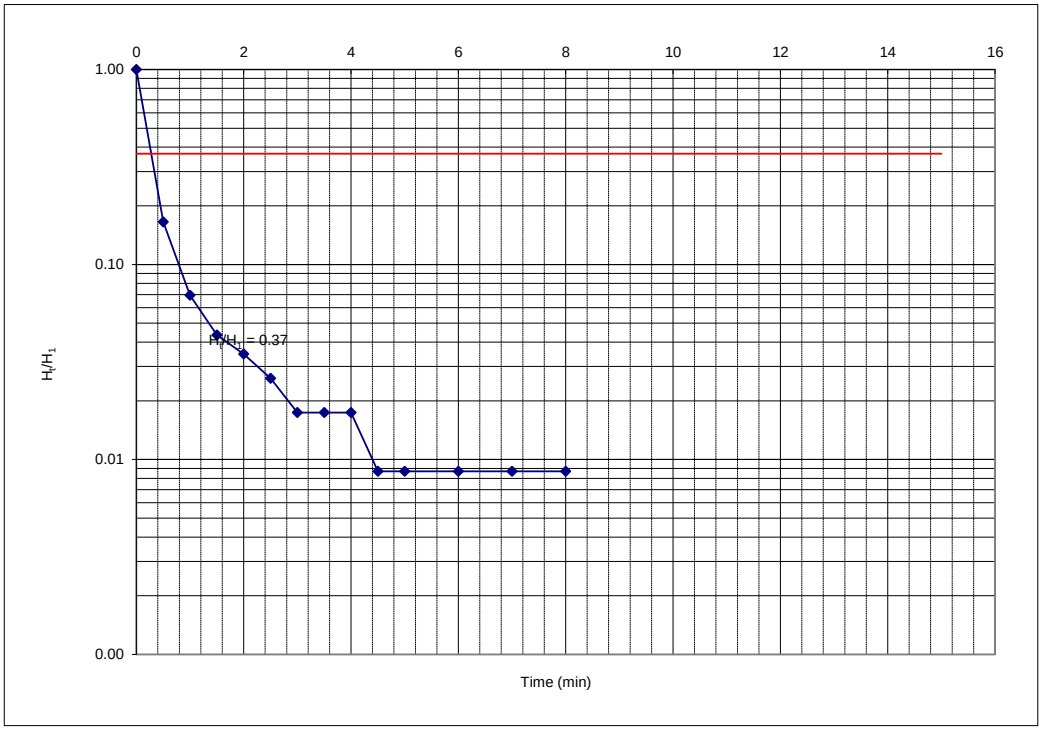
READINGS

Time (minutes)	Time (hh:mm:ss)	Water depth (m from top of casing)	Proportional head, H_t/H_0
0	00:00:00	0.00	1.00
0.5	00:00:30	0.96	0.17
1	00:01:00	1.07	0.07
1.5	00:01:30	1.10	0.04
2	00:02:00	1.11	0.03
2.5	00:02:30	1.12	0.03
3	00:03:00	1.13	0.02
3.5	00:03:30	1.13	0.02
4	00:04:00	1.13	0.02
4.5	00:04:30	1.14	0.01
5	00:05:00	1.14	0.01
6	00:06:00	1.14	0.01
7	00:07:00	1.14	0.01
8	00:08:00	1.14	0.01
9	00:09:00	1.15	0.00
10	00:10:00	1.15	0.00
15	00:15:00	1.15	0.00

RESPONSE ZONE DETAILS

Top of test section (m bgl)	Measured base of the RZ (m bgl)	Height of casing above ground (m)	Casing or standpipe diameter, d (m)	Test section diameter, D (m)	Depth to water table (m bgl)	Dist. to water source (m) - condition 5 only	Bottom of test section (m bgl)
1.00	3.90	0.00	0.05	0.20	1.15		4.00

Remarks:



TIME LAG VALUE (FROM GRAPH)

BASIC TIME LAG, T (min to reach Ht/H_0=0.37) - from graph	0.38
BASIC TIME LAG (seconds)	23

IF H_t/H_0=0.37 NOT REACHED

	minutes	seconds		m
CHOOSE T1 (seconds)			H_1/H_0 FOR T1	
CHOOSE T2 (seconds)			H_2/H_0 FOR T2	

CALCULATED VALUES

Length of test section, L	2.90
Initial head of water, H_0	1.15

PERMEABILITY (m/s)	**1.60E-05**

5. WATER SAMPLING QUALITY SHEETS

218 Northfields Avenue, London W13 9SJ
+44 (0) 20 8811 2880 info@conceptsi.co.uk www.conceptsi.co.uk

Concept Engineering Consultants Limited - Registered No. 03401367
Registered Office: 4 Oak Spinney Park, Ratby Lane, Leicester LE3 3AW

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**29/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: Cloudy PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)
BH24-10	3.89	1.03	-	

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	15:14	15.2	1.56	15.60	0.942	6.89	10.9	-27.6	160.0	Clear
4.0	15:18	15.2	1.41	14.00	0.941	6.93	10.7	-26.1	123.0	Clear
6.0	15:22	15.2	1.32	13.80	0.942	6.94	10.3	-24.3	134.0	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**29/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS24-07	1.66	0.90	0.94	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:38	15.6	5.44	55.00	1.590	7.30	-9.3	-91.4	152.0	Cloudy
4.0	11:44	16.3	5.95	60.50	1.581	7.37	-14.1	-77.4	116.0	Clear
6.0	11:49	16.8	6.68	68.50	1.576	7.43	-16.4	-69.8	87.3	Clear
6.0	12:00	17.0	7.28	75.1	1.582	7.46	-18.6	-52.3	77.8	Clear
6.0	12:05	16.8	7.53	77.3	1.58	7.50	-20.2	-37.7	97	Clear
6.0	12:13	16.9	8.21	84.2	1.59	7.55	-23.4	-12.2	140	Clear
6.0	12:17	17.3	8.3	86.10	1.58	7.54	-23.1	1.8	118.0	Clear
6.0	12:21	17.2	8.4	86.90	1.59	7.54	-22.8	4.2	118.0	Clear
6.0	12:25	17.5	8.65	89.9	1.583	7.56	-23.7	12	111	Clear
6.0	12:29	17.5	8.8	91.6	1.587	7.57	-24.4	16.4	108	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**29/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS24-08	1.98	1.36	1.37	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	14:06	14.6	1.45	14.10	19.200	6.77	18.9	101.9	74.4	Cloudy
4.0	14:14	14.6	1.42	14.00	17.300	6.78	18.5	101.3	72.1	Clear
6.0	14:20	14.2	1.41	13.80	18.000	6.78	17.8	102.1	62.3	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**30/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: dipped but couldn't be sampled as it was a 19mm piezo not 50mm pipe. PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)
BH24-02	12.65	1.74	-	

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:30	14.8	3.74	34.90	1.999	12.34	-273.3	-316.3	216.0	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**30/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH24-07	32.13	1.44	1.75	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	13:46	15.0	1.43	14.00	0.875	7.00	6.7	-117.9	73.6	Clear
4.0	13:50	15.1	1.33	13.00	0.877	6.94	9.1	-108.0	70.4	Clear
6.0	13:54	15.2	1.30	12.80	0.875	6.93	10.3	-100.3	70.0	Clear
8.0	13:58	15.2	1.29	12.7	0.875	6.92	10.5	-100.1	71.0	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**30/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: Cloudy PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)
DS24-01	2.89	1.26	2.85	

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	10:32	14.0	2.05	19.70	1.631	7.05	3.8	-5.1	3814.0	Cloudy
4.0	10:36	14.1	2.03	19.50	1.672	7.02	4.5	-5.4	3468.0	Cloudy
6.0	10:40	14.1	2.05	19.80	1.670	7.03	4.3	-5.8	3520.0	Cloudy

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**30/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS24-04	2.93	1.35	1.38	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	09:52	13.6	1.44	13.80	0.305	10.14	-157.1	-173.0	64.0	Cloudy
4.0	09:56	13.7	1.14	11.00	0.305	10.07	-154.8	-186.3	61.8	Clear
6.0	10:00	13.6	1.00	9.60	0.300	10.00	-149.2	-188.2	59.8	Clear
8.0	10:04	13.7	0.89	8.5	0.300	10.00	-17.2	-191.5	59.5	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**30/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS112	4.50	1.43	1.46	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	14:22	15.4	1.51	14.90	0.464	7.04	6.7	-80.0	73.0	Cloudy
4.0	14:26	15.4	1.19	12.00	0.466	6.83	15.2	-26.3	81.3	Clear
6.0	14:30	15.5	1.16	11.50	0.471	6.83	15.7	-29.1	85.2	Clear
8.0	14:34	15.5	1.10	10.9	0.470	6.84	15.0	-29.3	84.1	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**30/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
CP105	26.30	1.72	-	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	15:08	14.5	1.03	10.00	0.725	7.62	-26.8	-123.2	74.7	Clear
4.0	15:12	14.5	1.01	9.80	0.729	7.62	-26.6	-122.8	71.0	Clear
6.0	15:16	14.5	1.02	9.80	0.731	7.62	-26.5	-122.2	72.3	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**31/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: Cloudy PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)
	BH24-09	2.97	1.30	1.34	

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	09:50	14.5	1.46	14.20	1.168	8.26	-60.6	-81.0	2531.0	Cloudy
6.0	09:54	14.5	1.22	11.90	1.162	8.24	-58.8	-60.9	499.0	Cloudy
8.0	09:58	14.5	1.21	11.80	1.164	8.25	-58.8	-60.1	497.0	Cloudy
10.0	10:02	14.5	1.18	11.5	1.163	8.25	-58.8	-59.2	495.0	Cloudy

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**31/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: Cloudy PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)
DS24-03	2.96	1.08	1.09	

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	10:38	15.3	1.55	15.50	0.982	6.87	14.2	48.2	112.0	Clear
6.0	10:42	15.4	1.35	13.40	1.015	6.80	15.6	53.7	110.0	Clear
8.0	10:46	15.4	1.32	13.30	1.017	6.80	16.1	53.1	107.0	Clear
10.0	10:50	15.4	1.32	13.2	1.019	6.80	16.2	53.5	108.0	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**31/10/2024**
Technician:	**IJ/PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: Cloudy
DS24-05	2.90	1.14	1.14	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:18	14.7	1.80	17.50	0.717	6.99	6.7	22.4	64.8	Clear
4.0	11:22	14.7	1.73	16.90	0.709	7.00	6.2	23.4	64.2	Clear
6.0	11:26	14.8	1.68	16.40	0.713	6.98	7.7	22.5	64.0	Clear
8.0	11:30	14.8	1.54	15.0	0.716	6.99	7.1	21.5	64.1	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**11/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH24-09	2.98	2.47	2.56	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	09:50	13.7	3.52	33.40	0.909	7.40	-16.6	28.9	84.7	Clear
4.0	09:54	13.9	3.33	31.80	0.908	7.49	-19.9	30.4	79.9	Clear
6.0	09:58	13.8	3.22	30.60	0.909	7.51	-21.2	30.8	79.4	Clear
8.0	10:02	13.8	3.17	30.20	0.91	7.5	-21.7	30.9	79.3	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**11/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH24-07	32.30	1.59	2.41	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	13:40	15.1	1.07	10.40	0.895	6.50	-94.0	78.4	78.4	Clear
4.0	13:44	15.1	1.05	10.20	0.896	6.40	-93.9	78.2	78.2	Clear
6.0	13:48	15.1	1.04	10.20	0.895	6.40	-93.8	77.9	77.9	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**11/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
CP105	26.35	2.86	3.52	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	09:40	14.7	0.94	9.10	0.768	7.66	-29.0	-117.5	70.2	Clear
4.0	09:44	14.7	0.91	8.90	0.772	7.67	-29.0	-117.9	70.1	Clear
6.0	09:48	14.7	0.90	8.80	0.772	7.67	-29.2	-118.7	70.3	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**11/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: Water was not coming up due to the turbidity, it was very muddy, several attempts were made. PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)
DS24-01	2.95	2.31	-	

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:25	13.7	9.22	86.90	1.155	7.62	-34.8	10.9	2893.0	Muddy

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**11/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS24-04	2.97	1.50	1.50	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	14:24	12.8	1.50	14.00	0.296	9.92	-145.8	-137.3	101.0	Cloudy
4.0	14:28	12.9	1.31	12.10	0.294	9.93	-147.3	-146.7	86.6	Clear
6.0	14:32	12.9	1.16	10.70	0.292	10.20	-150.5	-159.2	70.5	Clear
8.0	14:36	12.9	1.15	10.6	0.292	10.10	-150.7	-159.3	70.5	Clear
10.0	14:40	12.9	1.13	10.4	0.29	10.00	-150.7	-159.5	71	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**12/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH24-10	3.85	1.13	1.16	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	10:45	13.7	1.16	11.10	0.955	8.57	-68.3	-43.1	63.1	Clear
4.0	10:49	13.7	1.12	10.90	0.957	8.56	-68.1	-43.1	63.9	Clear
6.0	10;53	13.7	1.11	10.60	0.958	8.55	-68.1	-43.2	64.6	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**12/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS24-07	1.62	0.97	1.27	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:20	13.6	8.63	81.70	1.044	7.84	-35.9	-43.1	88.1	Clear
1.0	11:24	13.9	9.40	89.70	1.060	7.91	-43.1	-43.0	93.1	Clear
1.0	11:28	14.0	9.44	90.50	1.061	7.92	-43.2	-42.3	93.4	Clear
0.5	11:32	14.0	9.43	90.6	1.065	7.93	-43.5	-42.0	93.8	Clear
0.5	11:36	14.1	9.44	90.7	1.06	7.93	-43.7	-41.9	93	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**12/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS24-05	2.94	1.19	1.19	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	14:10	14.1	1.30	12.50	0.789	6.98	7.1	9.1	67.2	Clear
4.0	14:13	14.1	1.28	12.30	0.787	6.98	7.1	8.8	67.0	Clear
6.0	14:15	14.1	1.26	12.10	0.787	6.98	7.1	8.9	67.0	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**12/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS24-08	1.99	1.47	1.47	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	13:28	13.5	0.88	8.40	0.338	6.85	14.1	99.1	68.1	Clear
4.0	13:32	13.5	0.89	8.40	0.337	6.85	14.2	99.7	68.3	Clear
6.0	13:36	13.5	0.89	8.30	0.337	6.85	14.5	100.3	68.0	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**13/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS24-03	2.98	2.27	2.28	PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	10:50	14.9	0.92	9.00	1.131	6.74	20.3	80.8	65.6	Clear
4.0	10:54	14.9	0.89	8.70	1.130	6.74	20.5	81.5	65.6	Clear
6.0	10:58	14.9	0.89	8.70	1.132	6.74	20.5	81.6	65.8	Clear
8.0	11:02	14.9	0.89	8.6	1.131	6.74	20.6	81.9	65.5	Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**Thorney Lane**
Job No.:	**24/3980**
Date:	**13/11/2024**
Technician:	**PO/IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: Cloudy PFAS control measures were followed in accordance with LHR042 Thorney Ln_additional PFAS monitoring spec_1.0 (003)
	DS112	4.55	2.62	2.72	

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	10:20	14.6	1.35	12.90	0.510	7.11	0.9	-59.4	229.0	Cloudy
4.0	10:24	14.6	1.35	13.00	0.508	7.10	1.0	-59.0	232.0	Cloudy
6.0	10:28	14.6	1.34	13.00	0.508	7.10	1.1	-58.9	230.0	Cloudy

6. CHEMICAL LABORATORY TESTING RESULTS

ALS Laboratories (UK) Limited
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right solutions.
right partner.

Dear Concept,

Re. Deviations on the Thorney Lane Project

Please note that some samples on this project have deviated and been analysed outside of the recommended holding times. Unfortunately due to instrument and capacity issues, the lab were not able to extract the samples within the holding times and in some cases, the samples required repeat analysis. The samples affected have been outlined below.

4 of the PFAS components as below have a shorter 7 Day holding time while all other PFAS is 28 days.

- MeFOSAA
- EtFOSAA
- MeFOSE
- EtFOSE

SDG 241031-53 - DS24-12
Sample required repeat analysis and was re-extracted after the 7 day holding times, the above 4 PFAS components were done outside of holding times and deviated. All other PFAS components were within holding times.

SDG 241102-50 – DS24-03
Sample required repeat analysis and was re-extracted after the 7 day holding times, the above 4 PFAS components were done outside of holding times and deviated. All other PFAS components were within holding times.

SDG 241112-28 - BH24-07, BH24-09, CP105, DS24-01 & DS24-04
Due to capacity and instrument issues, the samples were not extracted within the 7 day holding times and the above 4 PFAS Components were done outside of holding times and deviated. All other PFAS components were within holding times.

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SDG 241113-93 - BH24-10, DS24-05, DS24-07, DS24-08, DS24-14 and DS24-15
Due to capacity and instrument issues, the samples were not extracted within the 7 day holding times and the above 4 PFAS Components were done outside of holding times and deviated. All other PFAS components were within holding times.

SDG 241114-80 – Canal Sample 1, Canal Sample 2, Canal Sample 3, DS112 & DS24-03
Due to capacity and instrument issues, the samples were not extracted within the 7 day holding times and the above 4 PFAS Components were done outside of holding times and deviated. All other PFAS components were within holding times.

Kind Regards,

Lukasz Wisniewski
Project Manager, Land Business Unit
Hawarden, UK
T: +44 01244 528 746

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Website: www.alsenvironmental.co.uk

Concept Engineering Consultants Ltd
218 Northfields Road
London
W13 9SJ

Attention: Gabriela Mandache

CERTIFICATE OF ANALYSIS

Date of report Generation:	25 November 2024
Customer:	Concept Engineering Consultants Ltd
Sample Delivery Group (SDG):	241031-53
Your Reference:	24/3980
Location:	Thorney Lane
Report No:	748022
Order Number:	103973 (CL6431)

This report has been revised and directly supersedes 746692 in its entirety.

We received 5 samples on Thursday October 31, 2024 and 5 of these samples were scheduled for analysis which was completed on Thursday November 14, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

CERTIFICATE OF ANALYSIS

SDG: 241031-53 **Report Number:** 748022 **Superseded Report:** 746692
Client Ref.: 24/3980 **Location:** Thorney Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30596379	BH24-10	EW2A		29/10/2024
30596383	DS24-07	EW1A		29/10/2024
30596384	DS24-08	EW1A		29/10/2024
30596380	DS24-12	EW1A		29/10/2024
30596382	DS24-13	EW1A		29/10/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241031-53 **Report Number:** 748022 **Superseded Report:** 746692
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 5	30596379	BH24-10	EW2A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30596383	DS24-07	EW1A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30596384	DS24-08	EW1A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30596380	DS24-12	EW1A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30596382	DS24-13	EW1A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
			X				X	
							X	
							X	
							X	
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 5						
				X				
							X	
				X				
							X	
				X				
							X	
				X				
pH Value	All	NDPs: 0 Tests: 5						
				X				
							X	
				X				
							X	
				X				
							X	
				X				
Total Metals by ICP-MS	All	NDPs: 0 Tests: 5						
					X			
					X			
					X			
					X			

30596382	DS24-13	EW1A		HNO3 Unfiltered (ALE204)	GW
X					

CERTIFICATE OF ANALYSIS

SDG: 241031-53 **Report Number:** 748022 **Superseded Report:** 746692
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-10	DS24-07	DS24-08	DS24-12	DS24-13
			Depth (m)	.	.	.	.	.
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	29/10/2024	29/10/2024	29/10/2024	29/10/2024	29/10/2024
			Sample Time	.	.	.	.	.
			Date Received	31/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024
			SDG Ref	241031-53	241031-53	241031-53	241031-53	241031-53
			Lab Sample No.(s)	30596379	30596383	30596384	30596380	30596382
			AGS Reference	EW2A	EW1A	EW1A	EW1A	EW1A
Carbon, Organic (diss.filt)	<3 mg/l	TM090		6.09	14.6	3.77	15.4	<3
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152		265	489	166	459	195
pH	<1 pH Units	TM256		7.12 #	7.48 #	7.29 #	7.53 #	7.85 #
PFBA (375-22-4)	<2 ng/l	TM434		23.3 #	7.67 #	14.6 #	<10 #	<4 #
PFMOPrA (377-73-1)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
PFPA (2706-90-3)	<1 ng/l	TM434		<2 #	3.18 #	14.5 #	<5 #	<2 #
PFMOBA (863090-89-5)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
NFDHA (151772-58-6)	<3 ng/l	TM434		<6 #	<3 #	<3 #	<15 #	<6 #
PFBS (375-73-5)	<1 ng/l	TM434		6.46 #	1.62 #	5.59 #	<5 #	<2 #
PFHxA (307-24-4)	<1 ng/l	TM434		2.56 #	3.02 #	8.47 #	10.7 #	<2 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
PFEESA (113507-82-7)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
PFHpA (375-85-9)	<1 ng/l	TM434		4.57 #	2.52 #	12.2 #	6.56 #	<2 #
PFPeS (2706-91-4)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434		<10 #	<5 #	<5 #	<25 #	<10 #
ADONA (919005-14-4)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434		4.78 #	<1 #	<1 #	<5 #	<2 #
FBSA (30334-69-1)	<1 ng/l	TM434		2.66 #	<1 #	2.58 #	<5 #	<2 #
PFOA (335-67-1)	<0.65 ng/l	TM434		22.1 #	8.32 #	13.8 #	10.2 #	<1.3 #
PFHxS (355-46-4)	<1 ng/l	TM434		10.2 #	7.74 #	2.07 #	32.2 #	<2 #
PFNA (375-95-1)	<1 ng/l	TM434		3.15 #	1.12 #	2.13 #	<5 #	<2 #
PFecHS (133201-07-7)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
PFHpS (375-92-8)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434		<10 #	<5 #	<5 #	<25 #	<10 #
PFDA (335-76-2)	<2 ng/l	TM434		<4 #	<2 #	2.42 #	<10 #	<4 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 ♦ #	<4 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434		<10 #	<5 #	<5 #	<25 #	<10 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434		20.1 #	2.47 #	4.63 #	7.48 #	<1.3 #
Branched PFOS	<0.65 ng/l	TM434		14 #	4.3 #	2.79 #	12.8 #	<1.3 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 ♦ #	<4 #

CERTIFICATE OF ANALYSIS

SDG: 241031-53 **Report Number:** 748022 **Superseded Report:** 746692
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-10	DS24-07	DS24-08	DS24-12	DS24-13
			Depth (m)	.	.	.	.	.
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	29/10/2024	29/10/2024	29/10/2024	29/10/2024	29/10/2024
			Sample Time	.	.	.	.	.
			Date Received	31/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024
			SDG Ref	241031-53	241031-53	241031-53	241031-53	241031-53
			Lab Sample No.(s)	30596379	30596383	30596384	30596380	30596382
			AGS Reference	EW2A	EW1A	EW1A	EW1A	EW1A
PFUnA (2058-94-8)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
PFNS (68259-12-1)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
FHxSA (41997-13-1)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
PFDoA (307-55-1)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
PFDS (335-77-3)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
PFTrDA (72629-94-8)	<3 ng/l	TM434		<6 #	<3 #	<3 #	<15 #	<6 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
PFUnDS (749786-16-1)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
PFTeA (376-06-7)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
PFOSA (754-91-6)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
PFDoS (79780-39-5)	<2 ng/l	TM434		<4 #	<2 #	<2 #	<10 #	<4 #
PFTrDS (174675-49-1)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
PFHxDA (67905-19-5)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
MeFOSE (24448-09-7)	<10 ng/l	TM434		<20 #	<10 #	<10 #	<50 ♦ #	<20 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
EtFOSE (1691-99-2)	<10 ng/l	TM434		<20 #	<10 #	<10 #	<50 ♦ #	<20 #
PFODA (16517-11-6)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434		<2 #	<1 #	<1 #	<5 #	<2 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434		<20	<10	66.5	<50	<20
Total PFOS	<0.65 ng/l	TM434		34.1 #	6.77 #	7.42 #	20.3 #	<1.3 #

Table of Results - Appendix

Method No	Description
TM152	Analysis of Aqueous Samples by ICP-MS
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 241031-53 **Report Number:** 748022 **Superseded Report:** 746692
Client Ref.: 24/3980 **Location:** Thorney Lane

Test Completion Dates

Lab Sample No(s)	30596379	30596383	30596384	30596380	30596382
Customer Sample Ref.	BH24-10	DS24-07	DS24-08	DS24-12	DS24-13
AGS Ref.	EW2A	EW1A	EW1A	EW1A	EW1A
Depth					
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Dissolved Organic/Inorganic Carbon	01-Nov-2024	01-Nov-2024	01-Nov-2024	01-Nov-2024	01-Nov-2024
PFAS Liquids (Full Suite)	06-Nov-2024	06-Nov-2024	06-Nov-2024	14-Nov-2024	06-Nov-2024
pH Value	05-Nov-2024	04-Nov-2024	05-Nov-2024	05-Nov-2024	05-Nov-2024
Total Metals by ICP-MS	05-Nov-2024	05-Nov-2024	05-Nov-2024	05-Nov-2024	05-Nov-2024

ALS Environmental, Land	Issue No. 1
	Date: 15/05/2024
QF.7.5.1 Data Amendments Form	Issued and Authorised by Quality Manager

SDG	Sample Event	Sample ID	Date Amended	Amendment Reason	Analysis/Component	Authorised (Lab Manager)	Previous Value	New Value	Units	Supersedes Report
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFBA (375-22-4)	David Fitzpatrick	19.9	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFMOPrA (377-73-1)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	3:3 FTCA (356-02-5)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFPA (2706-90-3)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFMOBA (863090-89-5)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	4:2 FTS (757124-72-4)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	NFDHA (151772-58-6)	David Fitzpatrick	<3	<15	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFBS (375-73-5)	David Fitzpatrick	2.93	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFHxA (307-24-4)	David Fitzpatrick	6.03	10.7	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	HFPO-DA (13252-13-6)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFEESA (113507-82-7)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFHpA (375-85-9)	David Fitzpatrick	5.55	6.56	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFPeS (2706-91-4)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	5:3 FTCA (914637-49-3)	David Fitzpatrick	<5	<25	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	ADONA (919005-14-4)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	6:2 FTS (27619-97-2)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	FBSA (30334-69-1)	David Fitzpatrick	1.22	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFOA (335-67-1)	David Fitzpatrick	15.9	10.2	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFHxS (355-46-4)	David Fitzpatrick	10.2	32.2	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFNA (375-95-1)	David Fitzpatrick	1.53	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFecHS (133201-07-7)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFHpS (375-92-8)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	8:2 FTS (39108-34-4)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	HFPO-TA (13252-14-7)	David Fitzpatrick	<5	<25	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFDA (335-76-2)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	MeFOSAA (2355-31-9)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	7:3 FTCA (812-70-4)	David Fitzpatrick	<5	<25	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	Linear PFOS (1763-23-1)	David Fitzpatrick	5.11	7.48	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	Branched PFOS	David Fitzpatrick	7.1	12.8	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	EtFOSAA (2991-50-6)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFUnA (2058-94-8)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	9Cl-PF3ONS (756426-58-1)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFNS (68259-12-1)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	FHxSA (41997-13-1)	David Fitzpatrick	1.34	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFDoA (307-55-1)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFDS (335-77-3)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFTrDA (72629-94-8)	David Fitzpatrick	<3	<15	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	11Cl-PF3OUdS (763051-92-9)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFUnDS (749786-16-1)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFTeA (376-06-7)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFOSA (754-91-6)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFDoS (79780-39-5)	David Fitzpatrick	<2	<10	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFTrDS (174675-49-1)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFHxDA (67905-19-5)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	MeFOSE (24448-09-7)	David Fitzpatrick	<10	<50	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	N-MeFOSA (31506-32-8)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	EtFOSE (1691-99-2)	David Fitzpatrick	<10	<50	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	PFODA (16517-11-6)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	N-EtFOSA (4151-50-2)	David Fitzpatrick	<1	<5	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	6:2 FTAB (34455-29-3)	David Fitzpatrick	<10	<50	ng/l	746692
241031-53	30596380	DS24-12	25/11/2024	Analytical/Quality Issue	Total PFOS	David Fitzpatrick	12.2	20.3	ng/l	746692

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
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Deeside
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Concept Engineering Consultants Ltd
218 Northfields Road
London
W13 9SJ

Attention: Gabriela Mandache

CERTIFICATE OF ANALYSIS

Date of report Generation:	07 November 2024
Customer:	Concept Engineering Consultants Ltd
Sample Delivery Group (SDG):	241101-44
Your Reference:	24/3980
Location:	Thorney Lane
Report No:	746115
Order Number:	103980 (CL6437)

This report has been revised and directly supersedes 745877 in its entirety.

