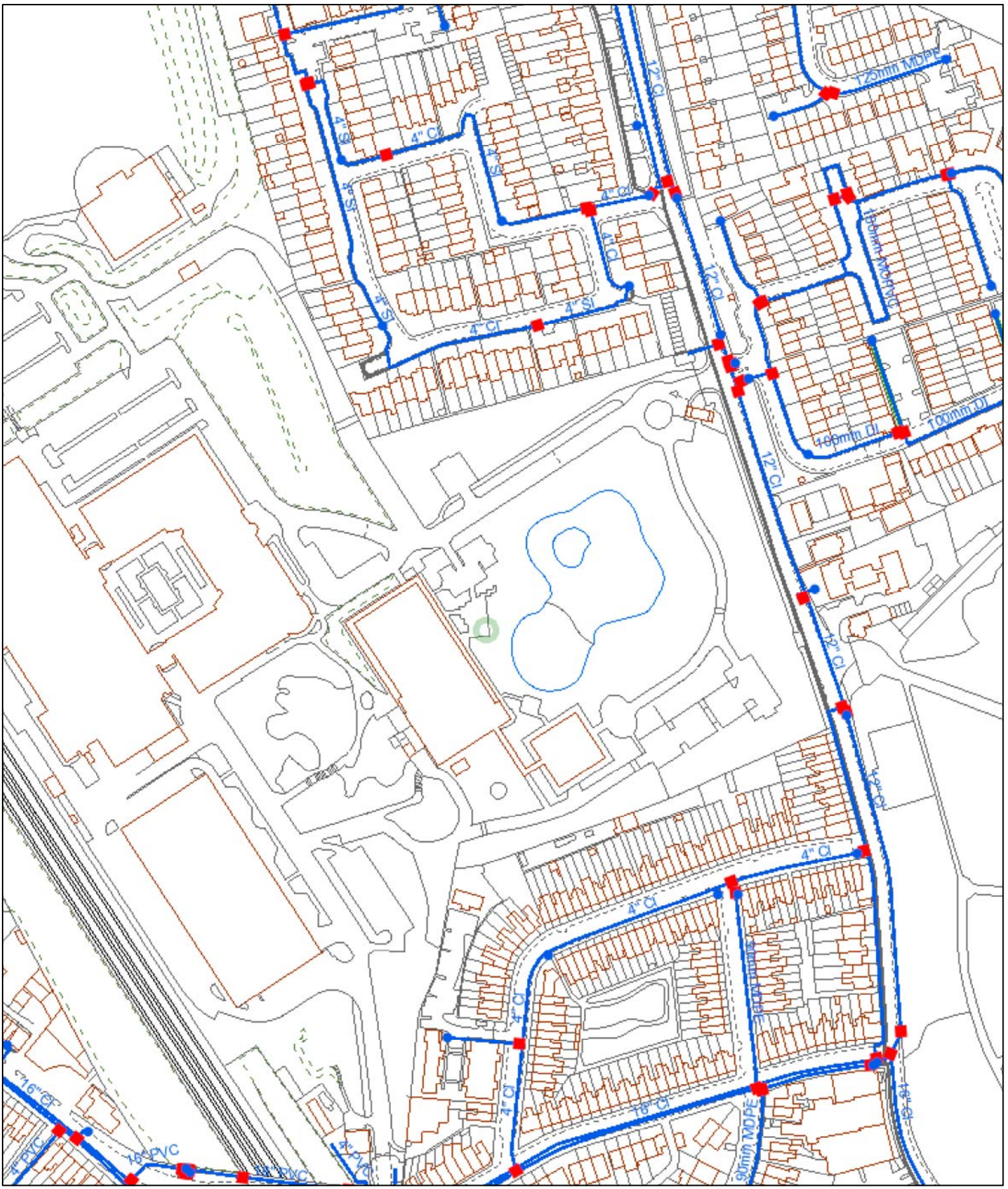
Title

Created on - 05/08/2020



N

1:2,500

- Distribution Main
- Asbestos Distribution Main
- Abandoned Main
- Asbestos Abandoned Main
- Adit / Tunnel
- Cable
- Searched Location
- Hydrant
- Fitting
- Easement
- Company Boundary

APPENDIX F
SITE RECONNAISSANCE PHOTOGRAPHS

PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	May 2019

Description:

Site access point located off-site towards the south west along Oakleigh Road South.

Image taken viewing north east.

Image Source: Google Street View (2020)

Photo No.	**Date:**
2	May 2019

Description:

Eastern site access point located along Brunswick Park Road.

Imagen taken viewing north west.

Image Source: Google Street View (2020)

Photo No.	Date:	
3	May 2019	
Description: Eastern corner of site adjacent to Brunswick Park Road access point. Image taken viewing south west. Image Source: Google Street View (2020)		

Photo No.	Date:	
4	May 2019	
Description: Bunded areas of soft landscaping located adjacent to paved roadway in the eastern part of site. Image taken viewing south. Image Source: Google Street View (2020)		

Photo No.	Date:	
5	May 2019	
Description: Bunded soft landscaping located along the southern boundary of site. Image taken viewing south west within the south eastern corner of site. Image Source: Google Street View (2020)		

Photo No.	Date:	
6	May 2019	
Description: Bunded soft landscaping along the southern boundary of site. Image taken viewing east within south western corner of site. Image Source: Google Street View (2020)		

Photo No.	Date:	
7	May 2019	
Description: Central pond feature and adjacent soft landscaping. Image taken viewing south east within northern part of site. Image Source: Google Street View (2020)		

Photo No.	Date:	
8	May 2019	
Description: Main commercial buildings of business park and increase of elevation towards the west. Image taken viewing west. Image Source: Google Street View (2020)		

Photo No.	Date:	
9	May 2019	
Description: St Andrew the Apostle Greek Orthodox School located within the central park of site. Image taken viewing south west. Image Source: Google Street View (2020)		

Photo No.	Date:	
10	May 2019	
Description: Northern part of site with large bunded area of soft landscaping. Image taken viewing north west. Image Source: Google Street View (2020)		

Photo No.	Date:	
11	May 2019	
Description: Northern boundary of site, image taken viewing school building towards the south. Image Source: Google Street View (2020)		

Photo No.	Date:	
12	May 2019	
Description: Western boundary of site, image taken viewing north. Business centre positioned left with large bunded soft landscaping towards the right. Image Source: Google Street View (2020)		

Photo No.	Date:	
13	May 2019	
Description: Comer Business & Innovation Centre located along the western boundary of site. Image taken viewing west. Image Source: Google Street View (2020)		

Photo No.	Date:	
14	May 2019	
Description: External car parking area located off-site towards the north west. Image taken viewing north west. Image Source: Google Street View (2020)		

APPENDIX G
TECHNICAL BACKGROUND

H1 Desk Study

Aquifer designation and Source protection zones

Note the following text relates to sites in England and Wales only.

Principal aquifer: layers of rock or drift deposit that have high intergranular and/or fracture permeability (usually providing a high level of water storage). They may support water supply and/or river base flow on a strategic scale.

Secondary A aquifer: permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

Secondary B aquifer: predominantly lower permeability layers that may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

Secondary undifferentiated aquifer: it has not been possible to attribute either a category A or B to a rock type. In most cases this means that it was previously designated as both a minor and non-aquifer in different locations owing to the variable characteristics.

Unproductive' strata: low permeability with negligible significance for water supply or river base flow.

The EA generally adopts a three-fold classification of source protection zones (SPZ) surround abstractions for public water supply. The Site is situated in an area defined as follows:

- Zone 1 or the 'inner protection zone' is located immediately adjacent to the groundwater source and is based on a 50-day travel time from any point below the water table to the source. It is designed to protect against the effects of human activity and biological/chemical contaminants that may have an immediate effect on the source
- Zone 2 or the 'outer protection zone' is defined by a 400-day travel time from a point below the water table to the source. The travel time is designed to provide delay and attenuation of slowly degrading pollutants
- Zone 3 or the 'total catchment' is the area around the source within which all groundwater recharge is presumed to be discharged at the source.

Preliminary risk assessment methodology

LCRM outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. An outline conceptual model should be formed at the preliminary risk assessment stage that collates all the existing information pertaining to a site in text, tabular or diagrammatic form. The outline conceptual model identifies potentially complete (termed possible) contaminant linkages (contaminant–pathway–receptor) and is used as the basis for the design of the site investigation. The outline conceptual model is updated as further information becomes available, for example as a result of the site investigation.

Production of a conceptual model requires an assessment of risk to be made. Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the likelihood and the consequences of an event must be taken into account when assessing risk. RSK has adopted guidance provided in CIRIA C552 for use in the production of conceptual models.

The likelihood of an event can be classified on a four-point system using the following terms and definitions based on CIRIA C552:

- highly likely: the event appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution
- likely: it is probable that an event will occur or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term
- low likelihood: circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term
- unlikely: circumstances are such that it is improbable the event would occur even in the long term.

The severity can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- severe: short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short-term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000)
- medium: chronic damage to human health ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem
- mild: pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment
- minor: harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the probability of an event occurring and its consequences have been classified, a risk category can be assigned according to the table below.

		Consequences			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**Highly likely**	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very low	Very low

Definitions of these risk categories are as follows together with an assessment of the further work that may be required:

- very high: there is a high probability that severe harm could occur or there is evidence that severe harm is currently happening. This risk, if realised, could result in substantial liability; urgent investigation and remediation are likely to be required
- high: harm is likely to occur. Realisation of the risk is likely to present a substantial liability. Urgent investigation is required. Remedial works may be necessary in the short term and are likely over the long term
- moderate: it is possible that harm could arise, but it is unlikely that the harm would be severe and it is more likely that the harm would be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term
- low: it is possible that harm could occur, but it is likely that if realised this harm would at worst normally be mild
- very low: there is a low possibility that harm could occur and if realised the harm is unlikely to be severe.

H2 Site Investigation Methodology

Ground gas monitoring

An infrared gas meter was used to measure gas flow, concentrations of carbon dioxide (CO_2), methane (CH_4) and oxygen (O_2) in percentage by volume, while hydrogen sulphide (H_2S) and carbon monoxide (CO) were recorded in parts per million. Initial and steady state concentrations were recorded. In addition, during the first monitoring round, all wells were screened with a PID to establish if there are any interferences and cross-sensitivity of other hydrocarbons with the infrared gas meter.

Low flow groundwater sampling

Groundwater samples were retrieved using a United States Environment Protection Agency (USEPA) approved low-flow purging and sampling methodology.

The low-flow method relies on moving groundwater through the well screen at approximately the same rate as it flows through the geological formation. This results in a significant reduction in the volume of water extracted before sampling and significantly reduces the amount of disturbance of the water in the monitoring well during purging and sampling. Drawdown levels in the monitoring well and water quality indicator parameters (pH, temperature, electrical conductivity, redox potential and dissolved oxygen) are monitored during low-flow purging and sampling, with stabilisation indicating that purging is complete and sampling can begin. As the flow rate used for purging, in most cases, is the same or only slightly higher than the flow rate used for sampling, and because purging and sampling are conducted as one continuous operation in the field, the process is referred to as low-flow purging and sampling.

H3 Site Investigation Assessment Methodology

Statistical assessment

Statistical analysis of the results has been conducted in accordance with *Guidance on Comparing Soil Contamination Data with a Critical Concentration* (CIEH and CL:AIRE, 2008) as detailed in Appendix D.

Statistical analysis is utilised to establish whether the land is suitable for the proposed use under the land use planning system by attempting to answer a key question. For a site being developed the key question is: '*can we confidently say that the level of contamination on this land is low relative to some appropriate measure of risk?*' More specifically, this is expressed as '*Is there sufficient evidence that the true mean concentration of the contaminant (μ) is less than the critical concentration (C_c)?*', where the critical concentration could be the GAC or a site-specific assessment criterion (SSAC). The true mean (μ) is unknown and therefore a conservative estimate, termed the upper confidence limit (UCL), of this value is derived from the data. The UCL is then compared against the GAC.

In statistical terms the question above is handled through the use of a formal hypothesis – the null hypothesis and the alternate hypothesis. The statistical tests are structured to show (with a defined level of confidence, in this case 95%) which of the two hypotheses is most likely to be true, by determining whether the null hypothesis can be rejected.

For consideration under the planning regime, the null (H_0) and alternative (H_1) hypotheses are presented below.

Null and alternative hypotheses

Hypothesis	Equation	Description
Null (H_0)	$\mu \geq C_c$	The true mean concentration is equal to, or greater than, the critical concentration
Alternative (H_1)	$\mu < C_c$	The true mean concentration is less than the critical concentration

Therefore, if the null hypothesis is accepted for a certain contaminant it can be concluded that its concentration is high relative to the critical concentration, which in the case of this assessment is taken to be the GAC/SSAC and as such the whole site may be classed as being contaminated by a particular substance.

In addition, the statistical guidance provides an outlier test (Grubbs' test) that has been used within this assessment for the identification of 'outliers' or 'hotspots'. The 'outlier' test is conducted before undertaking statistical analysis (and 'outliers' may be removed from the dataset) but **only** where the conceptual model supports this.

The statistical tests applied to the dataset are selected based on whether the data is normally or non-normally distributed. The distribution of the dataset has been assessed using the Shapiro-Wilks normality test. Where the dataset has been found to be normally distributed the one sample t-test is undertaken. Where data has been found to be non-normally distributed Chebyshev's theorem is utilised.

Reuse of suitable materials

Note the following text relates to sites in England and Wales only.

The Definition of Waste: Development Industry Code of Practice (CL:AIRE, 2011) (CoP) was developed in cons**u**ltation with the Environment Agency and development industry to enable the re-use of materials under certain scenarios and subject to demonstrating that specific criteria are met. The current reuse scenarios covered by the CoP comprise

- reuse on the site of origin (with or without treatment)
- direct transfer of clean and natural soils between sites
- use in the development of land other than the site of origin following treatment at an authorised Hub site (including a fixed soil treatment facility).

The importation of made ground soils (irrespective of contamination status) or crushed demolition materials is not permitted currently under the CoP and requires either a standard rules environmental permit or a U1 waste exemption (see below).

In the context of excavated materials used on-sites undergoing development, four factors are considered to be of particular relevance in determining if the material is a waste or when it ceases to be waste:

- the aim of the Waste Framework Directive is not undermined, i.e. if the use of the material will create an unacceptable risk of pollution of the environment or harm to human health it is likely to be waste
- the material is certain to be used
- the material is suitable for use both chemically and geotechnically
- only the required quantity of material will be used.

The CoP requires the preparation of a materials management plan (MMP) that confirms the above factors will be met. This plan needs to be reviewed by a 'Qualified Person' (QP) who will then issue a declaration form to the EA. As the project progresses, data must be collated and on completion a verification report produced that shows the MMP was followed and describes any changes.

The MMP establishes whether specific materials are classified as waste and how excavated materials will be treated and/or reused in line with the CoP. The MMP is likely to form part of the site waste management plan.

APPENDIX H
EXPLORATORY HOLE RECORDS

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH1**

Contract Ref:	Start: **19.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **21.08.20**	**48.83**	**E:528231.8 N:193528.1**	**1** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.40	1	B				MADE GROUND: Brown slightly sandy gravelly firm consistency CLAY containing occasional roots and rootlets. Sand is fine to coarse. Gravel consists of subangular fine to coarse flint and occasional brick and concrete.	(1.20)	
0.40-0.80	2	B						
0.50	1	ES						
0.80-1.20	3	B						
1.00	2	ES					1.20	
1.20-1.65	1	SPT(c)	N=10			MADE GROUND: Brown and red very sandy slightly gravelly soft consistency CLAY. Sand is fine to coarse. Gravel consists of subangular fine to coarse flint and very occasional brick.	(1.30)	
1.50-2.00	4	D						
1.75	3	ES						
2.00-2.45	2	SPT(c)	N=9				2.50	
2.50-3.00	5	B				Brown slightly sandy slightly gravelly firm becoming stiff consistency CLAY. Sand is fine to medium. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION)		
3.00-3.45	3	SPT	N=11					
3.00-3.45	6	D						
3.50-4.00	7	D						
4.00-4.45	8	U	27 blows 100% recovery					
4.50-5.00	9	D						
5.00-5.45	4	SPT	N=13					
5.00-5.45	10	D						
6.00-6.50	11	D						
6.50-6.95	12	U	41 blows 100% recovery				(9.20)	
7.50-8.00	13	D						
8.00-8.45	5	SPT	N=19					
8.00-8.45	14	D						

Boring Progress and Water Observations

Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth
19/08/20		7.40	3.15		7.40
20/08/20		29.70	3.15		29.69

Chiselling / Slow Progress

From	To	Duration (hh:mm)
14.10	14.30	00:33
31.20	31.50	01:20
36.30	36.80	02:00

General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. 50mm diameter standpipe installed to 5.00m depth on completion. Response zone 1.00m to 5.00m depth.

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	Opecprime Development Limited	BH1

Contract Ref:	Start: 19.08.20 End: 21.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321		48.83	E:528231.8 N:193528.1	2 of 5

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
9.00-9.50	15	D				Brown slightly sandy slightly gravelly firm becoming stiff consistency CLAY. Sand is fine to medium. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION) *(stratum copied from 2.50m from previous sheet)*		
9.50-9.95	16	U	50 blows 100% recovery					
10.50-11.00	17	D						
11.00-11.45	6	SPT	N=21					
11.00-11.45	18	D						
							11.70	
11.70-12.50	19	B				Grey stiff consistency CLAY. (LONDON CLAY FORMATION)		
12.50-12.95	20	U	63 blows 100% recovery				(2.40)	
13.50-14.00	21	D						
							14.10	
14.00-14.44	7	SPT	4,5/29,21 for 60mm			Grey CLAYSTONE. (LONDON CLAY FORMATION)	14.30	
14.00-14.45	22	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION)		
15.00-15.50	23	D						
15.50-15.95	24	U	71 blows 100% recovery					
16.50-17.00	25	D						
17.00-17.45	8	SPT	N=32					
17.00-17.45	26	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

4. On completion, borehole backfilled with bentonite seal to 1.00m, gravel filter to 5.00m and arisings to 36.85m.

All dimensions in metres | Scale: 1:50

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	Dando 2000	Andy Norris	AMarcelo	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH1**

Contract Ref:	Start: **19.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **21.08.20**	**48.83**	**E:528231.8 N:193528.1**	**3** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
18.00-18.50	27	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 14.30m from previous sheet)*	(11.00)	
18.50-18.95	28	U	77 blows 100% recovery					
19.50-20.00	29	D						
20.00-20.45	9	SPT	N=32					
20.00-20.45	30	D						
21.00-21.50	31	D						
21.50-21.95	32	U	54 blows 100% recovery					
22.50-23.00	33	D						
23.00-23.45	10	SPT	N=33					
23.00-23.45	34	D						
24.00-24.50	35	D						
24.50-24.95	36	U	72 blows 100% recovery					
							25.30	
25.50-26.00	37	D				Grey and green sandy firm consistency CLAY. Sand is fine to coarse. (LONDON CLAY FORMATION)		
26.00-26.45	11	SPT	N=34					
26.00-26.45	38	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH1**

Contract Ref:	Start: **19.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **21.08.20**	**48.83**	**E:528231.8 N:193528.1**	**4** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
27.00-27.50	39	D				Grey and green sandy firm consistency CLAY. Sand is fine to coarse. (LONDON CLAY FORMATION) *(stratum copied from 25.30m from previous sheet)*	(4.40)	
27.50-27.95	40	U	93 blows 80% recovery					
28.50-29.00	41	D						
29.00-29.45	12	SPT	N=44					
29.00-29.45	42	D					29.70	
30.00-30.50	43	B				Blue and red mottled orange stiff consistency CLAY. (LAMBETH GROUP)		
30.50-30.95	44	U	99 blows 100% recovery					
31.50-32.00	45	U						
32.00-32.39	13	SPT	8,13/19,23,8 for 15mm					
32.00-32.45	46	D						
33.00-33.50	47	B					(6.90)	
33.50-33.95	48	U	105 blows 100% recovery					
34.50-35.00	49	D						
35.00-35.45	14	SPT	N=50					
35.00-35.45	50	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH1**

Contract Ref:	Start: **19.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **21.08.20**	**48.83**	**E:528231.8 N:193528.1**	**5** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
36.00-36.50	51	D				Blue and red mottled orange stiff consistency CLAY. (LAMBETH GROUP) *(stratum copied from 29.70m from previous sheet)*	36.60	
36.00-36.50	53	D						
36.20-36.50	52	U	150 blows 40% recovery					
36.70-36.76	15	SPT(c)	25/50 for 35mm			Recovered as white and grey weathered SILTSTONE. (LAMBETH GROUP)	36.85	
36.80-36.83	16	SPT(c)	25/50 for 15mm			Cable percussion borehole terminated at 36.85m depth.		

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH2**

Contract Ref:	Start: **17.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **18.08.20**	**50.08**	**E:528254.7 N:193470.6**	**1** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
0.25	1	ES				MADE GROUND: Brown slightly sandy gravelly firm consistency CLAY containing occasional roots and rootlets. Sand is fine to coarse. Gravel consists of subangular fine to coarse flint and occasional brick and concrete.	(1.00)	
0.50-1.20	1	B						
0.75	2	ES				. . . From 0.80m becoming stiff consistency.	1.00	
1.20-1.65	1	SPT	N=6			Brown slightly sandy slightly gravelly firm to stiff consistency CLAY. Sand is fine to medium. Gravel consists of subangular fine to coarse flint. (LONDON CLAY FORMATION)	(1.00)	
1.20-1.65	2	D						
1.20	3	ES						
1.50-2.00	3	D					2.00	
2.00-2.45	2	SPT	N=5			Brown slightly gravelly stiff consistency CLAY. Gravel consists of very occasional angular to subangular flint. (LONDON CLAY FORMATION)		
2.00-2.45	4	D						
2.30-3.00	5	B						
3.00-3.45	6	U	10 blows 100% recovery					
3.50-4.00	7	D						
4.00-4.45	3	SPT	N=5				(4.00)	
4.00-4.45	8	D						
4.50-5.00	9	D						
5.00-5.45	10	U	52 blows 0% recovery					
5.10-5.90	11	B						
5.45-5.90	4	SPT(c)	N=17				6.00	
6.00-7.00	12	B				Brown occasionally blue stiff consistency CLAY. (LONDON CLAY FORMATION)		
7.00-7.45	13	U	30 blows 100% recovery					
8.00-8.50	14	D						
8.50-8.95	5	SPT	N=19					
8.50-8.95	15	D						

Boring Progress and Water Observations

Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth
17/08/20		5.20	3.12		4.94

Chiselling / Slow Progress

From	To	Duration (hh:mm)
34.80	35.10	01:20
38.70	39.00	01:15

General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. 50mm diameter standpipe installed to 5.00m depth on completion. Response zone 1.00m to 5.00m depth.

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH2**

Contract Ref:	Start: **17.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **18.08.20**	**50.08**	**E:528254.7 N:193470.6**	**2** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
						Brown occasionally blue stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 6.00m from previous sheet)*	(6.20)	
9.50-10.00	16	D						
10.00-10.45	17	U	51 blows 100% recovery					
11.00-11.50	18	D						
11.50-11.95	6	SPT	N=32					
11.50-11.95	19	D					12.20	
12.20-13.00	20	B				Grey stiff consistency CLAY. (LONDON CLAY FORMATION)		
13.00-13.45	21	U	60 blows 100% recovery					
14.00-14.50	22	D						
14.50-14.95	7	SPT	N=21					
14.50-14.95	23	D						
15.50-16.00	24	D						
16.00-16.45	25	U	62 blows 100% recovery					
17.00-17.50	26	D						
17.50-17.95	8	SPT	N=23					
17.50-17.95	27	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

4. On completion, borehole backfilled with bentonite seal to 1.00m, gravel filter to 5.00m and arisings to 36.85m.

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	Opecprime Development Limited	BH2

Contract Ref:	Start: 17.08.20 End: 18.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321		50.08	E:528254.7 N:193470.6	3 of 5

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
						Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 12.20m from previous sheet)*		
18.50-19.00	28	D						
19.00-19.45	29	U	60 blows 100% recovery					
20.00-20.50	30	D						
20.50-20.95	9	SPT	N=22					
20.50-20.95	31	D					(17.30)	
21.50-22.00	32	D						
22.00-22.45	33	U	68 blows 100% recovery					
23.00-23.50	34	D						
23.50-23.95	10	SPT	N=22					
23.50-23.95	35	D						
24.50-25.00	36	D						
25.00-25.45	37	U	73 blows 100% recovery					
26.00-26.50	38	D						
26.50-26.95	11	SPT	N=34					
26.50-26.95	39	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: 1:50

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	Dando 2000	Andy Norris	AMarcelo	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH2**

Contract Ref:	Start: **17.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **18.08.20**	**50.08**	**E:528254.7 N:193470.6**	**4** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
						Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 12.20m from previous sheet)*		
27.50-28.00	40	D						
28.00-28.45	41	U	85 blows 90% recovery					
29.00-29.50	42	D						
							29.50	
29.50-29.85	12	SPT	6,6/7,18,21 for 50mm			Green and grey sandy stiff consistency CLAY. Sand is fine to medium. (LAMBETH GROUP)		
29.50-29.95	43	D						
30.50-31.00	44	D					(2.50)	
31.00-31.45	45	U	122 blows 30% recovery					
31.45-31.90	46	D						
							32.00	
32.10-33.00	47	B				Blue and red and orange stiff consistency CLAY. . . . Occasional siltstone bands.		
33.00-33.45	48	U	116 blows 85% recovery					
34.00-34.50	49	D						
34.50-34.95	13	SPT	N=38					
34.50-34.95	50	D						
35.50-36.00	51	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH2**

Contract Ref:	Start: **17.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **18.08.20**	**50.08**	**E:528254.7 N:193470.6**	**5** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
36.00-36.45	52	U	138 blows 80% recovery			Blue and red and orange stiff consistency CLAY. *(stratum copied from 32.00m from previous sheet)*	(8.36)	
37.00-37.50	53	D						
37.50-37.95	14	SPT	N=51					
37.50-37.95	54	D						
38.50-39.00	55	B						
39.00-39.45	15	SPT	N=51					
39.00-39.45	56	D						
39.50-40.00	57	D						
40.00-40.36	16	SPT	8,12/19,15,16 for 60mm					
40.00-40.36	58	D					40.36	
						Cable percussion borehole terminated at 40.36m depth.		

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH3**

Contract Ref:	Start: **13.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **14.08.20**	**50.85**	**E:528260.0 N:193425.2**	**1** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES				MADE GROUND: Brown sandy gravelly CLAY. Sand is fine to coarse. Gravel consists of subangular fine to coarse flint and occasional brick and concrete fragments. Contains occasional roots and frequent rootlets.	(0.60)	
0.40	2	ES				(TOPSOIL)	0.60	
0.60-1.00	1	B				MADE GROUND: Grey and brown SAND and GRAVEL. Sand is fine to coarse. Gravel consists of subangular fine to coarse concrete rubble.	1.00	
0.75	3	ES				. . . At 0.60m concrete obstruction.	1.30	
1.15	4	ES				MADE GROUND: Brown sandy slightly gravelly soft to firm consistency CLAY. Sand is fine to medium. Gravel consists of occasional conrete fragments.		
1.20-1.65	1	SPT	N=5					
1.20-1.65	2	D						
1.50-2.00	3	B						
2.00-2.45	4	U	33 blows 100% recovery			Brown silty firm consistency CLAY. (LONDON CLAY FORMATION)		
2.70-3.00	5	D						
3.00-3.45	2	SPT	N=4					
3.00-3.45	6	D						
3.50-4.00	7	D						
4.00-4.45	8	U	17 blows 100% recovery					
4.50-5.00	9	D						
5.00-5.45	3	SPT	N=18					
5.00-5.45	10	D						
6.00-6.50	11	D				. . . Between 6.00m and 8.00m becoming slightly sandy.		
6.50-6.95	12	U	42 blows 100% recovery				(10.50)	
7.50-8.00	13	D						
8.00-8.45	4	SPT	N=20					
8.00-8.45	14	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)
12.20	12.40	00:33
20.20	20.40	00:33

General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. 50mm diameter standpipe installed to 5.00m depth on completion. Response zone 1.00m to 5.00m depth.