We received 5 samples on Friday November 01, 2024 and 5 of these samples were scheduled for analysis which was completed on Thursday November 07, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

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CERTIFICATE OF ANALYSIS

SDG: 241101-44 **Report Number:** 746115 **Superseded Report:** 745877
Client Ref.: 24/3980 **Location:** Thorney Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30602454	BH24-07	EW2A		30/10/2024
30602456	CP105	EW2A		30/10/2024
30602455	DS112	EW2A		30/10/2024
30602453	DS24-01	EW2A		30/10/2024
30602458	DS24-04	EW2A		30/10/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241101-44
Client Ref.: 24/3980
Report Number: 746115
Location: Thorney Lane
Superseded Report: 745877

Results Legend

X Test

🟥 N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30602454				30602456				30602455				30602453				30602458		
Customer Sample Reference			BH24-07				CP105				DS112				DS24-01				DS24-04		
AGS Reference			EW2A				EW2A				EW2A				EW2A				EW2A		
Depth (m)																					
Container			250ml Amber Gl. PTFE/PE (ALE219)	330ml plastic bottle (ALE503)	Digitube fo PFAS analysis.	HNO3 Unfiltered (ALE204)	250ml Amber Gl. PTFE/PE (ALE219)	330ml plastic bottle (ALE503)	Digitube fo PFAS analysis.	HNO3 Unfiltered (ALE204)	250ml Amber Gl. PTFE/PE (ALE219)	330ml plastic bottle (ALE503)	Digitube fo PFAS analysis.	HNO3 Unfiltered (ALE204)	250ml Amber Gl. PTFE/PE (ALE219)	330ml plastic bottle (ALE503)	Digitube fo PFAS analysis.	HNO3 Unfiltered (ALE204)	250ml Amber Gl. PTFE/PE (ALE219)	330ml plastic bottle (ALE503)	Digitube fo PFAS analysis.
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 5	X				X				X				X				X		
PFAS Liquids (Full Suite)	All	NDPs: 1 Tests: 4			X				X				X				N				X
pH Value	All	NDPs: 0 Tests: 5		X				X				X				X				X	
Total Metals by ICP-MS	All	NDPs: 0 Tests: 5				X				X				X				X			

15:23:56 07/11/2024

30602458	DS24-04	EW2A		HNO3 Unfiltered (ALE204)	GW							
X												

Validated

CERTIFICATE OF ANALYSIS

SDG: 241101-44 **Report Number:** 746115 **Superseded Report:** 745877
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-07	CP105	DS112	DS24-01	DS24-04
			Depth (m)	.	.	.	.	.
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	30/10/2024	30/10/2024	30/10/2024	30/10/2024	30/10/2024
			Sample Time	.	.	.	.	.
			Date Received	01/11/2024	01/11/2024	01/11/2024	01/11/2024	01/11/2024
			SDG Ref	241101-44	241101-44	241101-44	241101-44	241101-44
			Lab Sample No.(s)	30602454	30602456	30602455	30602453	30602458
			AGS Reference	EW2A	EW2A	EW2A	EW2A	EW2A
Carbon, Organic (diss.filt)	<3 mg/l	TM090		6.71	10.7	3.5	5.51	10.7
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152		354	213	176	1090	30.3
pH	<1 pH Units	TM256		7.33 #	7.86 #	7.19 #	7.35 #	9.59 #
PFBA (375-22-4)	<2 ng/l	TM434		3.18 #	62.8 #	3.47 #		<2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #
PFPA (2706-90-3)	<1 ng/l	TM434		6.07 #	76.8 #	6.65 #		10.3 #
PFMOBA (863090-89-5)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434		<3 #	<3 #	<3 #		<3 #
PFBS (375-73-5)	<1 ng/l	TM434		1.23 #	19.2 #	1.37 #		2.06 #
PFHxA (307-24-4)	<1 ng/l	TM434		3.62 #	65.6 #	3.05 #		8.05 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #
PFHpA (375-85-9)	<1 ng/l	TM434		1.37 #	70.8 #	1.44 #		5.66 #
PFPeS (2706-91-4)	<1 ng/l	TM434		<1 #	16.3 #	<1 #		<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434		<5 #	<5 #	<5 #		<5 #
ADONA (919005-14-4)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434		<1 #	4.06 #	<1 #		7.92 #
FBSA (30334-69-1)	<1 ng/l	TM434		<1 #	2.53 #	<1 #		<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434		1.21 #	136 #	1.47 #		10.9 #
PFHxS (355-46-4)	<1 ng/l	TM434		1.78 #	45.4 #	1.93 #		4.14 #
PFNA (375-95-1)	<1 ng/l	TM434		1.24 #	2.46 #	1.19 #		2.07 #
PFecHS (133201-07-7)	<1 ng/l	TM434		<1 #	2.55 #	<1 #		2.45 #
PFHpS (375-92-8)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434		<2 #	<2 #	<2 #		2.01 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434		<5 #	<5 #	<5 #		<5 #
PFDA (335-76-2)	<2 ng/l	TM434		<2 #	<2 #	<2 #		2.22 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434		<2 #	<2 #	<2 #		3.63 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434		<5 #	<5 #	<5 #		<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434		2.54 #	10.3 #	3.25 #		11.2 #
Branched PFOS	<0.65 ng/l	TM434		2.48 #	10.2 #	2.7 #		5.34 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241101-44 **Report Number:** 746115 **Superseded Report:** 745877

Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-07	CP105	DS112	DS24-01	DS24-04	
			Depth (m)	.	.	.	.	.	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	30/10/2024	30/10/2024	30/10/2024	30/10/2024	30/10/2024	
			Sample Time	.	.	.	.	.	
			Date Received	01/11/2024	01/11/2024	01/11/2024	01/11/2024	01/11/2024	
			SDG Ref	241101-44	241101-44	241101-44	241101-44	241101-44	
			Lab Sample No.(s)	30602454	30602456	30602455	30602453	30602458	
			AGS Reference	EW2A	EW2A	EW2A	EW2A	EW2A	
PFUnA (2058-94-8)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #	
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #	
PFNS (68259-12-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #	
FHxSA (41997-13-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #	
PFDoA (307-55-1)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #	
PFDS (335-77-3)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #	
PFTrDA (72629-94-8)	<3 ng/l	TM434		<3 #	<3 #	<3 #		<3 #	
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #	
PFUnDS (749786-16-1)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #	
PFTeA (376-06-7)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #	
PFOSA (754-91-6)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #	
PFDoS (79780-39-5)	<2 ng/l	TM434		<2 #	<2 #	<2 #		<2 #	
PFTrDS (174675-49-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #	
PFHxDA (67905-19-5)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #	
MeFOSE (24448-09-7)	<10 ng/l	TM434		<10 #	<10 #	<10 #		<10 #	
N-MeFOSA (31506-32-8)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #	
EtFOSE (1691-99-2)	<10 ng/l	TM434		<10 #	<10 #	<10 #		<10 #	
PFODA (16517-11-6)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #	
N-EtFOSA (4151-50-2)	<1 ng/l	TM434		<1 #	<1 #	<1 #		<1 #	
6:2 FTAB (34455-29-3)	<10 ng/l	TM434		<10	<10	<10		15.2	
Total PFOS	<0.65 ng/l	TM434		5.02 #	20.5 #	5.94 #		16.6 #	

Validated

CERTIFICATE OF ANALYSIS

SDG: 241101-44 **Report Number:** 746115 **Superseded Report:** 745877
Client Ref.: 24/3980 **Location:** Thorney Lane

Notification of NDPs (No determination possible)

Date Received : 01/11/2024 08:48:26

Sample No	Customer Sample Ref.	Depth (m)	Test	Comment
30602453	DS24-01 EW2A		PFAS Liquids (Full Suite)	Sample unsuitable for analysis

Table of Results - Appendix

Method No	Description
TM152	Analysis of Aqueous Samples by ICP-MS
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 241101-44 **Report Number:** 746115 **Superseded Report:** 745877
Client Ref.: 24/3980 **Location:** Thorney Lane

Test Completion Dates

Lab Sample No(s)	30602454	30602456	30602455	30602453	30602458
Customer Sample Ref.	BH24-07	CP105	DS112	DS24-01	DS24-04
AGS Ref.	EW2A	EW2A	EW2A	EW2A	EW2A
Depth					
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Dissolved Organic/Inorganic Carbon	06-Nov-2024	06-Nov-2024	05-Nov-2024	06-Nov-2024	06-Nov-2024
PFAS Liquids (Full Suite)	06-Nov-2024	06-Nov-2024	06-Nov-2024		06-Nov-2024
pH Value	07-Nov-2024	07-Nov-2024	07-Nov-2024	07-Nov-2024	07-Nov-2024
Total Metals by ICP-MS	06-Nov-2024	06-Nov-2024	06-Nov-2024	06-Nov-2024	06-Nov-2024

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALS Life Sciences Limited

Notification of NDPs (No determination possible)

SDG Number	241101-44	**Location**	Thorney Lane
Client	H_CONSIT_LON	**Order No.**	103980 (CL6437)
Client Reference	24/3980		
Attention	Gabriela Mandache	**Date Received**	01/11/2024 08:48:26

Sample No	Sample Identity	Depth (m)	Test	Comment
30602463	DS24-01		PFAS Liquids (Full Suite)	Sample unsuitable for analysis

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Concept Engineering Consultants Ltd
218 Northfields Road
London
W13 9SJ

Attention: Gabriela Mandache

CERTIFICATE OF ANALYSIS

Date of report Generation:	15 November 2024
Customer:	Concept Engineering Consultants Ltd
Sample Delivery Group (SDG):	241102-50
Your Reference:	24/3980
Location:	Thorney Lane
Report No:	746752
Order Number:	103992 (CL6441)

This report has been revised and directly supersedes 746693 in its entirety.

We received 6 samples on Saturday November 02, 2024 and 6 of these samples were scheduled for analysis which was completed on Thursday November 14, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

CERTIFICATE OF ANALYSIS

SDG: 241102-50 **Report Number:** 746752 **Superseded Report:** 746693
Client Ref.: 24/3980 **Location:** Thorney Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30610078	BH24-09	EW2A		31/10/2024
30610081	Canal Sample 1	EW1A		31/10/2024
30610082	Canal Sample 2	EW1A		31/10/2024
30610083	Canal Sample 3	EW1A		31/10/2024
30610079	DS24-03	EW3A		31/10/2024
30610080	DS24-05	EW2A		31/10/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241102-50 **Report Number:** 746752 **Superseded Report:** 746693
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			30610078	BH24-09	EW2A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30610081	Canal Sample 1	EW1A		250ml Amber Gl. PTFE/PE (ALE219)	SW
							330ml plastic bottle (ALE503)	SW
							Digitube fo PFAS analysis.	SW
							HNO3 Unfiltered (ALE204)	SW
			30610082	Canal Sample 2	EW1A		250ml Amber Gl. PTFE/PE (ALE219)	SW
							330ml plastic bottle (ALE503)	SW
							Digitube fo PFAS analysis.	SW
							HNO3 Unfiltered (ALE204)	SW
			30610083	Canal Sample 3	EW1A		250ml Amber Gl. PTFE/PE (ALE219)	SW
							330ml plastic bottle (ALE503)	SW
							Digitube fo PFAS analysis.	SW
							HNO3 Unfiltered (ALE204)	SW
			30610079	DS24-03	EW3A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 6						
			X				X	
							X	
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 6						
					X			
							X	
							X	
pH Value	All	NDPs: 0 Tests: 6						
				X				
							X	
							X	
Total Metals by ICP-MS	All	NDPs: 0 Tests: 6						
				X				
							X	
							X	

							DS24-05	30610080
						EW2A		
HNO3 Unfiltered (ALE204)	GW							
Digitube fo PFAS analysis.	GW			X				
330ml plastic bottle (ALE503)	GW				X			
250ml Amber Gl. PTFE/PE (ALE219)	GW		X					
HNO3 Unfiltered (ALE204)	GW						DS24-03	30610079
		X				EW3A		

CERTIFICATE OF ANALYSIS

SDG: 241102-50 **Report Number:** 746752 **Superseded Report:** 746693
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-09	Canal Sample 1	Canal Sample 2	Canal Sample 3	DS24-03	DS24-05
			Depth (m)	.	.	.	.	.	.
			Sample Type	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	31/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024
			Sample Time	.	.	.	.	.	.
			Date Received	02/11/2024	02/11/2024	02/11/2024	02/11/2024	02/11/2024	02/11/2024
			SDG Ref	241102-50	241102-50	241102-50	241102-50	241102-50	241102-50
			Lab Sample No.(s)	30610078	30610081	30610082	30610083	30610079	30610080
			AGS Reference	EW2A	EW1A	EW1A	EW1A	EW3A	EW2A
Carbon, Organic (diss.filt)	<3 mg/l	TM090		6.2	10.6	8.63	44.5	9.32	9.8
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152		34.6	302	261	764	407	320
pH	<1 pH Units	TM256		8.14 #	7.44 #	7.41 #	7.51 #	7.06 #	7.42 #
PFBA (375-22-4)	<2 ng/l	TM434		15.9 #	16.8 #	19.4 #	16.3 #	283 #	24.2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434		11.6 #	13.9 #	13.4 #	13.9 #	303 #	32.1 #
PFMOBA (863090-89-5)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434		<3 #	<3 #	<3 #	<3 #	<15 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434		5.18 #	4.24 #	4.14 #	3.71 #	123 #	7.84 #
PFHxA (307-24-4)	<1 ng/l	TM434		18.1 #	10.6 #	9.56 #	9.54 #	415 #	25.3 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434		21.9 #	6.79 #	7.04 #	6.76 #	395 #	15.7 #
PFPeS (2706-91-4)	<1 ng/l	TM434		4.39 #	1.21 #	1.03 #	1.13 #	121 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434		<5 #	<5 #	<5 #	<5 #	<25 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434		<1 #	1.29 #	<1 #	<1 #	5.75 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434		48.4 #	13.9 #	12.4 #	12.1 #	796 #	21.3 #
PFHxS (355-46-4)	<1 ng/l	TM434		13.2 #	6.89 #	7.43 #	7.02 #	298 #	9.24 #
PFNA (375-95-1)	<1 ng/l	TM434		1.11 #	1.36 #	1.18 #	1.28 #	<5 #	2.84 #
PFecHS (133201-07-7)	<1 ng/l	TM434		1.19 #	1.59 #	1.38 #	1.45 #	<5 #	1.09 #
PFHpS (375-92-8)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434		<5 #	<5 #	<5 #	<5 #	<25 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 @ #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434		<5 #	<5 #	<5 #	<5 #	<25 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434		2.88 #	8 #	6.42 #	9.53 #	23.7 #	15.7 #
Branched PFOS	<0.65 ng/l	TM434		2.38 #	8.73 #	8.3 #	8.68 #	19.2 #	9.07 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 @ #	<2 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241102-50 **Report Number:** 746752 **Superseded Report:** 746693

Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-09	Canal Sample 1	Canal Sample 2	Canal Sample 3	DS24-03	DS24-05
			Depth (m)	.	.	.	.	.	.
			Sample Type	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	31/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024
			Sample Time	.	.	.	.	.	.
			Date Received	02/11/2024	02/11/2024	02/11/2024	02/11/2024	02/11/2024	02/11/2024
			SDG Ref	241102-50	241102-50	241102-50	241102-50	241102-50	241102-50
			Lab Sample No.(s)	30610078	30610081	30610082	30610083	30610079	30610080
			AGS Reference	EW2A	EW1A	EW1A	EW1A	EW3A	EW2A
PFUnA (2058-94-8)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
FHxSA (41997-13-1)	<1 ng/l	TM434		<1 #	1.01 #	1.19 #	1.14 #	<5 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434		<3 #	<3 #	<3 #	<3 #	<15 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<2 #	<10 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434		<10 #	<10 #	<10 #	<10 #	<50 @ #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434		<10 #	<10 #	<10 #	<10 #	<50 @ #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<1 #	<5 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434		<10	<10	<10	<10	<50	<10
Total PFOS	<0.65 ng/l	TM434		5.26 #	16.7 #	14.7 #	18.2 #	42.9 #	24.8 #

CERTIFICATE OF ANALYSIS

SDG: 241102-50 **Report Number:** 746752 **Superseded Report:** 746693
Client Ref.: 24/3980 **Location:** Thorney Lane

Data Amendment

Sample No. : 30610082 **Date of Amendment :** 15/11/2024 **Authorised:** Sarah Middleton

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
Canal Sample 2	Deviation Issue	Total Metals by ICP-MS	Hardness, Total as CaCO3 unfiltered	N/A	Deviating "2"	Deviation Removed

Table of Results - Appendix

Method No	Description
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM152	Analysis of Aqueous Samples by ICP-MS
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 241102-50 **Report Number:** 746752 **Superseded Report:** 746693
Client Ref.: 24/3980 **Location:** Thorney Lane

Test Completion Dates

Lab Sample No(s)	30610078	30610081	30610082	30610083	30610079	30610080
Customer Sample Ref.	BH24-09	Canal Sample 1	Canal Sample 2	Canal Sample 3	DS24-03	DS24-05
AGS Ref.	EW2A	EW1A	EW1A	EW1A	EW3A	EW2A
Depth						
Type	Ground Water	Surface Water	Surface Water	Surface Water	Ground Water	Ground Water
Dissolved Organic/Inorganic Carbon	06-Nov-2024	06-Nov-2024	06-Nov-2024	06-Nov-2024	06-Nov-2024	06-Nov-2024
PFAS Liquids (Full Suite)	07-Nov-2024	07-Nov-2024	07-Nov-2024	07-Nov-2024	14-Nov-2024	07-Nov-2024
pH Value	11-Nov-2024	11-Nov-2024	11-Nov-2024	11-Nov-2024	11-Nov-2024	11-Nov-2024
Total Metals by ICP-MS	06-Nov-2024	06-Nov-2024	06-Nov-2024	06-Nov-2024	06-Nov-2024	06-Nov-2024

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
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Website: www.alsenvironmental.co.uk

Concept Engineering Consultants Ltd
218 Northfields Road
London
W13 9SJ

Attention: Gabriela Mandache

CERTIFICATE OF ANALYSIS

Date of report Generation:	02 December 2024
Customer:	Concept Engineering Consultants Ltd
Sample Delivery Group (SDG):	241112-28
Your Reference:	24/3980
Location:	Thorney Lane
Report No:	748773
Order Number:	104058 (CL6462)

This report has been revised and directly supersedes 748179 in its entirety.

We received 5 samples on Tuesday November 12, 2024 and 5 of these samples were scheduled for analysis which was completed on Monday December 02, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

CERTIFICATE OF ANALYSIS

SDG: 241112-28 **Report Number:** 748773 **Superseded Report:** 748179
Client Ref.: 24/3980 **Location:** Thorney Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30652825	BH24-07	EW3A		11/11/2024
30652823	BH24-09	EW3A		11/11/2024
30652824	CP105	EW3A		11/11/2024
30652828	DS24-01	EW3A		11/11/2024
30652827	DS24-04	EW3A		11/11/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241112-28 **Report Number:** 748773 **Superseded Report:** 748179
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			30652825	BH24-07	EW3A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30652823	BH24-09	EW3A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30652824	CP105	EW3A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30652828	DS24-01	EW3A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30652827	DS24-04	EW3A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 5	X				X	
							X	
							X	
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 5			X			
							X	
							X	
							X	
pH Value	All	NDPs: 0 Tests: 5		X				
							X	
							X	
							X	
Total Metals by ICP-MS	All	NDPs: 0 Tests: 5				X		
							X	
							X	

30652827	DS24-04	EW3A		HNO3 Unfiltered (ALE204)	GW
X					

CERTIFICATE OF ANALYSIS

SDG: 241112-28 **Report Number:** 748773 **Superseded Report:** 748179
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-07	BH24-09	CP105	DS24-01	DS24-04
			Depth (m)	.	.	.	.	.
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	11/11/2024	11/11/2024	11/11/2024	11/11/2024	11/11/2024
			Sample Time	.	.	.	.	.
			Date Received	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
			SDG Ref	241112-28	241112-28	241112-28	241112-28	241112-28
			Lab Sample No.(s)	30652825	30652823	30652824	30652828	30652827
			AGS Reference	EW3A	EW3A	EW3A	EW3A	EW3A
Carbon, Organic (diss.filt)	<3 mg/l	TM090		6.92	9.31	11.2	7.08	9.21
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152		384	149	222	801	30.2
pH	<1 pH Units	TM256		7.2 #	7.6 #	7.75 #	7.68 #	9.69 #
PFBA (375-22-4)	<2 ng/l	TM434		25.5 #	98.8 #	82.5 #	<100 #	<2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434		41 #	107 #	96.7 #	<50 #	8.29 #
PFMOBA (863090-89-5)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434		<3 #	<3 #	<3 #	<150 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434		10.1 #	39.3 #	22.9 #	<50 #	2.09 #
PFHxA (307-24-4)	<1 ng/l	TM434		20.3 #	146 #	92.4 #	<50 #	9.36 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434		13.1 #	148 #	78.4 #	<50 #	4.48 #
PFPeS (2706-91-4)	<1 ng/l	TM434		1.75 #	40.4 #	22.1 #	<50 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434		<5 #	<5 #	<5 #	<250 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434		5.25 #	2.52 #	5.29 #	<50 #	8.55 #
FBSA (30334-69-1)	<1 ng/l	TM434		2.18 #	<1 #	2.02 #	<50 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434		14.8 #	295 #	186 #	<32.5 #	7.55 #
PFHxS (355-46-4)	<1 ng/l	TM434		30.8 #	115 #	61.4 #	<50 #	6.01 #
PFNA (375-95-1)	<1 ng/l	TM434		1.32 #	1.51 #	2.9 #	<50 #	1.48 #
PFecHS (133201-07-7)	<1 ng/l	TM434		<1 #	3.21 #	2.72 #	<50 #	1.95 #
PFHpS (375-92-8)	<1 ng/l	TM434		1.84 #	<1 #	1.09 #	<50 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	2.15 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434		<5 #	<5 #	<5 #	<250 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	2.49 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434		<2 ♦ #	<2 ♦ #	<2 ♦ #	<100 ♦ #	4.23 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434		<5 #	<5 #	<5 #	<250 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434		62.8 #	6.43 #	13.5 #	<32.5 #	13 #
Branched PFOS	<0.65 ng/l	TM434		55.2 #	9.08 #	11.1 #	<32.5 #	6.42 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434		<2 ♦ #	<2 ♦ #	<2 ♦ #	<100 ♦ #	<2 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241112-28 **Report Number:** 748773 **Superseded Report:** 748179
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-07	BH24-09	CP105	DS24-01	DS24-04
			Depth (m)	.	.	.	.	.
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	11/11/2024	11/11/2024	11/11/2024	11/11/2024	11/11/2024
			Sample Time	.	.	.	.	.
			Date Received	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
			SDG Ref	241112-28	241112-28	241112-28	241112-28	241112-28
			Lab Sample No.(s)	30652825	30652823	30652824	30652828	30652827
			AGS Reference	EW3A	EW3A	EW3A	EW3A	EW3A
PFUnA (2058-94-8)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
FHxSA (41997-13-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434		<3 #	<3 #	<3 #	<150 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434		<2 #	<2 #	<2 #	<100 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434		<10 ♦ #	<10 ♦ #	<10 ♦ #	<500 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434		<10 ♦ #	<10 ♦ #	<10 ♦ #	<500 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434		<1 #	<1 #	<1 #	<50 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434		<10	<10	<10	<500	17.4
Total PFOS	<0.65 ng/l	TM434		118 #	15.5 #	24.6 #	<32.5 #	19.4 #

Table of Results - Appendix

Method No	Description
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM152	Analysis of Aqueous Samples by ICP-MS
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 241112-28 **Report Number:** 748773 **Superseded Report:** 748179
Client Ref.: 24/3980 **Location:** Thorney Lane

Test Completion Dates

Lab Sample No(s)	30652825	30652823	30652824	30652828	30652827
Customer Sample Ref.	BH24-07	BH24-09	CP105	DS24-01	DS24-04
AGS Ref.	EW3A	EW3A	EW3A	EW3A	EW3A
Depth					
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Dissolved Organic/Inorganic Carbon	14-Nov-2024	14-Nov-2024	14-Nov-2024	14-Nov-2024	14-Nov-2024
PFAS Liquids (Full Suite)	29-Nov-2024	02-Dec-2024	29-Nov-2024	29-Nov-2024	29-Nov-2024
pH Value	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024
Total Metals by ICP-MS	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

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12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
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Website: www.alsenvironmental.co.uk

Concept Engineering Consultants Ltd
218 Northfields Road
London
W13 9SJ

Attention: Gabriela Mandache

CERTIFICATE OF ANALYSIS

Date of report Generation:	10 December 2024
Customer:	Concept Engineering Consultants Ltd
Sample Delivery Group (SDG):	241113-93
Your Reference:	24/3980
Location:	Thorney Lane
Report No:	749722
Order Number:	104063 (CL6465)

This report has been revised and directly supersedes 749362 in its entirety.

We received 6 samples on Wednesday November 13, 2024 and 6 of these samples were scheduled for analysis which was completed on Tuesday December 10, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

CERTIFICATE OF ANALYSIS

SDG: 241113-93 **Report Number:** 749722 **Superseded Report:** 749362
Client Ref.: 24/3980 **Location:** Thorney Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30662891	BH24-10	EW3A		12/11/2024
30662897	DS24-05	EW3A		12/11/2024
30662896	DS24-07	EW2A		12/11/2024
30662892	DS24-08	EW2A		12/11/2024
30662893	DS24-14	EW1A		12/11/2024
30662894	DS24-15	EW1A		12/11/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241113-93 **Report Number:** 749722 **Superseded Report:** 749362
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 6	30662891	BH24-10	EW3A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30662897	DS24-05	EW3A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30662896	DS24-07	EW2A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30662892	DS24-08	EW2A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
							HNO3 Unfiltered (ALE204)	GW
			30662893	DS24-14	EW1A		250ml Amber Gl. PTFE/PE (ALE219)	GW
							330ml plastic bottle (ALE503)	GW
							Digitube fo PFAS analysis.	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 6					Digitube fo PFAS analysis.	GW
pH Value	All	NDPs: 0 Tests: 6					330ml plastic bottle (ALE503)	GW
Total Metals by ICP-MS	All	NDPs: 0 Tests: 6					HNO3 Unfiltered (ALE204)	GW

30662894	DS24-15	EW1A		HNO3 Unfiltered (ALE204)	GW								X
				Digitube fo PFAS analysis.	GW				X				
				330ml plastic bottle (ALE503)	GW						X		
				250ml Amber Gl. PTFE/PE (ALE219)	GW		X						
30662893	DS24-14	EW1A		HNO3 Unfiltered (ALE204)	GW								X

CERTIFICATE OF ANALYSIS

SDG: 241113-93 **Report Number:** 749722 **Superseded Report:** 749362
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-10	DS24-05	DS24-07	DS24-08	DS24-14	DS24-15
			Depth (m)	.	.	.	.	.	.
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
			Sample Time	.	.	.	.	.	.
			Date Received	13/11/2024	13/11/2024	13/11/2024	13/11/2024	13/11/2024	13/11/2024
			SDG Ref	241113-93	241113-93	241113-93	241113-93	241113-93	241113-93
			Lab Sample No.(s)	30662891	30662897	30662896	30662892	30662893	30662894
			AGS Reference	EW3A	EW3A	EW2A	EW2A	EW1A	EW1A
Carbon, Organic (diss.filt)	<3 mg/l	TM090		5.82	11.1	12.2	<3	3.17	<3
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152		285	436	427	126	124	199
pH	<1 pH Units	TM256		7.46 #	7.37 #	7.64 #	7.34 #	7.33 #	7.84 #
PFBA (375-22-4)	<2 ng/l	TM434		25.3 #	32.6 #	<2 #	20.7 #	20.4 #	<2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434		6.66 #	44.3 #	<1 #	35.5 #	34.9 #	<1 #
PFMOBA (863090-89-5)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434		<3 #	<15 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434		5.48 #	12 #	5.67 #	5.23 #	4.42 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434		3.52 #	30.1 #	16.4 #	16.2 #	16.6 #	<1 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434		4.95 #	18.9 #	15.9 #	17.8 #	16.9 #	<1 #
PFPeS (2706-91-4)	<1 ng/l	TM434		<1 #	<5 #	3.85 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434		<5 #	<25 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434		4.71 #	<5 #	<1 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434		2.72 #	<5 #	1.38 #	2.79 #	2.16 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434		19.3 #	35.2 #	30 #	12.6 #	12.9 #	<0.65 #
PFHxS (355-46-4)	<1 ng/l	TM434		7.56 #	17.9 #	20.4 #	1.99 #	2.1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434		2.99 #	6.76 #	1.49 #	2.63 #	2.72 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434		<5 #	<25 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434		<2 #	<10 #	<2 #	2.07 #	2.26 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434		<2 ♦ #	<10 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434		<5 #	<25 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434		20.8 #	21.6 #	5.08 #	4.27 #	4.43 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434		11.5 #	19.2 #	10.3 #	3.11 #	2.8 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434		<2 ♦ #	<10 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241113-93 **Report Number:** 749722 **Superseded Report:** 749362
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH24-10	DS24-05	DS24-07	DS24-08	DS24-14	DS24-15
			Depth (m)	.	.	.	.	.	.
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024	12/11/2024
			Sample Time	.	.	.	.	.	.
			Date Received	13/11/2024	13/11/2024	13/11/2024	13/11/2024	13/11/2024	13/11/2024
			SDG Ref	241113-93	241113-93	241113-93	241113-93	241113-93	241113-93
			Lab Sample No.(s)	30662891	30662897	30662896	30662892	30662893	30662894
			AGS Reference	EW3A	EW3A	EW2A	EW2A	EW1A	EW1A
PFUnA (2058-94-8)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
FHxSA (41997-13-1)	<1 ng/l	TM434		<1 #	<5 #	1.06 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434		<3 #	<15 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434		<2 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434		<10 ♦ #	<50 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434		<10 ♦ #	<50 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434		<1 #	<5 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434		<10	<50	<10	77.1	87.7	<10
Total PFOS	<0.65 ng/l	TM434		32.3 #	40.8 #	15.3 #	7.38 #	7.23 #	<0.65 #

Table of Results - Appendix

Method No	Description
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM434	Analysis of PFAS
TM152	Analysis of Aqueous Samples by ICP-MS
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 241113-93 **Report Number:** 749722 **Superseded Report:** 749362
Client Ref.: 24/3980 **Location:** Thorney Lane

Test Completion Dates

Lab Sample No(s)	30662891	30662897	30662896	30662892	30662893	30662894
Customer Sample Ref.	BH24-10	DS24-05	DS24-07	DS24-08	DS24-14	DS24-15
AGS Ref.	EW3A	EW3A	EW2A	EW2A	EW1A	EW1A
Depth						
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Dissolved Organic/Inorganic Carbon	14-Nov-2024	14-Nov-2024	14-Nov-2024	15-Nov-2024	14-Nov-2024	15-Nov-2024
PFAS Liquids (Full Suite)	04-Dec-2024	10-Dec-2024	05-Dec-2024	04-Dec-2024	04-Dec-2024	05-Dec-2024
pH Value	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024
Total Metals by ICP-MS	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024	18-Nov-2024

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
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Concept Engineering Consultants Ltd
218 Northfields Road
London
W13 9SJ

Attention: Gabriela Mandache

CERTIFICATE OF ANALYSIS

Date of report Generation:	02 December 2024
Customer:	Concept Engineering Consultants Ltd
Sample Delivery Group (SDG):	241114-80
Your Reference:	24/3980
Location:	Thorney Lane
Report No:	748774
Order Number:	104088 (CL6472)

This report has been revised and directly supersedes 748181 in its entirety.

We received 5 samples on Thursday November 14, 2024 and 5 of these samples were scheduled for analysis which was completed on Monday December 02, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

1291

CERTIFICATE OF ANALYSIS

SDG: 241114-80 **Report Number:** 748774 **Superseded Report:** 748181
Client Ref.: 24/3980 **Location:** Thorney Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30671081	Canal sample 1	EW2A		13/11/2024
30671082	Canal sample 2	EW2A		13/11/2024
30671084	Canal sample 3	EW2A		13/11/2024
30671085	DS112	EW3A		13/11/2024
30671086	DS24-03	EW4A		13/11/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241114-80 **Report Number:** 748774 **Superseded Report:** 748181
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 1	30671081	Canal sample 1	EW2A		HNO3 Filtered (ALE204)	GW
			30671084	Canal sample 3	EW2A		HNO3 Filtered (ALE204)	GW
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 5	30671081	Canal sample 1	EW2A		250ml Amber Gl. PTFE/PE (ALE219)	GW
			30671082	Canal sample 2	EW2A		250ml Amber Gl. PTFE/PE (ALE219)	GW
			30671084	Canal sample 3	EW2A		250ml Amber Gl. PTFE/PE (ALE219)	GW
			30671085	DS112	EW3A		250ml Amber Gl. PTFE/PE (ALE219)	GW
			30671086	DS24-03	EW4A		250ml Amber Gl. PTFE/PE (ALE219)	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 5	30671081	Canal sample 1	EW2A		Digitube fo PFAS analysis.	GW
			30671082	Canal sample 2	EW2A		Digitube fo PFAS analysis.	GW
			30671084	Canal sample 3	EW2A		Digitube fo PFAS analysis.	GW
			30671085	DS112	EW3A		Digitube fo PFAS analysis.	GW
			30671086	DS24-03	EW4A		Digitube fo PFAS analysis.	GW
pH Value	All	NDPs: 0 Tests: 5	30671081	Canal sample 1	EW2A		330ml plastic bottle (ALE503)	GW
			30671082	Canal sample 2	EW2A		330ml plastic bottle (ALE503)	GW
			30671084	Canal sample 3	EW2A		330ml plastic bottle (ALE503)	GW
			30671085	DS112	EW3A		330ml plastic bottle (ALE503)	GW
			30671086	DS24-03	EW4A		330ml plastic bottle (ALE503)	GW
Total Metals by ICP-MS	All	NDPs: 0 Tests: 4	30671081	Canal sample 1	EW2A		Digitube fo PFAS analysis.	GW
			30671082	Canal sample 2	EW2A		HNO3 Unfiltered (ALE204)	GW
			30671084	Canal sample 3	EW2A		HNO3 Unfiltered (ALE204)	GW
			30671085	DS112	EW3A		HNO3 Unfiltered (ALE204)	GW

12:08:14 02/12/2024

30671086	DS24-03	EW4A		HNO3 Unfiltered (ALE204)	GW
X					

CERTIFICATE OF ANALYSIS

SDG: 241114-80 **Report Number:** 748774 **Superseded Report:** 748181
Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Canal sample 1	Canal sample 2	Canal sample 3	DS112	DS24-03
			Depth (m)	.	.	.	.	.
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	13/11/2024	13/11/2024	13/11/2024	13/11/2024	13/11/2024
			Sample Time	00:00:00	.	.	.	.
			Date Received	14/11/2024	14/11/2024	14/11/2024	14/11/2024	14/11/2024
			SDG Ref	241114-80	241114-80	241114-80	241114-80	241114-80
			Lab Sample No.(s)	30671081	30671082	30671084	30671085	30671086
			AGS Reference	EW2A	EW2A	EW2A	EW3A	EW4A
Carbon, Organic (diss.filt)	<3 mg/l	TM090		6.72	5.87	7.34	4.36	10
Hardness, Total as CaCO3	<0.65 mg/l	TM152				254		
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152		279	368		237	456
pH	<1 pH Units	TM256		7.79 #	7.63 #	7.64 #	7.23 #	7.09 #
PFBA (375-22-4)	<2 ng/l	TM434		22.2 #	17 #	20.5 #	<10 #	282 #
PFMOPrA (377-73-1)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434		17.8 #	16.7 #	26.1 #	13.6 #	313 #
PFMOBA (863090-89-5)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434		<3 #	<15 #	<15 #	<15 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434		4.34 #	<5 #	<5 #	<5 #	119 #
PFHxA (307-24-4)	<1 ng/l	TM434		12.8 #	10.4 #	13.8 #	<5 #	440 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434		5.63 #	<5 #	7.4 #	<5 #	481 #
PFPeS (2706-91-4)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	115 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434		<5 #	<25 #	<25 #	<25 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434		1.21 #	<5 #	<5 #	<5 #	1.89 #
FBSA (30334-69-1)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	1.88 #
PFOA (335-67-1)	<0.65 ng/l	TM434		13.1 #	9.31 #	18.7 #	<3.25 #	977 #
PFHxS (355-46-4)	<1 ng/l	TM434		11.8 #	14.3 #	14.4 #	<5 #	282 #
PFNA (375-95-1)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434		1.2 #	<5 #	<5 #	<5 #	7.99 #
PFHpS (375-92-8)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	1.47 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434		<5 #	<25 #	<25 #	<25 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434		<2 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434		<5 #	<25 #	<25 #	<25 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434		10.6 #	11.5 #	10.2 #	<3.25 #	11.6 #
Branched PFOS	<0.65 ng/l	TM434		10.5 #	8.09 #	11.7 #	<3.25 #	16.4 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241114-80 **Report Number:** 748774 **Superseded Report:** 748181

Client Ref.: 24/3980 **Location:** Thorney Lane

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Canal sample 1	Canal sample 2	Canal sample 3	DS112	DS24-03
			Depth (m)	.	.	.	.	.
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	13/11/2024	13/11/2024	13/11/2024	13/11/2024	13/11/2024
			Sample Time	00:00:00	.	.	.	.
			Date Received	14/11/2024	14/11/2024	14/11/2024	14/11/2024	14/11/2024
			SDG Ref	241114-80	241114-80	241114-80	241114-80	241114-80
			Lab Sample No.(s)	30671081	30671082	30671084	30671085	30671086
			AGS Reference	EW2A	EW2A	EW2A	EW3A	EW4A
EtFOSAA (2991-50-6)	<2 ng/l	TM434		<2 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
FHxSA (41997-13-1)	<1 ng/l	TM434		1.5 #	<5 #	<5 #	<5 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434		<3 #	<15 #	<15 #	<15 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434		<2 #	<10 #	<10 #	<10 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434		<10 ♦ #	<50 ♦ #	<50 ♦ #	<50 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434		<10 ♦ #	<50 ♦ #	<50 ♦ #	<50 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434		<1 #	<5 #	<5 #	<5 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434		<10	<50	<50	<50	<10
Total PFOS	<0.65 ng/l	TM434		21.1 #	19.6 #	21.9 #	<3.25 #	28 #

Table of Results - Appendix

Method No	Description
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM152	Analysis of Aqueous Samples by ICP-MS
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 241114-80 **Report Number:** 748774 **Superseded Report:** 748181
Client Ref.: 24/3980 **Location:** Thorney Lane

Test Completion Dates

Lab Sample No(s)	30671081	30671082	30671084	30671085	30671086
Customer Sample Ref.	Canal sample 1	Canal sample 2	Canal sample 3	DS112	DS24-03
AGS Ref.	EW2A	EW2A	EW2A	EW3A	EW4A
Depth					
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Dissolved Metals by ICP-MS			19-Nov-2024		
Dissolved Organic/Inorganic Carbon	16-Nov-2024	16-Nov-2024	16-Nov-2024	16-Nov-2024	16-Nov-2024
PFAS Liquids (Full Suite)	29-Nov-2024	29-Nov-2024	29-Nov-2024	29-Nov-2024	02-Dec-2024
pH Value	18-Nov-2024	20-Nov-2024	18-Nov-2024	20-Nov-2024	18-Nov-2024
Total Metals by ICP-MS	19-Nov-2024	19-Nov-2024		19-Nov-2024	19-Nov-2024

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

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The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

B.3 Concept 2025 factual report

Ground Investigation Report - Factual

Thorney Lane DC1

Prepared for: Arup
Issue 02

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Concept: 25/4047-GIR-F01
08/07/2025

DOCUMENT ISSUE REGISTER			
Project Name:	Thorney Lane DC1		
Project Number:	25/4047		
Document Reference:	25/4047-GIR-F01	**Current Issue**	Issue 02
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14/04/25	Issue 00	DRAFT	Arup
20/05/25	Issue 01	FINAL: Updated with laboratory test results & comments	Arup
08/07/25	Issue 02	FINAL: Updated with comments	Arup

Notes:

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1. INTRODUCTION

Arup contracted Concept Engineering Consultants (Concept) to conduct a geoenvironmental investigation at Thorney Lane, located in the Thorney Business Park area, Iver SL0 9EE. The works were carried out in accordance with the Arup's Ground Investigation Specification document " *Thorney Lane DC1*", job number 276894-24, dated 04/02/2025, and Concept's Method Statement, reference 25/4047-RAMS-01, Rv01, dated 13/02/2025.

The geoenvironmental investigation was supplementary to the intrusive investigations required for the proposed development of a data centre with associated buildings and infrastructure at Thorney Lane.

The report has been prepared in accordance to the current Eurocode Standards, including the relevant National Annexes:

- BS EN 1997-1:2004+A1:2013 and National Annex NA to BS EN 1997-1:2004
- BS EN 1997-2:2007 and National Annex NA to BS EN 1997-2:2007

2. LIMITATIONS

This report contains factual information only and forms part of the Ground Investigation Report for the project as determined in BS EN 1997-2: 2007. Desktop studies, evaluation of geoenvironmental information and any interpretation of the data obtained other than the extrapolation of the test results where appropriate is beyond the scope of this report.

The data presented in this report reflects the ground conditions encountered at the locations of the investigation points at the time of the investigation. Ground conditions may vary away from the investigation locations and it is possible that ground conditions other than those indicated in this report may exist at the site. Test results of parameters sensitive to seasonal variations such as groundwater may also differ if carried out at a different time.

This report has been prepared for Arup and is based on their specific requirements and instructions and reasonable skill and care have been exercised in its preparation in accordance with the technical requirements of the brief. Any other party using the information in this report for any other purpose does so at their own risk and any duty of care to that party is excluded unless as determined in the contract documents of this project.

3. PROJECT PARTICULARS

Site Location:	Thorney Business Park Thorney Lane Iver, SL0 9HE
Client:	Arup
Investigation Supervisor:	Arup
Fieldwork:	18/02/2025 – 28/02/2025
Laboratory Work:	08/04/2025 – 16/05/2025
Postfield Works:	04/03/2025 – 08/04/2025

4. SITE DESCRIPTION

The site was bounded by the Slough Arm of the Grand Union Canal to the north, Great Western mainline to the south, additional mixed use industrial units to the east and fields to the west. The topography of the site was largely flat, sloping gently towards south of site.

The approximate centre of the site was located at National Reference: 502950E, 180050N.

Figure 1.1 Site Location Plan Not to Scale / Map data ©2025 Google

5. PURPOSE AND SCOPE OF WORKS

The purpose of the investigation was to understand the ground and groundwater conditions at the site and to determine the nature and extent of any ground and groundwater contamination.

The site was a mixed use commercial/industrial park comprising multiple business units, warehouses, hardstanding carparking, yard areas and storage spaces. It was formerly used for gravel pits, subsequently developed with concrete works (later demolished), warehouses and light industrial work.

The proposed works involved a Data Centre, comprising data storage warehouses, security facilities, access roads, parking, substation and associated infrastructure.

The scope of the works comprised the following:

- 5 No. Cable Percussion Boreholes to a depth of 10.00m;
- 18 No. Dynamic Sampling Boreholes to a maximum depth of 5.00m;
- Logging and Photographing;
- Instrumentation Monitoring and Sampling;
- Chemical Testing.

Table 1 – Exploratory Hole List

Hole ID	Hole Type	Depth (m)	Easting	Northing	Level (mOD)
BH25-01	CP	10.00	503027.80	180183.19	32.71
BH25-02	CP	10.00	502927.85	180083.10	31.53
BH25-03	CP	10.00	503022.87	179998.12	31.72
BH25-04	CP	10.00	502797.98	179980.05	31.18
BH25-05	CP	10.00	502841.64	179868.38	30.85
DS25-01	DS	5.00	502812.99	180113.82	31.77
DS25-02	DS	5.00	502939.89	180155.41	31.72
DS25-03	DS	3.00	502803.44	180041.54	31.15
DS25-04	DS	5.00	502864.09	180063.03	31.45
DS25-05	DS	5.00	502969.16	180080.29	31.68
DS25-06	DS	5.00	502790.99	179893.03	31.17
DS25-07	DS	3.00	502911.86	179944.88	30.97
DS25-08	DS	5.00	502931.05	179870.66	30.78
DS25-09	DS	5.00	502980.27	179919.15	31.02
DS25-10	DS	2.00	503056.75	179933.29	31.60
DS25-11	DS	1.60	502833.28	179866.45	30.92
DS25-12	DS	5.00	502948.69	179960.04	31.00
DS25-13	DS	5.00	502888.05	180018.44	31.19
DS25-14	DS	4.60	503041.87	180014.93	31.72

Hole ID	Hole Type	Depth (m)	Easting	Northing	Level (mOD)
DS25-15A	DS	5.00	503008.05	180085.52	31.59
DS25-16	DS	5.00	503011.07	180131.77	31.91
DS25-17	DS	4.00	503054.02	180189.41	32.59
DS25-18	DS	5.00	502822.02	180066.06	31.41

Key

CP – Cable Percussion Borehole
DS – Dynamic Sampling Borehole

6. INVESTIGATION METHODS

6.1 Utilities Survey and Inspection Pits

The detection of underground services followed the guidelines of PAS128:2022. Prior to boring commencing all exploratory hole locations were checked for utilities / buried services using a CAT and genny, existing utility information and hand dug inspection pits to an appropriate depth as identified by the services plans typically to a depth of 1.20m.

Surface concrete and asphalt where encountered, were diamond cored.

6.2 Cable Percussion Drilling

5 No. Cable Percussion Boreholes (BH25-01 to BH25-05) were drilled to a depth of 10.00m using a standard cable percussion rig (Dando 2000) with 150mm diameter casing as appropriate.

6.2.1 Sampling and Testing during Cable Percussion Drilling

Environmental samples (tubs, jars and vials) were taken for chemical analysis in the Made Ground or at each change of strata and where visual or olfactory evidence of contamination was noted or as instructed by the Investigation Supervisor. Following the guidance in the ICE Specification for Ground Investigation 3rd Edition - Headspace readings for volatile organic compounds (VOC) content were taken in all of the samples using a Phocheck Tiger photoionization detector (PID) with a 10.6 eV Krypton PID lamp. In accordance with the manufacturers guidelines, the PID was tested with a source of vapours at the start of each shift to ensure that it was not blocked and that the instrument calibration was within acceptable limits.

The borehole logs are presented in Section 11 of this report.

6.3 Dynamic Sampling Boreholes

18 No. Dynamic Sampling Boreholes (DS25-01 to DS25-18) were carried out to a maximum depth of 5.00m. The boreholes were drilled using a tracked Geo drive-tube sampling rig (Terrier) with 110mm diameter casing and a variety of liner sizes for sample retrieval.

DS25-03 was aborted at 3.00m depth due sand blowing in the casing. DS25-07 was also aborted at 3.00m depth as it was impossible to advance casing further than 1.50m, and borehole collapsed at 2.00m depth.

DS25-10 aborted at 2.00m due to presence of possible concrete slab at 2.00m. On DS25-11 location bouncing occurred and borehole aborted.

DS25-15 original location aborted at 0.53m depth due to two concrete obstructions encountered at 0.38m and 0.53m depth. Borehole moved to position DS25-15A.

Semi-rigid plastic core liners were recovered from each borehole location. The excavated soil was logged in accordance with BS5930:2015+A1:2020 and photographed.

Environmental samples (tubs, jars and vials) were taken for chemical analysis as described in Section 6.2.1

The borehole logs are presented in Section 12 and the core photographs are available in Section 15 of this report.

6.4 Standpipe Installations and Backfill

Monitoring wells were installed in the boreholes as follows:

Table 3 – Monitoring Installation Details

Hole ID	Base of Borehole (m bgl)	Diameter of Installation (mm)	Type of Installation	Base of Installation (m bgl)	Response Zone	
					Top (m bgl)	Bottom (m bgl)
BH25-01	10.00	50	GMP	1.00	0.70	1.00
		50	GWMP	2.40	1.50	2.40
BH25-02	10.00	50	GMP	1.10	0.60	1.10
		50	GWMP	2.00	1.50	2.00
BH25-03	10.00	50	GMP	1.90	0.70	1.90
		50	GWMP	3.40	2.40	3.40
BH25-04	10.00	50	GMP	1.50	0.60	1.50
		50	GWMP	2.90	2.00	2.90
BH25-05	10.00	50	GMP	1.50	0.60	1.50
		50	GWMP	4.10	2.70	4.10
DS25-01	5.00	50	GMP	1.50	0.50	1.50
DS25-02	5.00	50	GWMP	2.00	0.50	2.00
DS25-03	3.00	50	GWMP	3.00	2.00	3.00
DS25-04	5.00	50	GWMP	2.70	0.50	2.70
DS25-05	5.00	50	GWMP	2.20	0.50	2.20
DS25-06	5.00	50	GMP	2.80	0.50	2.80
DS25-07	3.00	50	GWMP	2.00	1.00	2.00

Hole ID	Base of Borehole (m bgl)	Diameter of Installation (mm)	Type of Installation	Base of Installation (m bgl)	Response Zone	
					Top (m bgl)	Bottom (m bgl)
DS25-08	5.00	50	GWMP	3.00	0.50	3.00
DS25-09	5.00	50	GWMP	2.70	1.70	2.70
DS25-10	2.00	50	GWMP	2.00	0.50	2.00

KEY
GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point

The boreholes were backfilled at the base with hydrated bentonite pellets with the gas/groundwater response zones backfilled with a 10mm pea shingle filter with a geosock surround. All installations were finished with hydrated bentonite pellets to the surface with concrete and a lockable stopcock cover flush with the ground.

The boreholes with no installations were backfilled with bentonite pellets.

On completion of works the ground surface at all fieldwork locations was permanently reinstated to its original condition as appropriate.

6.5 Instrumentation Monitoring and Sampling

Gas and groundwater monitoring was carried out by Concept subsequent to completion of the boreholes on 3 No. scheduled visits completed in 3 days due to the large number of locations, between the 24/03/2025 and 08/04/2025. Historic boreholes BH24-03, BH24-05, BH24-06, BH24-07, BH24-08, BH24-09, BH24-10, DS24-02, DS24-07, DS24-08 and CP105 were also monitored. Water, sediment and gas sampling was also carried out.

Boreholes were developed on two occasions between the 04/03/2025 and the 18/03/2025 to comply with the Investigation Supervisor's requirements and specifications. Development was carried out prior to water sampling using a Wasp pump which provides a relatively high pumping rate to remove water and entrained sediment. Development continued until either the well ran dry, the water ran clear or at least 3 well volumes were removed.

- **Development** of the boreholes carried out as follows:

04/03/2025 to 05/03/2025: All boreholes.

17/03/2025 to 18/03/2025: All boreholes and historic CP105 were redeveloped. Water quality in situ analysis was also carried out upon the investigation supervisor's request.

- **Water sampling** carried out from current and historic boreholes and from locations Canal 1, Canal 2, Canal 3, Canal 4, Drainage 1A, Drainage 2A and Attenuation Pond as follows:

Round 1 03/03/2025: Canal 1, Canal 2, Canal 3, Canal 4, Drainage 1A, Drainage 2A & Attenuation Pond

Round 2 24/03/2025: BH25-03, BH25-05, DS25-04, DS25-07, DS25-08, DS25-09 & DS25-10

25/03/2025: BH25-02, BH25-04, BH25-10-*(Duplicate BH25-02)*, BH25-11-*Field Blank*, DS25-02, DS25-05, DS25-06 & CP105

26/03/2025: BH24-05, BH24-06, BH24-07, BH24-10, DS24-04, DS24-08 & DS25-03

Round 3 31/03/2025: BH25-05, DS25-06, DS25-08, DS25-09 & repeat samples from Canal 3 and Attenuation Pond from Round 1

01/04/2025: BH25-03, BH25-04, DS25-02, DS25-03, DS25-04, DS25-05, DS25-07, DS25-10, DS25-11-*(Duplicate DS25-10),* Canal 3, Canal 2, repeat sample from Drainage 1A, Drainage 2A

02/04/2025: Canal 1, Canal 4, Drainage 1A & Attenuation Pond

Round 4 07/04/2025: BH25-03, BH25-05, DS25-07, DS25-08, DS25-09, DS25-10, DS25-15-*Field Blank* & DS25-16-*(Duplicate DS25-09)*

08/04/2025: BH25-04, DS25-02, DS25-03, DS25-04, DS25-05 & DS25-06

The samples were retrieved using a peristaltic pump at a low pumping rate. The pump tubing was lowered to target the standpipe response zone and a dipmeter was used during purging to ensure that the pumping rate did not reduce the water level. Generally, the water level remained steady at pumping rates of 1 litre every 2 minutes. Water parameters (pH, conductivity, dissolved oxygen, temperature and Redox levels) were recorded during purging using a flow cell and a YSI Professional Probe. Purging was considered complete when parameters stabilised . Stabilisation was defined as where 3 subsequent readings were recorded within the range given in the Arup Specification (DO 10%, temperature 3%, pH 1 unit, redox 10 mV, SPC 3%). Generally, the water was noted as running clear on the completion of purging. On completion of purging, the water samples were collected in containers (3x300ml and 3xvial). They were then transferred to Concept laboratory inside cool boxes protected by bubble wrap and kept in the fridge until collection from the chemical laboratory was arranged. Each borehole was purged and sampled using a new length of tubing.

The water quality field records are presented in Section 13.

- **Sediment sampling** carried out from Drainage 1, Drainage 2, Drainage 3 and Attenuation Pond locations as follows:

Round 1 25/03/2025: Drainage 2 & Drainage 3

Round 2 01/04/2025: Drainage 1 & Drainage 2

02/04/2025: Drainage 3 & Attenuation Pond

Round 3 08/04/2025: Drainage 1 & Attenuation Pond

- **Gas monitoring** carried out during 3 No. rounds as follows:

Round 1 24/03/2025-26/03/2025 : BH24-03, BH25-01, BH25-02, BH25-03 BH25-04, BH25-05, DS24-02, DS25-01 & DS25-06

Round 2 31/03/2025-01/04/2025: BH24-03, BH25-01, BH25-02, BH25-03 BH25-04, BH25-05, DS24-02, DS25-01 & DS25-06

Round 3 08/04/2025: BH24-03, BH25-01, BH25-02, BH25-03 BH25-04, BH25-05, DS24-02, DS25-01 & DS25-06

- **Gas samples** carried out as follows:

Round 1 07/04/2025: BH24-03, BH25-03 & DS24-02

Gas samples were collected using Tedlar bags.

A Geosense dipmeter was used for water monitoring. An In-Situ Rugged interface probe was used to prove/disprove the presence LNAPL and DNAPL during the 3rd round of monitoring. The single valve gas concentrations were recorded using Gas data GFM436 monitors. Where 0.00 is shown on the results indicates value lower than the detection limit of the machine. PID readings were taken during all monitoring rounds. The accuracy of the instruments is summarised in Section 13 where the gas monitoring reports and groundwater results are presented along with the instruments calibration sheets.

PFAS control measures were followed.

6.6 Logging / Laboratory Testing

Logging of all soil samples was carried out in accordance with BS5930:2015+A1:2020.

Chemical testing was specified and scheduled by Arup and carried out by Eurofins. Water sampling testing was carried out by ALS and Socotec carried out the gas sampling testing. All were in accordance with the requirements of UKAS ISO17025 and MCERTS. The results are presented in tabular format in Section 14 of this report.

6.7 Setting Out

The locations of all exploratory holes were agreed with the Investigation Supervisor and set out prior to commencement of the site works.

Following completion of the ground works the locations and elevations of the boreholes were established by Concept using GPS equipment relevant to UK National Grid and Newlyn datum. The GPS equipment used for the survey was a Leica GS07 model. The data sheet and certificate of conformity is appended in Section 10 of this report along with the Exploratory Hole Location Plan presenting the co-ordinates and levels of all as-built locations.

7. RISK REGISTER

This entire report forms part of the Health and Safety File of the project. The table below highlights particular risks only and is not inclusive of every risk that is encountered on site. The various sections of this report describe the site and ground conditions encountered during the investigation works whilst laboratory testing determines the level of contamination encountered during the works.

Underground services where encountered were identified on the exploratory hole logs and where necessary, the holes were repositioned locally to avoid identified services. The presentation of services information is beyond the scope of this report.

Table 4 – Risk Register

HAZARD	DESCRIPTION	MITIGATION
Contamination Pathways associated with Monitoring installations	Monitoring installations were constructed at several locations as detailed in Section 6.3 of this report.	Decommissioning of the installations which will involve either filling the pipe with cement-bentonite grout where possible or by drilling out the pipework and then backfilling using cement- bentonite grout.

8. GEOLOGICAL GROUND PROFILE

The geological strata encountered during the investigation are summarised in the table below. The Top and Bottom of the strata noted in the table indicates the highest and lowest boundaries encountered in all exploratory holes.

Table 5 - Geological Ground Profile

STRATUM	TOP (mOD)	BASE (mOD)	DESCRIPTION	
CONCRETE *(All Locations, except DS25-02)*	+32.71 to +30.78	+32.41 to +30.48	Grey CONCRETE with flint gravel clasts and generally rare air voids; DS25-06 encountered Concrete at the following elevations, between Made Ground: • +30.22 to +30.12 mOD	
MADE GROUND *(All Locations)*	+32.41 to +30.48	+31.79 to +28.15	Top: +31.42 - +29.10 Base: +30.39 - +28.15	Soft to firm, brown mottled greyish brown locally dark grey mottled grey slightly gravelly slightly sandy CLAY with occasional pockets of fine sand, and occasional wood fragments Gravel comprises angular to subrounded fine to coarse flint, brick, concrete and clinker-like fragments. Slight hydrocarbon odour encountered in BH25-04, BH25-05, DS25-02, DS25-10 & DS25-13.

STRATUM	TOP (mOD)	BASE (mOD)	DESCRIPTION	
			Top: +31.59 - +29.81 Base: +31.12 - +28.22	Brown locally dark grey and orangish brown gravelly slightly clayey fine to coarse SAND. Gravel comprises angular to subrounded fine to coarse flint, quartz, brick, concrete and clinker-like fragments. Slight hydrocarbon odour encountered in BH25-02, DS25-02, DS25-08 & DS25-10.
			Top: +32.41 - +29.98 Base: +31.79 - +29.17	Brown locally dark brown sandy GRAVEL locally with low concrete cobble content and occasional wood fragments. Gravel comprises angular to subrounded fine to coarse flint, quartz brick, concrete and clinker-like fragments. Slight to strong hydrocarbon odour encountered in DS25-01, DS25-11, DS25-13, DS25-15A & DS25-17
LYNCH HILL GRAVEL MEMBER *(All Locations, except DS25-01, DS25-04, DS25-10, DS25-11)*	+31.79 to +28.15	+30.51 to +26.31	Brown gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse flint. Slight hydrocarbon odour encountered in DS25-15A Brown and orangish brown sandy angular to subrounded fine to coarse flint GRAVEL.	
WEATHERED LONDON CLAY *(All Locations, except DS25-10, DS25-11)*	+30.51 to +26.31	Extent not proven	Firm locally firm to stiff, brown locally orangish brown and dark grey slightly sandy micaceous locally slightly gravelly silty CLAY with occasional pockets of brown and grey fine sand. Gravel is angular to subrounded medium to coarse flint. Sand is fine.	

9. REFERENCES

British Standards Institution, (2015) Code of practice for ground investigations, British Standard BS5930: 2015+A1:2020, BSI, London.

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British Geological Survey (1996) London and the Thames Valley 4th Edition, London HMSO.

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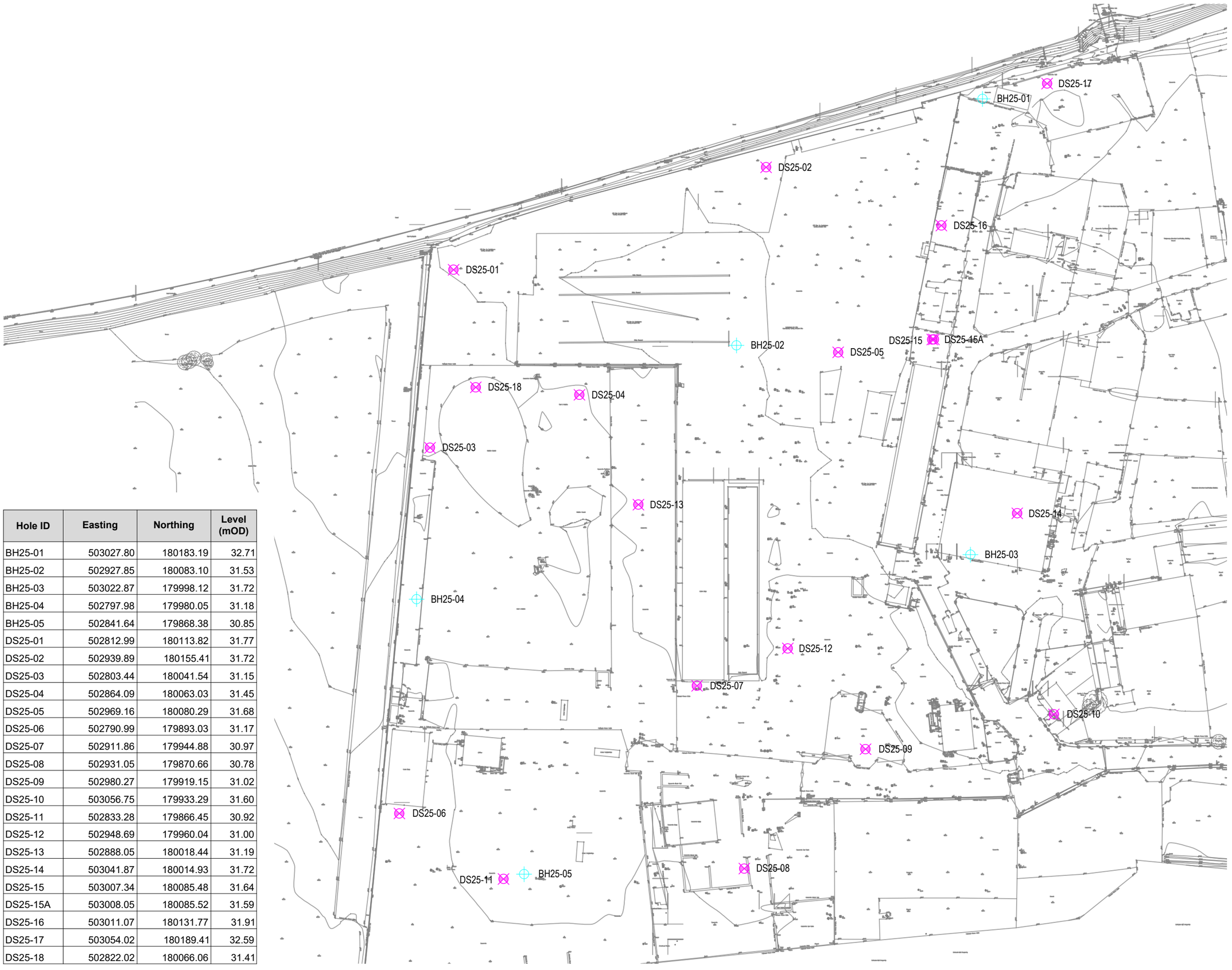
British Standards Institution BS EN 1997:1 (2024) EuroCode 7 - Geotechnical Design. Part 1 – General Rules.

British Standards Institution BS EN 1997:2 (2024) EuroCode 7 - Geotechnical Design. Part 2 - Ground Investigation and Testing.

King C. (1981) The stratigraphy of the London Basin and associated deposits. Tertiary Research Special Paper, Vol. 6, Backhuys, Rotterdam, p158.

Aldiss, D. T. (2012) The stratigraphical framework for the Palaeogene successions of the London Basin, UK. British Geological Survey Open Report. British Geological Survey.

10. EXPLORATORY HOLE LOCATION PLAN



Hole ID	Easting	Northing	Level (mOD)
BH25-01	503027.80	180183.19	32.71
BH25-02	502927.85	180083.10	31.53
BH25-03	503022.87	179998.12	31.72
BH25-04	502797.98	179980.05	31.18
BH25-05	502841.64	179868.38	30.85
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DS25-06	502790.99	179893.03	31.17
DS25-07	502911.86	179944.88	30.97
DS25-08	502931.05	179870.66	30.78
DS25-09	502980.27	179919.15	31.02
DS25-10	503056.75	179933.29	31.60
DS25-11	502833.28	179866.45	30.92
DS25-12	502948.69	179960.04	31.00
DS25-13	502888.05	180018.44	31.19
DS25-14	503041.87	180014.93	31.72
DS25-15	503007.34	180085.48	31.64
DS25-15A	503008.05	180085.52	31.59
DS25-16	503011.07	180131.77	31.91
DS25-17	503054.02	180189.41	32.59
DS25-18	502822.02	180066.06	31.41

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

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North (indicative)

KEY

- BH25 - Cable Percussion Borehole
- DS25 - Dynamic Sampling Borehole

NOTES

1. Coordinates and levels quoted refer to Ordnance Survey (OS) National Grid.
2. Base drawing provided by Arup.
3. This drawing should not be scaled.
4. All levels are in mOD (metres above Ordnance Datum).

ISSUES

Revision	Details	By	Date
00	Drawing completed and corrected	ST	14/04/25
01	Locations DS25-08 and DS25-15A added	ST	16/04/25

Client: Arup

Project: LHR042 Thorney Lane DC1

Address: Thorney Lane North to the east, Slough, SL0 9HE

Plan title: Exploratory Hole Location Plan

Project no	Drawing no	Revision
25/4047	01	01

Scale	Sheet size	Status
NTS	A3 (297.00x420.00mm)	Issue

Date: April 2025

Surveyed by	Drawn by	Checked by	Passed by
L	ST	AD	OS

11. CABLE PERCUSSION BOREHOLE LOGS

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

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Website: conceptsi.co.uk
E-mail: si@conceptsi.co.uk

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Telephone: 02477087673
E-mail: coventry.office@conceptsi.co.uk

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-01

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	18/02/2025	Easting	503027.80	Ground Level (mOD)	Final Depth
25/4047	Date Completed	19/02/2025	Northing	180183.19	32.71	10.00 m

Client

Arup

BOREHOLE SUMMARY

Top (m)	Base (m)	Type	Date Started	Date Ended	Rig Crew	Logger	Plant Used	Barrel Type	Drill Bit
0.00	0.30	DC	18/02/2025	18/02/2025	DJ	DN	Hilti DD350		
0.30	1.20	IP	18/02/2025	18/02/2025	DJ	DN	Hand Excavated		
1.20	10.00	CP	19/02/2025	19/02/2025	DJ	DN	Dando 2000		

WATER STRIKES

Depth Strike (m)	Depth Casing (m)	Time (mm)	Rising at (m)	Depth Sealed (m)

WATER ADDED

From (m)	To (m)
1.20	2.40

HOLE

Depth (m)	Diameter (mm)
0.00	150
10.00	150

CASING

Depth (m)	Diameter (mm)
0.00	150
2.70	150

CHISELLING & SLOW DRILLING

From (m)	To (m)	Duration (hr:mm)	Material / Remarks

INSTALLATION DETAILS

Type	Diam (mm)	Depth (m)	Top RZ (m)	Base RZ (m)	Pipe Cover	Date Installation
GMP	50	1.00	0.70	1.00	Flush	19/02/2025
GWMP	50	2.40	1.50	2.40		19/02/2025

BACKFILL DETAILS

Top (m)	Base (m)	Description	Backfill Date	Remarks
0.00	0.20	Concrete	19/02/2025	
0.20	0.70	Bentonite Pellets		
0.70	1.00	Pea Shingle		
1.00	1.50	Bentonite Pellets		
1.50	2.40	Pea Shingle		
2.40	10.00	Bentonite Pellets		

PROGRESS

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Remarks
18/02/2025	0.00		Dry	
18/02/2025	1.20		Dry	
19/02/2025	1.20		Dry	
19/02/2025	1.80	1.80	Wet	... Water Added
19/02/2025	2.40	2.40	Wet	
19/02/2025	2.70	2.70		
19/02/2025	10.00	2.70	Dry	

Note: All depths are in metres.
All diameters are in millimetres.
Water rise strikes are in metres.
For details of abbreviations see Key overleaf

AGS

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CABLE PERCUSSION LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-01

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Date Completed	Easting	Northing	Ground Level (mOD)	Final Depth
25/4047	18/02/2025	19/02/2025	503027.80	180183.19	32.71	10.00 m

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	18/02/25		Dry					Grey CONCRETE			
					32.41		0.30	Greyish brown slightly silty GRAVEL with 1No concrete cobble. Gravel comprises angular to subrounded fine to coarse flint, concrete and brick fragments. (MADE GROUND)	0.30 0.30	ES1 PID	 0.00 ppm
G									1.00	ES2	
	18/02/25		Dry		31.51		1.20		1.00	PID	0.00 ppm
	19/02/25		Dry					Brown sandy GRAVEL with low flint cobble content. Gravel is angular to subrounded fine to coarse flint. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)			
	19/02/25	1.80	Wet		30.91		1.80	Orangish brown very sandy angular to subrounded fine to coarse flint GRAVEL. Sand is coarse. (LYNCH HILL GRAVEL MEMBER)	1.80 - 2.10 2.00 2.00	B3 ES4 PID	 2.00 ppm
W	19/02/25	2.40	Wet		30.31		2.40	Soft, brownish grey slightly gravelly CLAY. Gravel is fine flint.			
					30.11		2.60	(THAMES GROUP: WEATHERED LONDON CLAY)			
	19/02/25	2.70						Soft, dark grey slightly micaceous CLAY with rare white flecks. (THAMES GROUP: WEATHERED LONDON CLAY)	2.70 - 3.00 3.00 3.00	B5 ES6 PID	 0.10 ppm
								... becoming closely fissured with occasional selenite crystals below 8.00m. Fissures are planar, smooth.			
	19/02/25	2.70	Dry		22.71		10.00	End of hole at 10.00m			

General Remarks

AGS

Issue:	FINAL	Crew:	DJ	Logger:	DN	Checked:	FP	Approved:	OS	Scale:	1:55	Log Print Date:	11/04/2025

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LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-02

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	18/02/2025	Easting	502927.85	Ground Level (mOD)	Final Depth
25/4047	Date Completed	20/02/2025	Northing	180083.10	31.53	10.00 m