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH3**

Contract Ref:	Start: **13.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **14.08.20**	**50.85**	**E:528260.0 N:193425.2**	**2** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
9.00-9.50	15	D				Brown silty firm consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 1.30m from previous sheet)*		
9.50-9.95	16	U	38 blows 100% recovery					
10.50-11.00	17	D						
11.00-11.45	5	SPT	N=22					
11.00-11.45	18	D						
							11.80	
12.00-12.50	19	B				Grey stiff consistency CLAY. (LONDON CLAY FORMATION)		
12.50-12.95	20	U	53 blows 100% recovery					
13.50-14.00	21	D						
14.00-14.45	6	SPT	N=26					
14.00-14.45	22	D						
15.00-15.50	23	D						
15.50-15.95	24	U	55 blows 100% recovery					
16.50-17.00	25	D						
17.00-17.45	7	SPT	N=32					
17.00-17.45	26	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

4. On completion, borehole backfilled with bentonite seal to 1.00m, gravel filter to 5.00m and arisings to 40.00m.

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	Opecprime Development Limited	BH3

Contract Ref:	Start: 13.08.20 End: 14.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321		50.85	E:528260.0 N:193425.2	3 of 5

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
18.00-18.50	27	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 11.80m from previous sheet)*		
18.50-18.95	28	U	70 blows 100% recovery					
19.50-20.00	29	D						
20.00-20.30	8	SPT	5,7/22,28 for 70mm					
20.00-20.45	30	D						
21.00-21.50	31	D						
21.50-21.95	32	U	74 blows 100% recovery				(20.20)	
22.50-23.00	33	D						
23.00-23.45	9	SPT	N=34					
23.00-23.45	34	D						
24.00-24.50	35	D						
24.50-24.95	36	U	77 blows 100% recovery					
25.50-26.00	37	D						
26.00-26.45	10	SPT	N=37					
26.00-26.45	38	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: 1:50

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	Dando 2000	Andy Norris	AMarcelo	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH3**

Contract Ref:	Start: **13.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **14.08.20**	**50.85**	**E:528260.0 N:193425.2**	**4** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
27.00-27.50	39	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 11.80m from previous sheet)*		
27.50-27.95	40	U	81 blows 100% recovery					
28.50-29.00	41	D						
29.00-29.45	11	SPT	N=47					
29.00-29.45	42	D						
30.10-30.40	43	D						
30.50-30.95	44	U	91 blows 75% recovery					
31.50-32.00	45	D					32.00	
32.00-32.45	12	SPT	N=49			Occasionally blue grey and red silty slightly sandy very stiff consistency CLAY. Sand is fine to medium. (LAMBETH GROUP)		
32.00-32.45	46	D						
32.60-33.50	47	B						
33.50-33.95	48	U	108 blows 90% recovery					
34.50-35.00	49	D						
35.00-35.44	13	SPT	7,7/9,12,15,14 for 65mm					
35.00-35.45	50	D					(8.00)	

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH3**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	**13.08.20** End: **14.08.20**	**50.85**	**E:528260.0 N:193425.2**	**5** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
36.00-36.50	51	D				Occasionally blue grey and red silty slightly sandy very stiff consistency CLAY. Sand is fine to medium. (LAMBETH GROUP) *(stratum copied from 32.00m from previous sheet)*		
36.50-36.95	52	U	136 blows 85% recovery					
37.50-38.00	53	D						
38.00-38.34	14	SPT	14,11/16,18,16 for 60mm					
38.00-38.45	54	D						
39.00-40.00	55	B					40.00	
40.00-40.31	15	SPT	16,9/18,18,14 for 50mm			Cable percussion borehole terminated at 40.00m depth.		
40.00-40.32	56	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH4**

Contract Ref:	Start: **02.09.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **04.09.20**	**52.47**	**E:528151.6 N:193362.3**	**1** of **4**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.50	1	B				MADE GROUND: Brown sandy gravelly soft consistency CLAY containing roots and rootlets. Sand is fine to coarse. Gravel consists of subrounded fine to coarse flint and subangular fine to coarse brick. conrete, asphalt and occasional clinker.	(0.60)	
0.25	1	ES					0.60	
0.60-1.20	2	B				MADE GROUND: Brown sandy gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of subrounded fine to coarse flint and subangular fine to coarse brick and concrete.	(1.10)	
0.75	2	ES						
1.20-1.65	1	SPT	N=4					
1.20-1.60	3	B						
1.50	3	ES					1.70	
1.60-2.00	4	B				Brown slightly gravelly firm becoming stiff consistency CLAY. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION - WEATHERED) . . . Gravel content decreasing with depth.		
2.00-2.45	2	SPT	N=8					
2.00-2.45	5	D						
2.50-3.00	6	B						
3.00-3.45	3	SPT	N=11					
3.00-3.45	7	D						
3.50-4.00	8	B						
4.00-4.45	4	SPT	N=18				(4.80)	
4.00-4.45	9	D						
4.50-5.00	10	B						
5.00-5.45	5	SPT	N=20					
5.00-5.45	11	D						
6.00-6.50	12	B						
							6.50	
6.50-6.60	13	U	120% recovery			Brown and grey stiff consistency CLAY. (LONDON CLAY FORMATION)		
6.50-7.00	14	B					(1.50)	
7.50-8.00	15	B						
							8.00	
8.00-8.45	16	U	100% recovery			Grey stiff consistency CLAY. (LONDON CLAY FORMATION) . . . Containing occasional claystone bands.		
8.45-8.60	17	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)
6.50	6.60	00:50
32.10	32.10	02:00

General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. 50mm diameter standpipe installed to 5.00m depth on completion. Response zone 1.00m to

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH4**

Contract Ref:	Start: **02.09.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **04.09.20**	**52.47**	**E:528151.6 N:193362.3**	**2** of **4**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
9.00-9.50	18	B				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 8.00m from previous sheet)*		
9.50-9.95	6	SPT	N=25					
9.50-9.95	19	D						
10.50-11.00	20	B						
11.00-11.45	21	U	100% recovery					
11.45-11.60	22	D						
12.00-12.50	23	B						
12.50-12.95	7	SPT	N=27					
12.50-12.95	24	D						
13.50-14.00	25	B						
14.00-14.45	26	U	100% recovery					
14.45-14.60	27	D						
15.00-15.50	28	B						
15.50-15.95	8	SPT	N=42					
15.50-15.95	29	D						
16.50-17.00	30	B						
17.00-17.45	31	U	100% recovery				(18.30)	
17.45-17.60	32	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

5.00m depth.
5. On completion, borehole backfilled with bentonite seal to 1.00m, gravel filter to 5.00m and arisings to 32.10m.

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH4**

Contract Ref:	Start: **02.09.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **04.09.20**	**52.47**	**E:528151.6 N:193362.3**	**3** of **4**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
18.00-18.50	33	B				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 8.00m from previous sheet)*		
18.50-18.95	9	SPT	N=35					
19.50-20.00	34	B						
20.00-20.45	35	U	100% recovery					
20.45-20.60	36	D						
21.00-21.50	37	B						
21.50-21.95	10	SPT	N=50					
21.50-21.95	38	D						
22.50-23.00	39	B						
23.00-23.45	40	U	100% recovery					
23.45-23.60	41	D						
24.00-24.45	42	B						
24.50-24.94	11	SPT	5,10/12,12,14,12 for 65mm					
24.50-24.95	43	D						
25.50-26.00	44	B						
26.00-26.45	45	U	100% recovery				26.30	
26.45-26.60	46	D				Grey clayey fine to coarse SAND. (LAMBETH GROUP)		

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	Opecprime Development Limited	BH4

Contract Ref:	Start: 02.09.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: 04.09.20	52.47	E:528151.6 N:193362.3	4 of 4

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
27.00-27.50	47	B				Grey clayey fine to coarse SAND. (LAMBETH GROUP) *(stratum copied from 26.30m from previous sheet)*	(5.30)	
27.50-27.95	12	SPT	N=54					
27.50-27.95	48	D						
28.50-29.00	49	B						
29.00-29.45	50	U	100% recovery					
29.45-29.60	51	D						
30.00-30.50	52	B						
30.50-30.93	13	SPT	8,11/12,14,14,10 for 55mm					
30.50-30.95	53	D						
31.50-32.00	54	B					31.60	
						Grey and green slightly gravelly clayey SAND. Sand is fine to coarse. Gravel consists of fine to coarse subrounded flint and chalk. (LAMBETH GROUP)	(0.50)	
32.10	55	C					32.10	
						Cable percussion borehole terminated at 32.10m depth due to refusal on SILTSTONE band.		

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: 1:50

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	Dando 2000	Andy Norris	AMarcelo	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH5**

Contract Ref:	Start: **25.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **27.08.20**	**49.91**	**E:528158.0 N:193467.0**	**1** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.40	1	B				Brown sandy gravelly soft consistency CLAY / TOPSOIL containing frequent roots and rootlets. Sand is fine to medium. Gravel consists of subangular to subrounded flint and occasional subangular to angular brick. (TOPSOIL)	0.40	
0.20	1	ES						
0.40-0.80	2	B						
0.60	2	ES					0.80	
0.80-1.20	1	B				MADE GROUND: Brown clayey SAND and GRAVEL. Sand is fine to coarse. Gravel consists of subangular fine to coarse flint and frequent angular to subangular fine to coarse brick and concrete.		
0.80-1.20	3	B						
1.20-1.65	1	SPT(c)	N=6			Brown slightly sandy slightly gravelly firm consistency CLAY. Sand is fine to medium. Gravel consists of fine to coarse subangular flint. (LONDON CLAY FORMATION - WEATHERED)	(2.00)	
1.50-2.00	4	D						
2.00-2.45	2	SPT(c)	N=4					
2.20-2.80	5	B						
2.80-3.00	6	D					2.80	
3.00-3.45	3	SPT	N=14			Brown occasionally blue slightly gravelly firm becoming stiff consistency CLAY. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION) . . . Gravel content decreasing with depth.		
3.00-3.45	7	D						
3.50-4.00	8	D						
4.00-4.45	9	U	24 blows 100% recovery					
4.50-5.00	10	D						
5.00-5.45	4	SPT	N=16					
5.00-5.45	11	D						
6.00-6.50	12	D						
6.50-6.95	13	U	41 blows 100% recovery				(8.50)	
7.50-8.00	14	D						
8.00-8.45	5	SPT	N=19					
8.00-8.45	15	D						
8.50-9.00	16	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth
26/08/20		30.50	3.15		30.48

Chiselling / Slow Progress		
From	To	Duration (hh:mm)
38.10	38.40	02:00

General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. 50mm diameter standpipe installed to 5.00m depth on completion. Response zone 1.00m to 5.00m depth.

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	Opecprime Development Limited	BH5

Contract Ref:	Start: 25.08.20 End: 27.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321		49.91	E:528158.0 N:193467.0	2 of 5

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
9.00-9.45	17	U	51 blows 100% recovery			Brown occasionally blue slightly gravelly firm becoming stiff consistency CLAY. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION) *(stratum copied from 2.80m from previous sheet)*		
10.50-11.00	18	D						
11.00-11.45	6	SPT	N=25					
11.00-11.45	19	D					11.30	
11.50-12.50	20	B				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) . . . Containing occasional claystone bands.		
12.50-12.95	21	U	61 blows 100% recovery					
13.50-14.00	22	D						
14.00-14.45	7	SPT	N=28					
14.00-14.45	23	D						
15.00-15.50	24	D						
15.50-15.95	25	U	69 blows 100% recovery					
16.50-17.00	26	D						
17.00-17.45	8	SPT	N=32					
17.00-17.45	27	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

4. On completion, borehole backfilled with bentonite seal to 1.00m, gravel filter to 5.00m and arisings to 38.40m.

All dimensions in metres | Scale: 1:50

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	Dando 2000	Andy Norris	AMarcelo	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH5**

Contract Ref:	Start: **25.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **27.08.20**	**49.91**	**E:528158.0 N:193467.0**	**3** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
18.00-18.50	28	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 11.30m from previous sheet)*		
18.50-18.95	29	U	87 blows 100% recovery					
19.50-20.00	30	D						
20.00-20.45	9	SPT	N=28					
20.00-20.45	31	D					(18.90)	
21.00-21.50	32	D						
21.50-21.95	33	U	78 blows 100% recovery					
22.50-23.00	34	D						
23.00-23.45	10	SPT	N=40					
23.00-23.45	35	D						
24.00-24.50	36	D						
24.50-24.95	37	U	86 blows 100% recovery					
25.50-26.00	38	D						
26.00-26.45	11	SPT	N=41					
26.00-26.45	39	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH5**

Contract Ref:	Start: **25.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **27.08.20**	**49.91**	**E:528158.0 N:193467.0**	**4** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
27.00-27.50	40	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 11.30m from previous sheet)*		
27.50-27.95	41	U	105 blows 100% recovery					
28.50-29.00	42	D						
29.00-29.45	12	SPT	N=43					
29.00-29.45	43	D						
							30.20	
30.20-30.50	44	B				Grey to green sandy stiff consistency CLAY. Sand is fine to coarse. (LAMBETH GROUP)		
30.50-30.95	45	U	94 blows 100% recovery					
31.00-32.00	46	B						
32.00-32.45	13	SPT	N=50					
32.00-32.45	47	D						
32.50-33.00	48	D						
33.00-33.40	49	U	140 blows 90% recovery					
34.00-34.50	50	D					(7.90)	
34.50-34.95	14	SPT	N=50					
34.50-34.95	51	D						
35.50-36.00	52	D						

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH5**

Contract Ref:	Start: **25.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **27.08.20**	**49.91**	**E:528158.0 N:193467.0**	**5** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
36.00-36.45	15	SPT	N=50			Grey to green sandy stiff consistency CLAY. Sand is fine to coarse. (LAMBETH GROUP) *(stratum copied from 30.20m from previous sheet)*		
36.00-36.45	53	D						
37.00-37.50	54	D						
37.50-37.79	16	SPT	14,11/21,24,5 for 10mm					
37.50-37.95	55	D						
38.00-38.40	56	D					38.10	
						Recovered as white and grey weathered SILTSTONE. (LAMBETH GROUP)	38.40	
38.40-38.47	17	SPT(c)	25/100 for 20mm			Cable percussion borehole terminated at 38.40m depth.		

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH6**

Contract Ref:	Start: **21.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **25.08.20**	**51.43**	**E:528131.0 N:193518.8**	**1** of **4**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.40	1	B				Brown TOPSOIL.	0.20	
0.10	1	ES				MADE GROUND: Brown sandy gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of subangular fine to coarse flint and occasional brick.	(0.80)	
0.40-0.80	2	B						
0.50	2	ES						
0.80-1.20	3	B					1.00	
1.20-1.65	1	SPT(c)	N=13			Brown slightly gravelly firm becoming stiff consistency CLAY. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION)		
1.50-2.00	4	D				. . . Gravel content decreasing with depth.		
2.00-2.45	2	SPT	N=15					
2.00-2.45	5	D						
2.50-3.00	6	D						
3.00-3.45	7	U	67 blows 100% recovery					
3.50-4.00	8	D						
4.00-4.45	3	SPT	N=35					
4.00-4.45	9	D						
4.50-5.00	10	D						
5.00-5.45	11	U	55 blows 100% recovery				(9.20)	
6.00-6.50	12	D						
6.50-6.95	4	SPT	N=31					
6.50-6.95	13	D						
7.50-8.00	14	D						
8.00-8.45	15	U	71 blows 100% recovery					
8.50-9.00	16	D						

Boring Progress and Water Observations

Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress

From	To	Duration (hh:mm)
30.80	31.10	01:50
31.20	31.20	01:00

General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. 50mm diameter standpipe installed to 5.00m depth on completion. Response zone 1.00m to

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH6**

Contract Ref:	Start: **21.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **25.08.20**	**51.43**	**E:528131.0 N:193518.8**	**2** of **4**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
9.00-9.45	17	D				Brown slightly gravelly firm becoming stiff consistency CLAY. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION) *(stratum copied from 1.00m from previous sheet)*		
9.50-9.95	5	SPT	N=30					
							10.20	
10.20-11.00	18	B				Grey stiff consistency CLAY. (LONDON CLAY FORMATION)		
11.00-11.45	19	U	65 blows 100% recovery					
12.00-12.50	20	D						
12.50-12.95	6	SPT	N=18					
12.50-12.95	21	D						
13.50-14.00	22	D						
14.00-14.45	23	U	72 blows 100% recovery					
15.00-15.50	24	D						
15.50-15.95	7	SPT	N=24					
15.50-15.95	25	D						
16.50-17.00	26	D						
17.00-17.45	27	U	89 blows 100% recovery					

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

5.00m depth.
5. On completion, borehole backfilled with bentonite seal to 1.00m, gravel filter to 5.00m and arisings to 31.24m.

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	Opecprime Development Limited	BH6

Contract Ref:	Start: 21.08.20 End: 25.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321		51.43	E:528131.0 N:193518.8	3 of 4

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
18.00-18.50	28	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 10.20m from previous sheet)*		
18.50-18.95	8	SPT	N=26					
18.50-18.95	29	D						
19.50-20.00	30	D						
20.00-20.45	31	U	90 blows 100% recovery				(19.80)	
21.00-21.50	32	D						
21.50-21.95	9	SPT	N=32					
21.50-21.95	33	D						
22.50-23.00	34	D						
23.00-23.45	35	U	80 blows 100% recovery					
24.00-24.50	36	D						
24.50-24.95	10	SPT	N=33					
24.50-24.95	39	D						
25.50-26.00	40	D						
26.00-26.45	41	U	74 blows 100% recovery					

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: 1:50

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	Dando 2000	Andy Norris	AMarcelo	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH6**

Contract Ref:	Start: **21.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **25.08.20**	**51.43**	**E:528131.0 N:193518.8**	**4** of **4**

Samples and In-situ Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
27.00-27.50	42	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 10.20m from previous sheet)*		
27.50-27.95	11	SPT	N=37					
27.50-27.95	43	D						
28.50-29.00	44	D						
29.00-29.45	45	U	89 blows					
							30.00	
30.00-30.50	46	B	100% recovery			Grey and green sandy stiff consistency CLAY. Sand is fine to coarse. (LAMBETH GROUP)	(0.70)	
30.50-30.89	12	SPT	6,8/8,19,16,7 for 10mm				30.70	
30.50-30.88	47	D				Recovered as white and grey weathered SILTSTONE. (LAMBETH GROUP)	(0.54)	
30.80-31.10	48	B						
31.10-31.15	13	SPT	25/50 for 20mm				31.24	
31.10-31.14	49	D				Cable percussion borehole terminated at 31.24m depth.		
31.20-31.24	14	SPT(c)	25/100 for 20mm					

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH7**

Contract Ref:	Start: **02.09.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **04.09.20**	**57.43**	**E:528024.6 N:193533.4**	**1** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
						MADE GROUND: ASPHALT.	0.10	
						MADE GROUND: CONCRETE.	0.30	
0.30-1.20	1	B				MADE GROUND - FILL: Grey sandy GRAVEL. Sand is fine to coarse. Gravel consists of subangular fine to coarse concrete and brick.	(1.00)	
1.20-1.65	1	SPT(c)	N=11				1.30	
1.30-2.00	2	B				MADE GROUND: Brown and grey very sandy very gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of subangular fine to coarse brick and concrete with occasional subrounded fine to coarse flint.	(1.00)	
1.50	1	ES						
2.00-2.45	2	SPT(c)	N=7				2.30	
2.00	2	ES						
2.40-3.00	3	B				Brown slightly gravelly firm becoming stiff consistency CLAY. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION) . . . Gravel content decreasing with depth.		
3.00-3.45	4	U	31 blows 100% recovery					
3.50-4.00	5	D						
4.00-4.45	3	SPT	N=22					
4.00-4.45	6	D						
4.50-5.00	7	D						
5.00-5.45	8	U	52 blows 100% recovery					
6.00-6.50	9	D						
6.50-6.95	4	SPT	N=25					
6.50-6.95	10	D						
7.50-8.00	11	D					(10.90)	
8.00-8.45	12	U	49 blows 100% recovery					

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth
23/09/20		24.60	3.15		

Chiselling / Slow Progress		
From	To	Duration (hh:mm)
23.90	24.30	01:20
27.80	28.10	01:10

General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. 50mm diameter standpipe installed to 5.00m depth on completion. Response zone 1.00m to

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	Opecprime Development Limited	BH7

Contract Ref:	Start: 02.09.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: 04.09.20	57.43	E:528024.6 N:193533.4	2 of 5

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
9.00-9.50	13	D				Brown slightly gravelly firm becoming stiff consistency CLAY. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION) *(stratum copied from 2.30m from previous sheet)*		
9.50-9.95	5	SPT	N=22					
9.50-9.95	14	D						
10.50-11.00	15	D						
11.00-11.45	16	U	69 blows 100% recovery					
12.00-12.50	17	D						
12.50-12.95	6	SPT	N=27					
12.50-12.95	18	D					13.20	
13.20-14.00	19	B				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) . . . Containing occasional claystone bands.		
14.00-14.45	20	U	78 blows 100% recovery					
15.00-15.50	21	D						
15.50-15.95	7	SPT	N=29					
15.50-15.95	22	D						
16.50-17.00	23	D						
17.00-17.45	24	U	80 blows 100% recovery					

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

5.00m depth.
5. On completion, borehole backfilled with bentonite seal to 1.00m, gravel filter to 5.00m and arisings to 40.40m.

All dimensions in metres | Scale: 1:50

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	Dando 2000	Andy Norris	AMarcelo	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	Opecprime Development Limited	BH7

Contract Ref:	Start: 02.09.20 End: 04.09.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321		57.43	E:528024.6 N:193533.4	3 of 5

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
18.00-18.50	25	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 13.20m from previous sheet)*		
18.50-18.95	8	SPT	N=31					
18.50-18.95	26	D						
19.50-20.00	27	D						
20.00-20.45	28	U	83 blows 100% recovery					
21.00-21.50	29	D						
21.50-21.95	9	SPT	N=38					
21.50-21.95	30	D						
22.50-23.00	31	D						
23.00-23.45	32	U	88 blows 100% recovery					
24.00-24.50	33	D						
24.50-24.95	10	SPT	N=40					
24.50-24.95	34	D						
25.50-26.00	35	D						
26.00-26.45	36	U	88 blows 100% recovery				(27.20)	

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: 1:50

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	Dando 2000	Andy Norris	AMarcelo	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH7**

Contract Ref:	Start: **02.09.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **04.09.20**	**57.43**	**E:528024.6 N:193533.4**	**4** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
27.00-27.50	37	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 13.20m from previous sheet)*		
27.50-27.72	11	SPT	18,7/29,21 for 50mm					
27.50-27.95	38	D						
28.50-29.00	39	D						
29.00-29.45	40	U	100 blows 90% recovery					
30.00-30.50	41	D						
30.50-30.95	12	SPT	N=42					
30.50-30.95	42	D						
31.50-32.00	43	D						
32.00-32.45	44	U	96 blows 100% recovery					
33.00-33.50	45	D						
33.50-33.95	13	SPT	N=46					
33.50-33.95	46	D						
34.50-35.00	47	D						
35.00-35.45	48	U	123 blows 90% recovery					

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH7**

Contract Ref:	Start: **02.09.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **04.09.20**	**57.43**	**E:528024.6 N:193533.4**	**5** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
36.00-36.50	49	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 13.20m from previous sheet)*		
36.50-36.93	14	SPT	5,8/12,14,15,9 for 55mm					
36.50-36.95	50	D						
37.50-38.00	51	D						
38.00-38.45	52	U	141 blows 90% recovery					
39.50-40.00	53	D						
40.00-40.40	15	SPT	6,10/14,15,15,6 for 20mm				40.40	
40.00-40.40	54	D						
						Cable percussion borehole terminated at 40.40m depth.		

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH8**

Contract Ref:	Start: **27.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **01.09.20**	**60.80**	**E:528047.6 N:193625.2**	**1** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
						MADE GROUND: ASPHALT.	0.07	
0.25	1	ES				MADE GROUND - SUB BASE: Grey to brown SAND and GRAVEL. Sand is fine to coarse. Gravel consists of subangular fine to coarse conrete and brick and occasional asphalt fragments.	0.40	
0.30-0.90	1	B					(0.50)	
0.65	2	ES				MADE GROUND - BRICK RUBBLE: Brown to red SAND and GRAVEL. Sand is fine to coarse. Gravel consists of frequent subangular fine to cobble brick and subangular fine to coarse concrete.	0.90	
0.90-1.20	2	D					1.20	
1.10	3	ES				MADE GROUND: Brown sandy gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of subangular fine to coarse flint and occasional brick fragments.		
1.20-1.65	1	SPT(c)	N=23					
1.70-2.00	3	D				Brown slightly gravelly firm becoming stiff consistency CLAY. Gravel consists of fine to coarse subrounded filnt. (LONDON CLAY FORMATION)		
2.00-2.45	2	SPT(c)	N=24			. . . Gravel content decreasing with depth.		
2.00-2.45	4	D						
2.00-3.00	5	B						
3.00-3.45	6	U	32 blows 100% recovery					
3.50-4.00	7	D						
4.00-4.45	3	SPT	N=21					
4.00-4.45	8	D						
4.50-5.00	9	D						
5.00-5.45	10	U	42 blows 100% recovery					
6.00-6.50	11	D						
6.50-6.95	4	SPT	N=24				(11.00)	
6.50-6.95	12	D						
7.50-8.00	13	D						
8.00-8.45	14	U	63 blows 100% recovery					

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)
13.60	13.80	00:50
16.20	16.50	01:10
16.70	17.00	01:15
24.80	25.00	00:50

General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. 50mm diameter standpipe installed to 5.00m depth on completion. Response zone 1.00m to

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH8**

Contract Ref:	Start: **27.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **01.09.20**	**60.80**	**E:528047.6 N:193625.2**	**2** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
9.00-9.50	15	D				Brown slightly gravelly firm becoming stiff consistency CLAY. Gravel consists of fine to coarse subrounded filnt. (LONDON CLAY FORMATION) *(stratum copied from 1.20m from previous sheet)*		
9.50-9.95	5	SPT	N=24					
9.50-9.95	16	D						
10.50-11.00	17	D						
11.00-11.45	18	U	85 blows 100% recovery					
							12.20	
12.20-12.50	19	B				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) . . . Contains occasional claystone bands.		
12.50-12.95	6	SPT	N=17					
12.50-12.95	20	D						
13.50-14.00	21	D						
14.00-14.45	22	U	72 blows 100% recovery					
15.00-15.50	23	D						
15.50-15.95	7	SPT	N=22					
15.50-15.95	24	D						
16.50-17.00	25	D						
17.10-17.55	26	U	106 blows 100% recovery					

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

5.00m depth.
5. On completion, borehole backfilled with bentonite seal to 1.00m, gravel filter to 5.00m and arisings to 40.44m.

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	Opecprime Development Limited	BH8

Contract Ref:	Start: 27.08.20 End: 01.09.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321		60.80	E:528047.6 N:193625.2	3 of 5

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
18.00-18.50	27	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 12.20m from previous sheet)*		
18.50-18.95	8	SPT	N=32					
18.50-18.95	28	D						
19.50-20.00	29	D						
20.00-20.45	30	U	90 blows 100% recovery					
21.00-21.50	31	D						
21.50-21.95	9	SPT	N=33					
21.50-21.95	32	D						
22.50-23.00	33	D						
23.00-23.45	34	U	75 blows 100% recovery					
24.00-24.50	35	D						
24.50-24.95	10	SPT	5,7/17,14,10,9 for 70mm					
24.50-24.95	36	D						
25.50-26.00	37	D						
26.00-26.45	38	U	86 blows 100% recovery				(28.24)	

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: 1:50

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	Dando 2000	Andy Norris	AMarcelo	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH8**

Contract Ref:	Start: **27.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **01.09.20**	**60.80**	**E:528047.6 N:193625.2**	**4** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
27.00-27.50	39	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 12.20m from previous sheet)*		
27.50-27.95	11	SPT	N=38					
27.50-27.95	40	D						
28.50-29.00	41	D						
29.00-29.45	42	U	107 blows 100% recovery					
30.00-30.50	43	D						
30.50-30.95	12	SPT	N=42					
30.50-30.95	44	D						
31.50-32.00	45	D						
32.00-32.45	46	U	111 blows 100% recovery					
33.00-33.50	47	D						
33.50-33.95	13	SPT	N=44					
33.50-33.95	48	D						
34.50-35.00	49	D						
35.00-35.45	50	U	98 blows 100% recovery					

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

BOREHOLE LOG

Contract:	Client:	Borehole:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**BH8**

Contract Ref:	Start: **27.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **01.09.20**	**60.80**	**E:528047.6 N:193625.2**	**5** of **5**

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Depth	No	Type	Results					
36.00-36.50	51	D				Grey stiff consistency CLAY. (LONDON CLAY FORMATION) *(stratum copied from 12.20m from previous sheet)*		
36.50-36.95	14	SPT	N=47					
36.50-36.95	52	D						
37.50-38.00	53	D						
38.00-38.45	54	U	104 blows 100% recovery					
39.00-40.00	55	B						
40.00-40.45	15	SPT	8,8/10,11,14,15 for 70mm					
40.00-40.44	56	D					40.44	
						Cable percussion borehole terminated at 40.44m depth.		