Client

Arup

BOREHOLE SUMMARY

Top (m)	Base (m)	Type	Date Started	Date Ended	Rig Crew	Logger	Plant Used	Barrel Type	Drill Bit
0.00	0.24	DC	18/02/2025	18/02/2025	DJ	DN	Hilti DD350		
0.24	1.20	IP	19/02/2025	19/02/2025	DJ	DN	Hand Excavated		
1.20	10.00	CP	20/02/2025	20/02/2025	DJ	DN	Dando 2000		

WATER STRIKES

Depth Strike (m)	Depth Casing (m)	Time (mm)	Rising at (m)	Depth Sealed (m)

WATER ADDED

From (m)	To (m)
1.20	2.00

HOLE

Depth (m)	Diameter (mm)
0.00	150
10.00	150

CASING

Depth (m)	Diameter (mm)
0.00	150
2.40	150

CHISELLING & SLOW DRILLING

From (m)	To (m)	Duration (hr:mm)	Material / Remarks

INSTALLATION DETAILS

Type	Diam (mm)	Depth (m)	Top RZ (m)	Base RZ (m)	Pipe Cover	Date Installation
GMP	50	1.10	0.60	1.10	Flush	20/02/2025
GWMP	50	2.00	1.50	2.00		20/02/2025

BACKFILL DETAILS

Top (m)	Base (m)	Description	Backfill Date	Remarks
0.00	0.20	Concrete	20/02/2025	
0.20	0.60	Bentonite Pellets		
0.60	1.10	Pea Shingle		
1.10	1.50	Bentonite Pellets		
1.50	2.00	Pea Shingle		
2.00	10.00	Bentonite Pellets		

PROGRESS

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Remarks
18/02/2025	0.00		Dry	
18/02/2025	0.24		Dry	
19/02/2025	0.24		Dry	
19/02/2025	1.20		Dry	
20/02/2025	1.20		Wet	... Water Added
20/02/2025	2.00		Wet	
20/02/2025	10.00	2.40	Dry	

Note: All depths are in metres.
All diameters are in millimetres.
Water rise strikes are in metres.
For details of abbreviations see Key overleaf

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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CABLE PERCUSSION LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-02

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	18/02/2025	502927.85	31.53	10.00 m
	Date Completed: 20/02/2025	Northing: 180083.10		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	18/02/25		Dry					CONCRETE			
	18/02/25		Dry		31.29		0.24				
	19/02/25		Dry					Brown gravelly fine to coarse SAND with 1No concrete cobble, rare metal and ceramic fragments (<60mm) and slight hydrocarbon odour. Gravel comprises angular to subrounded fine to coarse flint, concrete and rare asphalt fragments. (MADE GROUND)	0.30 0.40 0.90 0.90	PID ES1 ES2 PID	0.00 ppm 0.10 ppm
G	19/02/25		Dry		30.33		1.20				
	20/02/25		Wet					Orangish brown very sandy angular to subrounded fine to coarse flint GRAVEL. Sand is medium to coarse. (LYNCH HILL GRAVEL MEMBER)	1.40 1.40	ES3 PID	 2.00 ppm
W	20/02/25		Wet		29.53		2.00				
								Soft, brown slightly gravelly CLAY. Gravel is fine flint. (THAMES GROUP: WEATHERED LONDON CLAY)	2.30 2.30	ES4 PID	 0.10 ppm
					28.53		3.00				
								Stiff, dark grey slightly micaceous CLAY with rare white flecks. (THAMES GROUP: WEATHERED LONDON CLAY)			
								... with rare calcareous silt nodules at 7.00m			
								... with rare selenite crystals at 8.50m			
	20/02/25	2.40	Dry		21.53		10.00	End of hole at 10.00m			

General Remarks

AGS

Issue:	FINAL	Crew:	DJ	Logger:	DN	Checked:	FP	Approved:	OS	Scale:	1:55	Log Print Date:	11/04/2025

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LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-03

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	18/02/2025	Easting	503022.87	Ground Level (mOD)	Final Depth
25/4047	Date Completed	19/02/2025	Northing	179998.12	31.72	10.00 m

Client

Arup

BOREHOLE SUMMARY

Top (m)	Base (m)	Type	Date Started	Date Ended	Rig Crew	Logger	Plant Used	Barrel Type	Drill Bit
0.00	0.30	DC	18/02/2025	18/02/2025	TAF	GD	Hilti DD350		
0.30	1.20	IP	18/02/2025	18/02/2025	TAF	GD	Hand Excavated		
1.20	10.00	CP	19/02/2025	19/02/2025	DJ	GD	Dando 2000		

WATER STRIKES

Depth Strike (m)	Depth Casing (m)	Time (mm)	Rising at (m)	Depth Sealed (m)

WATER ADDED

From (m)	To (m)
2.40	3.40

HOLE

Depth (m)	Diameter (mm)
0.00	150
10.00	150

CASING

Depth (m)	Diameter (mm)
0.00	150
3.80	150

CHISELLING & SLOW DRILLING

From (m)	To (m)	Duration (hr:mm)	Material / Remarks

INSTALLATION DETAILS

Type	Diam (mm)	Depth (m)	Top RZ (m)	Base RZ (m)	Pipe Cover	Date Installation
GMP	50	1.90	0.70	1.90	Flush	19/02/2025
GWMP	50	3.40	2.40	3.40		19/02/2025

BACKFILL DETAILS

Top (m)	Base (m)	Description	Backfill Date	Remarks
0.00	0.20	Concrete	19/02/2025	
0.20	0.70	Bentonite Pellets		
0.70	1.90	Pea Shingle		
1.90	2.40	Bentonite Pellets		
2.40	3.40	Pea Shingle		
3.40	10.00	Bentonite Pellets		

PROGRESS

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Remarks
18/02/2025	0.00		Dry	
18/02/2025	1.20		Dry	
19/02/2025	1.20		Dry	
19/02/2025	2.40		Wet	... Water Added
19/02/2025	3.40		Wet	
19/02/2025	10.00	3.80	Dry	

Note: All depths are in metres.
All diameters are in millimetres.
Water rise strikes are in metres.
For details of abbreviations see Key overleaf

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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CABLE PERCUSSION LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-03

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	19/02/2025	503022.87	31.72	10.00 m
	Date Completed	Northing		
	19/02/2025	179998.12		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	18/02/25		Dry					CONCRETE			
					31.42		0.30	Orangish brown slightly sandy very gravelly CLAY with rare pockets of grey silty clay. Gravel comprises angular to subrounded fine to coarse flint, quartz, brick, concrete and clinker-like fragments. Sand is fine to coarse. (MADE GROUND)	0.30 0.30	ES1 PID	 0.00 ppm
	18/02/25 19/02/25		Dry Dry		30.72 30.22		1.00 1.50	Dark brown slightly sandy slightly gravelly CLAY with rare ceramic and metal (<5mm) fragments. Gravel is angular to subrounded fine to coarse flint, chalk and brick fragments. (MADE GROUND)	1.00 1.00	ES2 PID	 0.00 ppm
G								Orangish brown mottled greyish brown slightly gravelly very sandy CLAY with occasional lenses of brown silty sand. Gravel comprises angular to subrounded fine to coarse flint, quartz and clinker-like fragments. Sand is fine to medium. (MADE GROUND)			
	19/02/25		Wet		29.32		2.40	Orangish brown very sandy GRAVEL. Gravel comprises angular to subrounded fine to coarse flint and quartz fragments. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)	2.70 2.70	ES3 PID	 2.80 ppm
W	19/02/25		Wet		28.32		3.40	Firm to stiff, orangish brown mottled greyish brown slightly gravelly silty CLAY. Gravel is subangular to subrounded fine to medium flint. (THAMES GROUP: WEATHERED LONDON CLAY)	3.70 3.70	ES4 PID	 3.80 ppm
					27.52		4.20	Stiff, dark grey silty CLAY. (THAMES GROUP: WEATHERED LONDON CLAY)	4.70 4.70	ES5 PID	 4.80 ppm
								... becoming very stiff at 5.70m			
								... with rare selenite crystals at 7.80m			
	19/02/25	3.80	Dry		21.72		10.00	End of hole at 10.00m			

General Remarks

AGS

Issue:	FINAL	Crew:	TAF	Logger:	GD	Checked:	FP	Approved:	OS	Scale:	1:55	Log Print Date:	11/04/2025

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LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-04

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	18/02/2025	Easting	502797.98	Ground Level (mOD)	Final Depth
25/4047	Date Completed	20/02/2025	Northing	179980.05	31.18	10.00 m

Client

Arup

BOREHOLE SUMMARY

Top (m)	Base (m)	Type	Date Started	Date Ended	Rig Crew	Logger	Plant Used	Barrel Type	Drill Bit
0.00	0.27	DC	18/02/2025	18/02/2025	DJ	DN	Hilti DD350		
0.27	1.20	IP	19/02/2025	19/02/2025	DJ	DN	Hand Excavated		
1.20	10.00	CP	19/02/2025	20/02/2025	DJ	DN	Dando 2000		

WATER STRIKES

Depth Strike (m)	Depth Casing (m)	Time (mm)	Rising at (m)	Depth Sealed (m)

WATER ADDED

From (m)	To (m)
1.80	2.90

HOLE

Depth (m)	Diameter (mm)
0.00	150
10.00	150

CASING

Depth (m)	Diameter (mm)
0.00	150
4.00	150

CHISELLING & SLOW DRILLING

From (m)	To (m)	Duration (hr:mm)	Material / Remarks

INSTALLATION DETAILS

Type	Diam (mm)	Depth (m)	Top RZ (m)	Base RZ (m)	Pipe Cover	Date Installation
GMP	50	1.50	0.60	1.50	Flush	20/02/2025
GWMP	50	2.90	2.00	2.90	Flush	20/02/2025

BACKFILL DETAILS

Top (m)	Base (m)	Description	Backfill Date	Remarks
0.00	0.20	Concrete	20/02/2025	
0.20	0.60	Bentonite Pellets		
0.60	1.50	Pea Shingle		
1.50	2.00	Bentonite Pellets		
2.00	2.90	Pea Shingle		
2.90	10.00	Bentonite Pellets		

PROGRESS

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Remarks
18/02/2025	0.00		Dry	
18/02/2025	0.27		Dry	
19/02/2025	0.27		Dry	
19/02/2025	1.80		Wet	... Water Added
19/02/2025	2.90		Dry	
19/02/2025	3.70	3.50	Dry	
20/02/2025	3.70	3.50	0.70	... See Remark 1
20/02/2025	10.00	4.00	Dry	

Note: All depths are in metres.
All diameters are in millimetres.
Water rise strikes are in metres.
For details of abbreviations see Key overleaf

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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CABLE PERCUSSION LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-04

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	18/02/2025	502797.98	31.18	10.00 m
	Date Completed: 20/02/2025	Northing: 179980.05		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	18/02/25		Dry					CONCRETE			
	18/02/25		Dry		30.91		0.27				
	19/02/25		Dry					Brown gravelly fine to coarse SAND. Gravel comprises angular to subrounded fine to coarse flint, concrete and brick fragments. (MADE GROUND)	0.40	ES1	
									0.40	PID	0.00 ppm
									0.90	ES2	
					30.18		1.00	Soft, brown slightly sandy gravelly CLAY with rare ceramic fragments (<60mm) and slight hydrocarbon odour. Gravel comprises angular to subrounded fine to coarse flint and rare brick fragments. Sand is fine to medium. (MADE GROUND)	0.90	PID	0.00 ppm
G					29.88		1.30		1.40	ES3	
									1.40	PID	0.10 ppm
	19/02/25		Wet		29.38		1.80	Soft, brown slightly gravelly CLAY with slight hydrocarbon odour. Gravel is fine flint. (MADE GROUND)	2.10	ES4	
									2.10	PID	0.10 ppm
								Orangish brown very sandy angular to subrounded fine to coarse flint GRAVEL. Sand is medium to coarse. (LYNCH HILL GRAVEL MEMBER)			
W	19/02/25		Dry		28.28		2.90	Soft, brown slightly gravelly CLAY. Gravel is fine flint. (THAMES GROUP: WEATHERED LONDON CLAY)			
									3.20	ES5	
									3.20	PID	0.10 ppm
					27.68		3.50	Soft, dark grey slightly micaceous CLAY with rare white flecks. (THAMES GROUP: WEATHERED LONDON CLAY)			
	19/02/25	3.50	0.70								
	20/02/25	3.50	Dry								
								... becoming fissured with occasional selenite crystals below 8.00m			
	20/02/25	4.00	Dry		21.18		10.00	End of hole at 10.00m			

General Remarks

1. Water present in the borehole between 19/02/2025 and 20/02/2025 shifts.

AGS

Issue:	FINAL	Crew:	DJ	Logger:	DN	Checked:	FP	Approved:	OS	Scale:	1:55	Log Print Date:	11/04/2025

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LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-05

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	20/02/2025	Easting	502841.64	Ground Level (mOD)	Final Depth
25/4047	Date Completed	20/02/2025	Northing	179868.38	30.85	10.00 m

Client

Arup

BOREHOLE SUMMARY

Top (m)	Base (m)	Type	Date Started	Date Ended	Rig Crew	Logger	Plant Used	Barrel Type	Drill Bit
0.00	0.25	DC	20/02/2025	20/02/2025	TAF & CO	DN	Hilti DD350		
0.25	1.20	IP	20/02/2025	20/02/2025	TAF & CO	DN	Hand Excavated		
1.20	10.00	CP	20/02/2025	20/02/2025	DJ	DN	Dando 2000		

WATER STRIKES

Depth Strike (m)	Depth Casing (m)	Time (mm)	Rising at (m)	Depth Sealed (m)

WATER ADDED

From (m)	To (m)
2.70	4.10

HOLE

Depth (m)	Diameter (mm)
0.00	150
10.00	150

CASING

Depth (m)	Diameter (mm)
0.00	150
4.30	150

CHISELLING & SLOW DRILLING

From (m)	To (m)	Duration (hr:mm)	Material / Remarks

INSTALLATION DETAILS

Type	Diam (mm)	Depth (m)	Top RZ (m)	Base RZ (m)	Pipe Cover	Date Installation
GMP	50	1.50	0.60	1.50	Flush	20/02/2025
GWMP	50	4.10	2.70	4.10		20/02/2025

BACKFILL DETAILS

Top (m)	Base (m)	Description	Backfill Date	Remarks
0.00	0.20	Concrete	19/02/2025	
0.20	0.60	Bentonite Pellets		
0.60	1.50	Pea Shingle		
1.50	2.70	Bentonite Pellets		
2.70	4.10	Pea Shingle		
4.10	10.00	Bentonite Pellets		

PROGRESS

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Remarks
20/02/2025	0.00		Dry	
20/02/2025	1.20		Dry	
20/02/2025	2.70		Wet	... Water Added
20/02/2025	4.10		Wet	
20/02/2025	10.00	4.30	Dry	

Note: All depths are in metres.
All diameters are in millimetres.
Water rise strikes are in metres.
For details of abbreviations see Key overleaf

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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CABLE PERCUSSION LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-05

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	20/02/2025	502841.64	30.85	10.00 m
	Date Completed: 20/02/2025	Northing: 179868.38		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	20/02/25		Dry		30.60		0.25	CONCRETE			
								Brown very gravelly fine to coarse SAND with occasional wood fragments (<5mm). Gravel comprises angular to subrounded fine to coarse flint, quartz, brick and clinker-like fragments. (MADE GROUND)	0.30 0.30	ES1 PID	 0.30 ppm
G	20/02/25		Dry					... sand becoming coarse below 1.00m	1.00 1.00	ES2 PID	 0.10 ppm
					29.15		1.70	Dark brown slightly gravelly silty CLAY with occasional pockets of orange sand, rare plastic and metal fragments (<10mm) and slight hydrocarbon odour. Gravel comprises angular to subangular fine to coarse flint, quartz and clinker-like fragments. (MADE GROUND)	2.00 2.00	ES3 PID	 0.40 ppm
	20/02/25		Wet		28.15		2.70	Orangish brown very sandy GRAVEL with strong ammonia odour. Gravel comprises angular to subrounded fine to coarse flint and quartz fragments. (LYNCH HILL GRAVEL MEMBER)	3.00 3.00	ES4 PID	 2.50 ppm
W	20/02/25		Wet		26.75		4.10	Stiff, brown mottled grey slightly gravelly silty CLAY. Gravel is angular to subrounded fine flint. (THAMES GROUP: WEATHERED LONDON CLAY)	4.50 4.50	ES5 PID	 0.10 ppm
					25.15		5.70	Stiff, fissured dark grey silty CLAY. (THAMES GROUP: WEATHERED LONDON CLAY)			
								... with rare selenite crystal below 7.60m			
	20/02/25	4.30	Dry		20.85		10.00	End of hole at 10.00m			

General Remarks

AGS

Issue:	FINAL	Crew:	TAF & CO	Logger:	DN	Checked:	FP	Approved:	OS	Scale:	1:55	Log Print Date:	11/04/2025

12. DYNAMIC SAMPLING BOREHOLE LOGS

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-01

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Date Completed	Easting	Northing	Ground Level (mOD)	Final Depth
25/4047	26/02/2025	26/02/2025	502812.99	180113.82	31.77	5.00 m

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	26/02/25		Dry					CONCRETE			
					31.47		0.30	Dark brown sandy GRAVEL with low brick cobble content and slight hydrocarbon odour. Gravel comprises angular to subrounded fine to coarse flint, brick, concrete and clinker-like fragments. Sand is fine. (MADE GROUND)	0.30 0.30	ES1 PID	 0.00 ppm
					30.97		0.80	Soft, dark brown slightly sandy gravelly CLAY with slight hydrocarbon odour. Gravel comprises angular to subrounded fine to coarse flint and clinker-like fragments. Sand is fine. (MADE GROUND)	0.80 0.80	ES2 PID	 0.10 ppm
	26/02/25	1.00	Dry		30.57		1.20	Dark grey gravelly fine SAND. Gravel comprises angular to subrounded fine to coarse flint and brick fragments. (MADE GROUND)	1.40 1.40	ES3 PID	 0.60 ppm
					30.45		1.32				
					30.25		1.52	Brown mottled dark brown gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse flint. (MADE GROUND)			
					30.03		1.74	Firm, greyish brown slightly gravelly slightly sandy CLAY. Gravel is angular to subrounded fine to coarse flint. Sand is fine to medium. (MADE GROUND)			
					29.71		2.06	.. becoming grey mottled greyish brown with a slight organic odour between 1.67m and 1.74m			
								Firm, very closely to closely fissured brown slightly sandy CLAY with frequent pockets of brown fine sand (<20mm). Fissures are randomly orientated, planar, smooth, unpolished. (THAMES GROUP: WEATHERED LONDON CLAY)			
								Firm to stiff, very closely to closely fissured grey micaceous CLAY with rare white flecks and pyrite nodules (<15mm). Fissures are randomly orientated, planar, smooth, unpolished. (THAMES GROUP: WEATHERED LONDON CLAY)			
								... AZCL between 3.00m and 3.29m			
								... becoming soft between 3.45m and 3.53m			
								... with a parting of pyrite nodules (<70mm) at 3.78m			
								... with occasional pockets of light grey sand (<20mm) and rare to occasional pyrite nodules (<20mm) below 4.00m			
								... with 1No pyrite nodule (<60mm) at 4.23m			
								... with a parting of light grey fine sand at 4.92m			
	26/02/25	2.00	Dry		26.77		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	100	Hilti DD350
2.00	3.00	87	100	Hand Excavated
3.00	4.00	77	71	
4.00	5.00	67	100	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. 110mm diam casing used from ground level to 2.00m depth
3. 50mm diam gas and groundwater monitoring pipe installed at 1.50m, slotted between 0.50m and 1.50m depth.
4. Borehole backfilled with bentonite pellets between 5.00m and 1.50m pea shingle between 1.50m and 0.50m and bentonite pellets between 0.50m and 0.20m depth. Concrete with a stopcock cover installed from 0.20m to ground level.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	DJ	Logger:	IJ	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-02

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	24/02/2025	Easting	502939.89	Ground Level (mOD)	Final Depth
25/4047	Date Completed	26/02/2025	Northing	180155.41	31.72	5.00 m

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	24/02/25		Dry					Orangish brown mottled greyish brown very sandy GRAVEL with rare pockets of grey sandy clay (<10mm) and wood fragments (<100mm). Gravel comprises angular to subrounded fine to coarse flint, quartz, brick, concrete, asphalt and clinker-like fragments. Sand is fine to coarse. (MADE GROUND)	0.30 0.30	ES1 PID	0.10 ppm
					31.07		0.65	Orangish brown mottled yellowish brown very gravelly fine to coarse SAND with occasional pockets of greyish brown silty clay (<5mm). Gravel comprises angular to rounded fine to coarse flint and quartz fragments.	1.00	ES2	
					30.72		1.00	(MADE GROUND) .. with slight hydrocarbon odour below 1.00m	1.00	PID	0.00 ppm
	24/02/25 26/02/25		1.20		30.47		1.25	Dark grey sandy GRAVEL. Gravel comprises angular to subrounded fine to coarse flint, brick, concrete and clinker-like fragments. Sand is coarse.	1.30	ES3	
					30.30		1.42	(MADE GROUND)	1.30	PID	0.30 ppm
					30.22		1.50	Very soft, light grey mottled grey slightly gravelly sandy CLAY with calcareous cemented silt nodules and slight hydrocarbon odour. Gravel is angular to subangular fine to medium flint. Sand is fine.			
					29.98		1.74	(MADE GROUND)			
					29.65		2.07	Dark grey gravelly fine to coarse SAND with a slight hydrocarbon odour. Gravel is angular to subangular fine to coarse flint. (MADE GROUND)			
								Brown, gravelly fine to medium SAND. Gravel is angular to subrounded fine to coarse flint. (LYNCH HILL GRAVEL MEMBER)			
								Firm, brown slightly sandy micaceous CLAY with occasional pockets of brown fine sand (<20mm). Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			
								Firm to stiff, closely to very closely fissured grey micaceous CLAY with rare pyrite nodules (<30mm). Fissures are randomly orientated, planar, smooth, unpolished. (THAMES GROUP: WEATHERED LONDON CLAY)			
								... with rare shell fragments (<10mm) below 2.70m			
								... with a parting of light grey fine sand at 3.94m			
	26/02/25	2.00	Dry		26.72		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	100	Hand Excavated
2.00	3.00	87	100	Terier 1
3.00	4.00	77	100	
4.00	5.00	67	100	

General Remarks

Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. Water seepage with oily sheen encountered at 1.20m rising to 1.00m
3. 110mm diam casing used from ground level to 2.00m depth
4. 50mm diam groundwater monitoring pipe installed at 2.00m, slotted between 0.50m and 2.00m depth.
5. Borehole backfilled with bentonite pellets between 5.00m and 2.00m pea shingle between 2.00m and 0.50m and bentonite pellets between 0.50m and 0.20m depth. Concrete with a stopcock cover installed from 0.20m to ground

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	DJ	Logger:	EP	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-03

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	24/02/2025	502803.44	31.15	3.00 m
	Date Completed: 25/02/2025	Northing: 180041.54		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	24/02/25		Dry					CONCRETE			
					30.82		0.33		0.30	ES1	
								Orangish brown very gravelly slightly clayey fine to coarse SAND with low brick cobble content, occasional glass, plastic and rare wood fragments. Gravel comprises angular to subrounded fine to coarse flint, quartz, brick, concrete and clinker-like fragments. (MADE GROUND)	0.30	PID	0.00 ppm
					30.60		0.55				
								Orangish brown slightly sandy very gravelly CLAY with low brick cobble content and occasional wood fragments. Gravel comprises angular to subrounded fine to coarse flint, quartz, concrete and clinker-like fragments. Sand is fine to coarse. (MADE GROUND)	1.00	ES2	
	24/02/25		1.20		29.95		1.20		1.00	PID	0.00 ppm
	25/02/25		0.70					Soft brown slightly gravelly CLAY. Gravel is fine flint. (MADE GROUND)			
									1.50	ES3	
									1.50	PID	0.00 ppm
								... with rare rootlets below 1.90m			
	25/02/25	2.00	2.00	▼	29.15		2.00	Orangish brown very sandy angular to subrounded fine to coarse flint GRAVEL. Sand is medium to coarse. (LYNCH HILL GRAVEL MEMBER)			
									2.30	ES4	
									2.30	PID	0.00 ppm
					28.40		2.75				
W	25/02/25	3.00	2.00		28.15		3.00	Soft, brown slightly gravelly sandy CLAY. Gravel is angular to subrounded fine to medium flint. Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			... Borehole aborted at 3.00m depth (see Remarks)
								End of hole at 3.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	80	Hilti DD350
2.00	3.00	87	90	Hand Excavated Terier 1

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing. 2. Water seepage with oily sheen encountered at 1.20m rising to 0.75m. 3. 110mm diam casing used from ground level to 3.00m depth. 4. Water seepage encountered at 2.00m depth. 5. Borehole aborted at 3.00m depth due to sand blowing in the casing, unable to remove. 6. 50mm diam gas and groundwater monitoring pipe installed at 3.00m, slotted between 2.00m and 3.00m depth. 7. Borehole backfilled with pea shingle between 3.00m and 2.00m and bentonite pellets between 2.00m and 0.30m depth. Concrete with a stopcock cover installed from 0.30m to ground level.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	TAF & CO	Logger:	SD	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-04

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	21/02/2025	502864.09	31.45	5.00 m
	Date Completed: 27/02/2025	Northing: 180063.03		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	21/02/25		Dry					Concrete			
	21/02/25 27/02/25		Dry Dry		31.15		0.30	Dark brown sandy GRAVEL with low to moderate brick cobble content. Gravel comprises angular to subrounded fine to coarse flint, brick and clinker-like fragments. (MADE GROUND)	0.30 0.30	ES1 PID	0.10 ppm
					30.65		0.80	Dark brown slightly sandy clayey GRAVEL with low brick cobble content. Gravel comprises angular to subrounded fine to coarse flint, brick and clinker-like fragments. (MADE GROUND)	0.90 0.90	ES2 PID	2.80 ppm
					30.25		1.20	Dark brown slightly sandy clayey GRAVEL. Gravel comprises angular to subrounded fine to coarse flint, brick and clinker-like fragments. (MADE GROUND)			
					29.81		1.64	Dark grey and black gravelly slightly clayey fine SAND with frequent ash-like material and rare white ceramic fragments (<20mm). Gravel comprises angular to subangular fine to coarse flint, brick and clinker-like fragments. (MADE GROUND)	1.80 1.80	ES3 PID	0.10 ppm
W					29.10		2.35	Soft to firm, greyish brown mottled brown slightly sandy slightly gravelly CLAY with occasional pockets of fine sand (<20mm). Gravel is angular to subangular fine to coarse flint. Sand is fine. (MADE GROUND)			
					28.65		2.80	... with a band of gravelly sand between 2.65m and 2.69m ... with a band of gravelly sand between 2.75m and 2.80m			
					28.35		3.10	Firm, brown mottled greyish brown slightly sandy micaceous CLAY with occasional pockets of fine sand (<30mm). Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			
								Stiff, grey slightly sandy micaceous CLAY with occasional pockets of light grey fine sand (<20mm). Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			
								... with a1No claystone fragment (<40mm) at 4.00m ... AZCL between 4.00m and 4.35m			
								... becoming very closely to closely fissured at 4.35m. Fissures are randomly orientated, planar, smooth, unpolished ... with a parting of light grey sand at 4.55m			
	27/02/25	3.00	Dry		26.45		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	100	Hilti DD350
2.00	3.00	87	100	Hand Excavated
3.00	4.00	77	100	Terier 1
4.00	5.00	67	65	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. 110mm diam casing used from ground level to 3.00m depth
3. 50mm diam groundwater monitoring pipe installed at 2.70m, slotted between 0.50m and 2.70m depth.
4. Borehole backfilled with bentonite pellets between 5.00m and 2.70m pea shingle between 2.70m and 0.50m and bentonite pellets between 0.50m and 0.20m depth. Concrete with a stopcock cover installed from 0.20m to ground level.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	Taf & CO	Logger:	EP	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-05

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	24/02/2025	Easting	502969.16	Ground Level (mOD)	Final Depth
25/4047	Date Completed	26/02/2025	Northing	180080.29	31.68	5.00 m

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	24/02/25		Dry					CONCRETE			
					31.40		0.28		0.30	ES1	
					31.30		0.38	Brown very sandy slightly clayey GRAVEL. Gravel comprises angular to rounded fine to coarse flint, quartz, concrete and asphalt fragments. Sand is fine to coarse. (MADE GROUND)	0.30	PID	0.10 ppm
								Orangish brown slightly sandy very gravelly CLAY. Gravel comprises angular to subrounded fine to coarse flint, quartz and concrete fragments. Sand is fine to coarse. (MADE GROUND)	1.00	ES2	
								... with occasional ceramic and rare glass and plastic fragments below 0.80m	1.00	PID	0.30 ppm
	24/02/25 26/02/25		1.20		30.48		1.20	Soft, brown mottled greyish brown slightly gravelly slightly sandy CLAY. Gravel comprises angular to subangular fine to coarse flint and clinker-like fragments. Sand is fine to coarse. (MADE GROUND)			
					29.98		1.70	Brown very sandy angular to subrounded fine to coarse flint GRAVEL. Sand is fine to medium. (LYNCH HILL GRAVEL MEMBER)	1.80	ES3	
									1.80	PID	0.20 ppm
					29.63		2.05	Firm, very closely to closely fissured brown mottled greyish brown slightly sandy micaceous CLAY with frequent pockets of brown fine sand (<20mm). Fissures are randomly orientated, planar, smooth, unpolished. (THAMES GROUP: WEATHERED LONDON CLAY)			
					29.23		2.45	Firm to stiff, very closely to closely fissured grey micaceous CLAY. Fissures are randomly orientated, planar, smooth, unpolished. (THAMES GROUP: WEATHERED LONDON CLAY)			
								... AZCL between 3.00m and 3.28m			
								... with rare bioturbation below 3.40m			
	26/02/25	3.00	Dry		26.68		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	87	Hilti DD350
2.00	3.00	87	100	Hand Excavated
3.00	4.00	77	72	Terier 1
4.00	5.00	67	100	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing. 2. Water seepage encountered at 1.20m rising to 1.18m
3. 110mm diam casing used from ground level to 3.00m depth
4. 50mm diam groundwater monitoring pipe installed at 2.20m, slotted between 0.50m and 2.20m depth.
4. Borehole backfilled with bentonite pellets between 5.00m and 2.20m pea shingle between m and 0.50m and bentonite pellets between 0.50m and 0.20m depth. Concrete with a stopcock cover installed from 0.20m to ground level.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	TAF & CO	Logger:	GD	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-06

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	20/02/2025	502790.99	31.17	5.00 m
	Date Completed: 27/02/2025	Northing: 179893.03		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	20/02/25		Dry					CONCRETE			
					30.90		0.27	Dark brown mottled orangish brown very gravelly slightly clayey fine to coarse SAND with low subangular concrete cobble content, rare glass and wood fragments (<60mm). Gravel comprises angular to subrounded fine to coarse flint, quartz, brick, concrete, pumice and clinker-like fragments. (MADE GROUND)	0.30 0.30	ES1 PID	0.40 ppm
					30.52		0.65	Orangish brown very gravelly medium to coarse SAND with low subangular brick cobble content and wood fragments (<60mm). Gravel comprises angular to subangular fine to coarse flint, quartz, brick, concrete and clinker-like fragments. (MADE GROUND)	0.90 0.90	ES2 PID	0.10 ppm
					30.22		0.95	CONCRETE			
					30.12		1.05	Dark brown mottled grey slightly sandy clayey GRAVEL. Gravel comprises angular to subangular fine to coarse flint, brick and clinker-like fragments. Sand is fine. (MADE GROUIND) ... with 1No concrete cobble and 1No decayed wood fragment (<300mm) at 1.70m			
	20/02/25 27/02/25		Dry Dry								
					29.17		2.00	AZCL			
					28.89		2.28	Soft, dark grey mottled grey slightly sandy gravelly CLAY with frequent wood fragments (<40mm). Gravel is angular to subrounded medium to coarse flint. Sand is fine. (MADE GROUND)			
					28.27		2.90	... with 1No flint cobble at 2.85m			
								Brown sandy angular to subrounded fine to coarse flint GRAVEL. Sand is fine to medium. (LYNCH HILL GRAVEL MEMBER)			... liner between 3.00m and 4.00m split and recovered as B sample
									3.50 3.50	ES3 PID	0.10 ppm
								... AZCL between 4.00m and 4.20m			
					26.87		4.30	Firm, brown mottled greyish brown slightly sandy micaceous CLAY with occasional pockets of brown fine sand (<20mm). Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			
					26.37		4.80	Firm, grey slightly sandy micaceous CLAY. (THAMES GROUP: WEATHERED LONDON CLAY)			
	27/02/25	4.00	Dry		26.17		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	50	Hilti DD350
2.00	3.00	87	72	Hand Excavated
3.00	4.00	77		Terier 1
4.00	5.00	67	70	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing. 2. Concrete obstruction encountered at 0.95m depth. 3. liner between 3.00m and 4.00m split and recovered as B sample. 4. 110mm diam casing used from ground level to 4.00m depth 5. 50mm diam gas and groundwater monitoring pipe installed at 2.80m, slotted between 0.50m and 2.80m depth. 6. Borehole backfilled with bentonite pellets between 5.00m and 2.80m pea shingle between 2.80m and 0.50m and bentonite pellets between 0.50m and 0.20m depth. Concrete with a stopcock cover installed from 0.20m to ground level.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	DJ	Logger:	EP	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-07