Boring Progress and Water Observations					
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth

Chiselling / Slow Progress		
From	To	Duration (hh:mm)

General Remarks

All dimensions in metres | Scale: **1:50**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Cable percussion	**Dando 2000**	**Andy Norris**	**AMarcelo**	

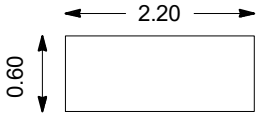
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	Opecprime Development Limited	TP1

Contract Ref:	Start: 24.08.20 End: 24.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321		49.50	E:528264.6 N:193526.6	1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				Brown soft gravelly sandy soft consistency CLAY containing roots and rootlets. Sand is fine to medium. Gravel consists of subangular fine to coarse flint. (TOPSOIL)	0.25	
0.50	2	ES				MADE GROUND: Brown sandy slightly gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of fine to coarse subrounded brick, flint, concrete and glass.	(0.45) 0.70	
1.00	1	B				Brown slightly sandy slightly gravelly stiff consistency CLAY. Sand is fine to medium. Gravel consists of fine to coarse rounded flint. (LONDON CLAY FORMATION)		
1.75	3	ES				. . . Between 1.50m and 2.50m high organic matter content noted. . . . Between 1.50m and 2.50m organic odour noted.	(2.30)	
2.20	2	B					3.00	
						Trial pit terminated at 3.00m depth.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: 1:25

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	JCB-3CX	AMarcelo	

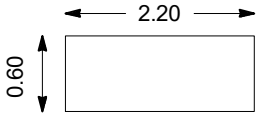
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	Opecprime Development Limited	TP2

Contract Ref:	Start: 24.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: 24.08.20	49.40	E:528278.5 N:193459.3	1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				Brown soft gravelly sandy soft consistency CLAY containing roots and rootlets. Sand is fine to medium. Gravel consists of subangular fine to coarse flint. (TOPSOIL)	0.25	
0.70	2	ES				MADE GROUND: Brown sandy gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of fine to coarse subangular flint, brick and concrete. Contains occasional roots and rootlets. Clinker and metal.	(0.85)	
2.00	1	B				Brown slightly gravelly stiff consistency CLAY. Gravel consists of occasional fine to coarse rounded flint. (LONDON CLAY FORMATION)	1.10 (1.90)	
						Trial pit terminated at 3.00m depth.	3.00	

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
3. No groundwater encountered.
5. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: 1:25

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	JCB-3CX	AMarcelo	

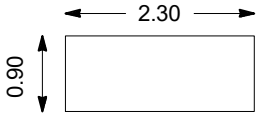
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**TP3**

Contract Ref:	Start: **24.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **24.08.20**	**50.09**	**E:528282.7 N:193405.1**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY containing frequent roots and rootlets. Sand is fine to coarse. Gravel consists of fine to coarse subangular to subrounded flint with occasional brick and concrete. (TOPSOIL)	0.25	
0.50	2	ES				MADE GROUND: Brown sandy very gravelly firm consistency CLAY. Sand is fine to medium. Gravel consists of subangular to subrounded flint and frequent brick and concrete fragments, occasional clinker and metal.	(0.80)	
0.75	3	ES					1.05	
						Trial pit terminated at 1.05m depth.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	**JCB-3CX**	**AMarcelo**	

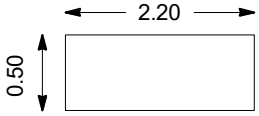
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**TP4**

Contract Ref:	Start: **24.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **24.08.20**	**52.62**	**E:528259.9 N:193386.9**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				Brown sandy gravelly soft consistency CLAY containing frequent roots and rootlets. Sand is fine to coarse. Gravel consists of subrounded fine to coarse flint. (TOPSOIL)	0.20	
0.35	2	ES				MADE GROUND: Brown gravelly firm consistency CLAY. Gravel consists of fine to coarse subrounded flint, brick and concrete.	(0.35) 0.55	
0.80	3	ES				MADE GROUND: Black to dark brown slightly sandy gravelly firm consistency CLAY. Sand is fine to medium. Gravel consists of fine to coarse brick and occaisonal asphalt fragments. . . . At 0.80m asphalt odour noted.	(0.65) 1.20	
						Brown firm consistency CLAY. (LONDON CLAY FORMATION)	1.35	
						Trial pit terminated at 1.35m depth.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
3. No groundwater encountered.
5. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	**JCB-3CX**	**AMarcelo**	

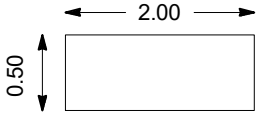
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	Opecprime Development Limited	TP5

Contract Ref:	Start: 24.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: 24.08.20	50.23	E:528212.2 N:193425.0	1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.15	1	ES				Brown soft gravelly sandy soft consistency CLAY containing roots and rootlets. Sand is fine to medium. Gravel consists of subangular fine to coarse flint. (TOPSOIL)	(0.30) 0.30	
0.60	2	ES				MADE GROUND: Brown sandy gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of fine to coarse subangular flint and frequent brick, conrete, metal, glass and occasional plastic.	(1.20) 1.50	
1.75	3	ES				MADE GROUND: Brown sandy gravelly stiff consistency CLAY. Sand is fine to medium. Gravel consists of fine to coarse subangular brick.	(0.50) 2.00	
2.50	1	B				Brown and grey sandy stiff consistency CLAY. Sand is fine to medium. Slightly gravelly fine to coarse rounded flint. (LONDON CLAY FORMATION)	(1.00) 3.00	
						Trial pit terminated at 3.00m depth.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: 1:25

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	JCB-3CX	AMarcelo	

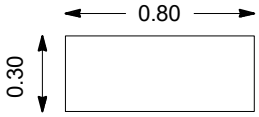
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	Opecprime Development Limited	TP6

Contract Ref:	Start: 26.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: 26.08.20	52.52	E:528167.3 N:193364.1	1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				Brown soft gravelly sandy soft consistency CLAY containing roots and rootlets. Sand is fine to medium. Gravel consists of subangular fine to coarse flint. (TOPSOIL)	0.15	
0.40	2	ES				MADE GROUND: Brown sandy gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of subangular to subrounded fine to coarse flint, and frequent fine to cobble subangular brick and concrete. Contains old wire and metals. Occasional roots and rootlets.	(0.45) 0.60	
1.00	1	B				Brown very sandy slightly gravelly firm becoming stiff consistency CLAY. Sand is fine to coarse. Gravel consists of occasional subrounded fine to coarse flint.	(0.90) 1.50	
						Trial pit terminated at 1.50m depth.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: 1:25

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	Mini tracked excavator	AMarcelo	

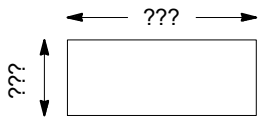
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**TP7**

Contract Ref:	Start: **26.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **26.08.20**	**50.02**	**E:528159.6 N:193429.1**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY containing frequent roots and rootlets. Sand is fine to coarse. Gravel consists of subangular to angular brick and concrete. (TOPSOIL)	0.20	
0.50	2	ES				MADE GROUND: Brown slightly clayey SAND and GRAVEL. Sand is fine to coarse. Gravel consists of frequent subangular fine to coarse brick and concrete with occasional asphalt.	(0.50) 0.70	
1.00	1	B				Brown sandy slightly gravelly firm becoming stiff consistency CLAY. Sand is fine to coarse. Gravel consists of subrounded fine to coarse flint. (LONDON CLAY FORMATION)	(0.70) 1.40	
						Trial pit terminated at 1.40m depth.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	**Mini tracked excavator**	**AMarcelo**	

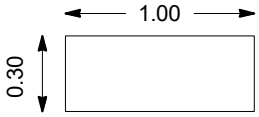
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**TP8**

Contract Ref:	Start: **26.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **26.08.20**	**49.91**	**E:528159.3 N:193452.0**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.15	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY. Sand is fine to coarse. Gravel consists of subrounded to rounded fine to coarse flint and occasional subangular fine to coarse brick. (TOPSOIL)	0.25	
0.50	2	ES				MADE GROUND: Brown and grey clayey SAND and GRAVEL. Sand is fine to coarse. Gravel consists of frequent subangular to angular fine to coarse brick and concrete with occasional asphalt.	(0.45)	
							0.70	
1.00	1	B				Brown slightly sandy frm becoming stiff consistency CLAY. Sand is fine to medium. (LONDON CLAY FORMATION)	(0.80)	
							1.50	
						Trial pit terminated at 1.50m depth.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	**Mini tracked excavator**	**AMarcelo**	

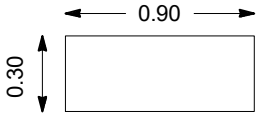
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**TP9**

Contract Ref:	Start: **26.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **26.08.20**	**53.29**	**E:528080.0 N:193442.7**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY containing frequent roots and rootlets. Sand is fine to coarse. Gravek consists of subangular to subrounded flint and occasional angular brick fragments. (TOPSOIL)	0.20	
0.30	2	ES				MADE GROUND - SUBSOIL: Brown sandy gravelly soft to firm consistency CLAY. Sand is fine to coarse. Gravel consists of subrounded to subangular fine to coarse flint and frequent angular to subangular brick and concrete and occasional asphalt.	0.45	
1.00	1	B				Brown occasional mottled orange sandy firm to stiff consistency CLAY containing occasional roots and rootlets. Sand is fine to coarse. Gravel consists of very occasional subrounded flint. (LONDON CLAY FORMATION)	(0.85)	
						Trial pit terminated at 1.30m depth.	1.30	

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	**Mini tracked excavator**	**AMarcelo**	

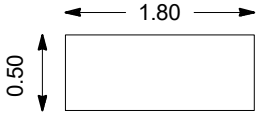
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**TP10**

Contract Ref:	Start: **25.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **25.08.20**	**54.22**	**E:528073.9 N:193496.3**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY / TOPSOIL containin frequent roots and rootlets. Sand is fine to coarse. Gravel consists of subrounded to subangular fine to coarse flint, and subangular fine to coarse brick and concrete. (TOPSOIL)	0.20	
0.75	2	ES				MADE GROUND: Brown sandy very gravelly firm becoming stiff consistency CLAY. Sand is fine to coarse. Gravel consists of subrounded to subangulaar flint and fine to cobble frequent brick and concrete, and metal, timber, asphalt and clinker. . . . Gravel content decreasing with depth.	(1.80)	
1.50	3	ES				. . . Between 1.00m and 2.00m black particles noted.	2.00	
						Trial pit terminated at 2.00m depth due to concrete obstruction.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	**JCB-3CX**	**AMarcelo**	

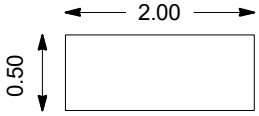
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	Opecprime Development Limited	TP11

Contract Ref:	Start: 24.08.20 End: 24.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321		49.62	E:528185.9 N:193521.8	1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.15	1	ES				Brown soft gravelly sandy soft consistency CLAY containing roots and rootlets. Sand is fine to medium. Gravel consists of subangular fine to coarse flint. (TOPSOIL)	0.25	
0.50	2	ES				MADE GROUND: Brown sandy gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of subangular to subrounded fine to coarse flint, brick, concrete, metal, plastic. . . . Plastic pipe trending N - S exposed on northen face at 0.50m. . . . Brick uncovered with 'DANGER ELECTRIC' engraving. . . . CAT scab showing electrical interfearence at base of pit. . . . Pit terminated due to CAT interfearence and proximity to pipe / BT service.	(0.65)	
						Trial pit terminated at 0.90m depth due to potential service, and subsequent CAT interfearence.	0.90	

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: 1:25

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	JCB-3CX	AMarcelo	

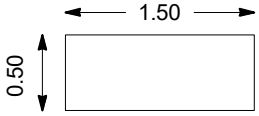
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**TP12**

Contract Ref:	Start: **25.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **25.08.20**	**54.36**	**E:528082.0 N:193513.2**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY / TOPSOIL. Sand is fine to coarse. Gravel consists of subrounded fine to coarse flint and subangular fine to coarse brick and occasional concrete fragments. Contains frequent roots and rootlets. (TOPSOIL)	0.15	
0.50	2	ES				MADE GROUND: Brown sandy very gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of subrounded fine to coarse flint and subangular fine to coblle brick and conrete. Contains metal, clinker, glass and occasional asphalt fragments.	(1.35)	
1.00	3	ES					1.50	
						Trial pit terminated at 1.50m depth due to steel obstruction (potential drains service).		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	**JCB-3CX**	**AMarcelo**	

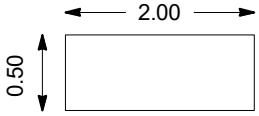
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**TP13**

Contract Ref:	Start: **24.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **24.08.20**	**50.56**	**E:528177.9 N:193556.1**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				Brown soft gravelly sandy soft consistency CLAY containing roots and rootlets. Sand is fine to medium. Gravel consists of subangular fine to coarse flint. (TOPSOIL)	0.20	
0.40	2	ES				Brown slightly gravelly firm to stiff consistency CLAY containing roots and rootlets. Gravel consists of subrounded flint. (LONDON CLAY FORMATION)	(0.45)	
0.50	1	B					0.65	
1.00	2	B				Brown stiff consistency CLAY. (LONDON CLAY FORMATION)	(1.85)	
2.00	3	B				. . . From 2.00m becoming brown and grey.	2.50	
						Trial pit terminated at 2.50m depth.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	**JCB-3CX**	**AMarcelo**	

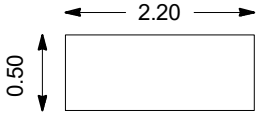
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	Opecprime Development Limited	TP14

Contract Ref:	Start: 24.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: 24.08.20	54.17	E:528107.3 N:193544.7	1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				Brown soft gravelly sandy soft consistency CLAY containing roots and rootlets. Sand is fine to medium. Gravel consists of subangular fine to coarse flint. (TOPSOIL)	0.20	
0.50	2	ES				MADE GROUND: Brown slightly sandy gravely firm consistency CLAY. Sand is fine to coarse. Gravel consists of subrounded fine to coarse flint and subangular fine to coarse brick and concrete, clinker. Contains roots and rootles.	(0.70)	
							0.90	
1.50	1	B				Brown stiff consistency CLAY. (LONDON CLAY FORMATION) . . . Contains occasional pockets of orange fine to medium sand.	(2.10)	
2.50	2	B						
							3.00	
						Trial pit terminated at 3.00m depth.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: 1:25

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	JCB-3CX	AMarcelo	

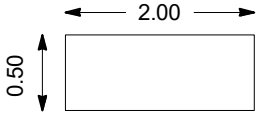
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	**Opecprime Development Limited**	**TP15**

Contract Ref:	Start: **25.08.20**	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: **25.08.20**	**59.23**	**E:528042.5 N:193544.4**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.15	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY containing frequent rootlets. Sand is fine to coarse. Gravel consists of subrounded fine to coarse flint and subangular fine to coarse brick and occasional concrete. (TOPSOIL)	0.25	
0.80	2	ES				MADE GROUND: Brown slightly sandy gravelly firm becoming stiff consistency CLAY. Sand is fine to coarse. Gravel consists of subrounded fine to coarse flint and frequent fine to cobble brick and concrete, and occasional metal, asphalt and glass fragments. . . . Gravel content decreasing with depth.	(1.75)	
						Trial pit terminated at 2.00m depth due to level concrete obstruction.	2.00	

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	**JCB-3CX**	**AMarcelo**	

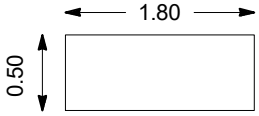
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	Opecprime Development Limited	TP16

Contract Ref:	Start: 25.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: 25.08.20	59.19	E:528064.8 N:193548.2	1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY. Sand is fine to coarse. Gravel consists of subangular fine to coarse brick and subrounded fine to coarse flint. Contains frequent roots and rootlets. (TOPSOIL)	0.25	
0.50	2	ES				Brown sandy very gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of subangular fine to coarse brick, concrete and subrounded flint. Contains timber, metal and clinker and asphalt. . . . Gravel content decreasing with depth.		
1.00	3	ES				. . . At 1.00m asphalt odour noted.	(2.25)	
2.00	4	ES						
						Trial pit terminated at 2.50m depth due to machine constraints on steep surface.	2.50	

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: 1:25

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	JCB-3CX	AMarcelo	

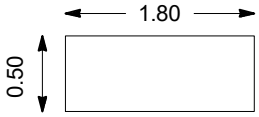
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	Opecprime Development Limited	TP17

Contract Ref:	Start: 25.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: 25.08.20	59.60	E:528024.1 N:193574.2	1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY / TOPSOIL containing frequent roots and rootlets. Sand is fine to coarse. Gravel consists of subrounded to subangular flint and subangular occasional brick and concrete fragments. (TOPSOIL)	0.20	
0.50	2	ES				MADE GROUND: Brown very sandy very gravelly firm to stiff consistency CLAY. Sand is fine to coarse. Gravel consists of subangular to subrounded fine to coarse flint and fine to cobble subangular frequent brick and concrete. Contains metal, glass, plastic.	(1.80)	
1.50	3	ES					2.00	
						Trial pit terminated at 2.00m depth due to concrete obstruction.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No visual or olfactory evidence of contamination noted.
3. No groundwater encountered.
4. On completion, borehole backfilled with arisings.

All dimensions in metres | Scale: 1:25

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	JCB-3CX	AMarcelo	

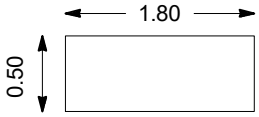
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
North London Busiess Park - Phase 1	Opecprime Development Limited	TP18

Contract Ref:	Start: 25.08.20	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
1921321	End: 25.08.20	60.63	E:528056.0 N:193581.6	1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				MADE GROUND: Brown sandy gravelly soft consistency CLAY. Sand is fine to coarse. Gravel consists of fine to coarse subrounded flint and subangular fine to coarse brick and occasional concrete fragments. (TOPSOIL)	0.25	
0.75	2	ES				MADE GROUND: Brown sandy very gravelly firm consistency CLAY. Sand is fine to coarse. Gravel consists of fine to coarse subrounded flint and subangular fine to cobble brick metal fragments, timber, asphalt and clinker. . . . Gravel content increasing with depth.	(2.25)	
1.50	3	ES						
2.00	4	ES						
						Trial pit terminated at 2.50m depth.	2.50	

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. On completion, borehole backfilled with arisings.

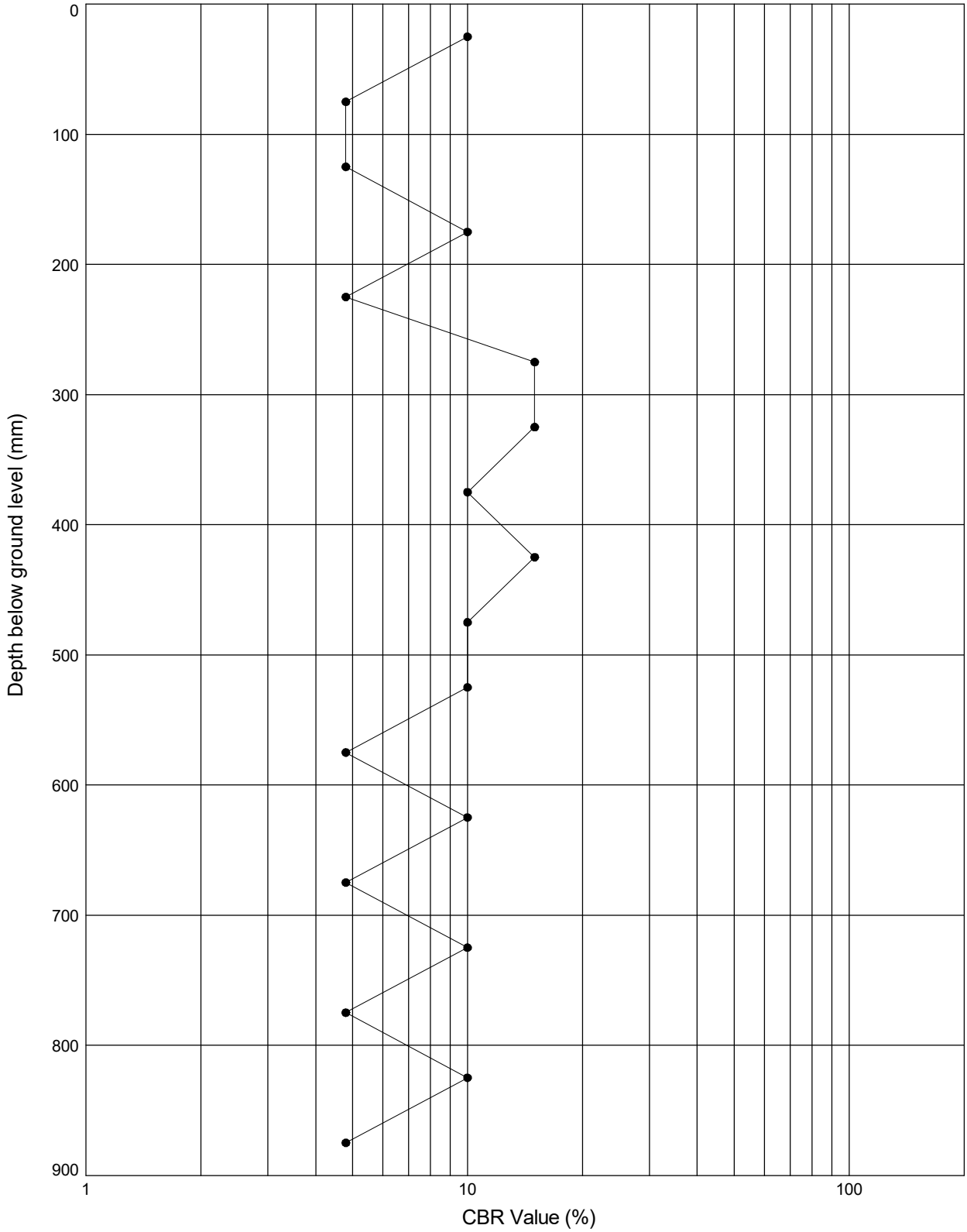
All dimensions in metres | Scale: 1:25

Method Used:	Plant Used:	Logged By:	Checked By:
Inspection pit + Machine dug	JCB-3CX	AMarcelo	

DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **BH1** Test Date : **09.10.20** Test Number : **1**

Ground Level (m AOD): **48.83** National Grid Co-ordinates: **E:528231.8 N:193528.1**



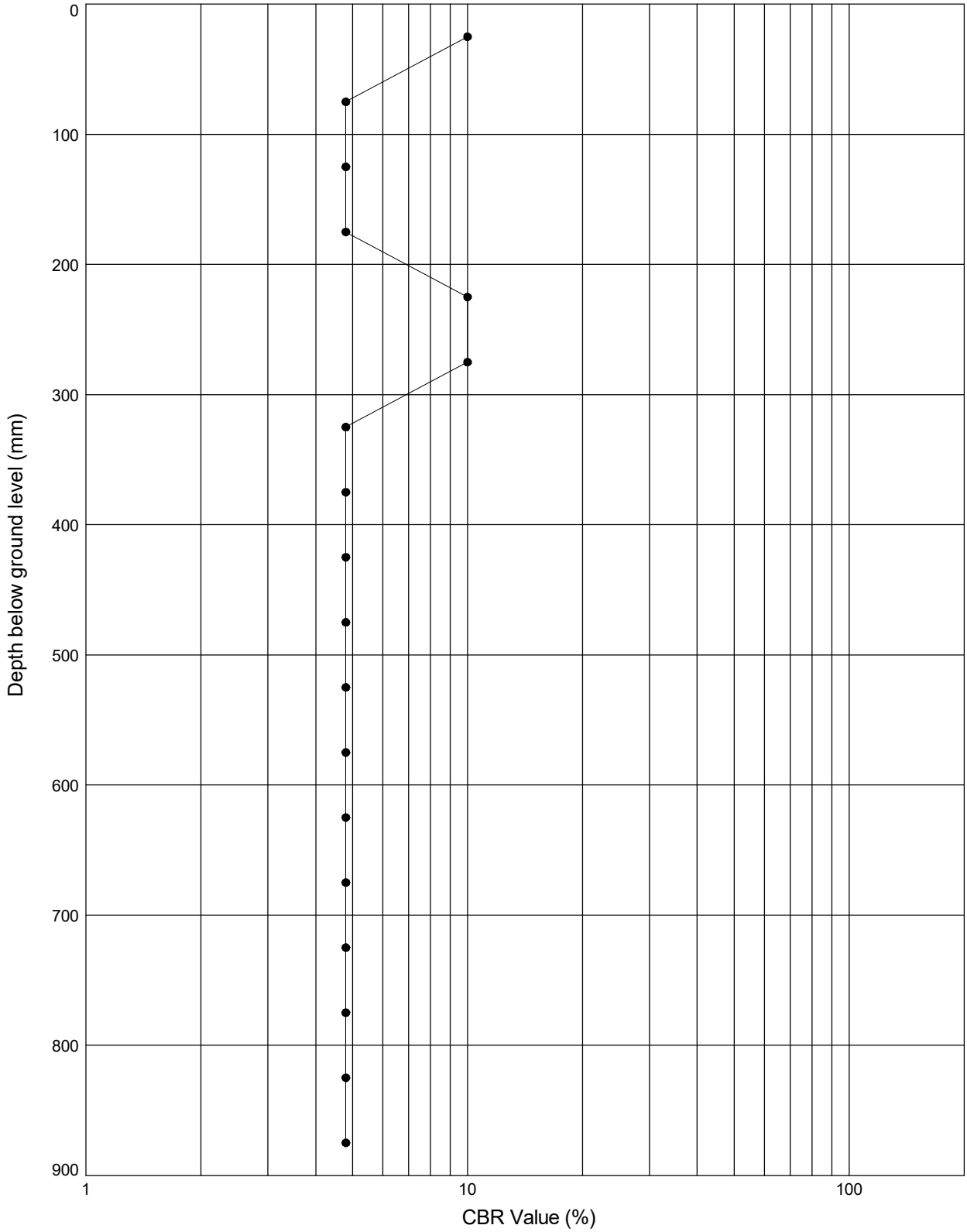
Notes: **CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.**

	Compiled By	Date	Checked By	Date
RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT		**08/01/21**		
	Contract **North London Busiess Park - Phase 1**		Contract Ref: **1921321**	

DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **BH5** Test Date : **09.10.20** Test Number : **1**

Ground Level (m AOD): **49.91** National Grid Co-ordinates: **E:528158.0 N:193467.0**



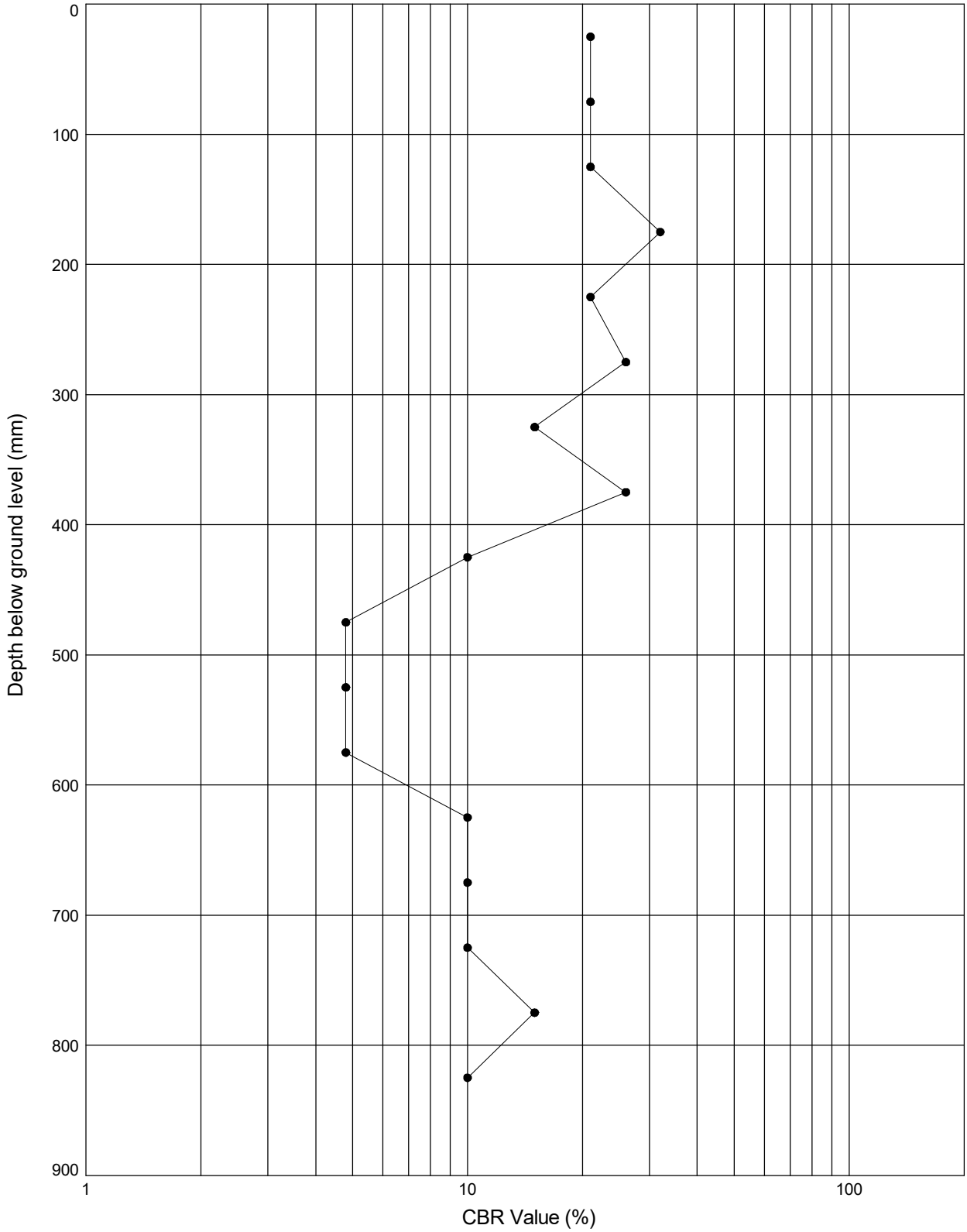
Notes: **CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.**

	Compiled By	Date	Checked By	Date
RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT		**08/01/21**		
	Contract **North London Busiess Park - Phase 1**		Contract Ref: **1921321**	

DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **TP2** Test Date : **09.10.20** Test Number : **1**

Ground Level (m AOD): **49.40** National Grid Co-ordinates: **E:528278.5 N:193459.3**



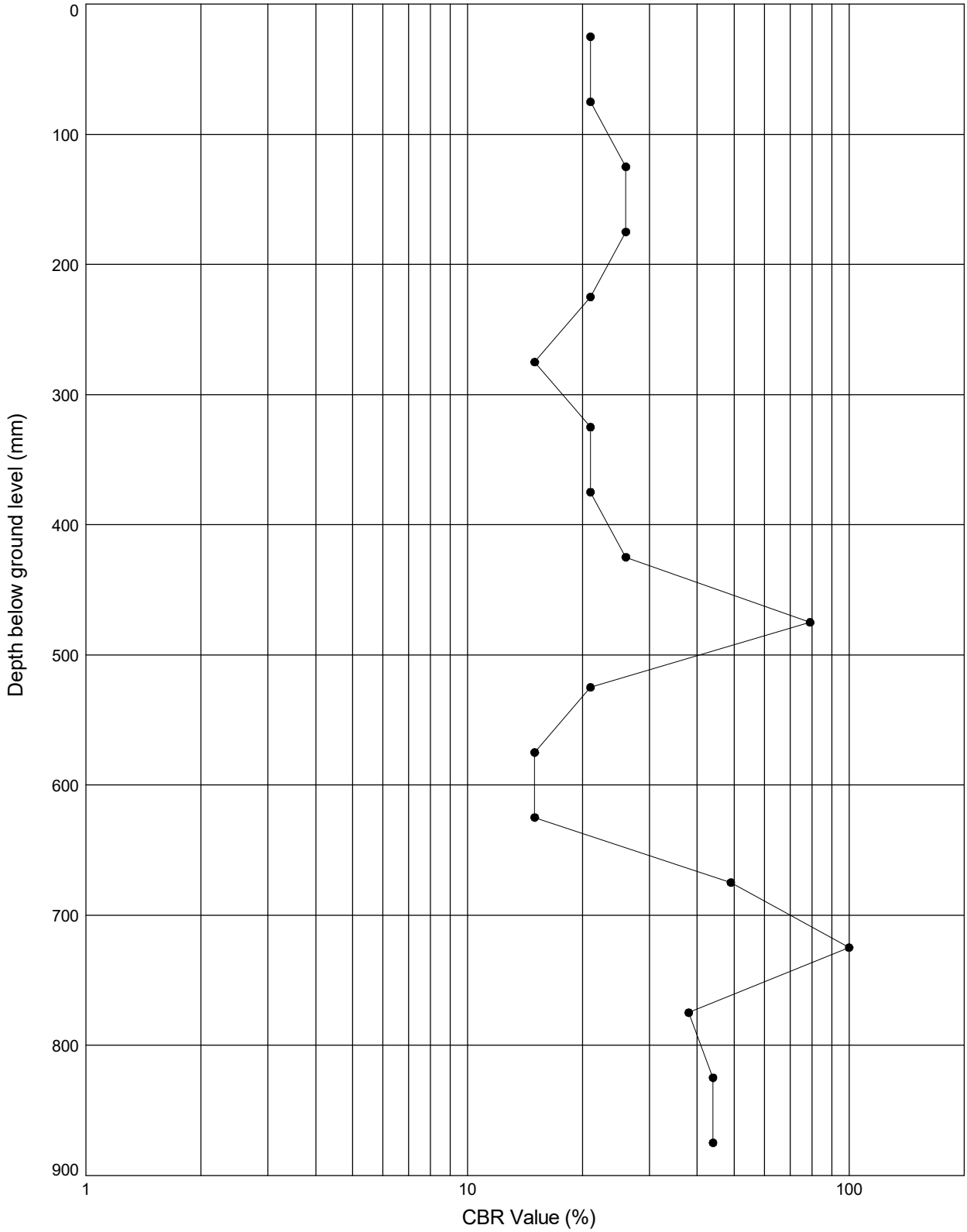
Notes: **CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.**

	Compiled By	Date	Checked By	Date
RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT		**08/01/21**		
	Contract **North London Busiess Park - Phase 1**		Contract Ref: **1921321**	

DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **TP4** Test Date : **09.10.20** Test Number : **1**

Ground Level (m AOD): **52.62** National Grid Co-ordinates: **E:528259.9 N:193386.9**



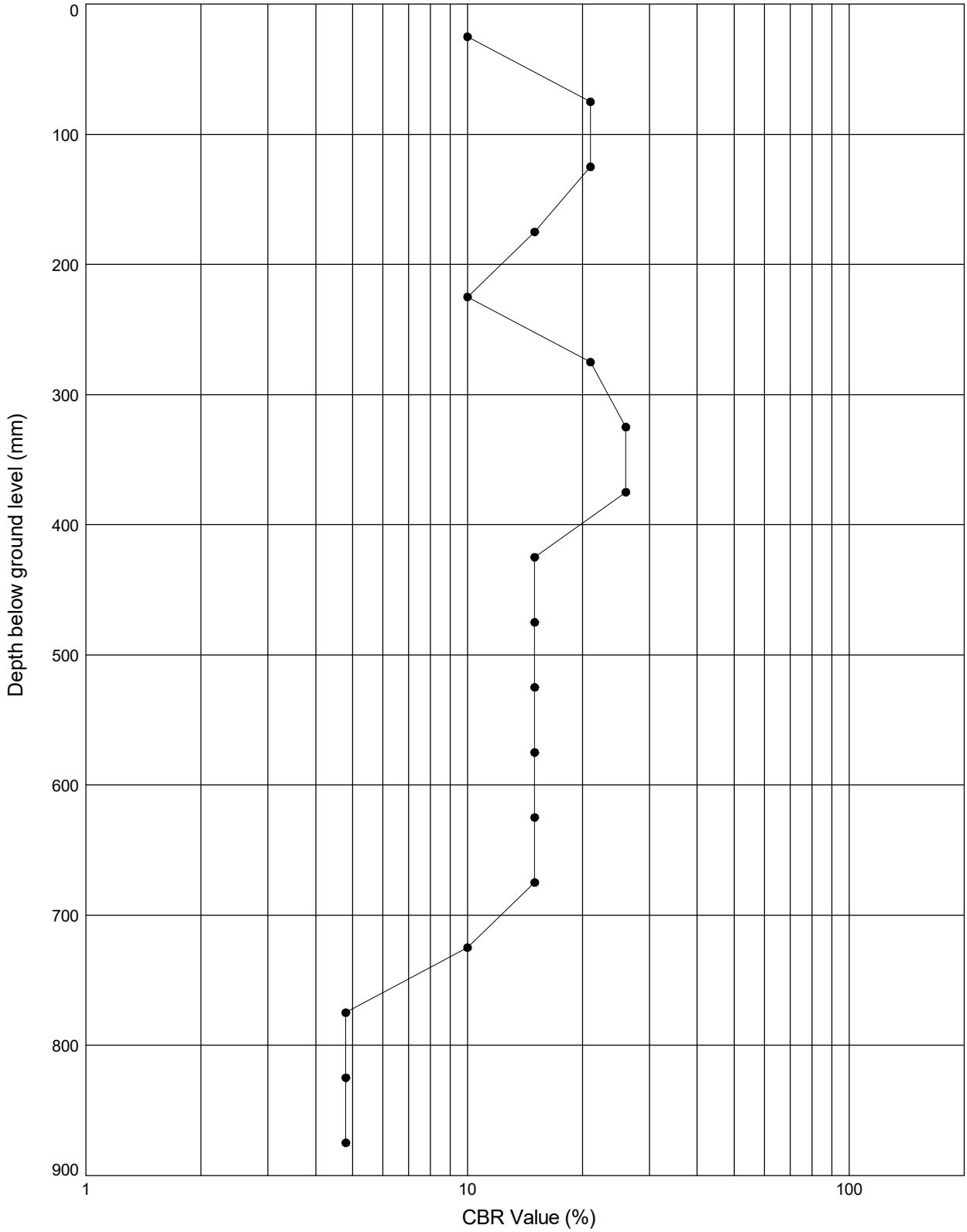
Notes: **CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.**

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
		**08/01/21**		
	Contract **North London Busiess Park - Phase 1**		Contract Ref: **1921321**	

DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **TP5** Test Date : **09.10.20** Test Number : **1**

Ground Level (m AOD): **50.23** National Grid Co-ordinates: **E:528212.2 N:193425.0**



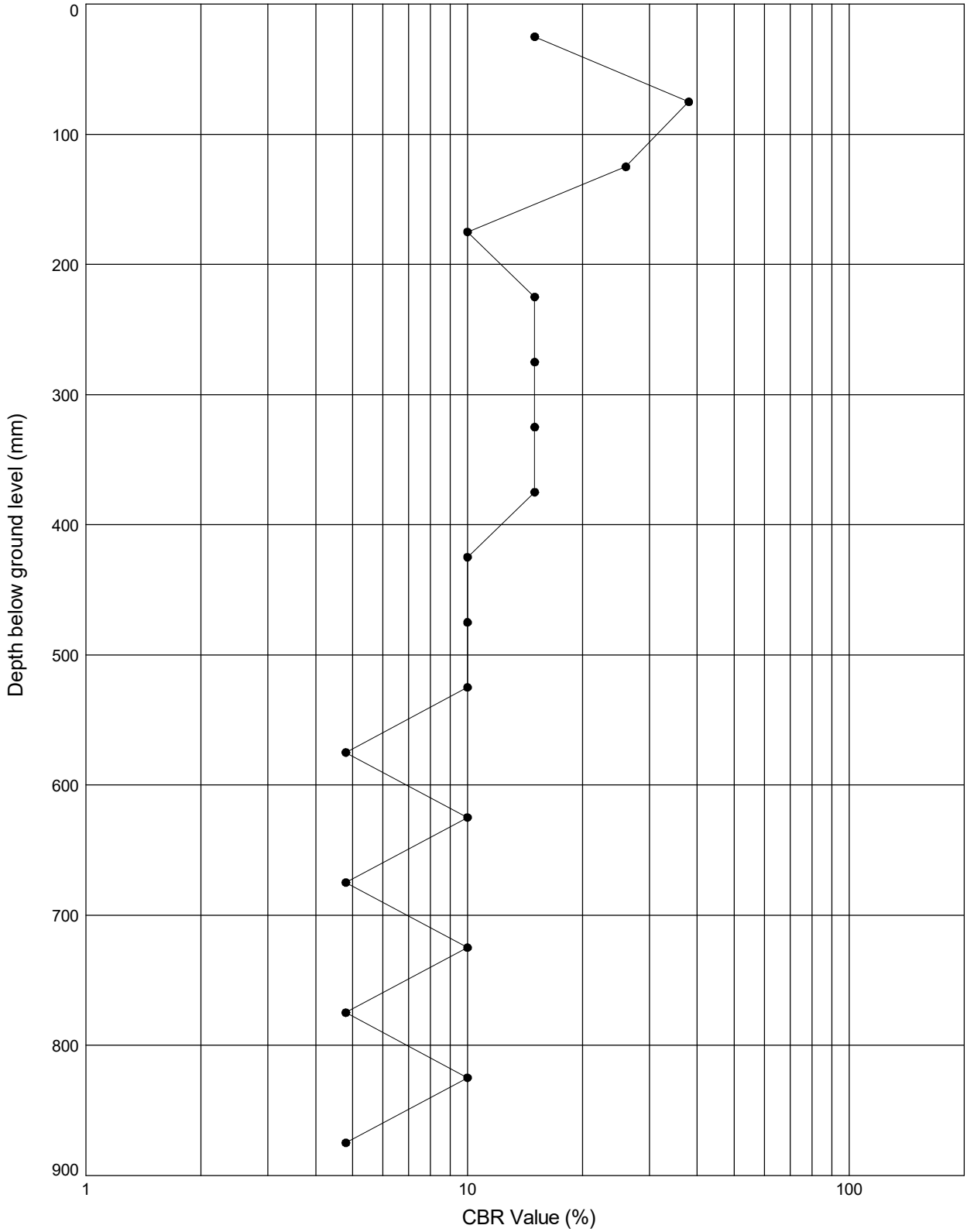
Notes: **CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.**

	Compiled By	Date	Checked By	Date
RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT		**08/01/21**		
	Contract **North London Busiess Park - Phase 1**		Contract Ref: **1921321**	

DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **TP6** Test Date : **09.10.20** Test Number : **1**

Ground Level (m AOD): **52.52** National Grid Co-ordinates: **E:528167.3 N:193364.1**



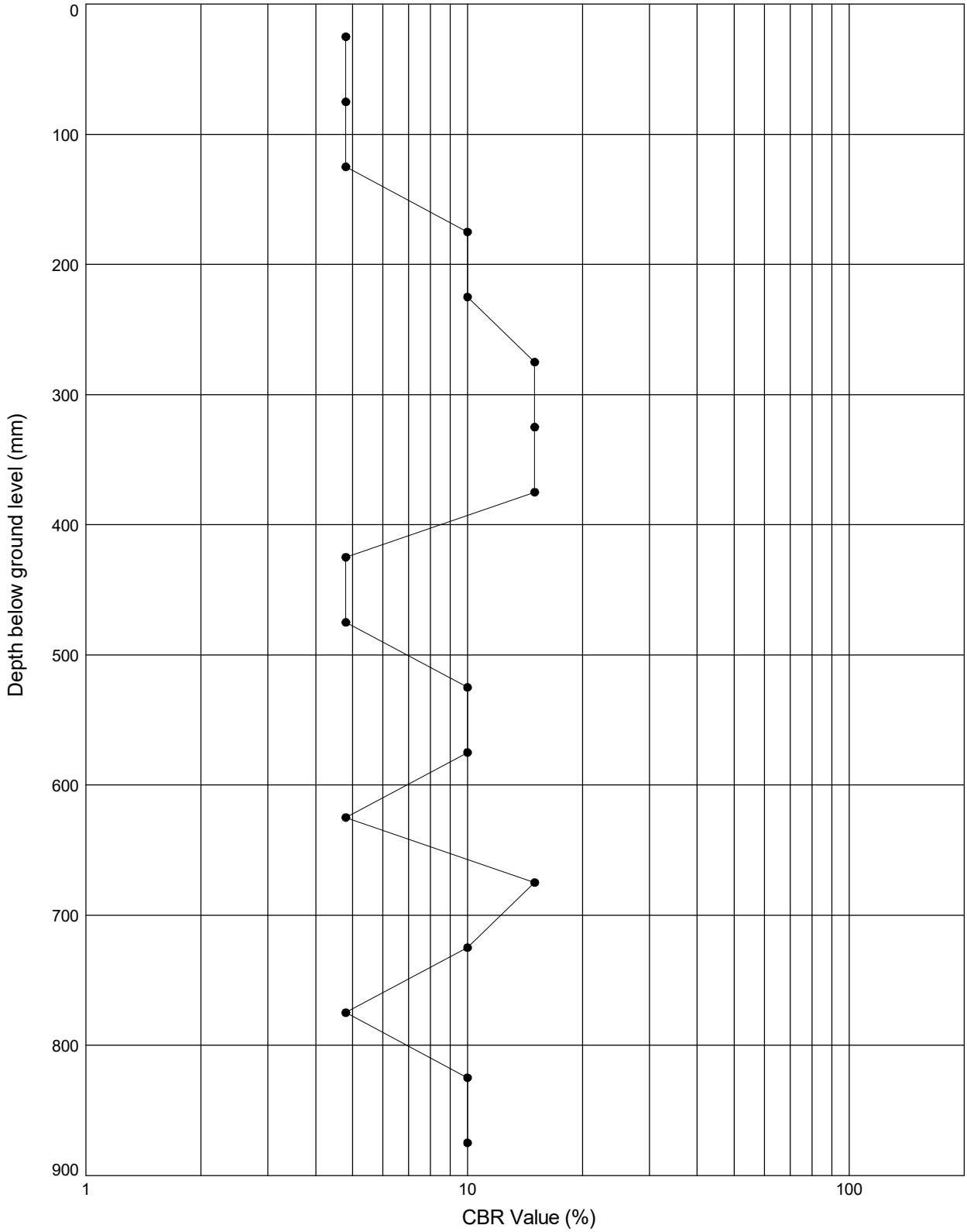
Notes: **CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.**

	Compiled By	Date	Checked By	Date
RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT		**08/01/21**		
	Contract **North London Busiess Park - Phase 1**		Contract Ref: **1921321**	

DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **TP10** Test Date : **09.10.20** Test Number : **1**

Ground Level (m AOD): **54.22** National Grid Co-ordinates: **E:528073.9 N:193496.3**



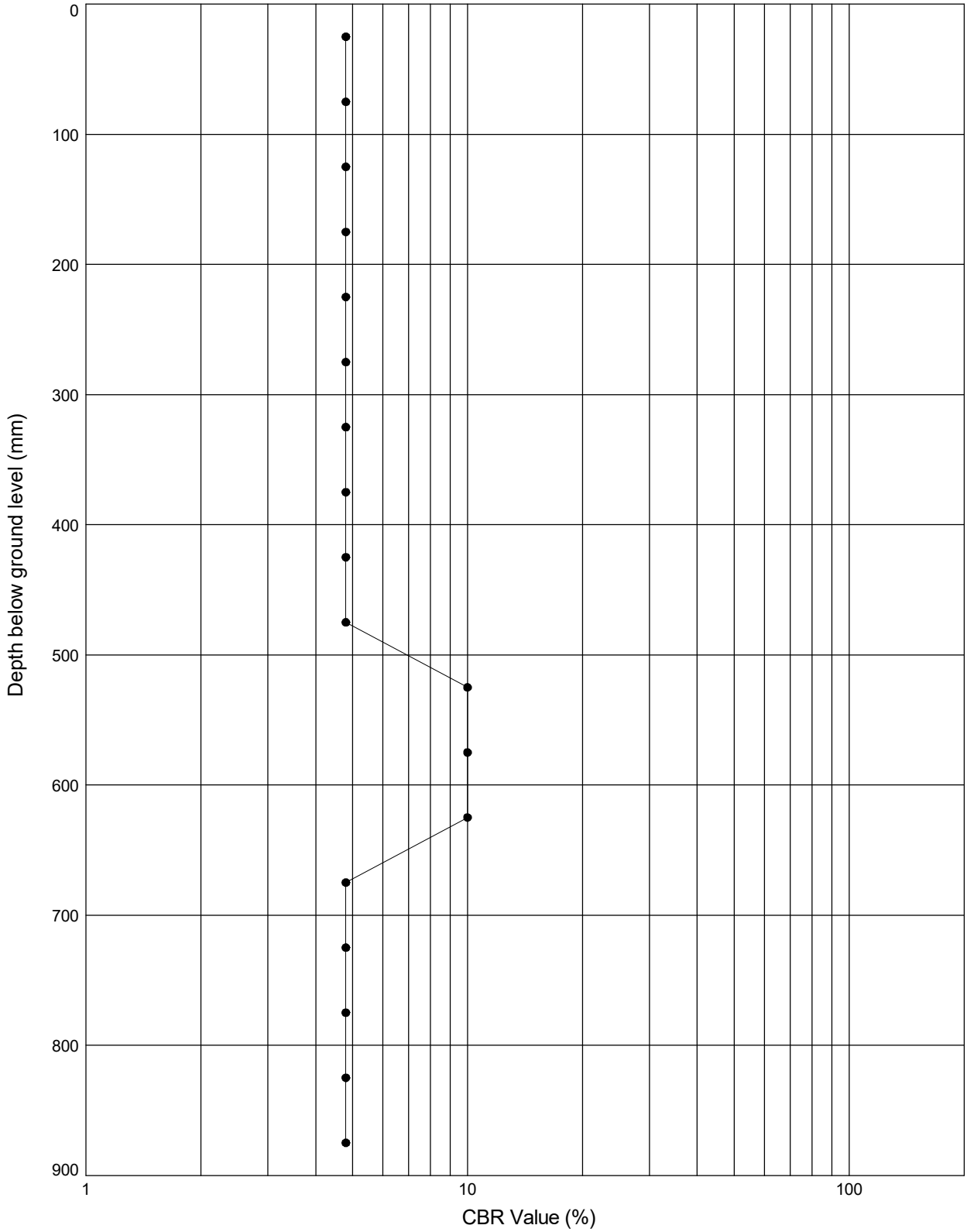
Notes: **CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.**

	Compiled By	Date	Checked By	Date
RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT		**08/01/21**		
	Contract **North London Busiess Park - Phase 1**		Contract Ref: **1921321**	

DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **TP13** Test Date : **09.10.20** Test Number : **1**

Ground Level (m AOD): **50.56** National Grid Co-ordinates: **E:528177.9 N:193556.1**



Notes: **CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.**

	Compiled By	Date	Checked By	Date
RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT		**08/01/21**		
	Contract **North London Busiess Park - Phase 1**		Contract Ref: **1921321**	

APPENDIX I
GROUND GAS MONITORING DATA

GAS MONITORING FIELD SHEET

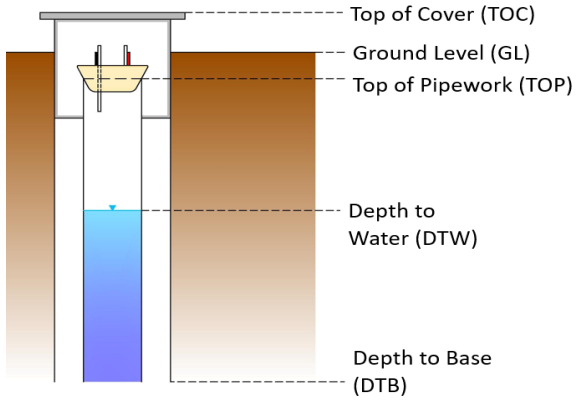
Monitoring Date:	11/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	19	Device:	GFM	
		Weather:	SUNNY	Serial Number:	10941	
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling		1		
Exploratory Position ID:	BH1	Monitoring Round Number:	1	Test Number:		
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	09:58	09:59	1012		Observations (e.g. on-site activities):	
Time End (hh:mm)	09:59	10:04				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.0			0.0	0.0
10	0.0	15	0.0	3.4	20.5			0.0	0.1
15	0.0	30	0.0	3.4	19.4			0.0	0.0
20	0.0	60	0.0	3.4	18.7			0.0	0.0
25	0.0	90	0.0	3.4	18.3			0.0	0.0
30	0.0	120	0.0	3.4	18.3			0.0	0.0
40	0.0	180	0.0	3.4	18.2			0.0	0.0
50	0.0	240	0.0	3.4	18.2			0.0	0.0
60	0.0	300	0.0	3.4	18.2			0.0	0.0

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)		

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.92	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business pArk	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	1

GAS MONITORING FIELD SHEET

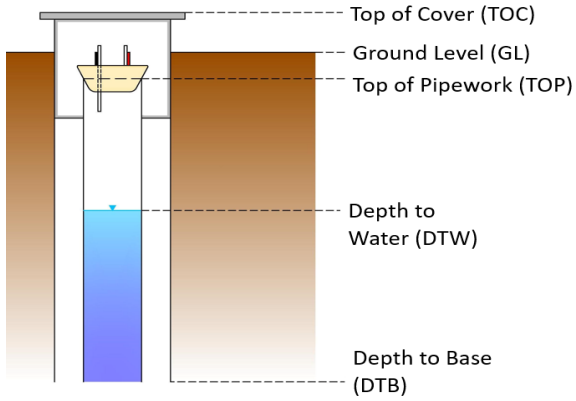
Monitoring Date:	11/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	19	Device:	GFM	
		Weather:	SUNNY	Serial Number:	10941	
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling		1		
Exploratory Position ID:	BH2	Monitoring Round Number:	1	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	09:48	09:49	1012		Observations (e.g. on-site activities):	
Time End (hh:mm)	09:49	09:54				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	22.2			0.0	0.0
10	0.0	15	0.0	5.0	19.6			0.0	0.0
15	0.0	30	0.0	6.0	17.1			0.0	0.0
20	0.0	60	0.0	5.1	16.3			0.0	0.0
25	0.0	90	0.0	5.2	15.8			0.0	0.0
30	0.0	120	0.0	5.2	15.6			0.0	0.0
40	0.0	180	0.0	5.2	15.5			0.0	0.0
50	0.0	240	0.0	5.2	15.5			0.0	0.0
60	0.0	300	0.0	6.2	15.5			0.0	0.0

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)		

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	4.8	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.97	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:	Samples Taken: Yes / No	
	Sample Media: Gas/Water	
	Gas Cannister Start (mb)	
	Gas Cannister End (mb)	
	Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

RSK	Contract Name:	North London Business Park	Data Collected By:	AM
	Project Manager / Engineer:	AK/AM	Checked:	
	Contract Ref:	1921321	Page number:	2

GAS MONITORING FIELD SHEET

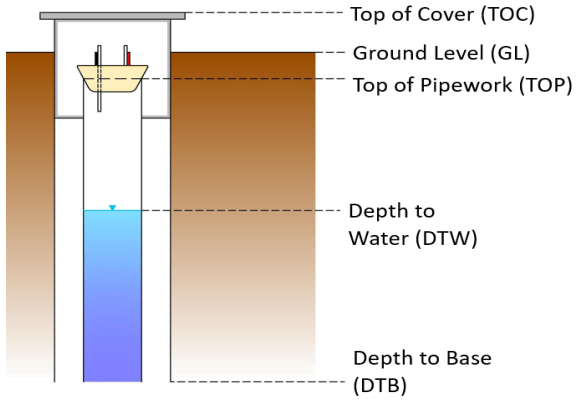
Monitoring Date:	11/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	19	Device:	GFM	
		Weather:	SUNNY	Serial Number:	10941	
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH3	Monitoring Round Number:	1	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	09:34	09:35	1012		Observations (e.g. on-site activities):	
Time End (hh:mm)	09:35	09:40				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.4			0.0	0.0
10	0.0	15	0.0	0.9	21.3			0.0	0.1
15	0.0	30	0.0	1.5	20.1			0.0	0.1
20	0.0	60	0.0	1.5	19.6			0.0	0.1
25	0.0	90	0.0	1.5	19.5			0.0	0.0
30	0.0	120	0.0	1.5	19.5			0.0	0.1
40	0.0	180	0.0	1.5	19.4			0.0	0.1
50	0.0	240	0.0	1.5	19.4			0.0	0.1
60	0.0	300	0.0	1.5	19.4			0.0	0.1

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)		

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	3.93	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.9	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:	Samples Taken: Yes / No	
	Sample Media: Gas/Water	
	Gas Cannister Start (mb)	
	Gas Cannister End (mb)	
	Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	3

GAS MONITORING FIELD SHEET

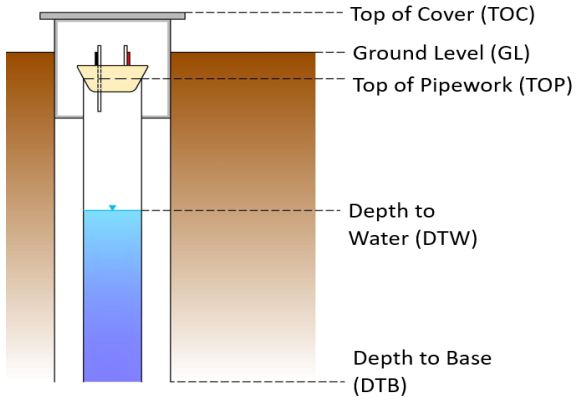
Monitoring Date:	11/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	19	Device:	GFM	
		Weather:	OVERCAST	Serial Number:		
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		NONE		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH4	Monitoring Round Number:	1	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	09:22	09:23	1012		Observations (e.g. on-site activities):	
Time End (hh:mm)	09:23	09:28				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.5			0.0	0.0
10	0.0	15	0.0	6.8	19.0			0.0	0.0
15	0.0	30	0.0	7.3	17.6			0.0	0.0
20	0.0	60	0.0	7.3	15.0			0.0	0.0
25	0.0	90	0.0	7.5	11.6			0.0	0.0
30	0.0	120	0.0	7.5	11.5			0.0	0.0
40	0.0	180	0.0	7.6	11.4			0.0	0.0
50	0.0	240	0.0	7.6	11.4			0.0	0.0
60	0.0	300	0.0	7.6	11.4			0.0	0.0

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.	
Stage 1 gas flow - Steady State (l/h)			

STAGE 3 WATER LEVEL OBSERVATION	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.79	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:	Samples Taken: Yes / No	
	Sample Media: Gas/Water	
	Gas Cannister Start (mb)	
	Gas Cannister End (mb)	
	Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

RSK	Contract Name:	North London Business Park	Data Collected By:	AM
	Project Manager / Engineer:	AK/AM	Checked:	
	Contract Ref:	1921321	Page number:	4

GAS MONITORING FIELD SHEET

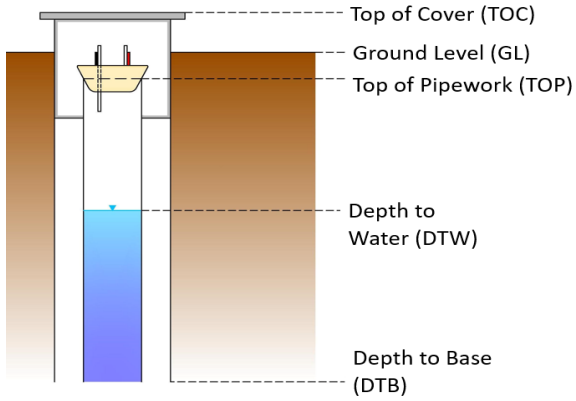
Monitoring Date:	11/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	19	Device:	GFM	
		Weather:	OVERCAST	Serial Number:	10941	
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH5	Monitoring Round Number:	1	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	10:25	10:26	1012		Observations (e.g. on-site activities):	
Time End (hh:mm)	10:26	10:31				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	22.4			0.0	0.0
10	0.0	15	0.0	5.1	19.9			0.0	0.1
15	0.0	30	0.0	5.2	16.8			0.0	0.0
20	0.0	60	0.0	5.3	16.1			0.0	0.0
25	0.0	90	0.0	5.3	15.8			0.0	0.0
30	0.0	120	0.0	5.3	15.6			0.0	0.0
40	0.0	180	0.0	5.3	15.5			0.0	0.0
50	0.0	240	0.0	5.3	15.5			0.0	0.0
60	0.0	300	0.0	5.3	15.5			0.0	0.0

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.	
Stage 1 gas flow - Steady State (l/h)			

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	2.8	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.95	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:	Samples Taken: Yes / No	
	Sample Media: Gas/Water	
	Gas Cannister Start (mb)	
	Gas Cannister End (mb)	
	Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	5

GAS MONITORING FIELD SHEET

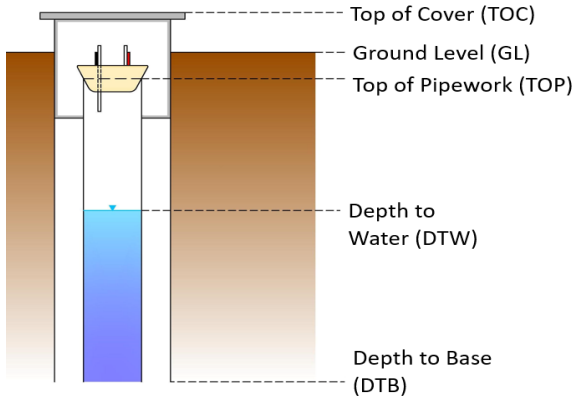
Monitoring Date:	11/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C		Device:	GFM	
		Weather:		Serial Number:	10941	
		Ground Conditions:		Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH6	Monitoring Round Number:	1	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	10:09	10:10	1012		Observations (e.g. on-site activities):	
Time End (hh:mm)	10:10	10:15				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.2			0.0	0.0
10	0.0	15	0.0	1.7	21.0			0.0	0.0
15	0.0	30	0.0	1.7	20.6			0.0	0.0
20	0.0	60	0.0	1.7	20.4			0.0	0.0
25	0.0	90	0.0	1.7	20.2			0.0	0.0
30	0.0	120	0.0	1.7	20.2			0.0	0.0
40	0.0	180	0.0	1.7	20.2			0.0	0.0
50	0.0	240	0.0	1.7	20.2			0.0	0.0
60	0.0	300	0.0	1.7	20.2			0.0	0.0