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	25/02/2025	Easting	502911.86	Ground Level (mOD)	Final Depth
25/4047	Date Completed	26/02/2025	Northing	179944.88	30.97	3.00 m

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	25/02/25		Dry					CONCRETE			
					30.77		0.20				
					30.67		0.30	Reddish brown and black subangular to subrounded brick COBBLES. (MADE GROUND)	0.30	ES1	
									0.30	PID	0.10 ppm
								Dark brown very gravelly fine to coarse SAND with low brick and concrete cobble content. Gravel comprises angular to subrounded fine to coarse flint,			
					30.27		0.70	quartz, brick, concrete and clinker-like fragments. (MADE GROUND)			
								Dark brown very gravelly slightly clayey fine to coarse SAND with low brick and concrete cobble content, frequent plastic fragments and slight hydrocarbon	1.00	ES2	
								odour. Gravel comprises angular to rounded fine to	1.00	PID	0.20 ppm
	25/02/25	1.00	1.20		29.77		1.20	coarse flint, quartz, brick, concrete and clinker-like fragments.			
	26/02/25							(MADE GROUND)	1.30	ES3	
								.. with a pocket of dark grey staining at 1.10m	1.30	PID	2.70 ppm
								Firm, grey mottled dark grey slightly sandy gravelly CLAY with slight hydrocarbon odour. Gravel comprises angular to subrounded fine to coarse flint and clinker-like fragments. Sand is fine. (MADE GROUND)			
								... with 1No concrete cobble at 1.70m and at 1.90m			
					29.07		1.90	Dark grey gravelly fine SAND with strong hydrocarbon odour. Gravel is angular to subangular fine to coarse flint. (LYNCH HILL GRAVEL MEMBER)			... Borehole collapsing to 2.00m depth
								... becoming slightly gravelly between 2.30m and 2.50m	2.30	ES4	
									2.30	PID	0.30 ppm
					28.15		2.82				
	26/02/25	1.50	Dry		27.97		3.00	Firm very closely to closely fissured brown micaceous CLAY with occasional pockets of brown fine sand. Fissures are randomly orientated, planar, smooth, unpolished.(THAMES GROUP: WEATHERED LONDON CLAY)			
								.. with a parting of brown fine sand at 2.88m			
								End of hole at 3.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.00	1.50	87	100	Hilti DD350
1.50	2.00	87	100	Hand Excavated
2.00	3.00	77	100	Terier 1

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing. 2. Water seepage encountered at 1.20m rising to 1.00m.3. 110mm diam casing used from ground level to 1.50m depth. 4. Borehole collapsing to 2.00m depth.
5. 50mm diam groundwater monitoring pipe installed at 2.00m, slotted between 1.00m and 2.00m depth.
6. Borehole backfilled with soil arisings between 3.00m and 2.00m pea shingle between 2.00m and 1.00m and bentonite pellets between 1.00m and 0.20m depth. Concrete with a stopcock cover installed from 0.20m to ground level.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	CO	Logger:	GD	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-08

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	26/02/2025	502931.05	30.78	5.00 m
	Date Completed: 26/02/2025	Northing: 179870.66		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	26/02/25		Dry					CONCRETE			
					30.48		0.30	Dark grey gravelly slightly clayey fine SAND with slight hydrocarbon odour. Gravel comprises angular to subangular fine to coarse flint, brick, concrete and clinker-like fragments. (MADE GROUND)	0.30 0.30	ES1 PID	 0.50 ppm
					29.98		0.80	Brown sandy GRAVEL. Gravel comprises angular to subangular fine to coarse flint and clinker-like fragments. Sand is fine. (MADE GROUND)	0.80 0.80	ES2 PID	 0.00 ppm
	26/02/25		Dry		29.58		1.20	Soft to firm, dark brown slightly sandy gravelly CLAY with occasional organic matter (<20mm). Gravel comprises angular to subrounded fine to coarse flint and clinker-like fragments. Sand is fine. (MADE GROUND)	1.60 1.60	ES3 PID	 0.20 ppm
								... with 1No decayed root (<20mm) at 1.75m			
					28.78		2.00	AZCL			
					28.68		2.10	Dark grey gravelly fine to coarse SAND with slight hydrocarbon odour. Gravel is angular to subrounded fine to coarse flint. (MADE GROUND)			
					28.22		2.56	Brown sandy angular to subrounded fine to coarse flint GRAVEL. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)	2.60 2.60	ES4 PID	 0.20 ppm
					27.78		3.00	AZCL			
					27.45		3.33	Brown gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse flint. (LYNCH HILL GRAVEL MEMBER)	3.60 3.60	ES5 PID	 0.20 ppm
								... AZCL between 4.00m and 4.35m			
					26.31		4.47	Firm, brown mottled greyish brown slightly sandy micaceous CLAY with occasional pockets of brown fine sand (<20mm). Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			
					26.01		4.77	Firm, very closely to closely fissured grey slightly sandy micaceous CLAY with occasional pockets of light grey sand (<20mm). Fissures are randomly orientated, planar, smooth, unpolished. (THAMES GROUP: WEATHERED LONDON CLAY)			
	26/02/25	4.00	Dry		25.78		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	100	Hilti DD350
2.00	3.00	87	90	Hand Excavated
3.00	4.00	77	67	Terier 1
4.00	5.00	67	65	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. 110mm diam casing used from ground level to 4.00m depth
3. 50mm diam groundwater monitoring pipe installed at 3.00m, slotted between 0.50m and 3.00m depth.
4. Borehole backfilled with bentonite pellets between 5.00m and 3.00m pea shingle between 3.00m and 0.50m and bentonite pellets between 0.50m and 0.20m depth. Concrete with a stopcock cover installed from 0.20m to ground level.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	TAF & CO	Logger:	EP	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	17/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-09

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	27/02/2025	502980.27	31.02	5.00 m
	Date Completed: 28/02/2025	Northing: 179919.15		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	27/02/25		Dry					CONCRETE			
					30.72		0.30	Dark brown sandy GRAVEL. Gravel comprises angular to subangular fine to coarse flint and clinker-like fragments. Sand is fine. (MADE GROUND)	0.30 0.30	ES1 PID	 0.10 ppm
					30.22		0.80	Firm, brown mottled greyish brown slightly sandy slightly gravelly silty CLAY. Gravel comprises angular to subrounded fine to coarse flint and clinker-like fragments. Sand is fine. (MADE GROUND)	0.80 0.80	ES2 PID	 0.00 ppm
	27/02/25 28/02/25	1.20 1.20	Dry Dry		29.82		1.20	Firm, brown mottled greyish brown slightly sandy slightly gravelly silty CLAY with rare pockets of organic matter (<20mm). Gravel comprises angular to subrounded fine to coarse flint and clinker-like fragments. Sand is fine. (MADE GROUND)			
					29.42		1.60	Brown sandy angular to subrounded fine to coarse flint GRAVEL. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER) ... AZCL between 2.00m and 2.40m			
W					28.32		2.70	... with 1No flint cobble at 2.65m			
					28.12		2.90	Firm to stiff, brown mottled greyish brown slightly sandy slightly micaceous CLAY with rare to occasional pockets of brown fine sand (<20mm). Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			
								Firm to stiff, very closely to closely fissured micaceous CLAY with rare pyrite nodules (<20mm). Fissures are randomely orientated, planar, smooth, unpolished. (THAMES GROUP: WEATHERED LONDON CLAY) ... becoming soft between 3.55m and 3.60m ... with 1No shell fragment (<10mm) at 3.95m ... AZCL between 4.00m and 4.17m			
	28/02/25	3.00	Dry		26.02		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	100	Hilti DD350
2.00	3.00	87	60	Hand Excavated
3.00	4.00	77	100	Terier 1
4.00	5.00	67	83	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. 110mm diam casing used from ground level to 3.00m depth
3. 50mm diam groundwater monitoring pipe installed at 2.70m, slotted between 1.70m and 2.70m depth.
4. Borehole backfilled with bentonite pellets between 5.00m and 2.70m pea shingle between 2.70m and 1.70m and bentonite pellets between 1.70m and 0.20m depth. Concrete with a stopcock cover installed from 0.20m to ground level.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	TAF & CO	Logger:	EP	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-10

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Date Completed	Easting	Northing	Ground Level (mOD)	Final Depth
25/4047	26/02/2025	26/02/2025	503056.75	179933.29	31.60	2.00 m

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	26/02/25		Dry					CONCRETE			
					31.30		0.30	Soft, brown mottled dark grey slightly sandy gravelly CLAY with slight hydrocarbon odour. Gravel comprises angular to subrounded fine to coarse flint, brick and clinker-like fragments. (MADE GROUND)	0.30 0.30	ES1 PID	0.00 ppm
					30.80		0.80	Brown gravelly slighlty clayey fine SAND with low flint cobble content. Gravel is angular to subangular fine to coarse flint. (MADE GROUND)	0.80 0.80	ES2 PID	0.00 ppm
					30.40		1.20	Soft to firm, greyish brown slightly sandy gravelly CLAY. Gravel comprises angular to subrounded fine to coarse flint and brick fragments. Sand is fine. (MADE GROUND)	1.40 1.40	ES3 PID	0.50 ppm
					30.08		1.52	... with 1No flint cobble at 1.20m			
					29.95		1.65	.. with 1No flint cobble at 1.40m			
W	26/02/25	2.00	Dry		29.60		2.00	Dark grey gravelly fine to coarse SAND with slight hydrocarbon odour. Gravel is angular to rounded fine to coarse flint. (MADE GROUND)			
								AZCL End of hole at 2.00m			... Borehole aborted at 2.00m depth (see Remarks)

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	81	Hilti DD350 Hand Excavated Terier 1

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. 110mm diam casing used from ground level to 2.00m depth.
3. Borehole aborted at 2.00m depth due to obstruction.
4. 50mm diam groundwater monitoring pipe installed at 2.00m, slotted between 0.50m and 2.00m depth.
5. Borehole backfilled with pea shingle between 2.00m and 0.50m and bentonite pellets between 0.50m and 0.20m depth. Concrete with a stopcock cover installed from 0.20m to ground level.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	TAF & CO	Logger:	EP	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-11

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	20/02/2025	502833.28	30.92	1.60 m
	Date Completed: 25/02/2025	Northing: 179866.45		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	20/02/25		Dry					Concrete			
					30.69		0.23	Greyish brown very gravelly fine to coarse SAND with low concrete cobble content and rare ceramic, plastic and wood fragments (<60mm). Gravel comprises angular to rounded fine to coarse flint, brick, concrete, asphalt, clinker-like and slag-like fragments. (MADE GROUND)	0.30 0.30	ES1 PID	0.00 ppm
					30.12		0.80	Greyish brown very sandy GRAVEL with rare metal (<100mm) and wood (<50mm) fragments and slight hydrocarbon odour. Gravel comprises angular to rounded fine to coarse flint, quartz, brick and clinker-like fragments. Sand is fine to coarse. (MADE GROUND)	1.00 1.00	ES2 PID	0.10 ppm
	20/02/25 25/02/25		1.20 Dry		29.72		1.20	Dark brown sandy GRAVEL with wood fragments (<60mm) and slight hydrocarbon odour. Gravel comprises angular to rounded fine to coarse flint, quartz, brick and clinker-like fragments. Sand is fine to coarse. (MADE GROUND)	1.50 1.50	ES3 PID	4.70 ppm
	25/02/25	1.60	Dry		29.32		1.60	End of hole at 1.60m			... Borehole aborted at 1.60m depth (see Remarks)

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	1.60	87	40	Hilti DD350 Hand Excavated Terier 1

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. Water seepage with oily sheen encountered at 1.20m rising to 1.06m.
3. 110mm diam casing used from ground level to 1.60m depth.
4. Borehole aborted at 1.60m depth due to refusal.
5. Borehole backfilled with bentonite pellets and made good on completion.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	ST	Logger:	IJ	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-12

Project Name

LHR042 Thorney Lane DC1

Project No		Date Started	18/02/2025	Easting	502948.69	Ground Level (mOD)	Final Depth
25/4047		Date Completed	24/02/2025	Northing	179960.04	31.00	5.00 m

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	18/02/25		Dry					Grey CONCRETE, clasts are angular to rounded fine to coarse flint gravel (max spacing between aggregate <10mm). Rare air voids.			
					30.70		0.30	Brown sandy GRAVEL with low brick cobble content. Gravel comprises angular to rounded fine to coarse flint and brick fragments. Sand is fine to coarse. (MADE GROUND)	0.40 0.40	ES1 PID	 0.00 ppm
									0.90 0.90	ES2 PID	 0.10 ppm
								... with occasional wood fragments below 1.00m. Gravel comprises angular to subrounded fine to coarse flint, brick and concrete fragments			
	18/02/25 24/02/25		Dry 0.90		29.80		1.20	Soft, greyish brown slightly sandy gravelly CLAY with 1No concrete cobble and rare ceramic fragments (<60mm). Gravel comprises angular to subrounded fine to coarse flint, concrete and brick fragments. Sand is fine to coarse. (MADE GROUND)	1.20 - 2.00 1.20	ES3 PID	 0.10 ppm
	24/02/25	2.00	1.40								
					28.30		2.70	Brown slightly gravelly slightly silty fine to medium SAND. Gravel is angular to subrounded fine to medium flint. (LYNCH HILL GRAVEL MEMBER)			
	24/02/25	3.00	2.40						3.00 3.00	ES4 PID	 1.00 ppm
					27.47		3.53	Soft, brown slightly gravelly CLAY. Gravel is fine flint. (THAMES GROUP: WEATHERED LONDON CLAY)			
					27.20		3.80	Stiff, dark grey slightly micaceous silty CLAY with rare white flecks. (THAMES GROUP: WEATHERED LONDON CLAY)	3.80 3.80	ES5 PID	 0.20 ppm
	24/02/25	4.00	3.40								
								... with a band of extremely weak, light brown claystone between 4.75m and 4.76m			
	24/02/25	4.00	4.40		26.00		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	80	Hilti DD350
2.00	3.00	87	85	Hand Excavated
3.00	4.00	87	55	Terier 1
4.00	5.00	77	100	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. Water present in the IP at 0.90m depth.
3. 110mm diam casing used from ground level to 4.00m depth.
4. Borehole backfilled with bentonite pellets and made good upon completion.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	ST	Logger:	DN	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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SITE INVESTIGATIONS

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-13

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	24/02/2025	502888.05	31.19	5.00 m
	Date Completed	25/02/2025	Northing	180018.44		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	24/02/25		Dry					CONCRETE			
					30.93		0.26	Light brown very gravelly fine to coarse SAND with occasional wood fragments (<60mm). Gravel comprises angular to subrounded fine to coarse flint, quartz, brick, concrete and clinker-like fragments. (MADE GROUND)	0.30 0.30	ES1 PID	0.00 ppm
					30.49		0.70	Brown and greyish brown very sandy GRAVEL with low concrete cobble content and rare wood fragments (<60mm). Gravel comprises angular to rounded fine to coarse flint, quartz, brick, concrete and clinker-like fragments. Sand is coarse. (MADE GROUND)	1.00 1.00	ES2 PID	0.00 ppm
	24/02/25 25/02/25		1.20 Dry		29.99		1.20	Dark brown slightly sandy clayey GRAVEL with 1No concrete cobble and moderate hydrocarbon odour. Gravel comprises angular to subrounded fine to coarse flint, brick and concrete fragments. (MADE GROUND)			
					29.63		1.56	Orangish brown very sandy subangular fine to coarse mortar GRAVEL. (MADE GROUND)	1.70 1.70	ES3 PID	1.80 ppm
	25/02/25	2.00	Dry		29.49		1.70	Soft, brown gravelly CLAY with low concrete cobble content and rare glass fragments (<60mm). Gravel comprises angular to subrounded fine to coarse flint and brick fragments. (MADE GROUND)			
					29.19		2.00	Soft, light brown and grey gravelly CLAY with low concrete cobble content and slight hydrocarbon odour. Gravel is angular to subrounded fine to coarse flint. (MADE GROUND)	2.70 2.70	ES4 PID	0.30 ppm
					28.19		3.00	Brownish grey very sandy angular to subrounded fine to coarse flint GRAVEL. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)	3.20 3.20	ES5 PID	0.30 ppm
					27.64		3.55	Stiff, dark grey slightly micaceous CLAY with rare pockets of light grey sand. (THAMES GROUP: WEATHERED LONDON CLAY)	3.80 3.80	ES6 PID	0.10 ppm
	25/02/25	2.00	Dry								
					26.89		4.30	AZCL			
	25/02/25	2.00	4.60		26.19		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	80	Hilti DD350
2.00	3.00	87	100	Hand Excavated
3.00	4.00	77	80	Terier 1
4.00	5.00	67	30	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. Water seepage encountered at 1.20m depth rising to 1.10m.
3. 110mm diam casing used from ground level to 2.00m depth.
4. Borehole backfilled with bentonite pellets and made good upon completion.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	TAF & CO	Logger:	GD	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-14

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	19/02/2025	Easting	503041.87	Ground Level (mOD)	Final Depth
25/4047	Date Completed	24/02/2025	Northing	180014.93	31.72	4.60 m

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	19/02/25		Dry		31.59		0.13	Grey CONCRETE, clasts are angular to rounded fine to coarse flint gravel (max spacing between aggregate <15mm). Rare air voids.			
								Brown gravelly fine to coarse SAND. Gravel comprises angular to rounded fine to coarse flint, brick and concrete fragments. (MADE GROUND)	0.30 0.30	ES1 PID	 1.10 ppm
					31.12		0.60	Dark brown sandy slightly clayey GRAVEL. Gravel comprises angular to rounded fine to coarse flint and brick fragments. Sand is fine to coarse. (MADE GROUND)	0.80 0.80	ES2 PID	 0.10 ppm
	19/02/25 24/02/25		Dry 0.60		30.52		1.20	Soft, grey to dark grey sandy clayey GRAVEL with occasional wood fragments (<60mm). Gravel comprises angular to subrounded fine to coarse flint and brick fragments. Sand is fine to medium. (MADE GROUND)	1.50 1.50	ES3 PID	 0.40 ppm
					29.92		1.80	Brownish grey very sandy angular to subrounded fine to coarse flint GRAVEL. Sand is medium to coarse. (LYNCH HILL GRAVEL MEMBER)	2.00 2.00	ES4 PID	 0.60 ppm
					28.72		3.00	Soft brown slightly gravelly CLAY. Gravel is fine flint. (THAMES GROUP: WEATHERED LONDON CLAY)			
					28.52		3.20	Stiff, dark grey slightly micaceous CLAY with rare white flecks. (THAMES GROUP: WEATHERED LONDON CLAY)	3.30 3.30	ES5 PID	 0.70 ppm
	24/02/25	4.00	3.80		27.12		4.60	End of hole at 4.60m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	60	Hilti DD350
2.00	3.00	87	70	Hand Excavated
3.00	3.60	87	41	Terier 1
3.60	4.60	67	100	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. Water present in the IP at 0.60m depth.
3. 110mm diam casing used from ground level to 4.00m depth.
4. Borehole backfilled with bentonite pellets and made good upon completion.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	TAF & CO	Logger:	IJ	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-15A

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	27/02/2025	503008.05	31.59	5.00 m
	Date Completed: 27/02/2025	Northing: 180085.52		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	27/02/25		Dry					CONCRETE			
					31.29		0.30	Soft, dark grey slightly sandy gravelly CLAY with strong hydrocarbon odour. Gravel comprises angular to subrounded fine to coarse flint and clinker-like fragments. Sand is fine. (MADE GROUND)	0.30 0.30	ES1 PID	 11.80 ppm
					30.79		0.80	Dark brown slightly gravelly sandy CLAY. Gravel comprises angular to subrounded fine to coarse flint and brick fragments. Sand is fine. (MADE GROUND)	0.80 0.80	ES2 PID	 0.20 ppm
					30.39		1.20	Dark grey sandy slightly clayey GRAVEL with strong hydrocarbon odour. Gravel comprises angular to subangular fine to coarse flint and clinker-like fragments. Sand is fine. (MADE GROUND)	1.40 1.40	ES3 PID	 32.60 ppm
					30.07		1.52	Soft to firm, gravelly slightly clayey fine to medium SAND with slight hydrocarbon odour. Gravel is angular to subrounded fine to coarse flint. (LYNCH HILL GRAVEL MEMBER)			
					29.59		2.00	AZCL			
					29.51		2.08	Firm to stiff, brown mottled greyish brown slightly sandy micaceous CLAY with occasional pockets of brown fine sand (<20mm). Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			
					29.16		2.43	Firm to stiff, grey slightly sandy micaceous CLAY with occasional pockets of light grey sand (<20mm) and rare pyrite nodules (<20mm). (THAMES GROUP: WEATHERED LONDON CLAY) ... with 1No pyrite nodule (<40mm) at 2.76m ... becoming very closely to closely fissured below 3.00m. Fissures are randomly orientated, planar, smooth, unpolished ... AZCL between 3.00m an 3.30m ... with 1No pyrite nodule (<50mm) at 3.60m ... AZCL between 4.00m and 4.37m ... with 1No pyrite nodule (<30mm) at 4.79m			
	27/02/25	3.00	Dry		26.59		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	87	Hilti DD350
2.00	3.00	87	92	Hand Excavated
3.00	4.00	77	70	Terier 1
4.00	5.00	67	63	

General Remarks

1. Borehole original location aborted at 0.53m depth due to two concrete obstructions encountered at 0.38m and 0.53m. Borehole moved to position DS25-15A.
2. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
3. 110mm diam casing used from ground level to 3.00m depth.
4. Borehole backfilled with bentonite pellets and made good upon completion.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	TAF & CO	Logger:	EP	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	17/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-16

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	19/02/2025	503011.07	31.91	5.00 m
	Date Completed: 24/02/2025	Northing: 180131.77		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	19/02/25		Dry					Grey CONCRETE, clasts are angular to rounded fine to coarse flint gravel (max spacing between aggregate <5mm). Rare air voids.			
					31.73		0.18				
								Yellowish brown sandy GRAVEL with medium concrete cobble content. Gravel comprises angular to rounded fine to coarse flint, brick and concrete fragments. (MADE GROUND)	0.30 0.30	ES1 PID	 0.00 ppm
					31.46		0.45				
								Brown gravelly coarse SAND. Gravel is fine to coarse flint. (LYNCH HILL GRAVEL MEMBER)	0.80 0.80	ES2 PID	 0.00 ppm
	19/02/25		Dry		30.71		1.20				
	24/02/25		0.50					Yellowish brown very sandy angular to subrounded fine to coarse flint GRAVEL. Sand is medium to coarse. (LYNCH HILL GRAVEL MEMBER)	1.30 1.30	ES3 PID	 0.00 ppm
					30.51		1.40				
								Soft, brown slightly gravelly CLAY. Gravel is fine flint. (THAMES GROUP: WEATHERED LONDON CLAY)			
					30.11		1.80	Stiff, dark grey slightly micaceous CLAY. (THAMES GROUP: WEATHERED LONDON CLAY)	1.80 1.80	ES4 PID	 0.00 ppm
	24/02/25	2.00	0.50					... with rare white flecks at 2.00m			
	24/02/25	2.00	0.80					... with a pocket of light brown siltstone at 3.15m			
								... becoming micaceous at 3.80m			
	24/02/25	2.00	4.10		26.91		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	80	Hilti DD350
2.00	3.00	87	80	Hand Excavated
3.00	4.00	77	100	Terier 1
4.00	5.00	67	90	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. Water present in the IP at 0.50m depth
3. 110mm diam casing used from ground level to 2.00m depth.
4. Borehole backfilled with bentonite pellets and made good upon completion.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	ST	Logger:	DN	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-17

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	27/02/2025	503054.02	32.59	4.00 m
	Date Completed: 27/02/2025	Northing: 180189.41		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	27/02/25		Dry					CONCRETE			
					32.29		0.30	Dark brown sandy GRAVEL with a slight hydrocarbon odour and oily sheen. Gravel comprises angular to subrounded fine to coarse flint and clinker-like fragments. Sand is fine to coarse. (MADE GROUND)	0.30 0.30	ES1 PID	 0.10 ppm
					31.79		0.80	Brown sandy angular to subrounded fine to coarse flint GRAVEL with low flint cobble content. Sand is fine to medium. (LYNCH HILL GRAVEL MEMBER) ... with no cobbles below 1.10m	0.80 0.80	ES2 PID	 2.40 ppm
									1.80 1.80	ES3 PID	 0.00 ppm
					30.32		2.27	Stiff, brown mottled greyish brown slightly sandy micaceous CLAY with occasional pockets of brown sand (<20mm). Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			
					30.04		2.55	.. with 1No claystone fragment (<15mm) at 2.30m			
								Stiff, grey slightly sandy micaceous CLAY with occasional pyrite nodules (<20mm). (THAMES GROUP: WEATHERED LONDON CLAY) ... with 1No pyrite nodule (<50mm) at 2.90m			
								... with rare white flecks below 3.65m			
	27/02/25	2.00	Dry		28.59		4.00	End of hole at 4.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	100	Hilti DD350
2.00	3.00	87	100	Hand Excavated
3.00	4.00	77	90	Terier 1

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. 110mm diam casing used from ground level to 2.00m depth.
3. Borehole backfilled with bentonite pellets and made good upon completion.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	DJ	Logger:	EP	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

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DYNAMIC SAMPLING LOG

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-18

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	Easting	Ground Level (mOD)	Final Depth
25/4047	21/02/2025	502822.02	31.41	5.00 m
	Date Completed: 25/02/2025	Northing: 180066.06		

Client

Arup

Sheet 1 of 1

Well	PROGRESS Date	Casing	Water	Water Strikes	Level (mOD)	Legend	Depth (m)	Stratum Description	SAMPLES & TESTS Depth (m)	Type	Results
	21/02/25		Dry					Grey CONCRETE, clasts are angular to rounded fine to coarse flint gravel (max spacing between aggregate <5mm). Rare air voids.			
					31.13		0.28				
								Brown gravelly fine to coarse SAND with occasional wood fragments (<60mm). Gravel comprises angular to subrounded fine to coarse flint and brick fragments. (MADE GROUND)	0.40 0.40	ES1 PID	 0.10 ppm
					30.91		0.50				
								Brown very sandy GRAVEL with wood fragments (<60mm). Gravel comprises angular to rounded fine to coarse flint, quartz, brick and clinker-like fragments. Sand is fine to coarse. (MADE GROUND)	0.90 0.90	ES2 PID	 0.10 ppm
	21/02/25 24/02/25		Dry 0.60		30.21		1.20	Soft, brownish grey slightly sandy gravelly CLAY with 1No root (<100mm). Gravel is angular to subrounded fine to coarse flint. Sand is fine. (MADE GROUND)	1.20 1.20	ES3 PID	 1.10 ppm
					29.91		1.50	Soft to firm, greyish brown mottled brown slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse flint. Sand is fine. (MADE GROUND)			
	24/02/25	2.00	Dry						2.00 2.00	ES4 PID	 0.00 ppm
					28.56		2.85	Brown sandy slightly clayey angular to subrounded fine to coarse flint GRAVEL. Sand is fine to medium. (LYNCH HILL GRAVEL MEMBER)	2.90 2.90	ES5 PID	 0.10 ppm
					28.26		3.15	... sand becoming fine to coarse below 3.00m			
								Firm, brown slightly sandy micaceous CLAY. Sand is fine. (THAMES GROUP: WEATHERED LONDON CLAY)			
					27.89		3.52	... with reddish brown very weak sandstone at 3.48m			
								Firm to stiff grey CLAY with occasional pockets of light grey sand (<70mm). (THAMES GROUP: WEATHERED LONDON CLAY)			
								... with a pocket of pyrite nodules (<20mm) at 4.00m ... AZCL between 4.00m and 4.40m			
								... becoming very closely to closely fissured below 4.40m. Fissures are randomly orientated, planar, unpolished			
	24/02/25	2.00	Dry		26.41		5.00	End of hole at 5.00m			

Dynamic Sampling Information

From (m)	To (m)	Diameter (mm)	Recovery (%)	Method / Plant Used
1.20	2.00	87	80	Hilti DD350
2.00	3.00	87	100	Hand Excavated
3.00	4.00	77	100	Terier 1
4.00	5.00	47	60	

General Remarks

1. Surface concrete was diamond cored and an inspection pit was hand excavated to 1.20m depth prior to borehole boring commencing.
2. Water present in the IP at 0.50m depth
3. 110mm diam casing used from ground level to 2.00m depth.
4. Borehole backfilled with bentonite pellets and made good upon completion.