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)		

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.97	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	6

GAS MONITORING FIELD SHEET

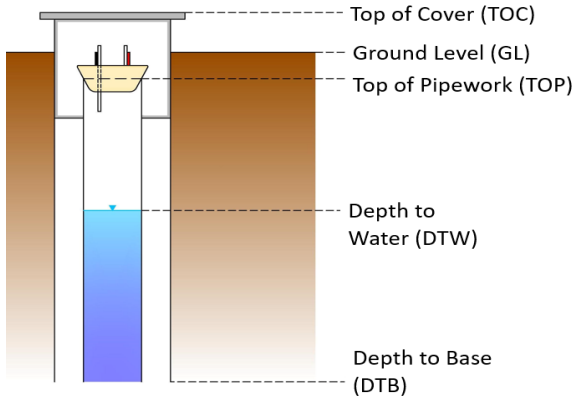
Monitoring Date:	11/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C		Device:	GFM	
		Weather:		Serial Number:	10941	
		Ground Conditions:		Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH7	Monitoring Round Number:	1	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	10:50	10:51	1012		Observations (e.g. on-site activities):	
Time End (hh:mm)	10:51	10:56				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	22.1			0.0	0.0
10	0.0	15	0.0	0.1	18.9			0.0	0.1
15	0.0	30	0.0	0.1	15.5			0.0	0.1
20	0.0	60	0.0	0.1	15.1			0.0	0.1
25	0.0	90	0.0	0.1	14.6			0.0	0.1
30	0.0	120	0.0	0.1	14.0			0.0	0.1
40	0.0	180	0.0	0.1	13.7			0.0	0.1
50	0.0	240	0.0	0.1	13.6			0.0	0.1
60	0.0	300	0.0	0.1	13.6			0.0	0.1

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)		

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.98	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	7

GAS MONITORING FIELD SHEET

Monitoring Date:	11/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):	

Pre-Testing Remarks:		Air Temperature: °C		Device:	GFM
		Weather:		Serial Number:	10941
		Ground Conditions:		Daily Check:	
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT	
		Tidal State: (if applicable) High / Low / Rising / Falling			

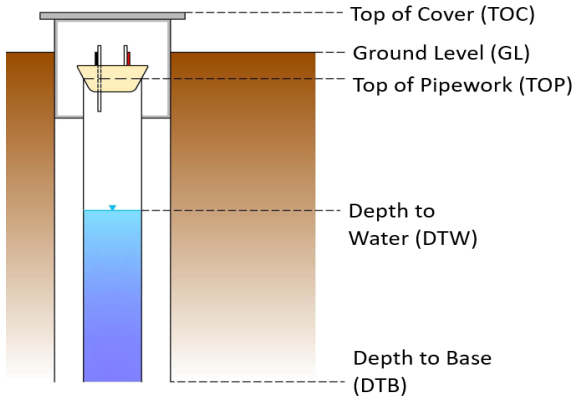
Exploratory Position ID:	BH8	Monitoring Round Number:	1	Test Number:	1
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	10:36	10:37	1012		Observations (e.g. on-site activities):	
Time End (hh:mm)	10:37	10:42				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	22.3			0.0	0.0
10	0.0	15	0.0	7.3	18.7			0.0	0.0
15	0.0	30	0.0	7.4	15.6			0.0	0.0
20	0.0	60	0.0	7.5	13.4			0.0	0.0
25	0.0	90	0.0	7.5	12.9			0.0	0.0
30	0.0	120	0.0	7.5	12.6			0.0	0.0
40	0.0	180	0.0	7.5	12.6			0.0	0.0
50	0.0	240	0.0	7.5	12.5			0.0	0.0
60	0.0	300	0.0	7.5	12.5			0.0	0.0

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)		

STAGE 3 WATER LEVEL OBSERVATION	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.91	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:	Samples Taken: Yes / No			
	Sample Media: Gas/Water			
	Gas Cannister Start (mb)			
	Gas Cannister End (mb)			
	Gas Cannister Duration (mins)			
	Depth (from datum)	Sample Ref	Type (EW / G)	Container

RSK	Contract Name:	North London Business Park	Data Collected By: JW
	Project Manager / Engineer:	AK/AM	Checked:
	Contract Ref:	1921321	Page number:

GAS MONITORING FIELD SHEET

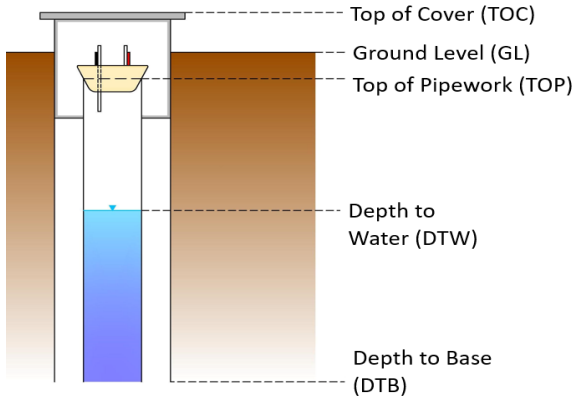
Monitoring Date:	28/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	17	Device:	GFM	
		Weather:	SUNNY	Serial Number:	10941	
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH1	Monitoring Round Number:	2	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	11:30	11:31	1008		Observations (e.g. on-site activities):	
Time End (hh:mm)	11:31	11:36				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.1			0.0	
10	0.0	15	0.0	2.8	20.5			0.0	
15	0.0	30	0.0	2.9	19.6			0.0	
20	0.0	60	0.0	2.9	19.1			0.0	
25	0.0	90	0.0	2.9	18.9			0.0	
30	0.0	120	0.0	2.9	18.8			0.0	
40	0.0	180	0.0	2.9	18.8			0.0	
50	0.0	240	0.0	2.9	18.7			0.0	
60	0.0	300	0.0	2.9	18.7			0.0	

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.93	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	Noth London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	1

GAS MONITORING FIELD SHEET

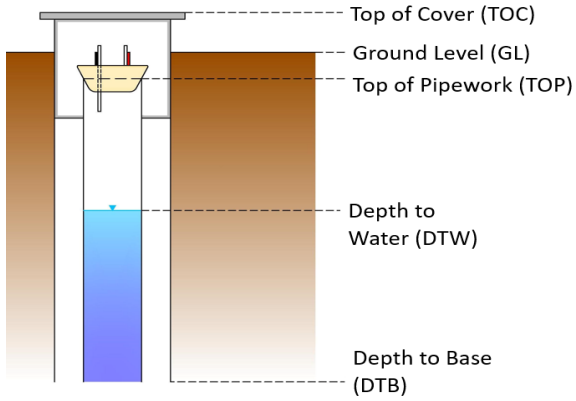
Monitoring Date:	28/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):			
Pre-Testing Remarks:		Air Temperature: °C	17	Device:	GFM		
		Weather:	SUNNY	Serial Number:	10941		
		Ground Conditions:	DRY	Daily Check:			
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT			
		Tidal State: (if applicable) High / Low / Rising / Falling					
Exploratory Position ID:	BH2	Monitoring Round Number:	2	Test Number:	1		
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40		

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	11:20	11:21	1008		Observations (e.g. on-site activities):	
Time End (hh:mm)	11:21	11:26				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.2			0.0	
10	0.0	15	0.0	4.7	20.2			0.0	
15	0.0	30	0.0	4.9	18.3			0.0	
20	0.0	60	0.0	4.9	17.1			0.0	
25	0.0	90	0.0	4.9	16.8			0.0	
30	0.0	120	0.0	4.9	16.7			0.0	
40	0.0	180	0.0	4.9	16.6			0.0	
50	0.0	240	0.0	4.9	16.5			0.0	
60	0.0	300	0.0	4.9	16.5			0.0	

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)		Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.98	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:	Samples Taken: Yes / No	
	Sample Media: Gas/Water	
	Gas Cannister Start (mb)	
	Gas Cannister End (mb)	
	Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	2

GAS MONITORING FIELD SHEET

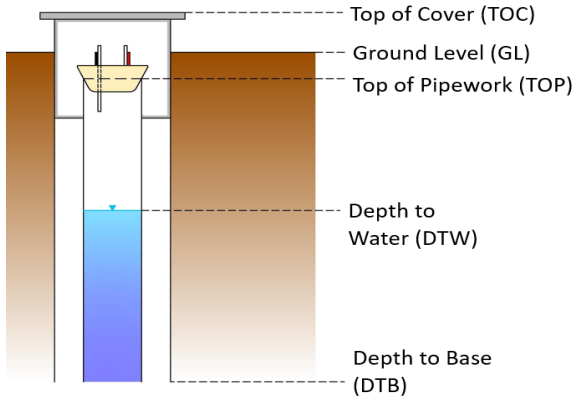
Monitoring Date:	28/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):			
Pre-Testing Remarks:		Air Temperature: °C	17	Device:	GFM		
		Weather:	SUNNY	Serial Number:	10941		
		Ground Conditions:	DRY	Daily Check:			
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT			
		Tidal State: (if applicable) High / Low / Rising / Falling					
Exploratory Position ID:	BH3	Monitoring Round Number:	2	Test Number:	1		
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40		

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	11:10	11:11	1008		Observations (e.g. on-site activities):	
Time End (hh:mm)	11:11	11:16				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	20.5			0.0	
10	0.0	15	0.0	1.6	20.4			0.0	
15	0.0	30	0.0	1.6	20.0			0.0	
20	0.0	60	0.0	1.6	19.6			0.0	
25	0.0	90	0.0	1.6	19.6			0.0	
30	0.0	120	0.0	1.6	19.5			0.0	
40	0.0	180	0.0	1.6	19.5			0.0	
50	0.0	240	0.0	1.6	19.5			0.0	
60	0.0	300	0.0	1.6	19.5			0.0	

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)		Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.92	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	3

GAS MONITORING FIELD SHEET

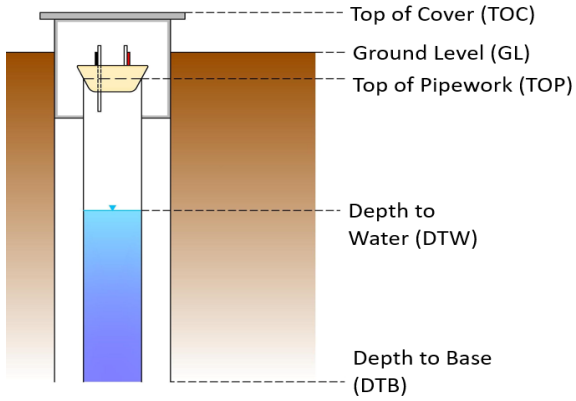
Monitoring Date:	28/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	17	Device:	GFM	
		Weather:	SUNNY	Serial Number:	10941	
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH4	Monitoring Round Number:	2	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	10:55	10:56	1008		Observations (e.g. on-site activities):	
Time End (hh:mm)	10:56	11:01				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.1	0	0.0	0.0	21.1			0.0	
10	0.0	15	0.0	6.8	18.7			0.0	
15	0.0	30	0.0	6.9	17.0			0.0	
20	0.0	60	0.0	6.9	15.4			0.0	
25	0.0	90	0.0	7.0	15.0			0.0	
30	0.0	120	0.0	7.0	14.8			0.0	
40	0.0	180	0.0	7.0	14.7			0.0	
50	0.0	240	0.0	7.0	14.6			0.0	
60	0.0	300	0.0	7.0	14.6			0.0	

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.83	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	4

GAS MONITORING FIELD SHEET

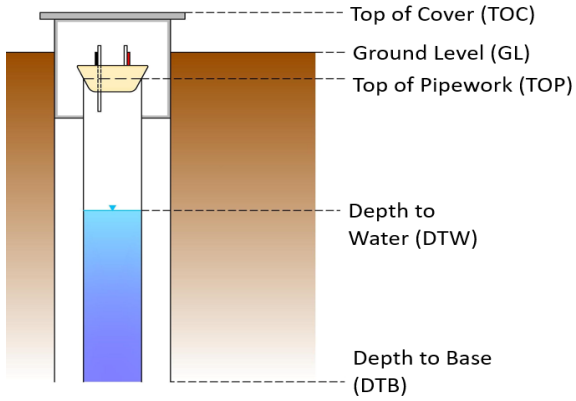
Monitoring Date:	28/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):			
Pre-Testing Remarks:		Air Temperature: °C	17	Device:	GFM		
		Weather:	SUNNY	Serial Number:	10941		
		Ground Conditions:	DRY	Daily Check:			
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT			
		Tidal State: (if applicable) High / Low / Rising / Falling					
Exploratory Position ID:	BH5	Monitoring Round Number:	2	Test Number:	1		
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40		

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	12:16	12:17	1008		Observations (e.g. on-site activities):	
Time End (hh:mm)	12:17	12:22				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.1			0.0	
10	0.0	15	0.0	4.8	20.4			0.0	
15	0.0	30	0.0	4.9	18,0			0.0	
20	0.0	60	0.0	5.1	17.4			0.0	
25	0.0	90	0.0	5.1	16.8			0.0	
30	0.0	120	0.0	5.1	16.5			0.0	
40	0.0	180	0.0	5.1	16.2			0.0	
50	0.0	240	0.0	5.1	16.0			0.0	
60	0.0	300	0.0	5.1	16.0			0.0	

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION					
Depth (from datum) to water (DTW): (m)		Time:		LNAPL Top (from datum) (m):	
Depth (from datum) to well base (DTB): (m)		Purge Start:		DNAPL Top (from datum) (m):	
Hole Purged: Yes / No		Purge End:		Water Observations:	
Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	5

GAS MONITORING FIELD SHEET

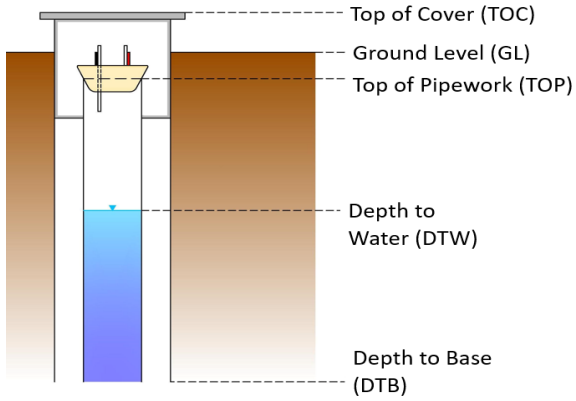
Monitoring Date:	28/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):			
Pre-Testing Remarks:		Air Temperature: °C	17	Device:	GFM		
		Weather:	SUNNY	Serial Number:	10941		
		Ground Conditions:	DRY	Daily Check:			
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT			
		Tidal State: (if applicable) High / Low / Rising / Falling					
Exploratory Position ID:	BH6	Monitoring Round Number:	2	Test Number:	1		
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40		

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	11:40	11:41	1008		Observations (e.g. on-site activities):	
Time End (hh:mm)	11:41	11:46				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.1			0.0	
10	0.0	15	0.0	1.3	21.0			0.0	
15	0.0	30	0.0	1.4	20.6			0.0	
20	0.0	60	0.0	1.4	20.2			0.0	
25	0.0	90	0.0	1.4	20.1			0.0	
30	0.0	120	0.0	1.4	20.1			0.0	
40	0.0	180	0.0	1.4	20.1			0.0	
50	0.0	240	0.0	1.4	20.0			0.0	
60	0.0	300	0.0	1.4	20.0			0.0	

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.97	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	6

GAS MONITORING FIELD SHEET

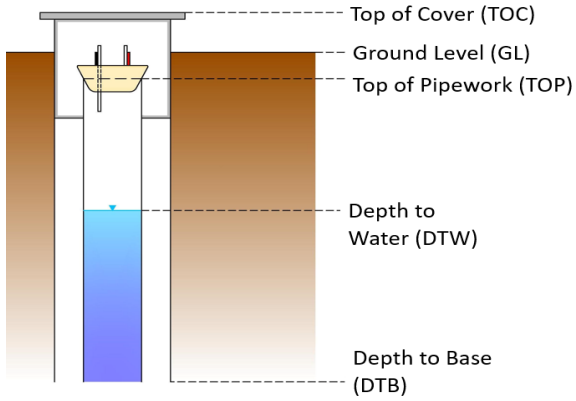
Monitoring Date:	28/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):			
Pre-Testing Remarks:		Air Temperature: °C	17	Device:	GFM		
		Weather:	SUNNY	Serial Number:	10941		
		Ground Conditions:	DRY	Daily Check:			
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT			
		Tidal State: (if applicable) High / Low / Rising / Falling					
Exploratory Position ID:	BH7	Monitoring Round Number:	2	Test Number:	1		
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40		

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	12:06	12:07	1008		Observations (e.g. on-site activities):	
Time End (hh:mm)	12:06	12:12				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.0			0.0	
10	0.0	15	0.0	0.4	17.3			0.0	
15	0.0	30	0.0	0.4	16.0			0.0	
20	0.0	60	0.0	0.4	15.2			0.0	
25	0.0	90	0.0	0.4	14.6			0.0	
30	0.0	120	0.0	0.4	14.5			0.0	
40	0.0	180	0.0	0.4	14.5			0.0	
50	0.0	240	0.0	0.4	14.5			0.0	
60	0.0	300	0.0	0.4	14.5			0.0	

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.	
Stage 1 gas flow - Steady State (l/h)			

STAGE 3 WATER LEVEL OBSERVATION	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.97	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	7

GAS MONITORING FIELD SHEET

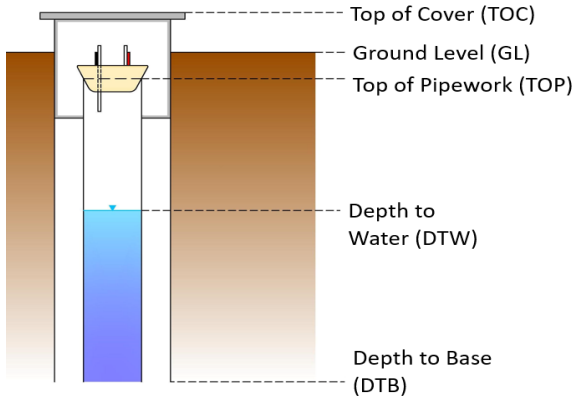
Monitoring Date:	28/09/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	117	Device:	GFM	
		Weather:	SUNNY	Serial Number:	10941	
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH8	Monitoring Round Number:	2	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	11:54	11:55	1008		Observations (e.g. on-site activities):	
Time End (hh:mm)	11:55	12:00				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.2			0.0	
10	0.0	15	0.0	9.0	17.4			0.0	
15	0.0	30	0.0	9.1	15.2			0.0	
20	0.0	60	0.0	9.2	12.5			0.0	
25	0.0	90	0.0	9.3	12.0			0.0	
30	0.0	120	0.0	9.3	11.6			0.0	
40	0.0	180	0.0	9.4	11.3			0.0	
50	0.0	240	0.0	9.4	11.2			0.0	
60	0.0	300	0.0	9.4	11.2			0.0	

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.91	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	8

GAS MONITORING FIELD SHEET

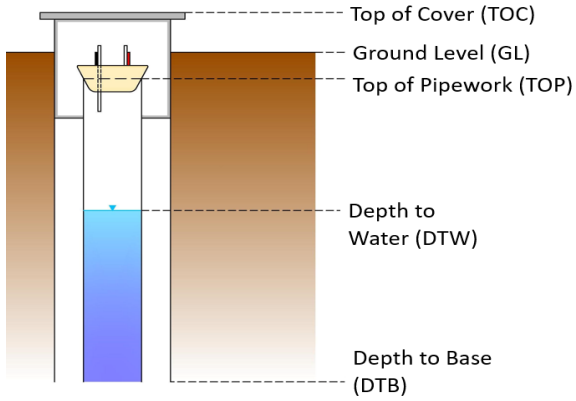
Monitoring Date:	09/10/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	15	Device:	GA5000	
		Weather:	OVERCAST	Serial Number:		
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		LIGHT		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH1	Monitoring Round Number:	3	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	09:45	09:46	1015	4.29	Observations (e.g. on-site activities):	
Time End (hh:mm)	09:46	09:51				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.1	20.9				
10	0.0	15	0.0	3.5	18.6				
15	0.0	30	0.0	3.5	17.3				
20	0.0	60	0.0	3.5	17.2				
25	0.0	90	0.0	3.5	17.1				
30	0.0	120	0.0	3.5	17.1				
40	0.0	180	0.0	3.5	17.1				
50	0.0	240	0.0	3.5	17.1				
60	0.0	300	0.0	3.5	17.1				

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	4.2	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.93	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	Noth London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	1

GAS MONITORING FIELD SHEET

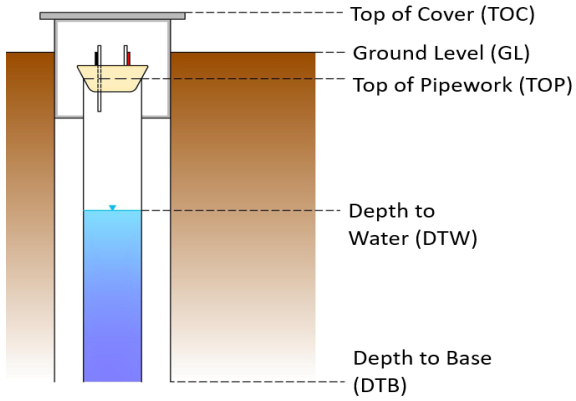
Monitoring Date:	09/10/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	14	Device:	GA5000	
		Weather:	OVERCAST	Serial Number:		
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		NONE		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH2	Monitoring Round Number:	3	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	09:35	09:36	1015	0.1	Observations (e.g. on-site activities):	
Time End (hh:mm)	09:36	09:41				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.1	21.0	0	0		
10	0.0	15	0.0	6.1	17.3	1	0		
15	0.0	30	0.0	6.2	13.2	1	0		
20	0.0	60	0.0	6.3	12.7	0	0		
25	0.0	90	0.0	6.2	12.6	0	0		
30	0.0	120	0.0	6.3	12.6	0	0		
40	0.0	180	0.0	6.3	12.6	0	0		
50	0.0	240	0.0	6.3	12.6	0	0		
60	0.0	300	0.0	6.3	12.6	0	0		

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	4.83	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.98	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:	Samples Taken: Yes / No	
	Sample Media: Gas/Water	
	Gas Cannister Start (mb)	
	Gas Cannister End (mb)	
	Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

RSK	Contract Name:	North London Business Park	Data Collected By:	AM
	Project Manager / Engineer:	AK/AM	Checked:	
	Contract Ref:	1921321	Page number:	2

GAS MONITORING FIELD SHEET

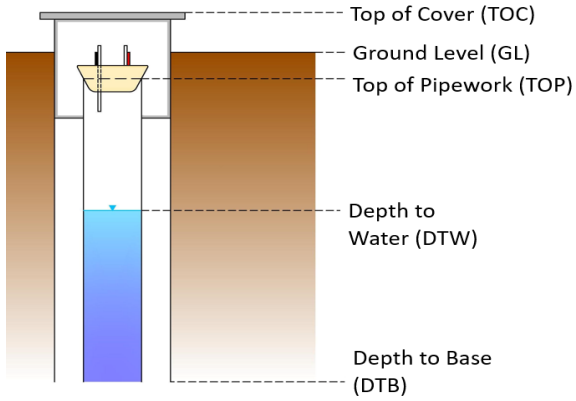
Monitoring Date:	09/10/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	15	Device:	GA5000	
		Weather:	OVERCAST	Serial Number:		
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		NONE		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH3	Monitoring Round Number:	3	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	09:25	09:26	1015	26.19	Observations (e.g. on-site activities):	
Time End (hh:mm)	09:26	09:31				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	20.6	0	0		
10	0.0	15	0.0	1.2	19.8	2	0		
15	0.0	30	0.0	1.2	18.3	1	0		
20	0.0	60	0.0	1.2	18.2	1	0		
25	0.0	90	0.0	1.2	18.2	1	0		
30	0.0	120	0.0	1.2	18.2	1	0		
40	0.0	180	0.0	1.2	18.2	1	0		
50	0.0	240	0.0	1.2	18.2	1	0		
60	0.0	300	0.0	1.2	18.2	1	0		

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	0.8	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.93	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	3

GAS MONITORING FIELD SHEET

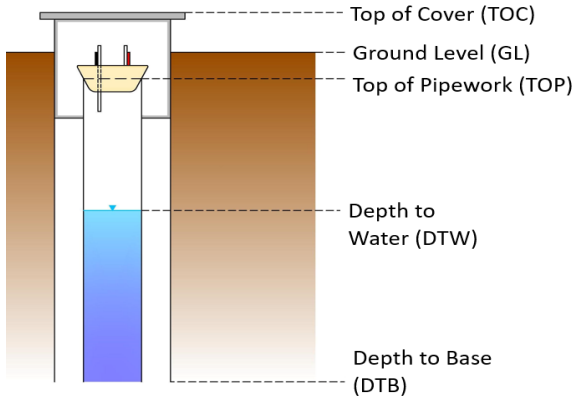
Monitoring Date:	09/10/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):			
Pre-Testing Remarks:		Air Temperature: °C	13	Device:	GA5000		
		Weather:	CLEAR	Serial Number:			
		Ground Conditions:	DRY	Daily Check:			
		Wind: NONE / LIGHT / MEDIUM / STRONG		NONE			
		Tidal State: (if applicable) High / Low / Rising / Falling					
Exploratory Position ID:	BH4	Monitoring Round Number:	3	Test Number:	1		
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40		

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)	09:16	09:17	1014	5.68	Observations (e.g. on-site activities):	
Time End (hh:mm)	09:17	09:22				

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.0	21.1	0	0		
10	0.0	15	0.0	5.2	18.1	0	0		
15	0.0	30	0.0	4.3	12.6	1	0		
20	0.0	60	0.0	5.4	10.3	0	0		
25	0.0	90	0.0	5.3	10.1	0	0		
30	0.0	120	0.0	5.3	10.1	0	0		
40	0.0	180	0.0	5.3	10.1	0	0		
50	0.0	240	0.0	5.3	10.1	0	0		
60	0.0	300	0.0	5.3	10.1	0	0		

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.83	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	4

GAS MONITORING FIELD SHEET

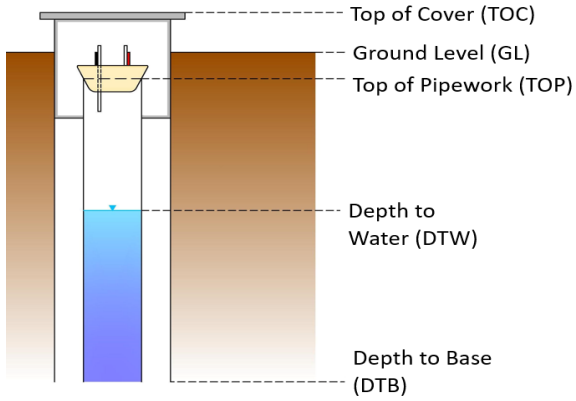
Monitoring Date:	09/10/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):	
Pre-Testing Remarks:		Air Temperature: °C	15	Device:	GA5000
		Weather:	CLEAR	Serial Number:	
		Ground Conditions:		Daily Check:	
		Wind: NONE / LIGHT / MEDIUM / STRONG		NONE	
		Tidal State: (if applicable) High / Low / Rising / Falling			
Exploratory Position ID:	BH5	Monitoring Round Number:	3	Test Number:	1
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)			1015	6.18	Observations (e.g. on-site activities):	
Time End (hh:mm)						

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.2	20.7	0	0		
10	0.0	15	0.0	4.8	16.9	1	0		
15	0.0	30	0.0	4.8	11.2	0	0		
20	0.0	60	0.0	4.9	10.6	0	0		
25	0.0	90	0.0	4.9	10.6	0	0		
30	0.0	120	0.0	4.9	10.5	0	0		
40	0.0	180	0.0	4.9	10.5	0	0		
50	0.0	240	0.0	4.9	10.5	0	0		
60	0.0	300	0.0	4.9	10.5	0	0		

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	1.81	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.95	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	5

GAS MONITORING FIELD SHEET

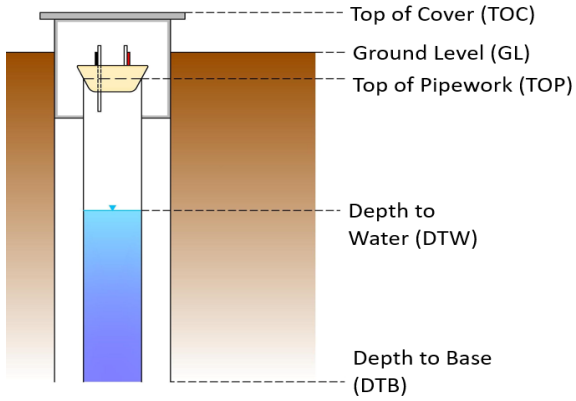
Monitoring Date:	09/10/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):			
Pre-Testing Remarks:		Air Temperature: °C	15	Device:	GA5000		
		Weather:	OVERCAST	Serial Number:			
		Ground Conditions:		Daily Check:			
		Wind: NONE / LIGHT / MEDIUM / STRONG		NONE			
		Tidal State: (if applicable) High / Low / Rising / Falling					
Exploratory Position ID:	BH6	Monitoring Round Number:	3	Test Number:	1		
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40		

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)			1015	7.3	Observations (e.g. on-site activities):	
Time End (hh:mm)						

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.1	21.0	0	0		
10	0.0	15	0.0	1.9	18.2	0	0		
15	0.0	30	0.0	1.9	17.4	0	0		
20	0.0	60	0.0	1.9	17.0	0	0		
25	0.0	90	0.0	1.9	17.0	0	0		
30	0.0	120	0.0	1.9	17.0	0	0		
40	0.0	180	0.0	1.9	17.0	0	0		
50	0.0	240	0.0	1.9	17.0	0	0		
60	0.0	300	0.0	1.9	17.0	0	0		

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	5	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	6

GAS MONITORING FIELD SHEET

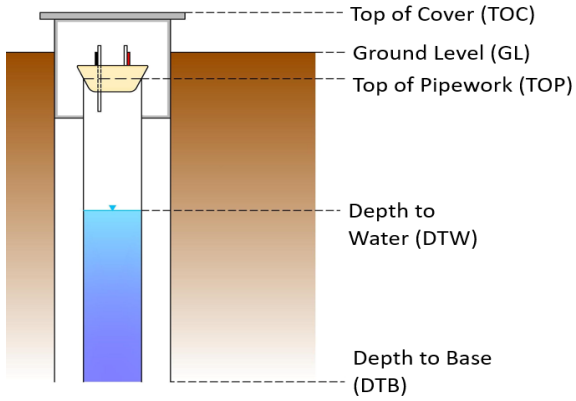
Monitoring Date:	09/10/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):			
Pre-Testing Remarks:		Air Temperature: °C	15	Device:	GA5000		
		Weather:	OVERCAST	Serial Number:			
		Ground Conditions:	DRY	Daily Check:			
		Wind: NONE / LIGHT / MEDIUM / STRONG		NONE			
		Tidal State: (if applicable) High / Low / Rising / Falling					
Exploratory Position ID:	BH7	Monitoring Round Number:	3	Test Number:	1		
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40		

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)			1015	6.25	Observations (e.g. on-site activities):	
Time End (hh:mm)						

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.3	20.8	0	0		
10	0.0	15	0.0	0.8	12.7	1	0		
15	0.0	30	0.0	0.9	8.8	0	0		
20	0.0	60	0.0	1.0	8.5	0	0		
25	0.0	90	0.0	1.0	8.4	0	0		
30	0.0	120	0.0	1.0	8.4	0	0		
40	0.0	180	0.0	1.0	8.4	0	0		
50	0.0	240	0.0	1.0	8.4	0	0		
60	0.0	300	0.0	1.0	8.4	0	0		

Stage 1 gas flow - Peak (l/h)		**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.	
Stage 1 gas flow - Steady State (l/h)			

STAGE 3 WATER LEVEL OBSERVATION	Depth (from datum) to water (DTW): (m)	DRY	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.97	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:

Samples Taken: Yes / No	
Sample Media: Gas/Water	
Gas Cannister Start (mb)	
Gas Cannister End (mb)	
Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

Contract Name:	North London Business Park	Data Collected By:	AM
Project Manager / Engineer:	AK/AM	Checked:	
Contract Ref:	1921321	Page number:	7

GAS MONITORING FIELD SHEET

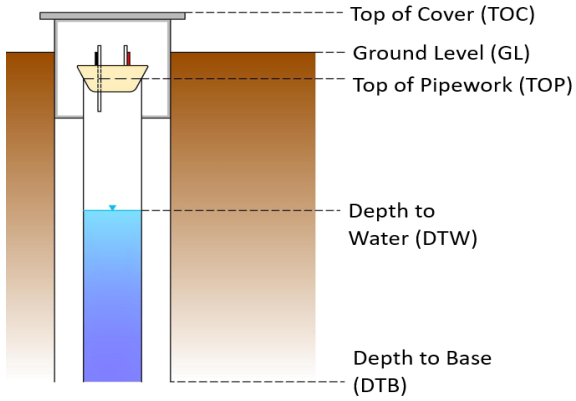
Monitoring Date:	09/10/2020	Measurement datum: TOC / GL / TOP / Other	TOC	Offset to GL (m):		
Pre-Testing Remarks:		Air Temperature: °C	15	Device:	GA5000	
		Weather:	OVERCAST	Serial Number:		
		Ground Conditions:	DRY	Daily Check:		
		Wind: NONE / LIGHT / MEDIUM / STRONG		NONE		
		Tidal State: (if applicable) High / Low / Rising / Falling				
Exploratory Position ID:	BH8	Monitoring Round Number:	3	Test Number:	1	
Install Type: SINGLE / DOUBLE	SINGLE	Pipe Ref: 1) Shallow 2) Deep	1	Pipe Diameter: 19mm/ 40mm / 50mm / Other (mm)	40	

Time of Monitoring (hh:mm)	Flow readings	Gas readings	Atmospheric Pressure (mb)	Differential Pressure (mb)	Gas tap: SINGLE / DOUBLE	SINGLE
Time Start (hh:mm)			1015	3.05	Observations (e.g. on-site activities):	
Time End (hh:mm)						

Stage 1 Flow Readings	**Stage 1** Flow Readings	**Stage 2** Gas Monitoring:	Methane (%/vol)	Carbon Dioxide (%/vol)	Oxygen (%/vol)	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	LEL (%)	PID (ppm)
Time of flow monitoring (sec)	Flow Reading (l/hr)	Time of gas monitoring (sec)							
5	0.0	0	0.0	0.2	21.0	0	0		
10	0.0	15	0.0	8.6	14.2	1	0		
15	0.0	30	0.0	8.7	10.5	0	0		
20	0.0	60	0.0	8.7	10.1	0	0		
25	0.0	90	0.0	8.7	10.1	0	0		
30	0.0	120	0.0	8.7	10.0	0	0		
40	0.0	180	0.0	8.7	10.0	0	0		
50	0.0	240	0.0	8.7	10.0	0	0		
60	0.0	300	0.0	8.7	10.0	0	0		

Stage 1 gas flow - Peak (l/h)	0.0	**Note:** Flow should be recorded at 5 second intervals up to 30 seconds, 10 second intervals to 2 minutes and 30 second intervals up to 3 minutes or until steady-state readings are obtained. Typically, steady state conditions occur within 30 seconds to a minute. The differential pressure reading (in Pa) should also be recorded during this period.
Stage 1 gas flow - Steady State (l/h)	0.0	

STAGE 3 WATER LEVEL OBSERVATION						
	Depth (from datum) to water (DTW): (m)	3.05	Time:		LNAPL Top (from datum) (m):	
	Depth (from datum) to well base (DTB): (m)	4.91	Purge Start:		DNAPL Top (from datum) (m):	
	Hole Purged: Yes / No		Purge End:		Water Observations:	
	Purge Volume: (ltrs)		Post-Purge (DTW) (m)			



Post testing remarks:	Samples Taken: Yes / No	
	Sample Media: Gas/Water	
	Gas Cannister Start (mb)	
	Gas Cannister End (mb)	
	Gas Cannister Duration (mins)	

Depth (from datum)	Sample Ref	Type (EW / G)	Container

RSK	Contract Name:	North London Business Park	Data Collected By:	AM
	Project Manager / Engineer:	AK/AM	Checked:	
	Contract Ref:	1921321	Page number:	8

APPENDIX J
LABORATORY CERTIFICATES FOR SOIL ANALYSIS

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 20/08313
Issue Number: 1 **Date:** 05 October, 2020

Client:
RSK Environment Ltd Hemel
18 Frogmore Road
Hemel Hempstead
Hertfordshire
UK
HP3 9RT

Project Manager: Andrew Kent
Project Name: North London Business Park (N.L.B.P)
Project Ref: 1921321
Order No: N/A
Date Samples Received: 18/08/20
Date Instructions Received: 01/10/20
Date Analysis Completed: 05/10/20

Prepared by:

Sophie France
Client Service Manager

Approved by:

Holly Neary-King
Client Services Supervisor

Envirolab Job Number: 20/08313

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08313/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH3									
Depth to Top	0.40									
Depth To Bottom										
Date Sampled	13-Aug-20									
Sample Type	Soil - ES									
Sample Matrix Code	6AE									
% Stones >10mm$_A$	18.1							% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	7.92							pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.02							g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	360							mg/kg	200	A-T-028s
Total Organic Carbon$_D$$^{M\#}$	0.75							% w/w	0.03	A-T-032s
Arsenic$_D$$^{M\#}$	13							mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	1.1							mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	51							mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	37							mg/kg	1	A-T-024s
Lead$_D$$^{M\#}$	61							mg/kg	1	A-T-024s
Mercury$_D$	0.68							mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	34							mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1							mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	100							mg/kg	5	A-T-024s

Envirolab Job Number: 20/08313

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08313/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH3									
Depth to Top	0.40									
Depth To Bottom										
Date Sampled	13-Aug-20									
Sample Type	Soil - ES									
Sample Matrix Code	6AE									
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil$_{D}^{\#}$	NAD									A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A									A-T-045

Envirolab Job Number: 20/08313

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08313/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH3									
Depth to Top	0.40									
Depth To Bottom										
Date Sampled	13-Aug-20									
Sample Type	Soil - ES									
Sample Matrix Code	6AE									
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01							mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01							mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02							mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.18							mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.24							mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.27							mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.14							mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.09							mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.24							mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04							mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.25							mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01							mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.16							mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03							mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.07							mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.25							mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	1.89							mg/kg	0.01	A-T-019s

Envirolab Job Number: 20/08313

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08313/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH3									
Depth to Top	0.40									
Depth To Bottom										
Date Sampled	13-Aug-20									
Sample Type	Soil - ES									
Sample Matrix Code	6AE									
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1							mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1							mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1							mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1							mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	5							mg/kg	1	A-T-055s
Total Aliphatics$_A$	5							mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1							mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1							mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1							mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1							mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	11							mg/kg	1	A-T-055s
Total Aromatics$_A$	12							mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	16							mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01							mg/kg	0.01	A-T-022s

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:
Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis.
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:
IS indicates Insufficient Sample for analysis.
US indicates Unsuitable Sample for analysis.
NDP indicates No Determination Possible.
NAD indicates No Asbestos Detected.
N/A indicates Not Applicable.
Superscript # indicates method accredited to ISO 17025.
Superscript "M" indicates method accredited to MCERTS.
Subscript "A" indicates analysis performed on the sample as received.
Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: RSK Environment Ltd Hemel, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, UK, HP3 9RT

Project: North London Business Park (N.L.B.P)

Clients Project No: 1921321

Project No: 20/08313

Date Received: 01/10/2020 (am)

Cool Box Temperatures (°C): 16.4, 19.4

Lab Sample ID	20/08313/1
Client Sample No	
Client Sample ID/Depth	BH3 0.40m
Date Sampled	13/08/20
Deviation Code	
F	✓

Key
F *Maximum holding time exceeded between sampling date and analysis for analytes listed below*

HOLDING TIME EXCEEDANCES

Lab Sample ID	20/08313/1
Client Sample No	
Client Sample ID/Depth	BH3 0.40m
Date Sampled	13/08/20
PAH-16MS	✓
Sulphate (acid soluble)	✓
Sulphate (water sol 2:1)	✓
EPHCWG	✓
VPHCWG	✓
Total Organic Carbon	✓

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 20/07394
Issue Number: 1 **Date:** 17 September, 2020

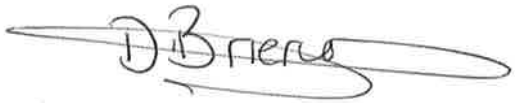
Client: RSK Environment Ltd Hemel
18 Frogmore Road
Hemel Hempstead
Hertfordshire
UK
HP3 9RT

Project Manager: Alex Marcelo/Andrew Kent
Project Name: North London Business Park (N.L.B.P)
Project Ref: 1921321
Order No: N/A
Date Samples Received: 25/08/20
Date Instructions Received: 04/09/20
Date Analysis Completed: 17/09/20

Prepared by:

Richard Wong
Client Manager

Approved by:



Danielle Brierley
Client Manager

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/1	20/07394/2	20/07394/3	20/07394/4	20/07394/5	20/07394/6	20/07394/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP2	TP2	TP3	TP4	TP5	TP6			
Depth to Top	0.50	0.10	0.70	0.50	0.80	0.60	0.10			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	6AE	5AE	6ABE	6AE	5AB	6ABE			
% Stones >10mm$_A$	4.0	11.2	22.3	25.7	36.3	14.6	19.2	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	8.12	6.91	8.01	8.14	8.07	7.76	7.77	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.12	<0.01	0.05	<0.01	0.04	0.12	<0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	300	450	<200	300	370	490	670	mg/kg	200	A-T-028s
Arsenic$_D$$^{M\#}$	2	18	2	4	3	2	16	mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	0.7	0.8	0.5	0.7	1.9	0.6	4.1	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	75	87	23	302	3550	97	173	mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	54	28	43	36	48	42	48	mg/kg	1	A-T-024s
Lead$_D$$^{M\#}$	18	219	19	115	459	49	563	mg/kg	1	A-T-024s
Mercury$_D$	0.84	2.00	0.30	0.60	0.49	0.56	1.56	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	47	27	26	45	142	34	54	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	2	<1	<1	1	<2	2	2	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	104	162	61	239	701	114	509	mg/kg	5	A-T-024s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/1	20/07394/2	20/07394/3	20/07394/4	20/07394/5	20/07394/6	20/07394/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP2	TP2	TP3	TP4	TP5	TP6			
Depth to Top	0.50	0.10	0.70	0.50	0.80	0.60	0.10			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	6AE	5AE	6ABE	6AE	5AB	6ABE			
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil$_D^{\#}$	NAD	NAD	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_D$	N/A	N/A	N/A	N/A	N/A	N/A	N/A			A-T-045

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/1	20/07394/2	20/07394/3	20/07394/4	20/07394/5	20/07394/6	20/07394/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP2	TP2	TP3	TP4	TP5	TP6			
Depth to Top	0.50	0.10	0.70	0.50	0.80	0.60	0.10			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	6AE	5AE	6ABE	6AE	5AB	6ABE			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	0.02	<0.01	<0.01	0.11	<0.01	0.10	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	0.02	<0.01	0.06	0.09	0.02	0.20	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	0.05	<0.02	0.06	0.44	0.03	1.29	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	0.30	<0.04	0.29	2.85	0.17	2.58	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	0.31	<0.04	0.42	2.31	0.25	1.75	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	0.44	<0.05	0.50	2.65	0.29	2.02	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	0.23	<0.05	0.36	1.28	0.30	0.89	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	0.16	<0.07	0.15	0.92	0.10	0.69	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	0.40	<0.06	0.36	2.50	0.23	2.37	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	0.04	<0.04	0.06	0.27	0.05	0.15	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	0.56	<0.08	0.40	5.27	0.25	8.67	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	0.01	<0.01	<0.01	0.08	<0.01	0.31	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	0.27	<0.03	0.41	1.67	0.33	1.11	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.04	0.27	<0.03	0.07	1.40	0.07	4.40	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	0.50	<0.07	0.42	4.69	0.27	7.48	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	3.58	<0.08	3.56	26.5	2.36	34	mg/kg	0.01	A-T-019s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/1	20/07394/2	20/07394/3	20/07394/4	20/07394/5	20/07394/6	20/07394/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP2	TP2	TP3	TP4	TP5	TP6			
Depth to Top	0.50	0.10	0.70	0.50	0.80	0.60	0.10			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	6AE	5AE	6ABE	6AE	5AB	6ABE			
VOC										
Dichlorodifluoromethane$_A$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Chloromethane$_A$	-	-	-	-	<10	-	-	µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene)$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Bromomethane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Chloroethane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Trichlorofluoromethane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Carbon Disulphide$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Dichloromethane$_A$	-	-	-	-	<5	-	-	µg/kg	5	A-T-006s
trans 1,2-Dichloroethene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
cis 1,2-Dichloroethene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
2,2-Dichloropropane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Bromochloromethane$_A$#	-	-	-	-	<5	-	-	µg/kg	5	A-T-006s
Chloroform$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,1,1-Trichloroethane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,1-Dichloropropene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Carbon Tetrachloride$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,2-Dichloroethane$_A$#	-	-	-	-	<2	-	-	µg/kg	2	A-T-006s
Benzene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Trichloroethene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,2-Dichloropropane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Dibromomethane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Bromodichloromethane$_A$#	-	-	-	-	<10	-	-	µg/kg	10	A-T-006s
cis 1,3-Dichloropropene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Toluene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
trans 1,3-Dichloropropene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,1,2-Trichloroethane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,3-Dichloropropane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Tetrachloroethene$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Dibromochloromethane$_A$#	-	-	-	-	<3	-	-	µg/kg	3	A-T-006s
1,2-Dibromoethane$_A$#	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/1	20/07394/2	20/07394/3	20/07394/4	20/07394/5	20/07394/6	20/07394/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP2	TP2	TP3	TP4	TP5	TP6			
Depth to Top	0.50	0.10	0.70	0.50	0.80	0.60	0.10			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	6AE	5AE	6ABE	6AE	5AB	6ABE			
Chlorobenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane$_{A}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Ethylbenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
m & p Xylene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
o-Xylene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Styrene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Bromoform$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Isopropylbenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,1,2,2-Tetrachloroethane$_{A}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,2,3-Trichloropropane$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
Bromobenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
n-Propylbenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
2-Chlorotoluene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
4-Chlorotoluene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
tert-Butylbenzene$_{A}^{\#}$	-	-	-	-	<2	-	-	µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
sec-Butylbenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
4-Isopropyltoluene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,3-Dichlorobenzene$_{A}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,4-Dichlorobenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
n-Butylbenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,2-Dichlorobenzene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP)$_{A}$	-	-	-	-	<2	-	-	µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene$_{A}$	-	-	-	-	<3	-	-	µg/kg	3	A-T-006s
Hexachlorobutadiene$_{A}^{\#}$	-	-	-	-	<1	-	-	µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene$_{A}$	-	-	-	-	<3	-	-	µg/kg	3	A-T-006s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/1	20/07394/2	20/07394/3	20/07394/4	20/07394/5	20/07394/6	20/07394/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP2	TP2	TP3	TP4	TP5	TP6			
Depth to Top	0.50	0.10	0.70	0.50	0.80	0.60	0.10			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	6AE	5AE	6ABE	6AE	5AB	6ABE			
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	<1	2	2	2	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	1	4	2	8	34	6	10	mg/kg	1	A-T-055s
Total Aliphatics$_A$	1	4	2	10	36	8	10	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	<1	<1	2	4	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	5	2	22	33	2	5	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	1	25	12	79	144	10	30	mg/kg	1	A-T-055s
Total Aromatics$_A$	1	30	14	103	180	12	34	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	2	34	15	113	217	20	44	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/8	20/07394/9	20/07394/10	20/07394/11	20/07394/12	20/07394/13	20/07394/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP6	TP7	TP8	TP9	TP10	TP11	TP12			
Depth to Top	0.40	0.10	0.50	0.30	1.50	0.50	1.00			
Depth To Bottom										
Date Sampled	26-Aug-20	26-Aug-20	26-Aug-20	26-Aug-20	25-Aug-20	24-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6ABE	6ABE	6ABE	6ABE	5AE	6ABE	5AE			
% Stones >10mm$_A$	13.2	20.6	46.0	33.7	<0.1	27.3	6.6	% w/w	0.1	A-T-044
pH$_D$[M#]	7.86	7.80	8.39	7.92	8.11	8.16	8.12	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$[M#]	<0.01	<0.01	0.04	<0.01	0.25	0.01	0.18	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$[M#]	360	1200	490	270	790	210	520	mg/kg	200	A-T-028s
Total Organic Carbon$_D$[M#]	-	-	1.08	0.74	-	-	-	% w/w	0.03	A-T-032s
Arsenic$_D$[M#]	6	8	4	11	3	4	2	mg/kg	1	A-T-024s
Cadmium$_D$[M#]	1.0	0.7	<0.5	0.7	1.8	0.6	1.2	mg/kg	0.5	A-T-024s
Copper$_D$[M#]	419	35	36	33	528	69	129	mg/kg	1	A-T-024s
Chromium$_D$[M#]	40	33	21	21	53	31	48	mg/kg	1	A-T-024s
Lead$_D$[M#]	172	40	160	52	181	47	55	mg/kg	1	A-T-024s
Mercury$_D$	0.71	0.82	0.91	0.34	0.76	0.36	0.32	mg/kg	0.17	A-T-024s
Nickel$_D$[M#]	54	33	19	25	79	30	53	mg/kg	1	A-T-024s
Selenium$_D$[M#]	2	5	<1	<1	3	<1	2	mg/kg	1	A-T-024s
Zinc$_D$[M#]	290	98	104	111	362	88	131	mg/kg	5	A-T-024s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/8	20/07394/9	20/07394/10	20/07394/11	20/07394/12	20/07394/13	20/07394/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP6	TP7	TP8	TP9	TP10	TP11	TP12			
Depth to Top	0.40	0.10	0.50	0.30	1.50	0.50	1.00			
Depth To Bottom										
Date Sampled	26-Aug-20	26-Aug-20	26-Aug-20	26-Aug-20	25-Aug-20	24-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6ABE	6ABE	6ABE	6ABE	5AE	6ABE	5AE			
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil$_D^{\#}$	NAD	NAD	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_D$	N/A	N/A	N/A	N/A	N/A	N/A	N/A			A-T-045

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/8	20/07394/9	20/07394/10	20/07394/11	20/07394/12	20/07394/13	20/07394/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP6	TP7	TP8	TP9	TP10	TP11	TP12			
Depth to Top	0.40	0.10	0.50	0.30	1.50	0.50	1.00			
Depth To Bottom										
Date Sampled	26-Aug-20	26-Aug-20	26-Aug-20	26-Aug-20	25-Aug-20	24-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6ABE	6ABE	6ABE	6ABE	5AE	6ABE	5AE			
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.01	<0.01	0.01	<0.01	0.01	0.02	0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	0.02	<0.01	0.02	0.01	0.01	0.03	0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.05	<0.02	0.04	<0.02	0.06	0.07	0.03	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.47	0.08	0.18	0.08	0.32	0.43	0.14	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.44	0.08	0.19	0.08	0.27	0.67	0.14	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.61	0.12	0.26	0.10	0.48	0.81	0.19	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.31	0.06	0.20	0.06	0.18	0.55	0.09	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.20	<0.07	0.08	<0.07	0.15	0.25	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.56	0.10	0.23	0.10	0.41	0.53	0.19	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	0.06	<0.04	<0.04	<0.04	<0.04	0.10	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.84	0.14	0.30	0.10	0.66	0.74	0.29	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.01	<0.01	<0.01	<0.01	0.01	0.02	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.38	0.07	0.21	0.07	0.23	0.64	0.11	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.27	0.04	0.12	<0.03	0.17	0.26	0.15	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.76	0.13	0.27	0.10	0.58	0.74	0.28	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	4.99	0.82	2.11	0.70	3.54	5.86	1.63	mg/kg	0.01	A-T-019s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/8	20/07394/9	20/07394/10	20/07394/11	20/07394/12	20/07394/13	20/07394/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP6	TP7	TP8	TP9	TP10	TP11	TP12			
Depth to Top	0.40	0.10	0.50	0.30	1.50	0.50	1.00			
Depth To Bottom										
Date Sampled	26-Aug-20	26-Aug-20	26-Aug-20	26-Aug-20	25-Aug-20	24-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6ABE	6ABE	6ABE	6ABE	5AE	6ABE	5AE			
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	2	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	5	<1	<1	2	1	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	5	8	47	1	5	5	3	mg/kg	1	A-T-055s
Total Aliphatics$_A$	5	8	54	1	5	7	4	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	<1	2	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	3	2	6	1	5	4	2	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	28	25	79	8	24	30	10	mg/kg	1	A-T-055s
Total Aromatics$_A$	31	27	88	9	30	34	12	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	37	36	142	11	35	40	17	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/15	20/07394/16	20/07394/17	20/07394/18	20/07394/19	20/07394/20	20/07394/21	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	BH5			
Depth to Top	0.40	0.50	0.15	1.00	0.50	1.50	0.20			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6AE	5AE	5AE	5AE	6ABE			
% Stones >10mm$_A$	6.1	<0.1	10.7	<0.1	<0.1	<0.1	17.9	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	7.20	7.79	7.65	8.13	8.34	8.24	7.95	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.02	0.06	<0.01	0.41	0.05	0.03	0.02	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	290	420	820	1300	200	210	1400	mg/kg	200	A-T-028s
Total Organic Carbon$_D$$^{M\#}$	-	1.29	-	-	0.17	-	-	% w/w	0.03	A-T-032s
Arsenic$_D$$^{M\#}$	4	3	4	2	3	<1	8	mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	0.6	0.7	1.0	1.4	0.6	0.8	0.7	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	18	67	86	344	32	116	24	mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	36	43	29	46	39	50	26	mg/kg	1	A-T-024s
Lead$_D$$^{M\#}$	25	102	81	73	17	26	112	mg/kg	1	A-T-024s
Mercury$_D$	0.24	0.40	0.38	0.38	<0.17	<0.17	1.33	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	23	28	31	60	39	48	25	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	3	4	<1	2	2	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	67	114	147	191	80	99	87	mg/kg	5	A-T-024s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/15	20/07394/16	20/07394/17	20/07394/18	20/07394/19	20/07394/20	20/07394/21	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	BH5			
Depth to Top	0.40	0.50	0.15	1.00	0.50	1.50	0.20			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6AE	5AE	5AE	5AE	6ABE			
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil$_D^{\#}$	NAD	NAD	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_D$	N/A	N/A	N/A	N/A	N/A	N/A	N/A			A-T-045

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/15	20/07394/16	20/07394/17	20/07394/18	20/07394/19	20/07394/20	20/07394/21	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	BH5			
Depth to Top	0.40	0.50	0.15	1.00	0.50	1.50	0.20			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6AE	5AE	5AE	5AE	6ABE			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	<0.01	<0.01	0.13	0.04	0.04	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01	0.11	0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	<0.02	<0.02	0.08	0.22	0.10	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	0.07	0.15	0.15	1.64	0.68	0.10	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	0.08	0.16	0.09	1.34	0.73	0.13	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	0.11	0.22	0.14	1.73	0.82	0.13	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	0.07	0.12	<0.05	0.68	0.47	0.11	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	<0.07	<0.07	<0.07	0.58	0.31	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	0.10	0.19	0.19	1.64	0.77	0.13	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	<0.04	0.15	0.16	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	0.10	0.21	0.47	2.57	0.86	0.16	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	<0.01	0.04	0.02	0.02	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	0.07	0.12	0.06	0.88	0.69	0.13	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	<0.03	0.06	0.26	0.53	0.17	0.05	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	0.09	0.20	0.35	2.32	0.80	0.15	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	0.69	1.43	1.96	14.4	6.63	1.09	mg/kg	0.01	A-T-019s

envirolab

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/15	20/07394/16	20/07394/17	20/07394/18	20/07394/19	20/07394/20	20/07394/21	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	BH5			
Depth to Top	0.40	0.50	0.15	1.00	0.50	1.50	0.20			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6AE	5AE	5AE	5AE	6ABE			
VOC										
Dichlorodifluoromethane$_{A}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Chloromethane$_{A}$	-	-	-	<10	-	-	-	µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene)$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromomethane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Chloroethane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Trichlorofluoromethane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Carbon Disulphide$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Dichloromethane$_{A}$	-	-	-	<5	-	-	-	µg/kg	5	A-T-006s
trans 1,2-Dichloroethene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
cis 1,2-Dichloroethene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
2,2-Dichloropropane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromochloromethane$_{A}^{\#}$	-	-	-	<5	-	-	-	µg/kg	5	A-T-006s
Chloroform$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1,1-Trichloroethane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloropropene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Carbon Tetrachloride$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloroethane$_{A}^{\#}$	-	-	-	<2	-	-	-	µg/kg	2	A-T-006s
Benzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Trichloroethene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloropropane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Dibromomethane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromodichloromethane$_{A}^{\#}$	-	-	-	<10	-	-	-	µg/kg	10	A-T-006s
cis 1,3-Dichloropropene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Toluene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
trans 1,3-Dichloropropene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1,2-Trichloroethane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,3-Dichloropropane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Tetrachloroethene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Dibromochloromethane$_{A}^{\#}$	-	-	-	<3	-	-	-	µg/kg	3	A-T-006s
1,2-Dibromoethane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/15	20/07394/16	20/07394/17	20/07394/18	20/07394/19	20/07394/20	20/07394/21	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	BH5			
Depth to Top	0.40	0.50	0.15	1.00	0.50	1.50	0.20			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6AE	5AE	5AE	5AE	6ABE			
Chlorobenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane$_{A}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Ethylbenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
m & p Xylene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
o-Xylene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Styrene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromoform$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Isopropylbenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1,2,2-Tetrachloroethane$_{A}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichloropropane$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromobenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
n-Propylbenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
2-Chlorotoluene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
4-Chlorotoluene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
tert-Butylbenzene$_{A}^{\#}$	-	-	-	<2	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
sec-Butylbenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
4-Isopropyltoluene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,3-Dichlorobenzene$_{A}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,4-Dichlorobenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
n-Butylbenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2-Dichlorobenzene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP)$_{A}$	-	-	-	<2	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene$_{A}$	-	-	-	<3	-	-	-	µg/kg	3	A-T-006s
Hexachlorobutadiene$_{A}^{\#}$	-	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene$_{A}$	-	-	-	<3	-	-	-	µg/kg	3	A-T-006s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/15	20/07394/16	20/07394/17	20/07394/18	20/07394/19	20/07394/20	20/07394/21	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	BH5			
Depth to Top	0.40	0.50	0.15	1.00	0.50	1.50	0.20			
Depth To Bottom										
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6AE	5AE	5AE	5AE	6ABE			
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	10	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	599	14	4	3	7	18	13	mg/kg	1	A-T-055s
Total Aliphatics$_A$	609	14	4	3	7	18	13	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	4	<1	<1	1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	234	1	2	21	5	8	3	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	428	21	17	45	22	63	38	mg/kg	1	A-T-055s
Total Aromatics$_A$	666	22	19	68	27	71	41	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	1270	36	23	71	34	89	54	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/25	20/07394/30	20/07394/40	20/07394/48	20/07394/55	20/07394/61	20/07394/62	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP3	TP7	TP15	TP16	BH1	TP3 + TP4	TP7 + TP8			
Depth to Top	0.75	0.50	0.80	0.50	1.75	0.75	0.50			
Depth To Bottom						0.80				
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	19-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code					5AE	6ABE	6ABE			
% Stones >10mm$_A$	-	-	-	-	9.3	25.7	45.8	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	-	-	-	-	7.96	8.16	10.84	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	-	-	-	-	0.13	-	-	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	-	-	-	-	650	-	-	mg/kg	200	A-T-028s
Total Organic Carbon$_D$$^{M\#}$	-	-	-	-	1.61	1.78	0.66	% w/w	0.03	A-T-032s
Arsenic$_D$$^{M\#}$	-	-	-	-	5	-	-	mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	-	-	-	-	0.5	-	-	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	-	-	-	-	55	-	-	mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	-	-	-	-	36	-	-	mg/kg	1	A-T-024s
Lead$_D$$^{M\#}$	-	-	-	-	48	-	-	mg/kg	1	A-T-024s
Mercury$_D$	-	-	-	-	0.34	-	-	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	-	-	-	-	28	-	-	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	-	-	-	-	<1	-	-	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	-	-	-	-	98	-	-	mg/kg	5	A-T-024s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/25	20/07394/30	20/07394/40	20/07394/48	20/07394/55	20/07394/61	20/07394/62	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP3	TP7	TP15	TP16	BH1	TP3 + TP4	TP7 + TP8			
Depth to Top	0.75	0.50	0.80	0.50	1.75	0.75	0.50			
Depth To Bottom						0.80				
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	19-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code					5AE	6ABE	6ABE			
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil$_D^{\#}$	-	-	-	-	NAD	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_D$	-	-	-	-	N/A	-	-			A-T-045