AGS

ABBREVIATIONS KEY Samples: ES – Environmental (Tab, Jar, Vial), U(76) – 76mm Undisturbed, L- Liner, D – Disturbed, B - Bulk, LB – Large Bulk, BLK – Block Sample, W – Water, R-Root
Tests: SPT – Standard Penetration Test, HV – Shear Hand Vane, PP – Pocket Penetrometer, PID – Volatile Organic Compounds, AZCL – Assumed Zone of Core Loss

Issue:	FINAL	Crew:	ST	Logger:	EP	Checked:	FP	Approved:	OS	Scale:	1:30	Log Print Date:	11/04/2025

13. INSTRUMENTATION MONITORING RESULTS

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GROUNDWATER MONITORING

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-01

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	18/02/2025	Easting	503027.80	Ground Level (mOD)	Final Depth
25/4047	Date Completed	19/02/2025	Northing	180183.19	32.71	10.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH25-01-01	GMP	50	1.00	0.70	1.00	19/02/2025	
BH25-01-02	GWMP	50	2.40	1.50	2.40	19/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH25-01-01	04/03/2025 14:10:00	WDEP	Dry		Concept	
BH25-01-01	17/03/2025 13:45:00	WDEP	Dry		Concept	
BH25-01-01	24/03/2025 10:50:00	WDEP	Dry		Concept	
BH25-01-01	01/04/2025 10:52:00	WDEP	Dry		Concept	
BH25-01-01	07/04/2025 09:33:00	WDEP	Dry		Concept	
BH25-01-02	04/03/2025 14:10:00	WDEP	2.26	30.45	Concept	
BH25-01-02	17/03/2025 13:45:00	WDEP	2.35	30.36	Concept	
BH25-01-02	24/03/2025 00:00:00	WDEP	Dry		Concept	
BH25-01-02	01/04/2025 00:00:00	WDEP	Dry		Concept	
BH25-01-02	07/04/2025 00:00:00	WDEP	2.39	30.32	Concept	

ABBREVIATIONS KEY

GMP – Gas / Vapour Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	10/06/2025

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GROUNDWATER MONITORING

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-02

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	18/02/2025	Easting	502927.85	Ground Level (mOD)	Final Depth
25/4047	Date Completed	20/02/2025	Northing	180083.10	31.53	10.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH25-02-01	GMP	50	1.10	0.60	1.10	20/02/2025	
BH25-02-02	GWMP	50	2.00	1.50	2.00	20/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH25-02-01	04/03/2025 10:55:00	WDEP	1.04	30.49	Concept	
BH25-02-01	17/03/2025 00:00:00	WDEP	Dry		Concept	
BH25-02-01	25/03/2025 14:40:00	WDEP	Dry		Concept	
BH25-02-01	31/03/2025 12:35:00	WDEP	Dry		Concept	
BH25-02-01	07/04/2025 16:44:00	WDEP	Dry		Concept	
BH25-02-02	04/03/2025 11:30:00	WDEP	0.89	30.64	Concept	
BH25-02-02	17/03/2025 13:43:00	WDEP	1.41	30.12	Concept	
BH25-02-02	25/03/2025 15:00:00	WDEP	1.46	30.07	Concept	
BH25-02-02	01/04/2025 00:00:00	WDEP	1.55	29.98	Concept	
BH25-02-02	08/04/2025 00:00:00	WDEP	1.58	29.95	Concept	

ABBREVIATIONS KEY

GMP – Gas / Vapour Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

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GROUNDWATER MONITORING

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-03

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	18/02/2025	Easting	503022.87	Ground Level (mOD)	Final Depth
25/4047	Date Completed	19/02/2025	Northing	179998.12	31.72	10.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH25-03-01	GMP	50	1.90	0.70	1.90	19/02/2025	
BH25-03-02	GWMP	50	3.40	2.40	3.40	19/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH25-03-01	04/03/2025 13:45:00	WDEP	1.78	29.94	Concept	
BH25-03-01	18/03/2025 00:00:00	WDEP	1.75	29.97	Concept	
BH25-03-01	24/03/2025 11:15:00	WDEP	1.75	29.97	Concept	
BH25-03-01	31/03/2025 13:00:00	WDEP	1.77	29.95	Concept	
BH25-03-01	07/04/2025 12:20:00	WDEP	1.75	29.97	Concept	
BH25-03-02	04/03/2025 13:58:00	WDEP	1.80	29.92	Concept	
BH25-03-02	18/03/2025 00:00:00	WDEP	1.75	29.97	Concept	
BH25-03-02	24/03/2025 11:45:00	WDEP	1.76	29.96	Concept	
BH25-03-02	01/04/2025 00:00:00	WDEP	1.96	29.76	Concept	
BH25-03-02	07/04/2025 00:00:00	WDEP	2.01	29.71	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
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WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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GROUNDWATER MONITORING

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

BH25-04

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	18/02/2025	Easting	502797.98	Ground Level (mOD)	Final Depth
25/4047	Date Completed	20/02/2025	Northing	179980.05	31.18	10.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH25-04-01	GMP	50	1.50	0.60	1.50	20/02/2025	
BH25-04-02	GWMP	50	2.90	2.00	2.90	20/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH25-04-01	04/03/2025 12:48:00	WDEP	0.68	30.50	Concept	
BH25-04-01	18/03/2025 13:00:00	WDEP	0.73	30.45	Concept	
BH25-04-01	25/03/2025 10:00:00	WDEP	0.77	30.41	Concept	
BH25-04-01	31/03/2025 11:00:00	WDEP	0.80	30.38	Concept	
BH25-04-01	07/04/2025 15:31:00	WDEP	0.85	30.33	Concept	
BH25-04-02	04/03/2025 13:10:00	WDEP	0.67	30.51	Concept	
BH25-04-02	18/03/2025 12:59:00	WDEP	0.73	30.45	Concept	
BH25-04-02	25/03/2025 10:30:00	WDEP	0.79	30.39	Concept	
BH25-04-02	01/04/2025 00:00:00	WDEP	0.83	30.35	Concept	
BH25-04-02	08/04/2025 00:00:00	WDEP	0.86	30.32	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	30/04/2025

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GROUNDWATER MONITORING

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Borehole No

BH25-05

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	20/02/2025	Easting	502841.64	Ground Level (mOD)	Final Depth
25/4047	Date Completed	20/02/2025	Northing	179868.38	30.85	10.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH25-05-01	GMP	50	1.50	0.60	1.50	20/02/2025	
BH25-05-02	GWMP	50	4.10	2.70	4.10	20/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH25-05-01	05/03/2025 11:10:00	WDEP	0.87	29.98	Concept	
BH25-05-01	18/03/2025 11:10:00	WDEP	0.83	30.02	Concept	
BH25-05-01	24/03/2025 12:15:00	WDEP	0.91	29.94	Concept	
BH25-05-01	31/03/2025 10:40:00	WDEP	0.92	29.93	Concept	
BH25-05-01	07/04/2025 14:30:00	WDEP	1.13	29.72	Concept	
BH25-05-02	05/03/2025 11:10:00	WDEP	1.30	29.55	Concept	
BH25-05-02	18/03/2025 11:11:00	WDEP	1.15	29.70	Concept	
BH25-05-02	24/03/2025 15:09:00	WDEP	1.20	29.65	Concept	
BH25-05-02	31/03/2025 00:00:00	WDEP	1.18	29.67	Concept	
BH25-05-02	07/04/2025 00:00:00	WDEP	1.18	29.67	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
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ICM – Inclinometer
SPIE – Standpipe Piezometer
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WDEP - Depth to water from LOCA_ID datum
RZ – Response Zone

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Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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GROUNDWATER MONITORING

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Borehole No

DS25-01

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	26/02/2025	Easting	502812.99	Ground Level (mOD)	Final Depth
25/4047	Date Completed	26/02/2025	Northing	180113.82	31.77	5.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-01-01	GMP	50	1.50	0.50	1.50	26/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-01-01	04/03/2025 12:10:00	WDEP	0.48	31.29	Concept	
DS25-01-01	17/03/2025 10:51:00	WDEP	1.26	30.51	Concept	
DS25-01-01	25/03/2025 10:30:00	WDEP	1.07	30.70	Concept	
DS25-01-01	01/04/2025 12:11:00	WDEP	1.48	30.29	Concept	
DS25-01-01	07/04/2025 00:00:00	WDEP	Dry		Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	30/04/2025

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GROUNDWATER MONITORING

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-02

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	24/02/2025	Easting	502939.89	Ground Level (mOD)	Final Depth
25/4047	Date Completed	26/02/2025	Northing	180155.41	31.72	5.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-02-01	GWMP	50	2.00	0.50	2.00	26/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-02-01	04/03/2025 11:40:00	WDEP	1.11	30.61	Concept	
DS25-02-01	17/03/2025 11:07:00	WDEP	1.20	30.52	Concept	
DS25-02-01	25/03/2025 13:18:00	WDEP	1.23	30.49	Concept	
DS25-02-01	01/04/2025 00:00:00	WDEP	1.24	30.48	Concept	
DS25-02-01	08/04/2025 00:00:00	WDEP	1.26	30.46	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	30/04/2025

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GROUNDWATER MONITORING

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-03

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	24/02/2025	Easting	502803.44	Ground Level (mOD)	Final Depth
25/4047	Date Completed	25/02/2025	Northing	180041.54	31.15	3.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-03-01	GWMP	50	3.00	2.00	3.00	25/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-03-01	04/03/2025 12:30:00	WDEP	0.66	30.49	Concept	
DS25-03-01	17/03/2025 09:25:00	WDEP	0.72	30.43	Concept	
DS25-03-01	26/03/2025 16:30:00	WDEP	0.75	30.40	Concept	
DS25-03-01	01/04/2025 00:00:00	WDEP	0.82	30.33	Concept	
DS25-03-01	08/04/2025 00:00:00	WDEP	0.86	30.29	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	30/04/2025

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GROUNDWATER MONITORING

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-04

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	21/02/2025	Easting	502864.09	Ground Level (mOD)	Final Depth
25/4047	Date Completed	27/02/2025	Northing	180063.03	31.45	5.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-04-01	GWMP	50	2.70	0.50	2.70	27/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-04-01	05/03/2025 12:58:00	WDEP	1.28	30.17	Concept	
DS25-04-01	17/03/2025 12:05:00	WDEP	1.30	30.15	Concept	
DS25-04-01	24/03/2025 15:52:00	WDEP	1.33	30.12	Concept	
DS25-04-01	01/04/2025 00:00:00	WDEP	1.55	29.90	Concept	
DS25-04-01	08/04/2025 00:00:00	WDEP	1.59	29.86	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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GROUNDWATER MONITORING

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Borehole No

DS25-05

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	24/02/2025	Easting	502969.16	Ground Level (mOD)	Final Depth
25/4047	Date Completed	26/02/2025	Northing	180080.29	31.68	5.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-05-01	GWMP	50	2.20	0.50	2.20	26/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-05-01	04/03/2025 13:20:00	WDEP	1.43	30.25	Concept	
DS25-05-01	18/03/2025 11:24:00	WDEP	1.62	30.06	Concept	
DS25-05-01	25/03/2025 11:11:00	WDEP	1.65	30.03	Concept	
DS25-05-01	01/04/2025 00:00:00	WDEP	1.72	29.96	Concept	
DS25-05-01	08/04/2025 00:00:00	WDEP	1.77	29.91	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue: FINAL	Checked: FP	Approved: OS		Log Print Date: 11/04/2025

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GROUNDWATER MONITORING

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Borehole No

DS25-06

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	20/02/2025	Easting	502790.99	Ground Level (mOD)	Final Depth
25/4047	Date Completed	27/02/2025	Northing	179893.03	31.17	5.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-06-01	GMP	50	2.80	0.50	2.80	27/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-06-01	05/03/2025 11:35:00	WDEP	1.15	30.02	Concept	
DS25-06-01	18/03/2025 00:00:00	WDEP	1.28	29.89	Concept	
DS25-06-01	25/03/2025 09:35:00	WDEP	1.34	29.83	Concept	
DS25-06-01	31/03/2025 11:20:00	WDEP	1.35	29.82	Concept	
DS25-06-01	07/04/2025 15:00:00	WDEP	1.40	29.77	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe
WDEP - Depth to water from LOCA_ID datum
RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	30/04/2025

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GROUNDWATER MONITORING

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Borehole No

DS25-07

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	25/02/2025	Easting	502911.86	Ground Level (mOD)	Final Depth
25/4047	Date Completed	26/02/2025	Northing	179944.88	30.97	3.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-07-01	GWMP	50	2.00	1.00	2.00	26/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-07-01	04/03/2025 09:40:00	WDEP	1.22	29.75	Concept	
DS25-07-01	17/03/2025 14:03:00	WDEP	1.30	29.67	Concept	
DS25-07-01	24/03/2025 12:10:00	WDEP	1.30	29.67	Concept	
DS25-07-01	01/04/2025 00:00:00	WDEP	1.40	29.57	Concept	
DS25-07-01	07/04/2025 00:00:00	WDEP	1.39	29.58	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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GROUNDWATER MONITORING

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Borehole No

DS25-08

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	26/02/2025	Easting	502931.05	Ground Level (mOD)	Final Depth
25/4047	Date Completed	26/02/2025	Northing	179870.66	30.78	5.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-08-01	GWMP	50	3.00	0.50	3.00	26/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-08-01	05/03/2025 11:51:00	WDEP	1.72	29.06	Concept	
DS25-08-01	17/03/2025 15:38:00	WDEP	1.65	29.13	Concept	
DS25-08-01	24/03/2025 14:44:00	WDEP	1.57	29.21	Concept	
DS25-08-01	31/03/2025 00:00:00	WDEP	1.45	29.33	Concept	
DS25-08-01	07/04/2025 00:00:00	WDEP	1.33	29.45	Concept	

ABBREVIATIONS KEY

GMP – Gas / Vapour Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	10/06/2025

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GROUNDWATER MONITORING

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-09

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	27/02/2025	Easting	502980.27	Ground Level (mOD)	Final Depth
25/4047	Date Completed	28/02/2025	Northing	179919.15	31.02	5.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-09-01	GWMP	5	2.70	1.70	2.70	28/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-09-01	05/03/2025 12:08:00	WDEP	1.24	29.78	Concept	
DS25-09-01	17/03/2025 14:50:00	WDEP	1.17	29.85	Concept	
DS25-09-01	24/03/2025 11:14:00	WDEP	1.19	29.83	Concept	
DS25-09-01	31/03/2025 00:00:00	WDEP	1.32	29.70	Concept	
DS25-09-01	07/04/2025 00:00:00	WDEP	1.37	29.65	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
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SP – Standpipe
WDEP - Depth to water from LOCA_ID datum
RZ – Response Zone

AGS

Issue: FINAL	Checked: FP	Approved: OS		Log Print Date: 11/04/2025

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GROUNDWATER MONITORING

LRQA CERTIFIED ISO 9001 · ISO 14001

Borehole No

DS25-10

Project Name

LHR042 Thorney Lane DC1

Project No	Date Started	26/02/2025	Easting	503056.75	Ground Level (mOD)	Final Depth
25/4047	Date Completed	26/02/2025	Northing	179933.29	31.60	2.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS25-10-01	GWMP	50	2.00	0.50	2.00	26/02/2025	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS25-10-01	04/03/2025 14:20:00	WDEP	1.38	30.22	Concept	
DS25-10-01	18/03/2025 10:35:00	WDEP	1.35	30.25	Concept	
DS25-10-01	24/03/2025 10:08:00	WDEP	1.39	30.21	Concept	
DS25-10-01	01/04/2025 00:00:00	WDEP	1.54	30.06	Concept	
DS25-10-01	07/04/2025 00:00:00	WDEP	0.99	30.61	Concept	

ABBREVIATIONS KEY

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WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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Borehole No

BH24-03

Project Name

Thorney Lane Phase 1 Due Diligence

Project No	Date Started	09/08/2024	Easting	503025.84	Ground Level (mOD)	Final Depth
24/3980	Date Completed	13/08/2024	Northing	180062.88	31.69	30.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH24-03-01	GMP	50	1.35	0.60	1.50	13/08/2024	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH24-03-01	19/08/2024 15:15:00	WDEP	Dry		Concept	
BH24-03-01	30/08/2024 12:30:00	WDEP	1.41	30.28	Concept	
BH24-03-01	04/09/2024 15:00:00	WDEP	1.40	30.29	Concept	
BH24-03-01	10/09/2024 13:15:00	WDEP	1.25	30.44	Concept	
BH24-03-01	26/03/2025 10:18:00	WDEP	Dry		Concept	
BH24-03-01	31/03/2025 16:29:00	WDEP	Dry		Concept	
BH24-03-01	07/04/2025 11:40:00	WDEP	Dry		Concept	

ABBREVIATIONS KEY

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AGS

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GROUNDWATER MONITORING

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Borehole No

BH24-05

Project Name

Thorney Lane Phase 1 Due Diligence

Project No	Date Started	23/07/2024	Easting	502886.95	Ground Level (mOD)	Final Depth
24/3980	Date Completed	02/08/2024	Northing	179985.83	30.98	26.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH24-05-01	GMP	50	3.00	1.00	3.00	02/08/2024	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH24-05-01	08/08/2024 10:25:00	WDEP	1.27	29.71	Concept	
BH24-05-01	09/08/2024 10:15:00	WDEP	1.37	29.61	Concept	
BH24-05-01	13/08/2024 11:45:00	WDEP	1.50	29.48	Concept	
BH24-05-01	19/08/2024 13:15:00	WDEP	1.57	29.41	Concept	
BH24-05-01	27/08/2024 12:02:00	WDEP	1.46	29.52	Concept	
BH24-05-01	04/09/2024 12:00:00	WDEP	1.57	29.41	Concept	
BH24-05-01	10/09/2024 12:30:00	WDEP	1.42	29.56	Concept	
BH24-05-01	26/03/2025 12:50:00	WDEP	1.24	29.74	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
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ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe
WDEP - Depth to water from LOCA_ID datum
RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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Borehole No

BH24-06

Project Name

Thorney Lane Phase 1 Due Diligence

Project No	Date Started	23/07/2024	Easting	502845.89	Ground Level (mOD)	Final Depth
24/3980	Date Completed	26/07/2024	Northing	179959.35	30.85	20.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH24-06 - 01	GMP	50	3.00	1.00	3.00	26/07/2024	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH24-06 - 01	08/08/2024 09:45:00	WDEP	1.32	29.53	Concept	
BH24-06 - 01	09/08/2024 09:15:00	WDEP	1.33	29.52	Concept	
BH24-06 - 01	13/08/2024 14:45:00	WDEP	1.54	29.31	Concept	
BH24-06 - 01	19/08/2024 13:04:00	WDEP	1.35	29.50	Concept	
BH24-06 - 01	27/08/2024 11:28:00	WDEP	1.36	29.49	Concept	
BH24-06 - 01	04/09/2024 10:10:00	WDEP	1.14	29.71	Concept	
BH24-06 - 01	26/03/2025 10:36:00	WDEP	1.12	29.73	Concept	

ABBREVIATIONS KEY

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WDEP - Depth to water from LOCA_ID datum
RZ – Response Zone

AGS

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GROUNDWATER MONITORING

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Borehole No

BH24-07

Project Name

Thorney Lane Phase 1 Due Diligence

Project No	Date Started	31/07/2024	Easting	502968.25	Ground Level (mOD)	Final Depth
24/3980	Date Completed	09/08/2024	Northing	179961.59	31.00	33.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH24-07-01	GWMP	50	32.00	22.00	33.00	09/08/2024	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH24-07-01	13/08/2024 09:15:00	WDEP	4.39	26.61	Concept	
BH24-07-01	15/08/2024 15:25:00	WDEP	1.62	29.38	Concept	Developing
BH24-07-01	30/08/2024 12:00:00	WDEP	1.63	29.37	Concept	
BH24-07-01	09/09/2024 12:15:00	WDEP	1.48	29.52	Concept	
BH24-07-01	30/10/2024 00:00:00	WDEP	1.44	29.56	Concept	Water Sampling
BH24-07-01	11/11/2024 00:00:00	WDEP	1.59	29.41	Concept	Water Sampling
BH24-07-01	26/03/2025 12:46:00	WDEP	1.20	29.80	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
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SPIE – Standpipe Piezometer
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AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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GROUNDWATER MONITORING

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Borehole No

BH24-09

Project Name

Thorney Lane Phase 1 Due Diligence

Project No	Date Started	22/07/2024	Easting	502847.96	Ground Level (mOD)	Final Depth
24/3980	Date Completed	25/07/2024	Northing	179915.06	30.71	20.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH24-09 - 01	GMP	50	3.00	1.00	3.00	25/07/2024	
BH24-09 - 02	SPIE	19	18.00	17.00	19.00	25/07/2024	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH24-09 - 01	08/08/2024 14:45:00	WDEP	1.31	29.40	Concept	
BH24-09 - 01	09/08/2024 14:45:00	WDEP	1.30	29.41	Concept	
BH24-09 - 01	13/08/2024 16:15:00	WDEP	1.53	29.18	Concept	
BH24-09 - 01	15/08/2024 13:50:00	WDEP	1.30	29.41	Concept	Developing
BH24-09 - 01	30/08/2024 09:15:00	WDEP	1.36	29.35	Concept	
BH24-09 - 01	09/09/2024 12:45:00	WDEP	1.38	29.33	Concept	
BH24-09 - 01	31/10/2024 00:00:00	WDEP	1.30	29.41	Concept	Water Sampling
BH24-09 - 01	11/11/2024 00:00:00	WDEP	2.47	28.24	Concept	Water Sampling
BH24-09 - 01	26/03/2025 09:50:00	WDEP	0.94	29.77	Concept	
BH24-09 - 02	30/08/2024 09:45:00	WDEP	NA		Concept	No Access

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe
WDEP - Depth to water from LOCA_ID datum
RZ – Response Zone

AGS

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Borehole No

BH24-10

Project Name

Thorney Lane Phase 1 Due Diligence

Project No	Date Started	12/08/2024	Easting	503021.78	Ground Level (mOD)	Final Depth
24/3980	Date Completed	13/08/2024	Northing	179901.13	30.86	10.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
BH24-10-01	GMP	50	3.80	1.00	4.00	13/08/2024	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
BH24-10-01	15/08/2024 17:00:00	WDEP	1.27	29.59	Concept	Developing
BH24-10-01	27/08/2024 15:14:00	WDEP	1.21	29.65	Concept	
BH24-10-01	09/09/2024 16:30:00	WDEP	1.25	29.61	Concept	
BH24-10-01	29/10/2024 00:00:00	WDEP	1.03	29.83	Concept	Water Sampling
BH24-10-01	12/11/2024 00:00:00	WDEP	1.13	29.73	Concept	Water Sampling
BH24-10-01	26/03/2025 11:30:00	WDEP	0.93	29.93	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
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ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe
WDEP - Depth to water from LOCA_ID datum
RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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GROUNDWATER MONITORING

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Borehole No

DS24-02

Project Name

Thorney Lane Phase 1 Due Diligence

Project No	Date Started	01/08/2024	Easting	503042.01	Ground Level (mOD)	Final Depth
24/3980	Date Completed	02/08/2024	Northing	180155.62	32.63	1.25 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS24-02-01	GMP	50	1.25	0.50	1.25	02/08/2024	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS24-02-01	08/08/2024 10:45:00	WDEP	Dry		Concept	
DS24-02-01	09/08/2024 11:15:00	WDEP	Dry		Concept	
DS24-02-01	13/08/2024 15:45:00	WDEP	Dry		Concept	
DS24-02-01	30/08/2024 16:00:00	WDEP	NA		Concept	No Access
DS24-02-01	10/09/2024 09:52:00	WDEP	Dry		Concept	
DS24-02-01	26/03/2025 10:00:00	WDEP	Dry		Concept	
DS24-02-01	01/04/2025 09:57:00	WDEP	Dry		Concept	
DS24-02-01	07/04/2025 10:10:00	WDEP	Dry		Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe
WDEP - Depth to water from LOCA_ID datum
RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	11/04/2025

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Borehole No

DS24-07

Project Name

Thorney Lane Phase 1 Due Diligence

Project No						
24/3980	**Date Started**	01/08/2024	**Easting**	503012.95	**Ground Level (mOD)**	**Final Depth**
	Date Completed	01/08/2024	**Northing**	180115.16	31.66	5.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS24-07 - 01	GMP	50	1.60	0.75	1.60	01/08/2024	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS24-07 - 01	08/08/2024 11:45:00	WDEP	0.95	30.71	Concept	
DS24-07 - 01	09/08/2024 10:45:00	WDEP	NA		Concept	No Access
DS24-07 - 01	13/08/2024 11:15:00	WDEP	0.80	30.86	Concept	
DS24-07 - 01	27/08/2024 14:30:00	WDEP	0.94	30.72	Concept	
DS24-07 - 01	10/09/2024 10:15:00	WDEP	0.91	30.75	Concept	
DS24-07 - 01	29/10/2024 00:00:00	WDEP	0.90	30.76	Concept	Water Sampling
DS24-07 - 01	12/11/2024 00:00:00	WDEP	0.97	30.69	Concept	Water Sampling
DS24-07 - 01	26/03/2025 15:14:00	WDEP	0.96	30.70	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
GWMP – Groundwater Monitoring Point
ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe

WDEP - Depth to water from LOCA_ID datum RZ – Response Zone

AGS

Issue:	FINAL	Checked:	FP	Approved:	OS		Log Print Date:	30/04/2025

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GROUNDWATER MONITORING

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Borehole No

DS24-08

Project Name

Thorney Lane Phase 1 Due Diligence

Project No	Date Started	02/08/2024	Easting	503018.14	Ground Level (mOD)	Final Depth
24/3980	Date Completed	02/08/2024	Northing	180149.85	31.86	5.00 m

Client

Arup

INSTALLATION DETAILS

Insturment Reference	Instrument Type	Instrument Diameter (mm)	Instrument Depth (m)	Top RZ (m)	Base RZ (m)	Date of Installation	Remarks
DS24-08 - 01	GMP	50	2.25	1.00	2.30	02/08/2024	

READINGS

Instrument Reference	Date & Time	Reading Type	Water Level (mbgl)	Water Level (mOD)	Contractor	Remarks
DS24-08 - 01	08/08/2024 11:15:00	WDEP	1.40	30.46	Concept	
DS24-08 - 01	09/08/2024 11:45:00	WDEP	1.40	30.46	Concept	
DS24-08 - 01	13/08/2024 14:15:00	WDEP	1.53	30.33	Concept	
DS24-08 - 01	19/08/2024 14:15:00	WDEP	1.45	30.41	Concept	
DS24-08 - 01	30/08/2024 15:30:00	WDEP	1.35	30.51	Concept	
DS24-08 - 01	29/10/2024 00:00:00	WDEP	1.36	30.50	Concept	Water Sampling
DS24-08 - 01	12/11/2024 00:00:00	WDEP	1.47	30.39	Concept	Water Sampling
DS24-08 - 01	26/03/2025 14:14:00	WDEP	1.48	30.38	Concept	

ABBREVIATIONS KEY

GMP – Gas Monitoring Point
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ICM – Inclinometer
SPIE – Standpipe Piezometer
SP – Standpipe
WDEP - Depth to water from LOCA_ID datum
RZ – Response Zone

AGS

Groundwater Monitoring Record

Job No.	25/4047	Site	LHR042 Thorney Lane DC1

Installation Details			Water Monitoring	
BH No.	Depth of Installation (mbgl)	Type	Date	Water level (mbgl)
CP105	26.5	GWMP	18/03/2025	1.45
CP105	26.5	GWMP	25/03/2025	1.39

Installation types:
GWMP - Groundwater Monitoring Point SPIE - Standpipe piezometer
GMP - Gas monitoring Pointpipe

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	24/03/2025	**Job Number:**	25/4047	**Time:**	10:50

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:		None		Slight		Cloudy	x	Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1014				Temperature (°)		8			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-01	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.03	1014.0	0.0	0.1	**0**	-0.1	0.0	0.1	20.3	0.0	0.0	
					15	-0.1	0.0	0.0	20.4	0.0	0.0	
Depth to GW: (m)	Dry				**30**	-0.1	0.0	0.0	20.4	0.0	0.0	
					45	-0.1	0.0	0.0	20.3	0.0	0.0	
					60	-0.1	0.0	0.0	20.3	0.0	0.0	
PID (ppm)					**75**	-0.1	0.0	0.0	20.3	0.0	0.0	
5	**0.6**				**90**	-0.1	0.0	0.0	20.3	0.0	0.0	
15	**0.5**				**105**							
30	**0.4**				**120**							
45	**0.2**				**135**							
60	**0.1**				**150**							
75	**0.1**											
90	**0**											
105	**0**											
120	**0**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP & MB
Date:	25/03/2025	**Job Number:**	25/4047	**Time:**	14:40

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:		None		Slight		Cloudy	x	Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1018				Temperature (°)		14			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-02	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.12	1018.0	1.0	0.6	**0**	-0.1	0.0	0.0	19.3	0.0	0.0	
			1.0	0.3	**15**	-0.1	0.0	0.0	19.8	0.0	0.0	
Depth to GW: (m)	Dry		0.0	0.3	**30**	-0.1	0.0	0.0	19.8	0.0	0.0	
			0.0	0.1	**45**	-0.1	0.0	0.0	19.8	0.0	0.0	
			0.0	0.0	**60**	-0.1	0.0	0.0	19.8	0.0	0.0	
PID (ppm)			0.0	0.1	**75**	-0.1	0.0	0.0	19.8	0.0	0.0	
5	**0.9**		0.0	0.0	**90**	-0.1	0.0	0.0	19.8	0.0	0.0	
15	**0.9**		0.0	0.0	**105**							
30	**0.8**		0.0	0.0	**120**							
45	**0.7**				**135**							
60	**0.7**				**150**							
75	**0.6**											
90	**0.6**											
105	**0.6**											
120	**0.6**											

KEY
aP: Atmospheric Pressure
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CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1		**Engineer:**	EP	
Date:	24/03/2025	**Job Number:**	25/4047	**Time:**	11:15

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:		None		Slight		Cloudy	x	Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1014				Temperature (°)		8			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-03	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.93	1014.0	0.0	0.6	**0**	-0.1	0.0	0.2	20.4	0.0	0.0	
			3.0	0.7	**15**	-0.1	0.0	0.3	20.0	0.0	0.0	
Depth to GW: (m)	1.75		0.0	0.0	**30**	-0.1	0.0	0.3	19.9	0.0	0.0	
			2.0	0.0	**45**	-0.1	0.0	0.3	19.9	0.0	0.0	
			0.0	0.0	**60**	-0.1	0.0	0.3	20.0	0.0	0.0	
PID (ppm)					**75**	-0.1	0.0	0.2	19.9	0.0	0.0	
5	**0.5**				**90**	-0.1	0.0	0.2	19.9	0.0	0.0	
15	**0.4**				**105**	-0.1	0.0	0.2	19.9	0.0	0.0	
30	**0.4**				**120**	-0.1	0.0	0.2	19.9	0.0	0.0	
45	**0.3**				**135**							
60	**0.3**				**150**							
75	**0.3**											
90	**0.2**											
105	**0.2**											
120	**0.2**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
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CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	25/04/2025	**Job Number:**	25/4047	**Time:**	10:00

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:		None		Slight	x	Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1018				Temperature (°)		9			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-04	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.54	1018.0	1.0	0.4	**0**	-0.1	0.0	0.0	19.5	0.0	0.0	
			0.0	0.3	**15**	-0.1	0.0	0.0	20.2	0.0	0.0	
Depth to GW: (m)	0.77		0.0	0.1	**30**	-0.1	0.0	0.0	20.2	0.0	0.0	
			2.0	0.4	**45**	-0.1	0.0	0.0	20.2	0.0	0.0	
			1.0	0.6	**60**	-0.1	0.0	0.0	20.3	0.0	0.0	
PID (ppm)			0.0	0.2	**75**	-0.1	0.0	0.0	19.8	0.0	0.0	
5	**0.3**		1.0	0.3	**90**	-0.1	0.0	0.0	19.6	0.0	0.0	
15	**0.3**		2.0	0.4	**105**	-0.1	0.0	0.0	19.2	0.0	0.0	
30	**0.3**		3.0	0.3	**120**	-0.1	0.0	0.0	18.8	0.0	0.0	
45	**0.2**		1.0	0.1	**135**	-0.1	0.0	0.0	18.5	0.0	0.0	
60	**0.2**		0.0	0.1	**150**	-0.1	0.0	0.0	18.3	0.0	0.0	
75	**0.2**											
90	**0.1**											
105	**0.1**											
120	**0.1**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure

NR: Not Recorded

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CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	24/03/2025	**Job Number:**	25/4047	**Time:**	12:15

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1015				Temperature (°)		13			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-05	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.56	1015.0	1.0	0.4	**0**	-0.1	0.0	0.0	19.9	0.0	0.0	
			1.0	0.3	**15**	-0.1	0.0	0.0	8.0	0.0	0.0	
Depth to GW: (m)	0.91		1.0	0.6	**30**	-0.1	0.0	0.0	7.2	0.0	0.0	
			1.0	0.3	**45**	-0.1	0.0	0.0	7.0	0.0	0.0	
			1.0	0.3	**60**	-0.1	0.0	0.0	6.9	0.0	0.0	
PID (ppm)			1.0	0.3	**75**	-0.1	0.0	0.0	6.9	0.0	0.0	
5	**1.8**		2.0	0.3	**90**	-0.1	0.0	0.0	6.8	0.0	0.0	
15	**1.2**		0.0	0.1	**105**	-0.1	0.0	0.0	6.7	0.0	0.0	
30	**0.9**		0.0	0.4	**120**	-0.1	0.0	0.0	6.3	0.0	0.0	
45	**1.1**		3.0	0.4	**135**	-0.1	0.0	0.0	5.9	0.0	0.0	
60	**1.3**		0.0	0.1	**150**	-0.1	0.0	0.0	5.3	0.0	0.0	
75	**1.5**											
90	**1.7**											
105	**1.7**											
120	**1.7**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure

NR: Not Recorded

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CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP & MS
Date:	25/03/2025	**Job Number:**	25/4047	**Time:**	10:30

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:		None		Slight		Cloudy	x	Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1018				Temperature (°)		12			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	DS25-01	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.52	1018.0	1.0	0.4	**0**	-0.1	0.0	0.0	19.1	0.0	0.0	
			1.0	0.1	**15**	-0.1	0.0	0.0	18.0	0.0	0.0	
Depth to GW: (m)	1.07		0.0	0.1	**30**	-0.1	0.0	0.0	18.0	0.0	0.0	
			0.0	0.1	**45**	-0.1	0.0	0.0	18.1	0.0	0.0	
			0.0	0.0	**60**	-0.1	0.0	0.0	18.1	0.0	0.0	
PID (ppm)			0.0	0.0	**75**	-0.1	0.0	0.0	18.1	0.0	0.0	
5	**0.4**		0.0	0.0	**90**	-0.1	0.0	0.0	18.1	0.0	0.0	
15	**0.4**				**105**	-0.1	0.0	0.0	18.2	0.0	0.0	
30	**0.4**				**120**	-0.1	0.0	0.0	18.2	0.0	0.0	
45	**0.3**				**135**	-0.1	0.0	0.0	18.2	0.0	0.0	
60	**0.3**				**150**	-0.1	0.0	0.0	18.2	0.0	0.0	
75	**0.3**											
90	**0.3**											
105	**0.3**											
120	**0.2**											

KEY
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CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP & MS
Date:	25/03/2025	**Job Number:**	25/4047	**Time:**	09:35

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:		None		Slight	x	Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1018				Temperature (°)		8			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	DS25-06	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	2.82	1018.0	0.0	0.0	**0**	-0.1	0.0	0.0	19.2	0.0	0.0	
					15	-0.1	0.0	0.0	17.9	0.0	0.0	
Depth to GW: (m)	1.34				**30**	-0.1	0.0	0.0	17.9	0.0	0.0	
					45	-0.1	0.0	0.0	17.8	0.0	0.0	
					60	-0.1	0.0	0.0	17.8	0.0	0.0	
PID (ppm)					**75**	-0.1	0.0	0.0	17.8	0.0	0.0	
5	**0.3**				**90**	-0.1	0.0	0.0	17.8	0.0	0.0	
15	**0.1**				**105**							
30	**0**				**120**							
45	**0**				**135**							
60	**0**				**150**							
75	**0**											
90	**0**											
105	**0**											
120	**0**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure

NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1		**Engineer:**	IJ & PH	
Date:	26/03/2025	**Job Number:**	25/4047	**Time:**	10:18

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1021				Temperature (°)	14				

INSTRUMENTATION USED				
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH24-03	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.39	1021.0	0.0	0.0	**0**	0.0	0.0	0.1	7.1	0.0	0.0	
					15	0.0	0.0	5.8	2.1	0.0	0.0	
Depth to GW: (m)	Dry				**30**	0.0	0.0	6.0	0.8	0.0	0.0	
					45	0.0	0.0	6.1	0.4	0.0	0.0	
					60	0.0	0.0	6.2	0.2	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	6.2	0.2	0.0	0.0	
5	**0.1**				**90**	0.0	0.0	6.2	0.1	0.0	0.0	
15	**0.1**				**105**	0.0	0.0	6.2	0.1	0.0	0.0	
30	**0**				**120**	0.0	0.0	6.2	0.1	0.0	0.0	
45	**0**				**135**							
60	**0**				**150**							
75												
90												
105												
120												

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
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CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1		**Engineer:**	IJ & PH	
Date:	26/03/2025	**Job Number:**	25/4047	**Time:**	10:00