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/25	20/07394/30	20/07394/40	20/07394/48	20/07394/55	20/07394/61	20/07394/62	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP3	TP7	TP15	TP16	BH1	TP3 + TP4	TP7 + TP8			
Depth to Top	0.75	0.50	0.80	0.50	1.75	0.75	0.50			
Depth To Bottom						0.80				
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	19-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code					5AE	6ABE	6ABE			
PAH-16MS										
Acenaphthene$_A^{M\#}$	-	-	-	-	0.34	-	-	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	-	-	-	-	0.03	-	-	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	-	-	-	-	0.38	-	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	-	-	-	-	0.78	-	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	-	-	-	-	0.74	-	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	-	-	-	-	0.75	-	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	-	-	-	-	0.53	-	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	-	-	-	-	0.29	-	-	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	-	-	-	-	0.86	-	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	-	-	-	-	0.15	-	-	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	-	-	-	-	1.55	-	-	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	-	-	-	-	0.23	-	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	-	-	-	-	0.65	-	-	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	-	-	-	-	<0.03	-	-	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	-	-	-	-	1.43	-	-	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	-	-	-	-	1.42	-	-	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	-	-	-	-	10.1	-	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/25	20/07394/30	20/07394/40	20/07394/48	20/07394/55	20/07394/61	20/07394/62	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP3	TP7	TP15	TP16	BH1	TP3 + TP4	TP7 + TP8			
Depth to Top	0.75	0.50	0.80	0.50	1.75	0.75	0.50			
Depth To Bottom						0.80				
Date Sampled	24-Aug-20	24-Aug-20	25-Aug-20	25-Aug-20	19-Aug-20	24-Aug-20	26-Aug-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code					5AE	6ABE	6ABE			
TPH CWG										
Ali >C5-C6$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	-	-	-	-	1	-	-	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	-	-	-	-	50	-	-	mg/kg	1	A-T-055s
Total Aliphatics$_A$	-	-	-	-	51	-	-	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	-	-	-	-	3	-	-	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	-	-	-	-	9	-	-	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	-	-	-	-	73	-	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	-	-	-	-	86	-	-	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	-	-	-	-	136	-	-	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 20/07394

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/07394/63	20/07394/64						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP11 + TP13	TP15 +TP16								
Depth to Top	0.40	0.50								
Depth To Bottom	0.50	0.80								
Date Sampled	24-Aug-20	25-Aug-20								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6AE	5AE								
% Stones >10mm$_A$	<0.1	<0.1						% w/w	0.1	A-T-044
pH$_D^{M\#}$	7.95	8.72						pH	0.01	A-T-031s
Total Organic Carbon$_D^{M\#}$	0.61	1.81						% w/w	0.03	A-T-032s

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:
All results are reported as dry weight (<40℃).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:
Results greater than 12900µS/cm @ 25℃ / 11550µS/cm @ 20℃ fall outside the calibration range and as such are unaccredited.

Asbestos:
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis.
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:
IS indicates Insufficient Sample for analysis.
US indicates Unsuitable Sample for analysis.
NDP indicates No Determination Possible.
NAD indicates No Asbestos Detected.
N/A indicates Not Applicable.
Superscript # indicates method accredited to ISO 17025.
Superscript "M" indicates method accredited to MCERTS.
Subscript "A" indicates analysis performed on the sample as received.
Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: RSK Environment Ltd Hemel, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, UK, HP3 9RT

Project: North London Business Park (N.L.B.P)

Clients Project No: 1921321

Project No: 20/07394

Date Received: 04/09/2020 (am)

Cool Box Temperatures (°C): 15.9 - 18.0

Lab Sample ID	20/07394/55	20/07394/61	20/07394/62	20/07394/63	20/07394/64
Client Sample No					
Client Sample ID/Depth	BH1 1.75m	TP3 + TP4 0.75-0.80m	TP7 + TP8 0.50m	TP11 + TP13 0.40-0.50m	TP15 +TP16 0.50-0.80m
Date Sampled	19/08/20	24/08/20	26/08/20	24/08/20	25/08/20
Deviation Code					
B1 (no VPH)		✓	✓	✓	✓
F	✓				

Key

B1 (no VPH) *Separate container not supplied for VPH/BTEX analysis*

F *Maximum holding time exceeded between sampling date and analysis for analytes listed below*

HOLDING TIME EXCEEDANCES

Lab Sample ID	20/07394/55
Client Sample No	
Client Sample ID/Depth	BH1 1.75m
Date Sampled	19/08/20
PAH-16MS	✓
VPHCWG	✓

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

envirolab
Units 7 & 8, Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

Final Test Report

Envirolab Job Number:	20/07394
Issue Number:	1
Date:	17-Sep-20

Client: RSK Environment Ltd Hemel
18 Frogmore Road
Hemel Hempstead
Hertfordshire
UK
HP3 9RT

Project Manager:	Alex Marcelo/Andrew Kent
Project Name:	North London Business Park (N.L.B.P)
Project Ref:	1921321
Order No:	N/A
Date Samples Received:	25-Aug-20
Date Instructions Received:	4-Sep-20
Date Analysis Completed:	17-Sep-20

Notes - Soil analysis

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones >10mm are removed or excluded from the sample prior to analysis and reported results corrected to a whole sample basis.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis.

Notes - General

This report shall not be reproduced, except in full, without written approval from Envirolab.

Subscript "A" indicates analysis performed on the sample as received. "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve, unless asbestos is found to be present in which case all analysis is performed on the sample as received.

All analysis is performed on the dried and crushed sample for samples with Matrix Code 7 and this supercedes any "A" subscripts.

All analysis is performed on the sample as received for soil samples from outside the European Union and this supercedes any "D" subscripts

For complex, multi-compound analysis, quality control results do not always fall within chart limits for every compound and we have criteria for reporting in these situations.

If results are in italic font they are associated with such quality control failures and may be unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid

Predominant Matrix Codes: 1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample

Secondary Matrix Codes: A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

IS indicates Insufficient sample for analysis, NDP indicates No Determination Possible and NAD indicates No Asbestos Detected.

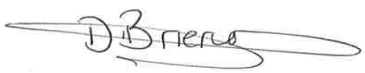
Analytical results reflect the quality of the sample at the time of analysis only. Opinions and interpretations expressed are outside the scope of our accreditation.

Please contact us if you need any further information.

Prepared by:

Richard Wong
Client Manager

Approved by:



Danielle Brierley
Client Manager

envirolab

Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Sample Details						Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	20/07394/61				
Client Sample Number								
Client Sample ID				TP3 + TP4				
Depth to Top				0.75				
Depth to Bottom				0.80				
Date Sampled				24/08/2020				
Sample Type				Soil - ES				
Sample Matrix Code				6ABE				
Solid Waste Analysis								
pH (pH Units)$_D$	A-T-031	N	N	**8.16**		-	>6	-
ANC to pH 4 (mol/kg)$_D$	A-T-ANC	N	N	**0.29**		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg)$_D$	A-T-ANC	N	N	**0.04**		-	to be evaluated	to be evaluated
Loss on Ignition (%)$_D$	A-T-030	N	N	**5.4**		-	-	10
Total Organic Carbon (%)$_D$	A-T-032	N	N	**1.78**		3	5	6
PAH Sum of 17 (mg/kg) $_A$	A-T-019	N	N	**378**		100	-	-
Mineral Oil (mg/kg)$_A$	A-T-007	N	N	**30**		500	-	-
Sum of 7 PCBs (mg/kg)$_A$	A-T-004	N	N	**<0.007**		1	-	-
Sum of BTEX (mg/kg)$_A$	A-T-022	N	N	**<0.01**		6	-	-
Eluate Analysis				**10:1**	**10:1**	**Limit values for compliance leaching test using**		
				mg/l	**mg/kg**	**BS EN 12457-2 at L/S 10 l/kg (mg/kg)**		
Arsenic	A-T-025	N	N	0.003	**0.030**	0.5	2	25
Barium	A-T-025	N	N	0.072	**0.720**	20	100	300
Cadmium	A-T-025	N	N	<0.001	**<0.01**	0.04	1	5
Chromium	A-T-025	N	N	0.002	**0.020**	0.5	10	70
Copper	A-T-025	N	N	0.315	**3.150**	2	50	100
Mercury	A-T-025	N	N	<0.0005	**<0.005**	0.01	0.2	2
Molybdenum	A-T-025	N	N	0.002	**0.020**	0.5	10	30
Nickel	A-T-025	N	N	0.009	**0.090**	0.4	10	40
Lead	A-T-025	N	N	0.082	**0.820**	0.5	10	50
Antimony	A-T-025	N	N	0.007	**0.070**	0.06	0.7	5
Selenium	A-T-025	N	N	0.003	**0.030**	0.1	0.5	7
Zinc	A-T-025	N	N	0.107	**1.070**	4	50	200
Chloride	A-T-026	N	N	3	**29**	800	15000	25000
Fluoride	A-T-026	N	N	0.9	**9.0**	10	150	500
Sulphate as SO_4	A-T-026	N	N	20	**199**	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	64	**640**	4000	60000	100000
Phenol Index	A-T-050	N	N	<0.01	**<0.1**	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<0.2	**<200**	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	8.0				
Conductivity (µS/cm)	A-T-037	N	N	128				
Mass Sample (kg)				0.206				
Dry Matter (%)	A-T-044	N	N	85.1				

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

envirolab

Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Sample Details						Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	20/07394/62				
Client Sample Number						Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample ID				TP7 + TP8				
Depth to Top				0.5				
Depth to Bottom								
Date Sampled				26/08/2020				
Sample Type				Soil - ES				
Sample Matrix Code				6ABE				
Solid Waste Analysis								
pH (pH Units)$_D$	A-T-031	N	N	**10.84**		-	>6	-
ANC to pH 4 (mol/kg)$_D$	A-T-ANC	N	N	**0.28**		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg)$_D$	A-T-ANC	N	N	**0.08**		-	to be evaluated	to be evaluated
Loss on Ignition (%)$_D$	A-T-030	N	N	**2.2**		-	-	10
Total Organic Carbon (%)$_D$	A-T-032	N	N	**0.66**		3	5	6
PAH Sum of 17 (mg/kg) $_A$	A-T-019	N	N	**1.47**		100	-	-
Mineral Oil (mg/kg)$_A$	A-T-007	N	N	**148**		500	-	-
Sum of 7 PCBs (mg/kg)$_A$	A-T-004	N	N	**<0.007**		1	-	-
Sum of BTEX (mg/kg)$_A$	A-T-022	N	N	**<0.01**		6	-	-
Eluate Analysis				**10:1**	**10:1**	**Limit values for compliance leaching test using**		
				mg/l	**mg/kg**	**BS EN 12457-2 at L/S 10 l/kg (mg/kg)**		
Arsenic	A-T-025	N	N	0.009	**0.090**	0.5	2	25
Barium	A-T-025	N	N	0.013	**0.130**	20	100	300
Cadmium	A-T-025	N	N	<0.001	**<0.01**	0.04	1	5
Chromium	A-T-025	N	N	0.003	**0.030**	0.5	10	70
Copper	A-T-025	N	N	0.010	**0.100**	2	50	100
Mercury	A-T-025	N	N	<0.0005	**<0.005**	0.01	0.2	2
Molybdenum	A-T-025	N	N	<0.001	**<0.01**	0.5	10	30
Nickel	A-T-025	N	N	<0.001	**<0.01**	0.4	10	40
Lead	A-T-025	N	N	0.040	**0.400**	0.5	10	50
Antimony	A-T-025	N	N	0.002	**0.020**	0.06	0.7	5
Selenium	A-T-025	N	N	<0.001	**<0.01**	0.1	0.5	7
Zinc	A-T-025	N	N	0.015	**0.150**	4	50	200
Chloride	A-T-026	N	N	1	**11**	800	15000	25000
Fluoride	A-T-026	N	N	0.2	**2.0**	10	150	500
Sulphate as SO_4	A-T-026	N	N	18	**181**	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	51	**510**	4000	60000	100000
Phenol Index	A-T-050	N	N	<0.01	**<0.1**	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<0.2	**<200**	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	8.8				
Conductivity (µS/cm)	A-T-037	N	N	102				
Mass Sample (kg)				0.223				
Dry Matter (%)	A-T-044	N	N	78.5				

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

envirolab

Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Sample Details						Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	20/07394/63				
Client Sample Number								
Client Sample ID				TP11 + TP13				
Depth to Top				0.4				
Depth to Bottom				0.50		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Date Sampled				24/08/2020				
Sample Type				Soil - ES				
Sample Matrix Code				6AE				
Solid Waste Analysis								
pH (pH Units)$_D$	A-T-031	N	N	**7.95**		-	>6	-
ANC to pH 4 (mol/kg)$_D$	A-T-ANC	N	N	**0.23**		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg)$_D$	A-T-ANC	N	N	**0.04**		-	to be evaluated	to be evaluated
Loss on Ignition (%)$_D$	A-T-030	N	N	**6.7**		-	-	10
Total Organic Carbon (%)$_D$	A-T-032	N	N	**0.61**		3	5	6
PAH Sum of 17 (mg/kg) $_A$	A-T-019	N	N	**<0.08**		100	-	-
Mineral Oil (mg/kg)$_A$	A-T-007	N	N	**295**		500	-	-
Sum of 7 PCBs (mg/kg)$_A$	A-T-004	N	N	**<0.007**		1	-	-
Sum of BTEX (mg/kg)$_A$	A-T-022	N	N	**<0.01**		6	-	-
Eluate Analysis				**10:1**	**10:1**	**Limit values for compliance leaching test using**		
				mg/l	**mg/kg**	**BS EN 12457-2 at L/S 10 l/kg (mg/kg)**		
Arsenic	A-T-025	N	N	0.001	**0.010**	0.5	2	25
Barium	A-T-025	N	N	0.011	**0.110**	20	100	300
Cadmium	A-T-025	N	N	<0.001	**<0.01**	0.04	1	5
Chromium	A-T-025	N	N	0.001	**0.010**	0.5	10	70
Copper	A-T-025	N	N	0.008	**0.080**	2	50	100
Mercury	A-T-025	N	N	<0.0005	**<0.005**	0.01	0.2	2
Molybdenum	A-T-025	N	N	<0.001	**<0.01**	0.5	10	30
Nickel	A-T-025	N	N	0.001	**0.010**	0.4	10	40
Lead	A-T-025	N	N	0.005	**0.050**	0.5	10	50
Antimony	A-T-025	N	N	<0.001	**<0.01**	0.06	0.7	5
Selenium	A-T-025	N	N	0.001	**0.010**	0.1	0.5	7
Zinc	A-T-025	N	N	0.008	**0.080**	4	50	200
Chloride	A-T-026	N	N	4	**37**	800	15000	25000
Fluoride	A-T-026	N	N	0.4	**4.0**	10	150	500
Sulphate as SO_4	A-T-026	N	N	22	**217**	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	53	**530**	4000	60000	100000
Phenol Index	A-T-050	N	N	<0.01	**<0.1**	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<0.2	**<200**	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	8.2				
Conductivity (µS/cm)	A-T-037	N	N	106				
Mass Sample (kg)				0.203				
Dry Matter (%)	A-T-044	N	N	86				

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

envirolab

Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Sample Details						Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	20/07394/64				
Client Sample Number								
Client Sample ID				TP15 +TP16				
Depth to Top				0.5				
Depth to Bottom				0.80		Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Date Sampled				25/08/2020				
Sample Type				Soil - ES				
Sample Matrix Code				5AE				
Solid Waste Analysis								
pH (pH Units)$_D$	A-T-031	N	N	**8.72**		-	>6	-
ANC to pH 4 (mol/kg)$_D$	A-T-ANC	N	N	**0.46**		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg)$_D$	A-T-ANC	N	N	**0.07**		-	to be evaluated	to be evaluated
Loss on Ignition (%)$_D$	A-T-030	N	N	**7.2**		-	-	10
Total Organic Carbon (%)$_D$	A-T-032	N	N	**1.81**		3	5	6
PAH Sum of 17 (mg/kg) $_A$	A-T-019	N	N	**1.2**		100	-	-
Mineral Oil (mg/kg)$_A$	A-T-007	N	N	**<10**		500	-	-
Sum of 7 PCBs (mg/kg)$_A$	A-T-004	N	N	**<0.007**		1	-	-
Sum of BTEX (mg/kg)$_A$	A-T-022	N	N	**<0.01**		6	-	-
Eluate Analysis				**10:1**	**10:1**	**Limit values for compliance leaching test using**		
				mg/l	**mg/kg**	**BS EN 12457-2 at L/S 10 l/kg (mg/kg)**		
Arsenic	A-T-025	N	N	<0.001	**<0.01**	0.5	2	25
Barium	A-T-025	N	N	0.024	**0.240**	20	100	300
Cadmium	A-T-025	N	N	<0.001	**<0.01**	0.04	1	5
Chromium	A-T-025	N	N	<0.001	**<0.01**	0.5	10	70
Copper	A-T-025	N	N	0.003	**0.030**	2	50	100
Mercury	A-T-025	N	N	<0.0005	**<0.005**	0.01	0.2	2
Molybdenum	A-T-025	N	N	0.008	**0.080**	0.5	10	30
Nickel	A-T-025	N	N	<0.001	**<0.01**	0.4	10	40
Lead	A-T-025	N	N	<0.001	**<0.01**	0.5	10	50
Antimony	A-T-025	N	N	0.002	**0.020**	0.06	0.7	5
Selenium	A-T-025	N	N	0.005	**0.050**	0.1	0.5	7
Zinc	A-T-025	N	N	0.004	**0.040**	4	50	200
Chloride	A-T-026	N	N	<1.00	**<10**	800	15000	25000
Fluoride	A-T-026	N	N	0.9	**9.0**	10	150	500
Sulphate as SO_4	A-T-026	N	N	72	**717**	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	134	**1340**	4000	60000	100000
Phenol Index	A-T-050	N	N	<0.01	**<0.1**	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<0.2	**<200**	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	8.2				
Conductivity (µS/cm)	A-T-037	N	N	267				
Mass Sample (kg)				0.214				
Dry Matter (%)	A-T-044	N	N	81.9				

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

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 20/07494
Issue Number: 1 **Date:** 21 September, 2020

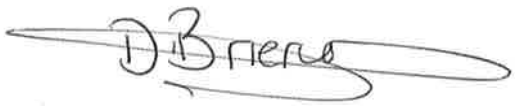
Client:
RSK Environment Ltd Hemel
18 Frogmore Road
Hemel Hempstead
Hertfordshire
UK
HP3 9RT

Project Manager: Andrew Kent
Project Name: North London Business Park
Project Ref: 1921321
Order No: N/A
Date Samples Received: 28/08/20
Date Instructions Received: 08/09/20
Date Analysis Completed: 18/09/20

Prepared by:

Sophie France
Client Service Manager

Approved by:



Danielle Brierley
Client Manager

Envirolab Job Number: 20/07494

Client Project Name: North London Business Park

Client Project Ref: 1921321

Lab Sample ID	20/07494/1	20/07494/2	20/07494/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH4	BH6	BH7							
Depth to Top	0.75	0.50	1.50							
Depth To Bottom										
Date Sampled	02-Sep-20	21-Aug-20	02-Sep-20							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6ABE	6AE	6AE							
% Stones >10mm$_A$	8.6	7.9	19.0					% w/w	0.1	A-T-044
pH$_D^{M\#}$	8.38	6.73	10.12					pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	0.05	0.02	0.45					g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D^{M\#}$	610	430	3500					mg/kg	200	A-T-028s
Arsenic$_D^{M\#}$	5	<1	3					mg/kg	1	A-T-024s
Cadmium$_D^{M\#}$	0.7	<0.5	0.6					mg/kg	0.5	A-T-024s
Copper$_D^{M\#}$	159	93	170					mg/kg	1	A-T-024s
Chromium$_D^{M\#}$	37	34	45					mg/kg	1	A-T-024s
Lead$_D^{M\#}$	139	77	180					mg/kg	1	A-T-024s
Mercury$_D$	0.80	0.60	0.82					mg/kg	0.17	A-T-024s
Nickel$_D^{M\#}$	34	18	45					mg/kg	1	A-T-024s
Selenium$_D^{M\#}$	2	2	2					mg/kg	1	A-T-024s
Zinc$_D^{M\#}$	164	85	165					mg/kg	5	A-T-024s

Envirolab Job Number: 20/07494

Client Project Name: North London Business Park

Client Project Ref: 1921321

Lab Sample ID	20/07494/1	20/07494/2	20/07494/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH4	BH6	BH7							
Depth to Top	0.75	0.50	1.50							
Depth To Bottom										
Date Sampled	02-Sep-20	21-Aug-20	02-Sep-20							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6ABE	6AE	6AE							
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil$_D^{\#}$	NAD	NAD	NAD							A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_D$	N/A	N/A	N/A							A-T-045

Envirolab Job Number: 20/07494

Client Project Name: North London Business Park

Client Project Ref: 1921321

Lab Sample ID	20/07494/1	20/07494/2	20/07494/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH4	BH6	BH7							
Depth to Top	0.75	0.50	1.50							
Depth To Bottom										
Date Sampled	02-Sep-20	21-Aug-20	02-Sep-20							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6ABE	6AE	6AE							
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	<0.01	0.05					mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	0.02	<0.01	0.02					mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.08	<0.02	0.09					mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.51	<0.04	0.26					mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.48	<0.04	0.28					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.59	<0.05	0.32					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.31	<0.05	0.18					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.22	<0.07	0.12					mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.53	<0.06	0.28					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	0.08	<0.04	0.05					mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.93	<0.08	0.49					mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.02	<0.01	0.04					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.40	<0.03	0.25					mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.27	<0.03	0.29					mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.80	<0.07	0.45					mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	5.24	<0.08	3.17					mg/kg	0.01	A-T-019s

Envirolab Job Number: 20/07494

Client Project Name: North London Business Park

Client Project Ref: 1921321

Lab Sample ID	20/07494/1	20/07494/2	20/07494/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH4	BH6	BH7							
Depth to Top	0.75	0.50	1.50							
Depth To Bottom										
Date Sampled	02-Sep-20	21-Aug-20	02-Sep-20							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6ABE	6AE	6AE							
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	3					mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	2	<1	7					mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	15	2	15					mg/kg	1	A-T-055s
Total Aliphatics$_A$	18	2	25					mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	3					mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C12-C16$_A$	4	<1	3					mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	41	<1	7					mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	141	7	23					mg/kg	1	A-T-055s
Total Aromatics$_A$	186	7	35					mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	203	9	60					mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	0.07					mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	0.02					mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:
Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis.
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:
IS indicates Insufficient Sample for analysis.
US indicates Unsuitable Sample for analysis.
NDP indicates No Determination Possible.
NAD indicates No Asbestos Detected.
N/A indicates Not Applicable.
Superscript # indicates method accredited to ISO 17025.
Superscript "M" indicates method accredited to MCERTS.
Subscript "A" indicates analysis performed on the sample as received.
Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: RSK Environment Ltd Hemel, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, UK, HP3 9RT

Project: North London Business Park

Clients Project No: 1921321

Project No: 20/07494

Date Received: 08/09/2020 (am)

Cool Box Temperatures (°C): 16.9

Lab Sample ID	20/07494/2
Client Sample No	
Client Sample ID/Depth	BH6 0.50m
Date Sampled	21/08/20
Deviation Code	
F	✓

Key
F *Maximum holding time exceeded between sampling date and analysis for analytes listed below*

HOLDING TIME EXCEEDANCES

Lab Sample ID	20/07494/2
Client Sample No	
Client Sample ID/Depth	BH6 0.50m
Date Sampled	21/08/20
PAH-16MS	✓
VPHCWG	✓

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 20/08234
Issue Number: 1 **Date:** 15 October, 2020

Client:
RSK Environment Ltd Hemel
18 Frogmore Road
Hemel Hempstead
Hertfordshire
UK
HP3 9RT

Project Manager: Andrew Kent
Project Name: North London Business Park (N.L.B.P)
Project Ref: 1921321
Order No: N/A
Date Samples Received: 29/09/20
Date Instructions Received: 29/09/20
Date Analysis Completed: 15/10/20

Prepared by:

Melanie Marshall
Laboratory Coordinator

Approved by:

Richard Wong
Client Manager

Envirolab Job Number: 20/08234

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08234/1	20/08234/2	20/08234/3	20/08234/4	20/08234/5	20/08234/6	20/08234/7	Units	Limit of Detection	Method ref
Client Sample No	17	18	9	23	5	19	29			
Client Sample ID	BH1	BH2	BH3	BH3	BH4	BH4	BH4			
Depth to Top	10.50	11.00	4.50	15.00	1.60	9.00	15.00			
Depth To Bottom	11.00	11.50	5.00	15.50	2.00	9.50	15.50			
Date Sampled	19-Aug-20	17-Aug-20	13-Aug-20	13-Aug-20	02-Sep-20	02-Sep-20	02-Sep-20			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	5AE	5A	5AE	5A	5AE	5A	5AE			
% Stones >10mm$_A$	39.4	21.7	20.0	19.3	7.8	34.8	21.2	% w/w	0.1	A-T-044
pH BRE$_D$$^{M\#}$	8.10	8.42	7.86	8.00	8.46	8.64	7.94	pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1)$_D$$^{M\#}$	1270	165	2370	2330	124	72	1840	mg/l	10	A-T-026s
Sulphate BRE (acid sol)$_D$$^{M\#}$	0.36	0.05	1.38	0.76	0.05	0.03	0.51	% w/w	0.02	A-T-028s
Sulphur BRE (total)$_D$	0.12	0.04	0.47	0.50	0.03	0.03	0.17	% w/w	0.01	A-T-024s

Envirolab Job Number: 20/08234

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08234/8	20/08234/9	20/08234/10	20/08234/11	20/08234/12	20/08234/13	20/08234/14	Units	Limit of Detection	Method ref
Client Sample No	18	32	6	12	22	5	9			
Client Sample ID	BH5	BH5	BH6	BH6	BH6	BH7	BH7			
Depth to Top	10.50	21.00	2.50	6.00	13.50	3.50	6.00			
Depth To Bottom	11.00	21.50	3.00	6.50	14.00	4.00	6.50			
Date Sampled	25-Aug-20	25-Aug-20	21-Aug-20	24-Aug-20	24-Aug-20	02-Sep-20	02-Sep-20			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	5A	5AE	5AE	5A	5AE	5A	5AE			
% Stones >10mm$_A$	2.0	26.9	35.1	37.4	16.3	33.8	26.4	% w/w	0.1	A-T-044
pH BRE$_D$$^{M\#}$	7.79	8.23	8.14	8.05	8.39	8.06	7.74	pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1)$_D$$^{M\#}$	2070	1200	232	1700	937	106	1940	mg/l	10	A-T-026s
Sulphate BRE (acid sol)$_D$$^{M\#}$	1.26	0.17	0.07	0.61	0.29	0.03	1.41	% w/w	0.02	A-T-028s
Sulphur BRE (total)$_D$	0.52	0.38	0.05	0.28	0.40	0.02	0.70	% w/w	0.01	A-T-024s

Envirolab Job Number: 20/08234

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08234/15	20/08234/16	20/08234/17	20/08234/18	20/08234/19	20/08234/20	20/08234/21	Units	Limit of Detection	Method ref
Client Sample No	27	11	25	5	5	11	3			
Client Sample ID	BH7	BH8	BH8	BH1	BH1	BH1	BH2			
Depth to Top	19.50	6.00	16.50	2.50	2.70	6.00	1.50			
Depth To Bottom	20.00	6.50	17.00	3.00	3.00	6.50	2.00			
Date Sampled	02-Sep-20	27-Aug-20	28-Aug-20							
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	5A	5A	5A	5A	5A	5A	5A			
% Stones >10mm$_A$	24.9	20.6	22.8	25.9	25.7	25.5	20.3	% w/w	0.1	A-T-044
pH BRE$_D$$^{M\#}$	8.02	8.32	7.81	7.85	8.43	8.27	8.38	pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1)$_D$$^{M\#}$	879	2060	2190	978	416	1710	772	mg/l	10	A-T-026s
Sulphate BRE (acid sol)$_D$$^{M\#}$	0.20	1.19	0.42	0.16	0.06	0.43	0.13	% w/w	0.02	A-T-028s
Sulphur BRE (total)$_D$	0.38	0.52	0.31	0.41	0.04	0.18	0.27	% w/w	0.01	A-T-024s

Envirolab Job Number: 20/08234

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08234/22	20/08234/23	20/08234/24					Units	Limit of Detection	Method ref
Client Sample No	7	6	7							
Client Sample ID	BH2	BH5	BH8							
Depth to Top	3.50	2.50	3.50							
Depth To Bottom	4.00	3.00	4.00							
Date Sampled										
Sample Type	Soil	Soil	Soil							
Sample Matrix Code	5A	5A	5A							
% Stones >10mm$_A$	23.5	20.6	17.0					% w/w	0.1	A-T-044
pH BRE$_D$$^{M\#}$	8.67	8.56	8.15					pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1)$_D$$^{M\#}$	450	430	1220					mg/l	10	A-T-026s
Sulphate BRE (acid sol)$_D$$^{M\#}$	0.08	0.07	0.32					% w/w	0.02	A-T-028s
Sulphur BRE (total)$_D$	0.04	0.03	0.24					% w/w	0.01	A-T-024s

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:
All results are reported as dry weight (<40℃).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:
Results greater than 12900µS/cm @ 25℃ / 11550µS/cm @ 20℃ fall outside the calibration range and as such are unaccredited.