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1023				Temperature (°)	14				

INSTRUMENTATION USED				
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	DS24-02	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.18	1023.0	0.0	0.0	**0**	0.0	0.0	3.6	11.1	0.0	0.0	
					15	0.0	0.0	3.7	14.5	0.0	0.0	
Depth to GW: (m)	Dry				**30**	0.0	0.0	3.8	14.7	0.0	0.0	
					45	0.0	0.0	3.8	14.8	0.0	0.0	
					60	0.0	0.0	3.8	14.9	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	3.8	14.8	0.0	0.0	
5	**0.4**				**90**	0.0	0.0	3.8	14.8	0.0	0.0	
15	**0.2**				**105**	0.0	0.0	3.8	14.8	0.0	0.0	
30	**0.1**				**120**							
45	**0**				**135**							
60	**0**				**150**							
75	**0**											
90												
105												
120												

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP & AD
Date:	01/04/2025	**Job Number:**	25/4047	**Time:**	10:52

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1022				Temperature (°)		11			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-01	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.00	1022.0	0.0	0.0	**0**	0.0	0.0	1.6	16.4	0.0	0.0	
					15	0.0	0.0	0.3	20.0	0.0	0.0	
Depth to GW: (m)	Dry				**30**	0.0	0.0	0.3	20.0	0.0	0.0	
					45	0.0	0.0	0.3	20.1	0.0	0.0	
					60	0.0	0.0	0.3	20.1	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.3	20.1	0.0	0.0	
5	**0.4**				**90**	0.0	0.0	0.3	20.1	0.0	0.0	
15	**0.3**				**105**	0.0	0.0	0.3	20.1	0.0	0.0	
30	**0.2**				**120**	0.0	0.0	0.3	20.1	0.0	0.0	
45	**0.2**				**135**							
60	**0.2**				**150**							
75	**0.1**											
90	**0.1**											
105	**0.1**											
120	**0.1**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	31/03/2025	**Job Number:**	25/4047	**Time:**	12:35

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1024				Temperature (°)		16			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-02	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.10	1024.0	0.0	0.0	**0**	0.0	0.0	0.0	20.5	0.0	0.0	
					15	0.0	0.0	0.0	14.6	0.0	0.0	
Depth to GW: (m)	Dry				**30**	0.0	0.0	0.0	14.5	0.0	0.0	
					45	0.0	0.0	0.0	14.4	0.0	0.0	
					60	0.0	0.0	0.0	14.4	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.0	14.4	0.0	0.0	
5	**0.7**				**90**	0.0	0.0	0.0	14.3	0.0	0.0	
15	**0.7**				**105**	0.0	0.0	0.0	14.4	0.0	0.0	
30	**0.7**				**120**	0.0	0.0	0.0	14.4	0.0	0.0	
45	**0.6**				**135**							
60	**0.6**				**150**							
75	**0.6**											
90	**0.5**											
105	**0.5**											
120	**0.5**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	31/03/2025	**Job Number:**	25/4047	**Time:**	13:00

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1026				Temperature (°)		16			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-03	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.90	1026.0	0.0	0.0	**0**	0.0	0.0	0.0	17.7	0.0	0.0	
					15	0.0	0.0	0.5	19.2	0.0	0.0	
Depth to GW: (m)	1.77				**30**	0.0	0.0	0.5	19.7	0.0	0.0	
					45	0.0	0.0	0.5	19.7	0.0	0.0	
					60	0.0	0.0	0.5	19.7	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.5	19.7	0.0	0.0	
5	**0.5**				**90**	0.0	0.0	0.5	19.7	0.0	0.0	
15	**0.4**				**105**	0.0	0.0	0.5	19.7	0.0	0.0	
30	**0.4**				**120**	0.0	0.0	0.5	19.7	0.0	0.0	
45	**0.3**				**135**							
60	**0.3**				**150**							
75	**0.3**											
90	**0.3**											
105	**0.3**											
120	**0.2**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	31/03/2025	**Job Number:**	25/4047	**Time:**	11:00

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1025				Temperature (°)		13			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-04	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.50	1025.0	0.0	0.0	**0**	0.0	0.0	0.4	12.2	0.0	0.0	
					15	0.0	0.0	0.0	15.7	0.0	0.0	
Depth to GW: (m)	0.80				**30**	0.0	0.0	0.0	15.9	0.0	0.0	
					45	0.0	0.0	0.0	16.0	0.0	0.0	
					60	0.0	0.0	0.0	16.0	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.0	16.0	0.0	0.0	
5	**0.3**				**90**	0.0	0.0	0.0	16.0	0.0	0.0	
15	**0.2**				**105**	0.0	0.0	0.0	16.0	0.0	0.0	
30	**0.2**				**120**	0.0	0.0	0.0	16.0	0.0	0.0	
45	**0.1**				**135**							
60	**0.1**				**150**							
75	**0**											
90	**0**											
105	**0**											
120	**0**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	31/03/2025	**Job Number:**	25/4047	**Time:**	10:40

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1025				Temperature (°)		13			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-05	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.52	1025.0	0.0	0.0	**0**	0.0	0.0	0.0	19.9	0.0	0.0	
					15	0.0	0.0	0.0	5.4	0.0	0.0	
Depth to GW: (m)	0.92				**30**	0.0	0.0	0.0	3.4	0.0	0.0	
					45	0.0	0.0	0.0	3.0	0.0	0.0	
					60	0.0	0.0	0.0	2.9	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.0	2.8	0.0	0.0	
5	**1.3**				**90**	0.0	0.0	0.0	2.5	0.0	0.0	
15	**1.2**				**105**	0.0	0.0	0.0	2.3	0.0	0.0	
30	**1.2**				**120**	0.0	0.0	0.0	2.2	0.0	0.0	
45	**1.1**				**135**	0.0	0.0	0.0	2.1	0.0	0.0	
60	**1.1**				**150**							
75	**1**											
90	**1**											
105	**1**											
120	**0.9**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	31/03/2025	**Job Number:**	25/4047	**Time:**	12:11

METEOROLOGICAL AND SITE INFORMATION

State of ground:	x	Dry		Moist		Wet					**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong			Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast			
Precipitation	x	None		Slight		Moderate		Heavy			
Barometric pressure (mb) Before:	1025				Temperature (°)		14				

INSTRUMENTATION USED

Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	DS25-01	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.50	1025.0	0.0	0.0	**0**	0.0	0.0	0.0	15.7	0.0	0.0	
					15	4.6	99.8	0.0	13.8	0.0	0.0	
Depth to GW: (m)	1.48				**30**	5.0	>>>	0.0	13.7	0.0	0.0	
					45	5.0	>>>	0.0	13.6	0.0	0.0	
					60	5.0	>>>	0.0	13.5	0.0	0.0	
PID (ppm)					**75**	5.0	>>>	0.0	13.6	0.0	0.0	
5	**0**				**90**	5.0	>>>	0.0	13.5	0.0	0.0	
15	**0**				**105**	5.0	>>>	0.0	13.6	0.0	0.0	
30	**0**				**120**	5.0	>>>	0.0	13.6	0.0	0.0	
45	**0**				**135**							
60	**0**				**150**							
75	**0**											
90	**0**											
105	**0**											
120	**0**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	31/03/2025	**Job Number:**	25/4047	**Time:**	11:20

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:	x	Calm		Light		Moderate		Strong		Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1025				Temperature (°)	14				

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	DS25-06	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	2.85	1025.0	0.0	0.0	**0**	0.0	0.0	0.0	15.2	0.0	0.0	
					15	0.0	0.0	0.0	16.2	0.0	0.0	
Depth to GW: (m)	1.35				**30**	0.0	0.0	0.0	15.9	0.0	0.0	
					45	0.0	0.0	0.0	15.9	0.0	0.0	
					60	0.0	0.0	0.0	15.9	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.0	15.9	0.0	0.0	
5	**0.4**				**90**	0.0	0.0	0.0	15.9	0.0	0.0	
15	**0.2**				**105**	0.0	0.0	0.0	15.9	0.0	0.0	
30	**0**				**120**	0.0	0.0	0.0	15.9	0.0	0.0	
45	**0**				**135**							
60	**0**				**150**							
75	**0**											
90	**0**											
105	**0**											
120	**0**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP
Date:	31/03/2025	**Job Number:**	25/4047	**Time:**	16:29

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1024	dP (Pa) initial:	0	aP (mb) After:	1024	Temperature (°C)	17			

INSTRUMENTATION USED				Tick if gas sample taken:	
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No. 2	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	Depth to GW (m)	Flow Measurements			Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S (ppm)	CO (ppm)	PID (ppm)	Comments
BH24-03	Dry	**Time (s)**	**dP (Pa)**	**Flow (l/h)**	**5**	0.0	0.0	3.4	29.2	0.0	0.0	0.2	**Short**
					30	0.0	0.0	6.3	21.1	0.0	0.0	0.0	
Base: (m)	1.35	**0**	0.0	0.0	**60**	0.0	0.0	6.4	16.5	0.0	0.0	0.0	
		30			**5**	0.0	0.0	5.7	0.8	0.0	0.0	0.1	**Long**
		60			**30**	0.0	0.0	6.7	0.8	0.0	0.0	0.0	
		90			**60**	0.0	0.0	6.7	0.4	0.0	0.0	0.0	
		120			**60**	0.0	0.0	6.6	0.3	0.0	0.0		
		150			**120**	0.0	0.0	6.3	0.7	0.0	0.0		
		180			**180**	0.0	0.0	6.0	0.3	0.0	0.0		
		210			**240**	0.0	0.0	6.4	0.2	0.0	0.0		
		240			**300**	0.0	0.0	6.5	0.4	0.0	0.0		
		270			**360**	0.0	0.0	6.5	0.4	0.0	0.0		
		300			**420**	0.0	0.0	6.5	0.4	0.0	0.0		
		360			**480**	0.0	0.0	6.5	0.4	0.0	0.0		
		420			**540**								
		480			**600**								
		540			**5**	1.4	0.0	6.0	0.7	0.0	0.0	0.2	**Short**
		600			**30**	0.0	0.0	6.4	0.5	0.0	0.0	0.6	
					60	0.0	0.0	6.3	0.5	0.0	0.0	0.6	
					5	0.0	0.0	6.2	1.2	0.0	0.0	0.1	**Long**
					30	0.0	0.0	6.6	0.6	0.0	0.0	0.0	
					60	0.0	0.0	6.7	0.4	0.0	0.0	0.0	

Circulation

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded
OR: Out of Range

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	EP & AD
Date:	01/04/2025	**Job Number:**	25/4047	**Time:**	09:57

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:		None	x	Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1022	dP (Pa) initial:	0	aP (mb) After:	1022	Temperature (°C)	10			

INSTRUMENTATION USED				Tick if gas sample taken:	
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No. 2	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	Depth to GW (m)	Flow Measurements			Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S (ppm)	CO (ppm)	PID (ppm)	Comments
DS24-02	Dry	**Time (s)**	**dP (Pa)**	**Flow (l/h)**	**5**	0.0	0.0	2.5	15.6	0.0	0.0	0.2	**Short**
					30	0.0	0.0	3.9	14.7	0.0	0.0	0.1	
Base: (m)	1.25	**0**	0.0	0.0	**60**	0.0	0.0	3.9	14.7	0.0	0.0	0.0	
		30			**5**	0.0	0.0	3.3	15.0	0.0	0.0	0.2	**Long**
		60			**30**	0.0	0.0	3.9	14.2	0.0	0.0	0.1	
		90			**60**	0.0	0.0	4.0	14.2	0.0	0.0	0.1	
		120			**60**	0.0	0.0	4.0	14.1	0.0	0.0		
		150			**120**	0.0	0.0	4.0	14.1	0.0	0.0		
		180			**180**	0.0	0.0	4.0	14.1	0.0	0.0		
		210			**240**	0.0	0.0	4.0	14.1	0.0	0.0		
		240			**300**	0.0	0.0	4.0	14.1	0.0	0.0		
		270			**360**								
		300			**420**								
		360			**480**								
		420			**540**								
		480			**600**								
		540			**5**	0.0	0.0	3.8	14.4	0.0	0.0	0.1	**Short**
		600			**30**	0.0	0.0	3.9	14.2	0.0	0.0	0.0	
					60	0.0	0.0	3.9	14.2	0.0	0.0	0.0	
					5	0.0	0.0	3.9	14.2	0.0	0.0	0.1	**Long**
					30	0.0	0.0	4.0	14.1	0.0	0.0	0.0	
					60	0.0	0.0	4.0	14.1	0.0	0.0	0.0	

Circulation

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded
OR: Out of Range

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1		**Engineer:**	FT	
Date:	07/04/2025	**Job Number:**	25/4047	**Time:**	09:33

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1024				Temperature (°)		9			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-01	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.00	1024.0	0.0	0.0	**0**	0.0	0.0	0.3	20.2	0.0	0.0	
			0.0	0.0	**15**	0.0	0.0	0.3	19.7	0.0	0.0	
Depth to GW: (m)	Dry		0.0	0.0	**30**	0.0	0.0	0.4	19.6	0.0	0.0	
					45	0.0	0.0	0.4	19.6	0.0	0.0	
					60	0.0	0.0	0.4	19.6	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.4	19.6	0.0	0.0	
5	**0.1**				**90**	0.0	0.0	0.4	19.6	0.0	0.0	
15	**0**				**105**							
30	**0**				**120**							
45	**0**				**135**							
60	**0**				**150**							
75	**0**											
90	**0**											
105	**0**											
120	**0**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1		**Engineer:**	FT	
Date:	07/04/2025	**Job Number:**	25/4047	**Time:**	16:44

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1021				Temperature (°)	15				

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-02	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.10	1021.0	0.0	0.0	**0**	0.0	0.0	0.1	17.5	0.0	0.0	
			0.0	0.0	**15**	0.0	0.0	0.0	19.0	0.0	0.0	
Depth to GW: (m)	Dry		0.0	0.0	**30**	0.0	0.0	0.0	18.6	0.0	0.0	
					45	0.0	0.0	0.0	18.4	0.0	0.0	
					60	0.0	0.0	0.0	18.4	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.0	18.4	0.0	0.0	
5	**0.2**				**90**	0.0	0.0	0.0	18.3	0.0	0.0	
15	**0.2**				**105**	0.0	0.0	0.0	18.3	0.0	0.0	
30	**0.1**				**120**	0.0	0.0	0.0	18.3	0.0	0.0	
45	**0.1**				**135**	0.0	0.0	0.0	18.3	0.0	0.0	
60	**0.1**				**150**	0.0	0.0	0.0	18.2	0.0	0.0	
75	**0.1**				**165**	0.0	0.0	0.0	18.2	0.0	0.0	
90					**180**	0.0	0.0	0.0	18.2	0.0	0.0	
105					**240**	0.0	0.0	0.0	18.2	0.0	0.0	
120												

KEY
aP: Atmospheric Pressure
dP: Differential Pressure

NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	FT
Date:	07/04/2025	**Job Number:**	25/4047	**Time:**	12:20

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1022				Temperature (°)		11			

INSTRUMENTATION USED				
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-03	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.85	1022.0	0.0	0.0	**0**	0.0	0.0	2.1	5.3	0.0	0.0	
			0.0	0.0	**15**	0.0	0.0	0.3	19.1	0.0	0.0	
Depth to GW: (m)	1.75		0.0	0.0	**30**	0.0	0.0	0.1	20.5	0.0	0.0	
			0.0	0.0	**45**	0.0	0.0	0.6	19.8	0.0	0.0	
					60	0.0	0.0	0.6	19.7	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.6	19.8	0.0	0.0	
5	**0.2**				**90**	0.0	0.0	0.6	19.8	0.0	0.0	
15	**0.1**				**105**	0.0	0.0	0.6	19.8	0.0	0.0	
30	**0.1**				**120**	0.0	0.0	0.6	19.8	0.0	0.0	
45	**0.1**				**135**	0.0	0.0	0.6	19.7	0.0	0.0	
60	**0.1**				**150**	0.0	0.0	0.6	19.7	0.0	0.0	
75	**0**				**165**	0.0	0.0	0.6	19.7	0.0	0.0	
90	**0**											
105	**0**											
120	**0**											

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1		**Engineer:**	FT	
Date:	07/04/2025	**Job Number:**	25/4047	**Time:**	15:31

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1020				Temperature (°)		12			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-04	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.50	1021.0	0.0	0.0	**0**	0.0	0.0	0.0	19.9	0.0	0.0	
			0.0	0.0	**15**	0.0	0.0	0.0	15.9	0.0	0.0	
Depth to GW: (m)	0.85		0.0	0.0	**30**	0.0	0.0	0.0	15.3	0.0	0.0	
					45	0.0	0.0	0.0	15.2	0.0	0.0	
					60	0.0	0.0	0.0	15.1	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.0	15.1	0.0	0.0	
5	**0.2**				**90**	0.0	0.0	0.0	15.1	0.0	0.0	
15	**0.1**				**105**	0.0	0.0	0.0	15.1	0.0	0.0	
30	**0**				**120**							
45	**0**				**135**							
60	**0**				**150**							
75	**0**											
90												
105												
120												

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
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SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	FT
Date:	07/04/2025	**Job Number:**	25/4047	**Time:**	14:30

METEOROLOGICAL AND SITE INFORMATION									
State of ground:	x	Dry		Moist		Wet			**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong	Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast	
Precipitation	x	None		Slight		Moderate		Heavy	
Barometric pressure (mb) Before:	1022				Temperature (°)	12			

INSTRUMENTATION USED					
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	BH25-05	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.53	1022.0	0.0	0.0	**0**	0.0	0.0	0.9	18.4	0.0	0.0	
			0.0	0.0	**15**	0.0	0.0	0.2	20.0	0.0	0.0	
Depth to GW: (m)	1.13		0.0	0.0	**30**	0.0	0.0	0.0	20.8	0.0	0.0	
			0.0	0.0	**45**	0.0	0.0	0.0	20.8	0.0	0.0	
			0.0	0.0	**60**	0.0	0.0	0.0	20.9	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.0	20.9	0.0	0.0	
5	**0.2**				**90**	0.0	0.0	0.0	21.0	0.0	0.0	
15	**0.1**				**105**	0.0	0.0	0.0	21.0	0.0	0.0	
30	**0.1**				**120**	0.0	0.0	0.0	21.0	0.0	0.0	
45	**0.1**				**135**	0.0	0.0	0.0	21.0	0.0	0.0	
60	**0.1**				**150**	0.0	0.0	0.0	21.0	0.0	0.0	
75	**0.1**				**165**	0.0	0.0	0.0	21.0	0.0	0.0	
90	**0.1**				**180**	0.0	0.0	0.0	21.0	0.0	0.0	
105	**0.1**				**240**	0.0	0.0	0.0	21.0	0.0	0.0	
120	**0.1**				**300**	0.0	0.0	0.0	21.1	0.0	0.0	
					360	0.0	0.0	0.0	21.1	0.0	0.0	
					420	0.0	0.0	0.0	21.1	0.0	0.0	
					480	0.0	0.0	0.0	21.1	0.0	0.0	
					540	0.0	0.0	0.0	21.1	0.0	0.0	
					600	0.0	0.0	0.0	21.2	0.0	0.0	
					900	0.0	0.0	0.0	21.2	0.0	0.0	
					1200	0.0	0.0	0.0	21.2	0.0	0.0	

KEY
aP: Atmospheric Pressure
dP: Differential Pressure

NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	FT
Date:	07/04/2025	**Job Number:**	25/4047	**Time:**	16:25

METEOROLOGICAL AND SITE INFORMATION

State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1020				Temperature (°)	13				

INSTRUMENTATION USED

Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	DS25-01	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	1.50	1021.0	0.0	0.0	**0**	0.0	0.0	0.2	18.1	0.0	0.0	
			0.0	0.0	**15**	0.0	0.0	0.0	10.7	0.0	0.0	
Depth to GW: (m)	Dry		0.0	0.0	**30**	0.0	0.0	0.0	10.7	0.0	0.0	
					45	0.0	0.0	0.0	10.7	0.0	0.0	
					60	0.0	0.0	0.0	10.7	0.0	0.0	
PID (ppm)					**75**	0.0	0.0	0.0	10.6	0.0	0.0	
5	**0.1**				**90**	0.0	0.0	0.0	10.6	0.0	0.0	
15	**0.1**				**105**	0.0	0.0	0.0	10.7	0.0	0.0	
30	**0.1**				**120**	0.0	0.0	0.0	10.6	0.0	0.0	
45	**0.1**				**135**	0.0	0.0	0.0	10.6	0.0	0.0	
60	**0.1**				**150**	0.0	0.0	0.0	10.6	0.0	0.0	
75	**0.1**				**165**	0.0	0.0	0.0	10.6	0.0	0.0	
90												
105												
120												

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	FT
Date:	07/04/2025	**Job Number:**	25/4047	**Time:**	15:00

METEOROLOGICAL AND SITE INFORMATION

State of ground:	x	Dry		Moist		Wet					**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong			Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast			
Precipitation	x	None		Slight		Moderate		Heavy			
Barometric pressure (mb) Before:	1021				Temperature (°)		12				

INSTRUMENTATION USED

Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No.	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	DS25-06	aP After (mb)	dp (Pa)	Flow rate (l/h)	Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S(ppm)	CO (ppm)	Comments
Base (m)	2.80	1022.0	0.0	0.0	**0**	0.0	0.0	0.0	20.2	0.0	0.0	
			0.0	0.0	**15**	0.0	0.0	0.0	17.2	0.0	0.0	
Depth to GW: (m)	1.40		0.0	0.0	**30**	0.0	0.0	0.0	16.5	0.0	0.0	
			0.0	0.0	**45**	0.0	0.0	0.0	17.1	0.0	0.0	
			0.0	0.0	**60**	0.0	0.0	0.0	16.3	0.0	0.0	
0.1					**75**	0.0	0.0	0.0	16.1	0.0	0.0	
5	**0.1**				**90**	0.0	0.0	0.0	16.1	0.0	0.0	
15	**0.1**				**105**	0.0	0.0	0.0	16.2	0.0	0.0	
30	**0.1**				**120**	0.0	0.0	0.0	16.2	0.0	0.0	
45	**0**				**135**	0.0	0.0	0.0	16.1	0.0	0.0	
60	**0**				**150**	0.0	0.0	0.0	16.1	0.0	0.0	
75	**0**				**165**	0.0	0.0	0.0	16.2	0.0	0.0	
90	**0**				**180**	0.0	0.0	0.0	16.2	0.0	0.0	
105	**0**				**240**	0.0	0.0	0.0	16.1	0.0	0.0	
120	**0**				**300**	0.0	0.0	0.0	16.3	0.0	0.0	
					360	0.0	0.0	0.0	16.3	0.0	0.0	
					420	0.0	0.0	0.0	16.1	0.0	0.0	
					480	0.0	0.0	0.0	16.1	0.0	0.0	
					540	0.0	0.0	0.0	16.2	0.0	0.0	
					600	0.0	0.0	0.0	16.1	0.0	0.0	
					900	0.0	0.0	0.0	16.1	0.0	0.0	
					1200	0.0	0.0	0.0	16.1	0.0	0.0	

KEY
aP: Atmospheric Pressure
dP: Differential Pressure

NR: Not Recorded

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	FT
Date:	07/04/2025	**Job Number:**	25/4047	**Time:**	11:40

METEOROLOGICAL AND SITE INFORMATION										
State of ground:	x	Dry		Moist		Wet				**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong		Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast		
Precipitation	x	None		Slight		Moderate		Heavy		
Barometric pressure (mb) Before:	1023	dP (Pa) initial:	0	aP (mb) After:	1023	Temperature (°C)	10			

INSTRUMENTATION USED				Tick if gas sample taken:	
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No. 2	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	Depth to GW (m)	Flow Measurements			Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S (ppm)	CO (ppm)	PID (ppm)	Comments
BH24-03	Dry	**Time (s)**	**dP (Pa)**	**Flow (l/h)**	**5**	0.0	0.0	17.3	1.5	0.0	0.0	0.2	**Short**
					30	0.0	0.0	0.3	7.5	0.0	0.0	0.1	
Base: (m)	1.40	**0**	0.0	0.0	**60**	0.0	0.0	0.3	7.6	0.0	0.0	0.0	
		30	0.0	0.0	**5**	0.0	0.0	3.0	6.6	0.0	0.0	0.1	**Long**
		60	0.0	0.0	**30**	0.0	0.0	0.0	7.8	0.0	0.0	0.0	
		90			**60**	0.0	0.0	0.0	7.9	0.0	0.0	0.0	
		120			**60**	0.0	0.0	0.3	7.8	0.0	0.0		
		150			**120**	0.0	0.0	0.0	7.8	0.0	0.0		
		180			**180**	0.0	0.0	0.0	7.8	0.0	0.0		
		210			**240**	0.0	0.0	0.0	7.8	0.0	0.0		
		240			**300**	0.0	0.0	0.0	7.8	0.0	0.0		
		270			**360**	0.0	0.0	0.0	7.8	0.0	0.0		
		300			**420**	0.0	0.0	0.0	7.8	0.0	0.0		
		360			**480**	0.0	0.0	0.0	7.8	0.0	0.0		
		420			**540**	0.0	0.0	0.0	7.8	0.0	0.0		
		480			**600**	0.0	0.0	0.0	7.8	0.0	0.0		
		540			**5**	1.4	0.0	0.1	7.7	0.0	0.0	0.1	**Short**
		600			**30**	0.0	0.0	0.0	7.7	0.0	0.0	0.0	
					60	0.0	0.0	0.0	7.7	0.0	0.0	0.0	
					5	0.0	0.0	0.0	7.7	0.0	0.0	0.1	**Long**
					30	0.0	0.0	0.0	7.7	0.0	0.0	0.1	
					60	0.0	0.0	0.0	7.8	0.0	0.0	0.0	

Circulation

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded
OR: Out of Range

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Gas Monitoring Results

JOB DETAILS					
Location:	LHR042 Thorney Lane DC1			**Engineer:**	FT
Date:	07/04/2025	**Job Number:**	25/4047	**Time:**	10:10

METEOROLOGICAL AND SITE INFORMATION											
State of ground:	x	Dry		Moist		Wet					**Delete As Required**
Wind:		Calm	x	Light		Moderate		Strong			Ground Level
Cloud cover:	x	None		Slight		Cloudy		Overcast			
Precipitation	x	None		Slight		Moderate		Heavy			
Barometric pressure (mb) Before:	1022	dP (Pa) initial:	0	aP (mb) After:	1022	Temperature (°C)	9				

INSTRUMENTATION USED				Tick if gas sample taken:	
Gas concentration:	Gas Data GFM 436, Accuracy: CH4 ±0.3% (0 to 5%), ±3.0% (at 30%), ±3.0% (at 100%); CO2 ±0.3% (0 to 5%), ±3.0% (at 40%); O2 ±0.2%	Instrument No. 2	VOC concentration:	PhoCheck Tiger, Accuracy: ±5.0% ± one digit (at 20°C)	Instrument No.

BH (No.)	Depth to GW (m)	Flow Measurements			Time (s)	CH_4 (%)	LEL (%)	CO_2 (%)	O_2 (%)	H_2S (ppm)	CO (ppm)	PID (ppm)	Comments
DS24-02	Dry	**Time (s)**	**dP (Pa)**	**Flow (l/h)**	**5**	0.0	0.0	2.2	17.4	0.0	0.0	0.2	**Short**
					30	0.0	0.0	3.9	14.9	0.0	0.0	0.1	
Base: (m)	1.20	**0**	0.0	0.0	**60**	0.0	0.0	4.1	14.4	0.0	0.0	0.0	
		30	0.0	0.0	**5**	0.0	0.0	2.9	15.4	0.0	0.0	0.1	**Long**
		60	0.0	0.0	**30**	0.0	0.0	4.0	14.8	0.0	0.0	0.1	
		90			**60**	0.0	0.0	4.0	14.8	0.0	0.0	0.1	
		120			**60**	0.0	0.0	4.1	14.2	0.0	0.0		
		150			**120**	0.0	0.0	4.1	14.2	0.0	0.0		
		180			**180**	0.0	0.0	4.1	14.2	0.0	0.0		
		210			**240**	0.0	0.0	4.1	14.2	0.0	0.0		
		240			**300**	0.0	0.0	4.1	14.2	0.0	0.0		
		270			**360**								
		300			**420**								
		360			**480**								
		420			**540**								
		480			**600**								
		540			**5**	0.0	0.0	2.5	14.9	0.0	0.0	0.2	**Short**
		600			**30**	0.0	0.0	4.0	14.4	0.0	0.0	0.2	
					60	0.0	0.0	4.1	14.3	0.0	0.0	0.1	
					5	0.0	0.0	3.0	15.1	0.0	0.0	0.1	**Long**
					30	0.0	0.0	3.9	14.6	0.0	0.0	0.1	
					60	0.0	0.0	4.0	14.4	0.0	0.0	0.1	

Circulation

KEY
aP: Atmospheric Pressure
dP: Differential Pressure
NR: Not Recorded
OR: Out of Range

Note: Where 0.0 is shown on the results indicates value lower than the detection limit of the instrument.

Groundwater Monitoring Record

Water level meter used:		**Standard**	**Date:**		**04-05/03/2025**	
Development method:		**Purging**				
Job No.	**25/4047**	**Site:**	LHR042 Thorney Lane DC1		Initials:	IJ/PO

BH	Volume purged (ltrs)	Purge Start (hh:mm)	Purge Finish (hh:mm)	Water Level (m)	Base Level (m)	Recovery Water Level (m)	Recovery Time (hh:mm)	Comments
BH25-01	0.25	14:00	14:15	2.26	2.42	Dry		Water was muddy.
BH25-02	4.5	11:10	11:19	0.89	2.03	1.42		Water was muddy.
BH25-03	10	13:30	13:58	1.80	3.80	1.83		Water was muddy.
BH25-04	14.9	13:20	13:30	0.67	3.00	0.80		Water was clear at first got muddy later.
BH25-05	18	11:00	11:22	1;30	4.10	1.40		Water was muddy.
DS25-01	10.8	12:20	12:40	0.48	1.52	0.94		Water was muddy.
DS25-02	5	11:40	12:10	1;11	2.06	1.83		Water was muddy.
DS25-03	14.5	13:09	13:18	0.66	2.85	0.73		Water was muddy.
DS25-04	11	12:45	13:10	1.28	2.68	1.30		Water was muddy.
DS25-05	5.5	12:45	13:05	1.43	2.75	1.70		Water was muddy.

DS25-06	11	11:30	11:42	1.15	2.82	1.33		Water was muddy.
DS25-07	5	9:40	10:53	1.22	2.03	1.73		Water was muddy.
DS25-08	10	11:45	12:05	1.72	3.04	2.03		Water was muddy.
DS25-09	10	12:12	12:30	1.24	2.72	1.36		Water was muddy.
DS25-10	5	14:30	14:41	1.38	1.85	1.45		Water was muddy.

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

Groundwater Monitoring Record

Water level meter used:	**Standard**	**Date:**	**17-18/03/2025**		
Development method:	**Purging**				
Job No.	**25/4047**	**Site:**	LHR042 Thorney Lane DC1	Initials:	IJ/PO

BH	Volume purged (ltrs)	Purge Start (hh:mm)	Purge Finish (hh:mm)	Water Level (m)	Base Level (m)	Recovery Water Level (m)	Recovery Time (hh:mm)	Comments
BH25-01	0.2	13:50	13:58	2.35	2.43	Dry		Clear water
BH25-02	11.8	13:43	15:09	1.41	2.06	1.53		Clear water
BH25-03	25.5	15:10	15:58	1.75	3.48	1.77		Clear water
BH25-04	27.5	13:00	13:45	0.73	3.00	0.76		Clear water
BH25-05	37.2	11:11	11:38	1.15	4.10	1.35		Becoming muddy towards the end
CP105	310	14:05	15:36	1.45	26.50	4.96		Clear water
DS25-01	2	10:52	10:58	1.26	1.54	Dry		Clear water
DS25-02	18	11:07	11:51	1.20	2.05	1.85		Clear water
DS25-03	24.6	9:30	10:43	0.72	2.85	0.72		Clear water
DS25-04	28	12:05	13:07	1.30	2.70	1.30		Clear water

DS25-05	12.6	12:25	12:51	1.62	2.25	1.63		Clear water
DS25-06	21.3	11:46	12:14	1.28	2.85	1.30		Clear water
DS25-07	14.5	14:05	14:40	1.30	2.02	1.48		Clear water
DS25-08	28.2	15:38	16:34	1.65	3.06	1.70		Clear water
DS25-09	23.8	14:50	15:48	1.17	2.73	1.20		Clear water
DS25-10	10.2	10:37	11:02	1.35	1.86	1.37		Clear water

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/03/2025**
Technician:	**EP & MS**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	BH25-02	2.06	1.41	1.54	Cloudy, 7°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
0.5	13:47	7.9	12.3	104.20	0.40	9.23	-146.5	139.2		Clear
1.0	13:51	7.8	11.8	99.00	0.40	9.26	-148.5	126.8		Clear
1.5	13:55	7.7	12.5	105.00	0.41	9.33	-151.8	109.6		Clear
2.0	13:59	7.7	12.8	107.10	0.41	9.34	-152.5	94.1		Clear
2.5	14:03	7.7	13.0	108.70	0.39	9.34	-152.7	77.4		Clear
3.0	14:07	7.7	13.1	110.00	0.42	9.34	-152.7	62.9		Clear
4.0	14:11	7.7	13.2	110.20	0.41	9.34	-152.6	54.5		Clear
5.0	14:15	7.7	13.3	111.20	0.42	9.35	-152.7	43.5		Clear
5.5	14:19	7.6	13.35	111.6	0.4211	9.34	-152.3	34.7		Clear
6.0	14:23	7.6	13.4	112.2	0.4317	9.34	-152.4	31.5		Clear
6.5	14:27	7.6	13.41	112	0.4292	9.34	-152.6	28.9		Clear
7.0	14:31	7.6	13.36	112	0.4119	9.34	-152.4	27.9		Clear
7.5	14:35	7.6	13.44	112.8	0.417	9.33	-152.1	25.2		Clear
8.0	14:39	7.6	13.52	113.4	0.429	9.33	-152.4	22.6		Clear
8.5	14:43	7.6	13.54	113.5	0.4107	9.33	-151.9	22.2		Clear
9.0	14:47	7.6	13.6	113.7	0.42	9.33	-152.1	21.2		Clear
9.5	14:51	7.6	13.57	113.6	0.4235	9.33	-152.1	20.5		Clear
10.0	14:55	7.6	13.6	14	0.4261	9.33	-152.2	20.2		Clear
10.5	14:59	7.6	13.6	113.9	1.4231	9.34	-152.2	19.4		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/03/2025**
Technician:	**EP & MS**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: Cloudy, 7°C PFAS control measures were followed.
	BH25-02	2.06	1.41	1.54	

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
11.0	15:03	7.6	13.6	113.90	0.41	9.34	-152.3	19.1		Clear
11.5	15:07	7.6	13.6	113.90	0.42	9.34	-152.3	19.0		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**18/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	BH25-03	3.48	1.76	1.79	Sunny, 8°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	15:10	10.2	1.3	11.70	1.04	6.97	-22.7	-59.4		Clear
4.0	15:14	10.2	1.2	10.80	1.04	6.98	-23.2	-62.7		Clear
6.0	15:18	10.2	1.2	10.30	1.04	6.98	-23.4	-65.2		Clear
8.0	15:24	10.3	0.9	8.50	1.03	6.97	-22.6	-69.2		Clear
10.0	15:28	10.3	0.8	7.60	1.04	6.98	-23.4	-76.6		Clear
12.0	15:32	10.2	0.8	6.70	1.04	6.98	-23.2	-80.1		Clear
14.0	15:36	10.2	0.7	6.10	1.04	6.98	-23.1	-81.9		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**18/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	BH25-04	3.00	0.79	0.79	Sunny, 10°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	13:07	8.5	2.4	23.00	1.08	6.75	-10.3	64.3		Cloudy
4.0	13:11	8.6	1.1	10.00	1.07	6.73	-9.1	51.9		Clear
6.0	13:15	8.6	1.1	9.00	1.07	6.73	-9.4	50.2		Clear
8.0	13:19	8.6	1.0	7.90	1.07	6.72	-8.8	45.5		Clear
10.0	13:24	8.7	0.7	6.20	1.07	6.78	-8.2	34.1		Clear
12.0	13:28	8.6	0.7	6.10	1.06	6.70	-7.7	34.9		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**18/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	BH25-05	4.10	1.20	1.20	Sunny, 9°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:15	10.8	3.7	49.40	0.93	9.97	-192.8	-242.0		Clear
4.0	11:19	10.8	1.1	10.00	0.93	9.92	-189.9	-243.3		Clear
6.0	11:23	10.8	0.9	7.90	0.92	9.89	-188.2	-241.3		Clear
8.0	11:27	10.8	0.8	6.80	0.92	9.88	-187.6	-241.0		Clear
10.0	11:31	10.8	0.7	6.60	0.92	9.88	-187.4	-240.9		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/03/2025**
Technician:	**EP & MS**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	BH25-08	3.06	1.65		Cloudy, 7°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	15:42	8.2	2.5	21.10	0.61	7.52	-52.2	-16.9		Cloudy
4.0	15:46	8.2	1.2	10.40	0.61	7.44	-48.3	-91.9		Cloudy
6.0	15:50	8.2	1.0	8.40	0.62	7.44	-48.1	-105.4		Cloudy
8.0	15:54	8.2	0.8	7.00	0.62	7.45	-49.0	-114.0		Cloudy
10.0	15:58	8.2	0.7	6.10	0.62	7.47	-50.0	-120.0		Cloudy
12.0	16:02	8.2	0.7	5.70	0.62	7.47	-50.0	-123.4		Cloudy
14.0	16:06	8.2	0.6	5.30	0.62	7.48	-50.3	-126.1		Cloudy
16.0	16:10	8.2	0.6	4.90	0.63	7.49	-50.9	-129.0		Cloudy
18.0	16:14	8.2	0.55	4.6	0.635	7.49	-50.9	-130.8		Cloudy
20.0	16:18	8.2	0.53	4.5	0.637	7.49	-51.0	-132.2		Cloudy
22.0	16:22	8.2	0.49	4.2	0.636	7.49	-51.1	-133.4		Cloudy
24.0	16:26	8.2	0.49	4.1	0.643	7.49	-51.0	-134.1		Cloudy
26.0	16:30	8.2	0.47	4	0.64	7.49	-51.1	-134.7		Cloudy
28.0	16:34	8.2	0.48	4.1	0.638	7.5	-51.2	-135.3		Cloudy

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25-01	1.54	1.26	Dry	Cloudy, 7°C, Borehole ran dry PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	10:56	7.5	6.5	52.90	0.44	9.67	-173.7	20.7		Muddy

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25-02	2.05	1.20		Cloudy, 6°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:11	7.5	3.1	27.40	0.34	10.58	-223.9	-29.6		Clear
4.0	11:15	7.6	1.7	14.00	0.38	10.02	-192.8	-27.7		Clear
6.0	11:19	7.6	1.9	15.60	0.37	9.92	-187.5	-23.2		Clear
8.0	11:23	7.6	2.2	18.40	0.37	9.74	-177.8	-38.9		Clear
10.0	11:27	7.6	8.1	68.20	0.36	9.71	-176.2	-14.8		Clear
12.0	11:32	7.6	9.4	78.90	0.36	9.69	-175.1	-52.5		Clear
14.0	11:36	7.6	9.5	80.00	0.36	9.69	-174.8	-60.0		Clear
16.0	11:40	7.7	9.5	79.10	0.35	9.67	-173.7	-62.0		Clear
18.0	11:44	7.6	9.5	79.2	0.3522	9.65	-172.9	-61.4		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/02/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25-03	2.85	0.72		Cloudy, 7°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	09:30	9.1	1.9	15.80	1.12	6.87	-17.7	60.4		Clear
6.0	09:34	9.2	1.6	14.70	1.10	6.80	-13.3	60.4		Clear
8.0	09:38	9.2	1.3	11.50	1.10	6.79	-12.4	59.7		Clear
10.0	09:42	9.2	1.1	9.80	1.09	6.77	-11.2	57.6		Clear
12.0	09:46	9.2	1.5	13.00	1.08	6.74	-9.6	49.7		Clear
14.0	09:50	9.2	1.3	11.30	1.08	6.73	-9.2	50.3		Clear
16.0	09:54	9.2	1.2	10.50	1.08	6.73	-9.0	51.2		Clear
18.0	09:58	9.2	1.2	10.20	1.08	6.72	-8.9	51.4		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS25-04	2.70	1.30		Cloudy, 6°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	12:00	8.6	2.6	21.80	0.57	11.04	-251.5	-288.0		Cloudy
4.0	12:14	8.6	1.4	12.60	0.46	10.06	-195.9	-209.3		Clear
6.0	12:18	8.7	1.2	9.90	0.44	9.98	-191.6	-210.8		Clear
8.0	12:22	8.7	1.0	8.70	0.43	9.93	-189.3	-210.2		Clear
10.0	12:26	8.7	1.0	8.60	0.42	9.93	-189.3	-210.2		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**18/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25/05	2.25	1.62		Sunny, 9°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	12:27	9.6	1.5	12.90	0.60	7.10	-30.0	-6.6		Clear
4.0	12:31	9.6	1.0	8.80	0.59	7.01	-28.3	-14.1		Clear
6.0	12:35	9.5	0.8	7.50	0.58	7.06	-27.9	-11.5		Clear
8.0	12:40	9.6	0.8	7.30	0.58	7.06	-27.8	-13.5		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**18/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25-06	2.85	1.28		Sunny, 9°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:49	10.3	2.7	29.30	0.64	8.59	-112.9	-91.3		Clear
4.0	11:53	10.3	1.0	8.90	0.73	7.89	-63.2	-97.3		Clear
6.0	11:58	10.4	0.9	7.80	0.74	6.95	-21.8	-65.7		Clear
8.0	12:03	10.4	0.8	7.30	0.75	6.95	-21.2	-63.5		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25-07	2.02	1.30		Cloudy, 6°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	14:05	8.8	2.1	18.40	0.84	11.41	-273.3	-186.5		Clear
4.0	14:09	8.9	1.7	14.70	0.84	11.46	-275.7	-213.2		Clear
6.0	14:13	8.9	1.5	13.00	0.85	11.46	-275.3	-229.5		Clear
8.0	14:17	9.1	1.1	9.90	0.81	11.35	-269.0	-237.9		Clear
10.0	14:21	9.1	1.0	8.90	0.77	11.22	-261.7	-238.4		Clear
12.0	14:25	9.1	1.0	8.40	0.75	11.17	-259.3	-237.6		Clear
14.0	14:29	9.1	1.0	8.40	0.75	11.46	-257.1	-237.4		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25-09	2.73	1.17		Cloudy, 7°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	14:54	8.4	1.9	15.70	0.52	8.47	-106.6	-53.3		Clear
4.0	14:58	8.3	1.1	9.20	0.50	7.75	-66.1	-50.1		Clear
6.0	15:02	8.3	1.0	8.30	0.49	7.68	-62.8	-42.2		Clear
8.0	15:06	8.3	0.9	7.80	0.49	7.66	-61.5	-36.8		Clear
10.0	15:10	8.3	0.9	7.30	0.49	7.63	-59.7	-35.6		Clear
12.0	15:14	8.3	0.9	7.30	0.49	7.63	-59.4	-34.8		Clear
14.0	15:18	8.3	0.8	7.20	0.49	7.65	-59.4	-34.8		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**18/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25-10	1.86	1.35		Sunny, 9°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	10:37	9.1	2.4	22.10	0.50	9.87	-186.2	-243.4		Clear
4.0	10:41	9.0	1.5	13.20	0.51	9.84	-184.0	-210.8		Clear
6.0	10:45	9.0	1.3	11.00	0.51	9.82	-180.7	-237.4		Clear
8.0	10:49	9.0	1.3	10.80	0.51	9.82	-181.5	-228.9		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**17/03/2025**
Technician:	**IJ & PO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	CP105	26.50	1.45		Sunny, 10°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	14:08	11.0	0.9	8.10	0.74	7.65	-61.5	36.8		Clear
4.0	14:12	11.0	0.8	6.80	0.76	7.66	-61.8	-94.5		Clear
6.0	14:16	11.0	0.7	6.40	0.77	7.66	-61.9	-97.3		Clear
8.0	14:20	11.0	0.7	6.10	0.77	7.66	-62.1	-97.2		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**26/03/2025**
Technician:	**IJ & PH**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH24-05	2.85	1.24		Sunny, 16°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	12:50	9.5	0.9	7.50	1075.00	11.93	-290.3	-145.9		Clear
4.0	12:54	9.5	0.8	7.10	1074.00	11.92	-289.6	-145.6		Clear
6.0	12:58	9.4	0.7	6.10	1087.00	11.91	-289.2	-139.5		Clear
8.0	13:02	9.4	0.7	6.00	1088.00	11.92	-289.5	-136.2		Clear
10.0	13:06	9.4	0.6	6.20	1089.00	11.92	-289.6	-135.2		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**26/03/2025**
Technician:	**IJ & PH**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH24-06	2.62	1.12	1.00	Sunny, 15°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	10:36	10.4	1.8	16.60	1000.00	6.99	-21.8	11.8		Clear
4.0	10:40	10.4	1.3	11.30	961.00	7.03	-23.8	24.5		Clear
6.0	10:44	10.4	1.2	10.70	955.00	7.04	-24.4	27.8		Clear
8.0	10:48	10.4	1.1	9.70	9.42	7.05	-24.9	32.2		Clear
10.0	10:52	10.4	1.0	9.20	9.40	7.05	-25.3	-36.5		Clear
11.0	10:56	10.5	1.0	9.00	9.30	7.05	-25.1	-36.9		Clear
12.0	11:00	10.4	1.0	8.90	9.29	7.05	-25.0	-37.6		Clear
13.0	11:04	10.4	1.0	9.00	9.29	7.05	-25.1	-37.7		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**26/03/2025**
Technician:	**AD & IJ**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH24-07	31.99	1.20	1.43	Sunny, 17°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	12:46	17.1	10.3	107.60	0.01	6.86	-16.6	58.7		Clear
4.0	12:50	17.9	9.5	103.10	0.01	6.83	-15.0	69.4		Clear
6.0	12:54	17.8	9.5	99.70	0.01	6.83	-14.8	82.0		Clear
7.0	12:58	16.2	10.1	102.60	0.01	6.82	-15.5	82.2		Clear
8.0	13:02	15.3	10.3	102.40	0.01	6.82	-14.2	73.5		Clear
9.0	13:06	14.5	10.2	99.60	0.01	6.79	-11.9	69.9		Clear
10.0	13:10	14.2	9.9	96.60	0.01	6.74	-10.1	68.9		Clear
11.0	13:14	14.3	9.9	95.30	0.01	6.76	-11.8	74.5		Clear
12.0	13:18	13.9	9.36	91	0.0095	6.79	-12.9	71.5		Clear
13.0	13:22	14.8	8.71	86.2	0.0092	6.79	-12.7	71.1		Clear
14.0	13:26	14.7	8.78	87	0.0092	6.78	-12.7	71.2		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**26/03/2025**
Technician:	**AD & JT**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH24-09	2.76	0.94	Dry	Cloudy, 11°C, Borehole ran dry PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	.	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
1.0	09:50	15.0	11.4	112.70	0.00	8.28	-95.5	212.0		Cloudy and Muddy
1.5	09:54	15.0	11.3	109.20	0.00	8.25	-93.8	238.6		Cloudy and Muddy
2.0	09:58	16.0	10.2	102.80	0.00	8.38	-94.7	217.4		Cloudy and Muddy
2.5	10:02	14.2	11.2	108.50	0.00	8.06	-82.1	216.4		Cloudy and Muddy
3.0	10:06	13.1	11.4	108.50	0.00	8.02	-81.0	230.3		Cloudy and Muddy

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**26/03/2025**
Technician:	**AD & JT**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH24-10	3.83	0.93	0.92	Cloudy with sunny intervals, 16°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
1.0	11:30	10.6	4.2	41.00	0.59	7.26	-38.0	19.2		Clear
2.0	11:34	10.2	2.7	23.90	0.58	7.08	-28.5	11.9		Clear
3.0	11:38	10.3	2.2	19.70	0.58	7.06	-27.7	4.0		Clear
4.0	11:42	10.3	1.9	17.20	0.57	7.04	-26.8	2.7		Clear
5.0	11:46	10.6	1.7	15.50	0.57	7.04	-26.5	-9.3		Clear
6.0	11:50	10.7	1.6	14.90	0.58	7.03	-26.3	-11.9		Clear
7.0	11:54	10.8	1.5	13.60	0.57	7.03	-26.2	-13.9		Clear
8.0	11:58	10.6	1.5	13.00	0.58	7.03	-25.8	-15.4		Clear
9.0	12:02	10.6	1.43	12.9	0.577	7.02	-25.7	16.8		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**26/03/2025**
Technician:	**AD & IO**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS24-04	2.93	1.26	1.28	Sunny, 16°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	14:28	7.5	1.3	11.20	0.28	9.76	-174.3	3.7		Clear
4.0	14:32	7.6	1.2	9.80	0.28	9.78	-175.9	-1.2		Clear
6.0	14:36	7.3	1.0	8.60	0.28	9.84	-178.7	-6.2		Clear
8.0	14:40	7.5	1.0	7.90	0.27	9.84	-178.7	-7.6		Clear
10.0	14:44	7.3	0.9	7.30	0.27	9.85	-179.4	-9.7		Clear
11.0	14:48	7.9	1.0	8.20	0.27	9.84	-179.2	-12.6		Clear
12.0	14:52	8.0	0.8	7.10	0.27	9.90	-182.4	-13.0		Clear
13.0	14:56	7.8	0.8	6.70	0.27	9.90	-182.2	-14.1		Clear
14.0	15:00	7.8	0.78	6.6	0.2712	9.9	-183.0	-15.9		Clear
15.0	15:04	7.8	0.74	6.3	0.2705	9.89	-181.8	-17		Clear
16.0	15:08	7.6	0.75	6.3	0.2702	9.9	-182.2	-17		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**26/03/2025**
Technician:	**IJ & BA**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS24-07	1.60	0.96	Dry	Sunny, 16°C, Borehole ran dry PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	15:14	11.4	16.3	1.86	0.10	7.26	36.8	76.3		

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**26/03/2025**
Technician:	**IJ & BA**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS24-08	19.30	1.48	1.49	Sunny, 16°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
3.0	14:14	10.4	13.3	1.47	0.49	7.15	30.2	67.3		Clear
5.0	14:18	10.3	11.8	1.34	0.45	7.05	24.8	67.0		Clear
7.0	14:22	10.3	10.5	1.19	0.48	7.01	22.5	69.6		Clear
9.0	14:26	10.3	9.9	1.09	0.47	6.98	21.3	72.0		Clear
11.0	14:30	10.3	9.9	1.11	0.46	6.97	20.7	73.1		Clear
13.0	14:34	10.2	9.9	1.11	0.46	6.96	20.2	73.8		Clear
15.0	14:38	10.2	9.2	1.04	0.45	6.96	20.0	74.2		Clear
17.0	14:42	10.1	8.9	1.02	0.44	6.95	14.6	73.9		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**24/03/2025**
Technician:	**EP**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH25-01	2.43	Dry	Dry	Overcast and dry, 8°C, Borehole was dry PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**25/03/2025**
Technician:	**EP**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH25-02	2.07	1.46	1.48	Overcast and dry, 14°C, Putrid odour present with colour change PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	15:02	8.1	6.4	53.40	0.47	9.29	-145.0	55.0		Clear
4.0	15:06	8.1	2.5	20.90	0.49	9.56	-160.0	36.2		Clear
6.0	15:10	8.1	2.6	20.80	0.50	9.56	-159.7	29.0		Clear
8.0	15:14	8.1	4.1	33.80	0.51	9.56	-161.1	24.9		Clear
10.0	15:18	8.4	10.3	87.70	0.50	9.48	-155.6	35.9		Clear
12.0	15:22	8.5	7.9	71.00	0.51	9.47	-155.5	36.1		Cloudy
14.0	15:26	8.6	7.0	60.50	0.49	9.48	-155.7	34.3		Cloudy
16.0	15:30	8.6	6.8	60.00	0.49	9.48	-155.7	34.0		Cloudy
18.0	15:34	8.6	6.8	59.4	0.494	9.48	-151.6	33.8		Cloudy

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**24/03/2025**
Technician:	**EP**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH25-03	3.51	1.76	1.79	Overcast and dry, 8°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:45	8.9	1.9	16.10	1.06	6.84	-14.0	59.2		Clear
4.0	11:49	8.9	1.3	11.50	1.06	6.89	-16.4	-9.3		Clear
6.0	11:53	8.9	1.1	9.40	1.06	6.91	-18.0	-39.1		Clear
8.0	11:57	8.9	1.1	9.10	1.06	6.92	-18.2	-43.4		Clear
10.0	12:01	8.9	1.0	8.40	1.06	6.92	-18.5	-51.0		Clear
12.0	12:05	8.9	1.0	7.80	1.06	6.93	-18.8	-55.6		Clear
14.0	12:09	8.9	0.9	7.20	1.06	6.93	-19.1	-60.4		Clear
16.0	12:13	8.9	0.8	7.10	1.06	6.94	-19.2	-63.9		Clear
18.0	12:17	8.9	0.78	7	1.059	6.94	-19.4	-68		Clear
20.0	12:21	8.9	0.72	6.1	1.062	6.95	-19.7	-71		Clear
22.0	12:25	8.9	0.68	5.9	1.059	6.95	-19.9	-73.3		Clear
24.0	12:29	8.9	0.66	5.7	1.058	6.95	-20.0	-74.8		Clear
26.0	12:33	8.9	0.65	5.6	1.06	6.95	-20.1	-75.6		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**25/03/2025**
Technician:	**EB & MB**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH25-04	3.00	0.79	0.79	Cloudy and dry, 9°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	10:30	7.8	2.8	23.40	1.10	6.68	-4.2	133.9		Clear
4.0	10:34	7.8	1.9	16.60	1.10	6.62	-1.0	125.0		Clear
6.0	10:38	7.8	1.4	12.10	1.10	6.62	-0.9	113.5		Clear
8.0	10:42	7.8	1.2	10.10	1.10	6.62	-1.0	104.7		Clear
10.0	10:46	7.8	1.1	9.50	1.10	6.62	-1.1	102.0		Clear
12.0	10:50	7.8	1.1	9.00	1.10	6.62	-1.0	99.4		Clear
14.0	10:54	7.8	1.0	8.80	1.10	6.62	-1.1	98.7		Clear
16.0	10:58	7.8	1.0	8.60	1.09	6.62	-1.1	97.5		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**24/03/2025**
Technician:	**EP**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
BH25-05	4.11	1.20	1.19	Sunny and dry, 13°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	15:09	9.6	1.5	15.70	0.94	9.97	-186.9	-12.8		Clear
4.0	15:13	9.7	0.9	8.10	0.90	9.93	-185.1	-20.7		Clear
6.0	15:17	9.7	0.7	6.40	0.94	9.91	-184.0	-25.5		Clear
8.0	15:21	9.7	0.6	5.50	0.94	9.89	-182.8	-30.2		Clear
10.0	15:25	9.7	0.6	4.90	0.94	9.89	-182.2	-34.8		Clear
12.0	15:29	9.7	0.5	4.60	0.94	9.87	-181.7	-36.8		Clear
14.0	15:33	9.8	0.4	4.30	0.94	9.87	-181.9	-40.0		Clear
16.0	15:41	9.7	0.6	5.00	0.94	9.86	-181.3	-44.7		Clear
18.0	15:45	9.7	0.49	4.4	0.937	9.86	-180.9	-45.2		Clear
20.0	15:49	9.8	0.45	3.9	0.937	9.85	-180.3	-46.4		Clear
22.0	15:53	9.7	0.43	3.9	0.937	9.84	-180.1	-47.3		Clear
24.0	15:57	9.7	0.42	3.7	0.937	9.85	-180.6	-47.9		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**25/03/2025**
Technician:	**EP**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS25-01	1.52	1.07	Dry	Overcast and dry, 12°C, Borehole ran dry PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	12:02	7.1	10.6	88.10	0.37	10.11	-181.3	37.7		Clear
4.0	12:06	7.8	11.3	84.20	0.35	10.00	-183.5	37.6		Clear
6.0	12:10	8.4	12.7	109.70	0.34	9.96	-182.1	40.8		Clear
8.0	12:14	10.1	12.9	114.80	0.34	9.87	-178.0	46.6		Clear
10.0	12:18	10.4	12.9	115.50	0.34	9.85	-176.9	47.9		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**25/03/2025**
Technician:	**IJ & AD**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS25-02	2.04	1.23	1.47	Cloudy, 9°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	13:18	8.9	6.0	49.70	0.37	9.80	-174.0	-14.4		Clear
3.0	13:22	9.1	7.0	60.50	0.37	9.74	-171.1	-9.8		Clear
4.0	13:26	9.2	7.0	62.00	0.37	9.71	-169.5	-9.7		Clear
5.0	13:30	9.2	6.9	62.00	0.37	9.73	-170.0	-14.0		Clear
6.0	13:34	9.5	7.2	63.30	0.37	9.64	-168.1	-15.5		Clear
7.0	13:38	9.3	6.8	60.20	0.37	9.67	-167.3	-17.3		Clear
8.0	13:42	9.3	7.2	61.50	0.37	9.66	-166.5	-18.7		Clear
9.0	13:46	9.3	7.2	64.50	0.37	9.65	-166.0	-20.8		Clear
10.0	13:50	9.2	6.78	65.5	0.3685	9.64	-165.8	-22.2		Clear
11.0	13:54	9.3	7.3	63.6	0.3681	9.63	-165.2	-22.5		Clear
14.0	14:00	9.3	7.31	63.8	0.3677	9.62	-164.6	-22.4		Clear
16.0	14:02	9.3	7.5	64	0.3682	9.61	-164.2	-21.4		Clear
17.0	14:04	9.1	7.48	64.1	0.3678	9.61	-164.0	-21.4		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**26/03/2025**
Technician:	**AD & IO & IJ & BA**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments: Sunny, 17°C PFAS control measures were followed.
	DS25-03	2.82	0.75		

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	16:30	9.9	0.8	6.80	1.10	6.76	-8.7	70.0		Clear
3.0	16:34	9.9	0.7	6.00	1.10	6.73	-7.7	76.4		Clear
4.0	16:38	9.9	0.6	5.60	1.09	6.72	-7.0	82.9		Clear
5.0	16:42	9.9	0.6	4.90	1.09	6.71	-6.7	83.8		Clear
6.0	16:46	9.9	0.5	4.50	1.09	6.71	-6.6	89.4		Clear
7.0	16:50	9.9	0.5	4.50	1.09	6.71	-6.5	91.8		Clear
8.0	16:54	9.9	0.5	4.60	1.08	6.71	-6.3	96.2		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**24/03/2025**
Technician:	**IJ & AD**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS25-04	2.68	1.33	1.33	Sunny, 11°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	15:52	10.2	6.3	55.80	0.50	10.58	-218.1	-84.7		Yellowish
4.0	15:56	10.1	5.8	51.10	0.47	10.22	-198.1	-124.1		Yellowish
5.0	16:00	10.1	5.2	48.00	0.46	10.16	-195.4	-138.2		Yellowish
6.0	16:04	10.1	5.1	15.50	0.45	10.04	-189.1	-143.9		Yellowish
7.0	16:08	10.1	1.3	23.10	0.44	10.06	-189.6	-147.5		Yellowish
8.0	16:12	10.1	0.6	5.20	0.43	9.96	-184.6	-149.8		Yellowish
9.0	16:16	10.0	0.6	5.10	0.43	9.92	-182.2	-150.1		Yellowish
10.0	16:20	10.0	0.6	5.00	0.42	9.95	-184.3	-151.7		Yellowish

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**25/03/2025**
Technician:	**IJ & AD**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25-05	2.21	1.65	1.65	Cloudy, 9°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:11	9.7	0.6	5.50	0.59	7.11	-28.1	20.8		Clear
3.0	11:15	9.7	0.5	4.50	0.59	7.10	-27.7	17.8		Clear
4.0	11:19	9.7	0.5	4.30	0.59	7.10	-27.6	14.3		Clear
5.0	11:23	9.7	0.4	3.70	0.58	7.10	-27.4	12.1		Clear
6.0	11:27	9.7	0.4	3.40	0.58	7.08	-27.3	12.0		Clear
7.0	11:31	9.7	0.4	3.30	0.582.8	7.09	-27.3	12.1		Clear
8.0	11:35	9.7	0.4	3.20	0.58	7.03	-27.3	12.2		Clear
10.0	11:40	9.7	0.4	3.10	0.58	7.09	-27.2	14.0		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**25/03/2025**
Technician:	**IJ & AD**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS25-06	2.82	1.34	1.32	Sunny, 9°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	09:54	11.1	1.1	9.60	0.71	7.35	-40.0	45.3		Clear
4.0	09:58	11.4	1.0	9.00	0.74	7.11	-28.0	37.0		Clear
5.0	10:02	11.8	0.4	8.30	0.76	7.05	-24.8	26.4		Clear
6.0	10:08	12.0	0.8	7.70	0.78	6.96	-19.5	17.4		Clear
7.0	10:12	12.0	0.8	6.90	0.78	6.94	-18.7	15.2		Clear
8.0	10:16	11.7	0.8	7.00	0.80	6.90	-16.8	14.5		Clear
9.0	10:20	11.8	0.7	6.70	0.80	6.89	-16.1	12.8		Clear
10.0	10:24	12.1	0.8	7.60	0.80	6.90	-16.7	10.9		Clear
11.0	10:28	12.3	0.96	9	0.805	6.92	-17.8	10.1		Clear
12.0	10:32	10.4	0.38	4	0.807	6.82	-12.3	7.6		Cloudy
13.0	10:36	10.4	0.39	3.5	0.806	6.8	-11.7	6.4		Cloudy
14.0	10:40	10.4	0.35	3.3	0.8	6.81	-11.9	4		Cloudy

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**24/03/2025**
Technician:	**IJ & AD**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS25-07	2.31	1.30		Sunny, 7°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	12:10	9.2	3.2	28.00	1.00	11.73	-280.6	76.9		Clear
4.0	12:14	9.3	2.0	17.10	1.03	11.76	-282.5	-122.3		Clear
6.0	12:18	9.4	1.4	12.00	1.00	11.75	-281.6	-142.9		Clear
7.0	12;22	9.5	1.1	9.70	0.97	11.75	-280.3	-155.6		Clear
8.0	12:26	9.6	1.0	8.70	0.94	11.69	-278.8	-161.6		Clear
9.0	12:30	9.6	0.9	7.60	0.91	11.66	-277.0	-169.5		Clear
10.0	12:34	9.6	0.8	6.90	0.88	11.63	-275.5	-171.8		Clear
11.0	12:38	9.7	0.7	6.10	0.87	11.59	-273.6	-178.1		Clear
12.0	12:42	9.8	0.69	6.2	0.843	11.56	-271.7	-178		Clear
13.0	12:46	9.8	0.63	5.6	0.824	11.52	-269.6	-182.4		Clear
14.0	12:50	9.7	0.63	5.6	0.807	11.47	-267.1	-184.5		Clear
15.0	12:54	9.8	0.6	5.3	0.788	11.42	-264.3	-183.1		Clear
16.0	12:54	9.7	0.58	5.3	0.778	11.37	-261.3	-185.9		Clear
17.0	13:02	9.7	0.6	5.2	0.761	11.32	-258.6	-183.7		Clear
18.0	13:06	9.9	0.6	5.4	0.743	11.25	-254.7	-180.5		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**24/03/2025**
Technician:	**IJ & AD**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

	BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
	DS25-08	3.03	1.57	1.53	Sunny,11°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	14:44	10.3	5.6	0.63	0.61	7.48	-49.3	-106.2		Clear
4.0	14:48	10.3	5.3	0.59	0.62	7.50	-50.5	-105.5		Clear
5.0	14:52	10.7	5.8	0.66	0.62	7.50	-50.5	-102.8		Clear
7.0	14:56	10.9	6.0	0.67	0.62	7.50	-50.7	-103.8		Clear
8.0	15:00	10.6	5.7	0.62	0.62	7.52	-51.4	-103.0		Clear
9.0	15:04	10.4	4.8	0.55	0.62	7.53	-52.0	-103.4		Clear
10.0	15:08	10.4	4.7	0.54	0.62	7.53	-52.0	-107.4		Clear
11.0	15:10	10.3	4.7	0.52	0.62	7.55	-52.0	-107.4		Clear

CONCEPT
A PHENNA GROUP COMPANY
SITE INVESTIGATIONS

GROUNDWATER - IN SITU ANALYSIS & SAMPLING

Site:	**LHR042 Thorney Lane DC1**
Job No.:	**25/4047**
Date:	**24/03/2025**
Technician:	**IJ & AD**
Sampling method:	*Low Flow (peristaltic)*
Water Quality Meter No:	
Turbidity Meter No:	

BH No.	Base of well (mbgl)	Depth to GW Start (mbgl)	Depth to GW End (mbgl)	Weather / Temperature (°C) / Comments:
DS25-09	2.71	1.19	1.20	Cloudy, 8°C PFAS control measures were followed.

Purge Volume (L)	Time	Temp (°C)	DO (mg/L)	DO (%)	SPC (mS/cm)	pH	pH (mv)	Redox Potential (mV)	Turbidity (NTU)	Colour / Odour
2.0	11:14	8.9	1.0	8.60	0.50	7.72	61.9	51.9		Clear
4.0	11:28	9.1	0.8	7.20	0.50	7.67	59.5	-47.3		Clear
5.0	11:22	9.0	0.7	6.00	0.50	7.66	58.6	-44.3		Clear
6.0	11:26	9.1	0.7	6.30	0.50	7.64	57.7	-41.8		Clear
7.0	11:30	9.0	0.7	6.10	0.50	7.64	57.6	-39.0		Clear
8.0	11:24	9.0	0.6	5.60	0.50	7.63	57.2	-35.9		Clear
9.0	11:38	9.1	0.6	5.50	0.50	7.62	56.9	-33.6		Clear
10.0	11:42	9.1	0.6	5.30	0.50	7.61	56.3	-31.4		Clear