Asbestos:
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis.
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:
IS indicates Insufficient Sample for analysis.
US indicates Unsuitable Sample for analysis.
NDP indicates No Determination Possible.
NAD indicates No Asbestos Detected.
N/A indicates Not Applicable.
Superscript # indicates method accredited to ISO 17025.
Superscript "M" indicates method accredited to MCERTS.
Subscript "A" indicates analysis performed on the sample as received.
Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: RSK Environment Ltd Hemel, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, UK, HP3 9RT

Project: North London Business Park (N.L.B.P)

Clients Project No: 1921321

Project No: 20/08234

Date Received: 29/09/2020 (am)

Cool Box Temperatures (°C): 10.4, 11.6, 10.8, 11.2

Lab Sample ID	20/08234/1	20/08234/2	20/08234/3	20/08234/4	20/08234/5	20/08234/6	20/08234/7	20/08234/8	20/08234/9	20/08234/10	20/08234/11
Client Sample No	17	18	9	23	5	19	29	18	32	6	12
Client Sample ID/Depth	BH1 10.50-11.00m	BH2 11.00-11.50m	BH3 4.50-5.00m	BH3 15.00-15.50m	BH4 1.60-2.00m	BH4 9.00-9.50m	BH4 15.00-15.50m	BH5 10.50-11.00m	BH5 21.00-21.50m	BH6 2.50-3.00m	BH6 6.00-6.50m
Date Sampled	19/08/20	17/08/20	13/08/20	13/08/20	02/09/20	02/09/20	02/09/20	25/08/20	25/08/20	21/08/20	24/08/20
Deviation Code											
E (no date)											
F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Lab Sample ID	20/08234/12	20/08234/13	20/08234/14	20/08234/15	20/08234/16	20/08234/17	20/08234/18	20/08234/19	20/08234/20	20/08234/21	20/08234/22
Client Sample No	22	5	9	27	11	25	5	5	11	3	7
Client Sample ID/Depth	BH6 13.50-14.00m	BH7 3.50-4.00m	BH7 6.00-6.50m	BH7 19.50-20.00m	BH8 6.00-6.50m	BH8 16.50-17.00m	BH1 2.50-3.00m	BH1 2.70-3.00m	BH1 6.00-6.50m	BH2 1.50-2.00m	BH2 3.50-4.00m
Date Sampled	24/08/20	02/09/20	02/09/20	02/09/20	27/08/20	28/08/20					
Deviation Code											
E (no date)							✓	✓	✓	✓	✓
F	✓	✓	✓	✓	✓	✓					

Lab Sample ID	20/08234/23	20/08234/24
Client Sample No	6	7
Client Sample ID/Depth	BH5 2.50-3.00m	BH8 3.50-4.00m
Date Sampled		
Deviation Code		
E (no date)	✓	✓
F		

Key
E (no date) *No sampling date provided (all results affected if not provided)*

F *Maximum holding time exceeded between sampling date and analysis for analytes listed below*

HOLDING TIME EXCEEDANCES

Lab Sample ID	20/08234/1	20/08234/2	20/08234/3	20/08234/4	20/08234/5	20/08234/6	20/08234/7	20/08234/8	20/08234/9	20/08234/10	20/08234/11
Client Sample No	17	18	9	23	5	19	29	18	32	6	12
Client Sample ID/Depth	BH1 10.50-11.00m	BH2 11.00-11.50m	BH3 4.50-5.00m	BH3 15.00-15.50m	BH4 1.60-2.00m	BH4 9.00-9.50m	BH4 15.00-15.50m	BH5 10.50-11.00m	BH5 21.00-21.50m	BH6 2.50-3.00m	BH6 6.00-6.50m
Date Sampled	19/08/20	17/08/20	13/08/20	13/08/20	02/09/20	02/09/20	02/09/20	25/08/20	25/08/20	21/08/20	24/08/20
Sulphate BRE (water sol 2:1)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sulphate BRE (acid sol)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Lab Sample ID	20/08234/12	20/08234/13	20/08234/14	20/08234/15	20/08234/16	20/08234/17
Client Sample No	22	5	9	27	11	25
Client Sample ID/Depth	BH6 13.50-14.00m	BH7 3.50-4.00m	BH7 6.00-6.50m	BH7 19.50-20.00m	BH8 6.00-6.50m	BH8 16.50-17.00m
Date Sampled	24/08/20	02/09/20	02/09/20	02/09/20	27/08/20	28/08/20
Sulphate BRE (water sol 2:1)	✓	✓	✓	✓	✓	✓
Sulphate BRE (acid sol)	✓	✓	✓	✓	✓	✓

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

APPENDIX K
LABORATORY CERTIFICATES FOR GEOTECHNICAL ANALYSIS

STRUCTURAL SOILS LTD

TEST REPORT

Report No. 584350-01 (00) 1774

Date 03-December-2020 Contract North London Business Park

Client RSK
Address 18 Frogmore Rd
Apsley
Hemel Hempstead
Hertfordshire
HP3 9RT
For the Attention of Alex Marcelo

Samples submitted by client	22-September-2020	Client Reference	1921321
Testing Started	29-September-2020	Client Order No.	n/a
Testing Completed	02-December-2020	Instruction Type	Written

Tests marked 'Not UKAS Accredited' in this report are not included in the UKAS Accreditation Schedule for our Laboratory.

UKAS Accredited Tests

1.01	Moisture Content (oven drying method) BS1377:Part 2:1990:clause 3.2 (superseded)*
1.03	Liquid Limit (one point method) & Plastic Limit BS1377:Part 2:1990,clause 4.4/5.3 (superseded)*
4.01	One-dimensional consolidation BS1377:Part 5:1990,clause 3.5 (superseded)*
4.04	Swelling test BS1377:Part 5:1990,clause 4.4
5.04	Undrained shear strength triaxial compression without pore pressure measurement (definitive method) 100mm diameter specimens BS1377:Part 7:1990,clause 8.4 (superseded)*

* This clause of BS1377 is no longer the most up to date method due to the publication of ISO17892

Please Note: Remaining samples will be retained for a period of one month from today and will then be disposed of .
Test were undertaken on samples 'as received' unless otherwise stated.
Opinions and interpretations expressed in this report are outside the scope of accreditation for this laboratory.

Structural Soils Ltd 18 Frogmore Rd Hemel Hempstead HP3 9RT Tel.01442 416661 e-mail dimitris.xirouchakis@soils.co.uk

TESTING VERIFICATION CERTIFICATE

UKAS TESTING
1774

The test results included in this report are certified as:-

ISSUE STATUS: **FINAL**

In accordance with the Structural Soils Ltd Laboratory Quality Management System, results sheets and summaries of results issued by the laboratory are checked by an approved signatory. The integrity of the test data and results are ensured by control of the computer system employed by the laboratory as part of the Software Verification Program as detailed in the Laboratory Quality Manual.

This testing verification certificate covers all testing compiled on or before the following datetime: **14/10/2020 13:48:44**.

Testing reported after this date is not covered by this Verification Certificate.

Approved Signatory
Sharon Cairns (Laboratory Manager)

(Head Office)
Bristol Laboratory
Unit 1A, Princess Street
Bedminster
Bristol
BS3 4AG

Castleford Laboratory
The Potteries, Pottery Street
Castleford
West Yorkshire
WF10 1NJ

Hemel Laboratory
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Tonbridge Laboratory
Anerley Court, Half Moon Lane
Hildenborough
Tonbridge
TN11 9HU

	Contract:	Job No:
STRUCTURAL SOILS LTD	**North London Buisness Park (N.L.B.P)**	**584350**

AGS

TESTING VERIFICATION CERTIFICATE

UKAS TESTING
1774

The test results included in this report are certified as:-

ISSUE STATUS: **FINAL**

In accordance with the Structural Soils Ltd Laboratory Quality Management System, results sheets and summaries of results issued by the laboratory are checked by an approved signatory. The integrity of the test data and results are ensured by control of the computer system employed by the laboratory as part of the Software Verification Program as detailed in the Laboratory Quality Manual.

This testing verification certificate covers all testing compiled on or before the following datetime: **03/12/2020 10:36:39**.

Testing reported after this date is not covered by this Verification Certificate.

A. D. Frost

Approved Signatory
Alan Frost (Data Quality Manager)

(Head Office)
Bristol Laboratory
Unit 1A, Princess Street
Bedminster
Bristol
BS3 4AG

Castleford Laboratory
The Potteries, Pottery Street
Castleford
West Yorkshire
WF10 1NJ

Hemel Laboratory
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Tonbridge Laboratory
Anerley Court, Half Moon Lane
Hildenborough
Tonbridge
TN11 9HU

	Contract:	Job No:
STRUCTURAL SOILS LTD	**North London Business Park (N.L.B.P)**	**584350**

AGS

SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Description of Sample
BH1	9	D	4.50	34	74	24	50	100	Brown CLAY
BH2	5	B	2.30	36	70	24	46	97	Brown slightly gravelly CLAY
BH3	11	D	6.00	29	74	23	51	99	Brown CLAY with some gypsum
BH3	21	D	13.50	34	70	23	47	100	Brown CLAY
BH4	7	B	2.50	34	72	25	47	99	Brown mottled orange slightly gravelly CLAY
BH4	26	B	13.50	30	69	23	46	85	Brown slightly gravelly CLAY
BH5	5	B	2.20	33	66	22	44	70	Brown mottled dark grey slightly gravelly organic CLAY
BH6	10	D	4.50	30	74	25	49	98	Brown mottled grey CLAY with some gypsum

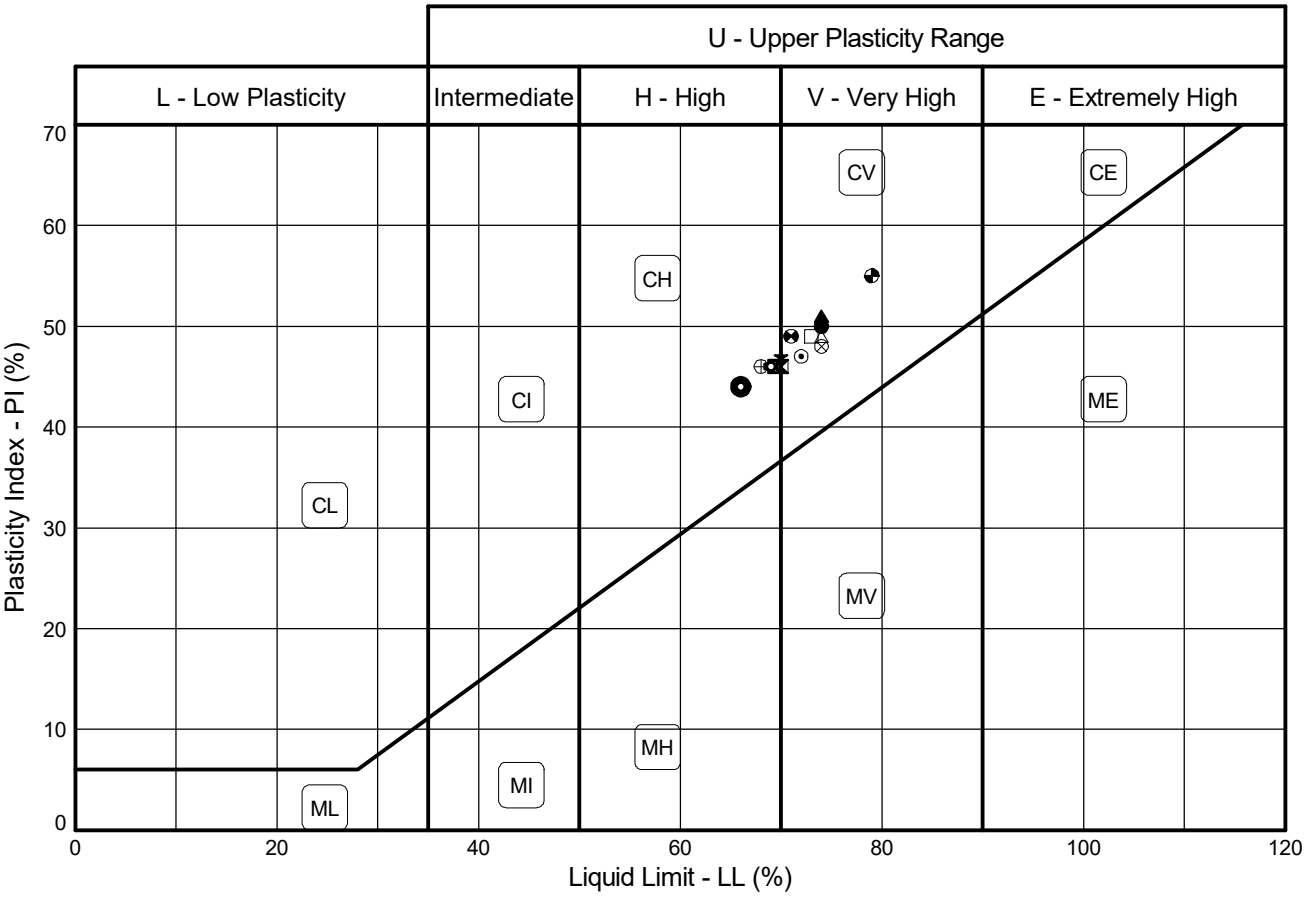
SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Description of Sample
BH6	26	D	16.50	30	74	26	48	100	Brown CLAY
BH7	3	D	2.40	32	68	22	46	99	Brown mottled light grey slightly sandy CLAY
BH7	11	D	7.50	31	73	24	49	98	Brown CLAY
BH8	5	B	2.00	30	71	22	49	100	Brown mottled red CLAY with occasional man-made material
BH8	29	D	19.50	32	79	24	55	100	Brown CLAY
TP1		D	1.00	28	73	23	50	98	Brown mottled dark grey and orange slightly sandy slightly gravelly CLAY

PLASTICITY CHART - PI Vs LL

In accordance with BS5930:2015
Testing in accordance with BS1377-2:1990



Sample Identification				BS Test Method #	Preparation Method +	MC	LL	PL	PI	<425µm	Lab location	Notes
	Exploratory Position ID	Sample	Depth (m)			%	%	%	%	%		
●	BH1	9D	4.50	3.2/4.4/5.3/5.4	4.2.4	34	74	24	50	100	H	
⊠	BH2	5B	2.30	3.2/4.4/5.3/5.4	4.2.4	36	70	24	46	97	H	
▲	BH3	11D	6.00	3.2/4.4/5.3/5.4	4.2.4	29	74	23	51	99	H	
★	BH3	21D	13.50	3.2/4.4/5.3/5.4	4.2.4	34	70	23	47	100	H	
⊙	BH4	7B	2.50	3.2/4.4/5.3/5.4	4.2.4	34	72	25	47	99	H	
✿	BH4	26B	13.50	3.2/4.4/5.3/5.4	4.2.4	30	69	23	46	85	H	
◉	BH5	5B	2.20	3.2/4.4/5.3/5.4	4.2.4	33	66	22	44	70	H	
△	BH6	10D	4.50	3.2/4.4/5.3/5.4	4.2.4	30	74	25	49	98	H	
⊗	BH6	26D	16.50	3.2/4.4/5.3/5.4	4.2.4	30	74	26	48	100	H	
⊕	BH7	3D	2.40	3.2/4.4/5.3/5.4	4.2.4	32	68	22	46	99	H	
□	BH7	11D	7.50	3.2/4.4/5.3/5.4	4.2.4	31	73	24	49	98	H	
⊠	BH8	5B	2.00	3.2/4.4/5.3/5.4	4.2.4	30	71	22	49	100	H	
◒	BH8	29D	19.50	3.2/4.4/5.3/5.4	4.2.3	32	79	24	55	100	H	

Tested in accordance with the following clauses of BS1377-2:1990.

3.2 - Moisture Content
4.3 - Cone Penetrometer Method
4.4 - One Point Cone Penetrometer Method
4.6 - One Point Casagrande Method
5.3 - Plastic Limit Method
5.4 - Plasticity Index

+ Tested in accordance with the following clauses of BS1377-2:1990.

4.2.3 - Natural State
4.2.4 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic.

Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)

STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

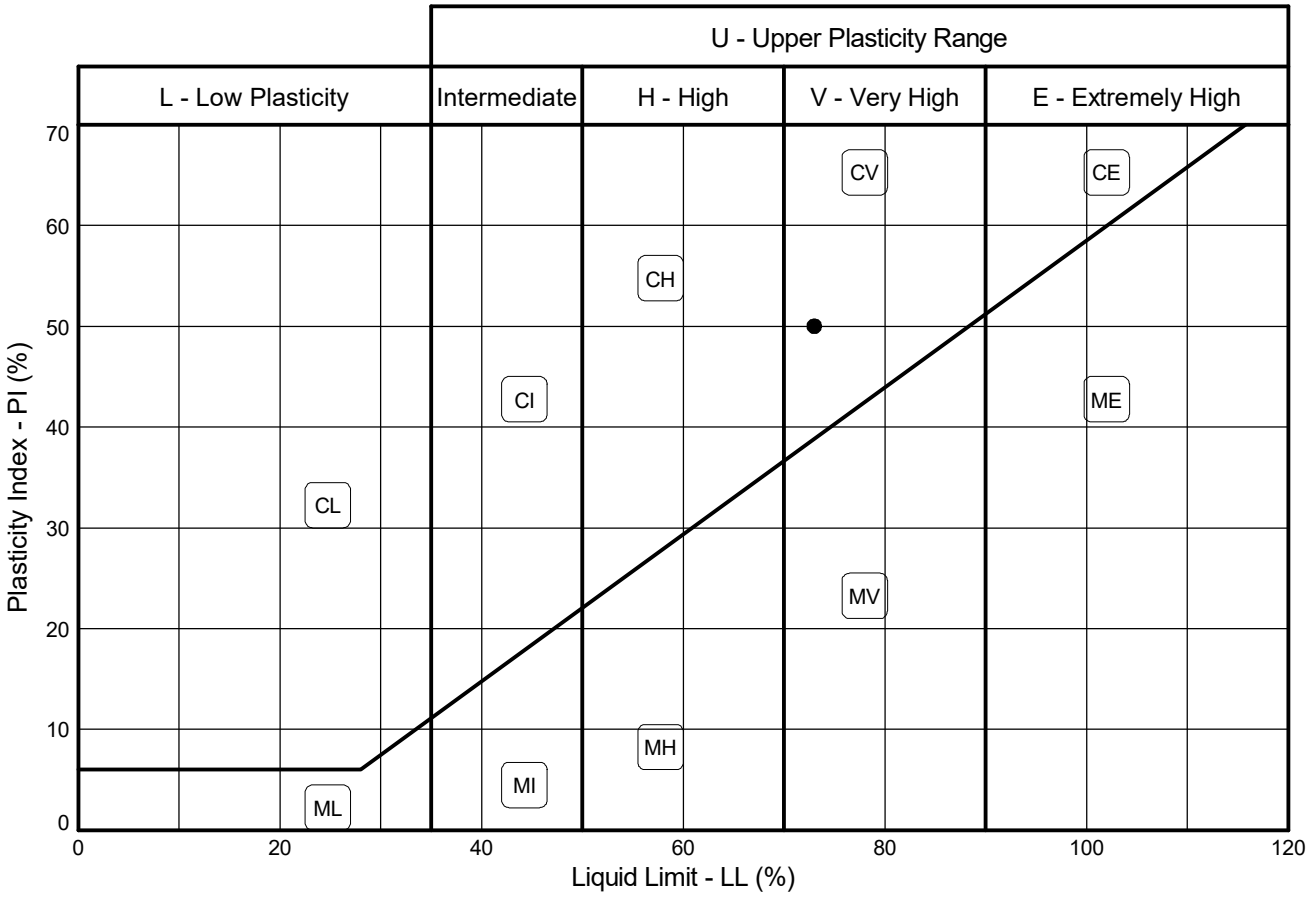
Compiled By		Date
SC	**SHARON CAIRNS**	**14/10/20**

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

AGS

PLASTICITY CHART - PI Vs LL

In accordance with BS5930:2015
Testing in accordance with BS1377-2:1990



Sample Identification				BS Test Method #	Preparation Method +	MC	LL	PL	PI	<425µm	Lab location	Notes
	Exploratory Position ID	Sample	Depth (m)			%	%	%	%	%		
●	TP1	D	1.00	3.2/4.4/5.3/5.4	4.2.4	28	73	23	50	98	H	

Tested in accordance with the following clauses of BS1377-2:1990.

3.2 - Moisture Content
4.3 - Cone Penetrometer Method
4.4 - One Point Cone Penetrometer Method
4.6 - One Point Casagrande Method
5.3 - Plastic Limit Method
5.4 - Plasticity Index

+ Tested in accordance with the following clauses of BS1377-2:1990.

4.2.3 - Natural State
4.2.4 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic.

Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)

STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	584350

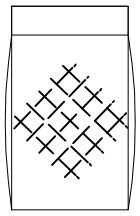
AGS

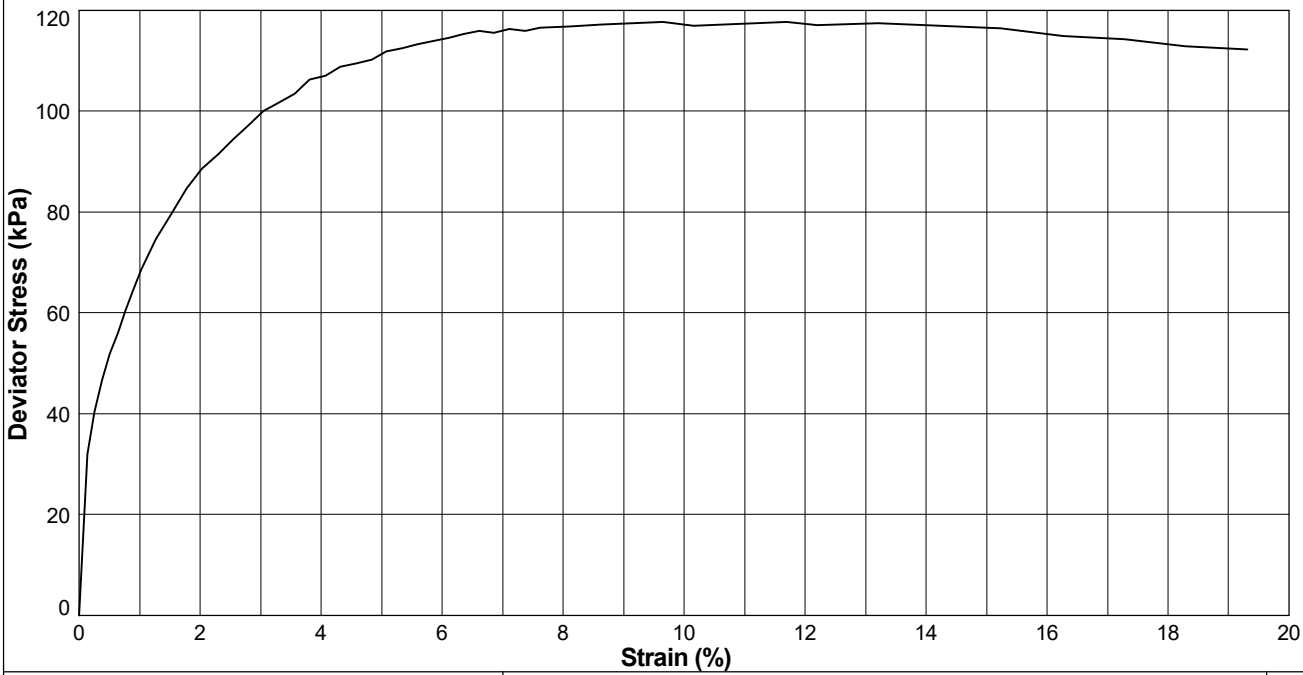
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH1** Sample Ref: **8** Sample Type: **U** Depth (m): **4.00**

Description : **Brown mottled orangish brown and light grey CLAY**

STAGE NUMBER			**1**	**2**	**3**
SAMPLE DETAILS	Sample Condition		**Undisturbed**		
	Orientation of sample		**Vertical**		
	Diameter	(mm)	**103.31**		
	Height	(mm)	**196.79**		
	Moisture Content	(%)	**33**		
	Bulk Density	(Mg/m^3)	**1.92**		
	Dry Density	(Mg/m^3)	**1.44**		
TEST DETAILS	Membrane Type		**Rubber**		
	Membrane Thickness	(mm)	**0.38**		
	Rate of Axial Displacement	(%/min)	**1.83**		
	Cell Pressure	(kPa)	**80**		
	Membrane Correction	(kPa)	**0.94**		
	Corrected Deviator Stress	(kPa)	**118**		
	Undrained Shear Strength	(kPa)	**59**		
FAILURE DETAILS	Strain at Failure	(%)	**11.7**		
	Mode of Failure 1 : **Semi-plastic (intermediate)**				



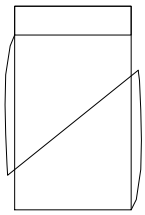
STRUCTURAL SOILS 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By		Date
	SC	**SHARON CAIRNS**	**14/10/20**
	Contract **North London Buisness Park (N.L.B.P)**	Contract Ref: **584350**	

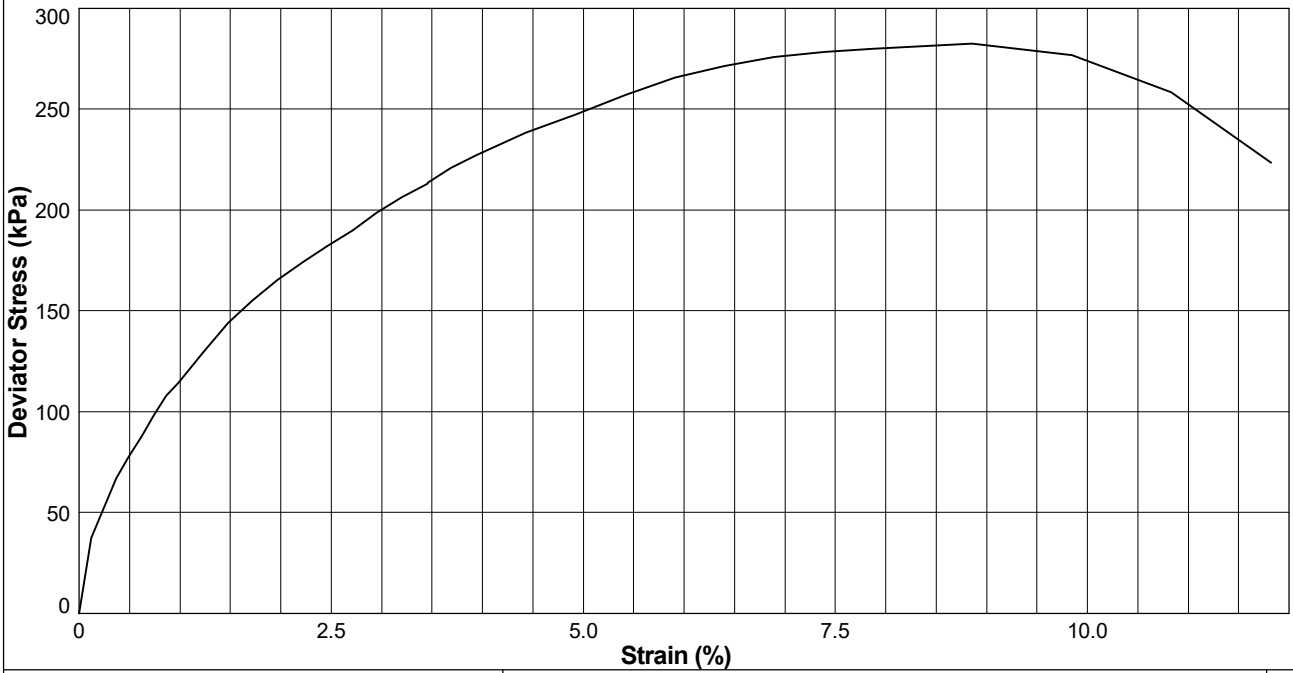
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH1** Sample Ref: **20** Sample Type: **U** Depth (m): **12.50**

Description : **Brown slightly sandy CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.28		
	Height	(mm)	203.07		
	Moisture Content	(%)	26		
	Bulk Density	(Mg/m^3)	2.00		
	Dry Density	(Mg/m^3)	1.58		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.20		
	Rate of Axial Displacement	(%/min)	1.28		
	Cell Pressure	(kPa)	250		
	Membrane Correction	(kPa)	0.40		
	Corrected Deviator Stress	(kPa)	283		
	Undrained Shear Strength	(kPa)	141		
FAILURE DETAILS	Strain at Failure	(%)	8.9		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

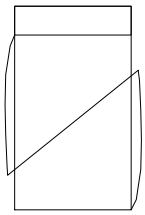
AGS

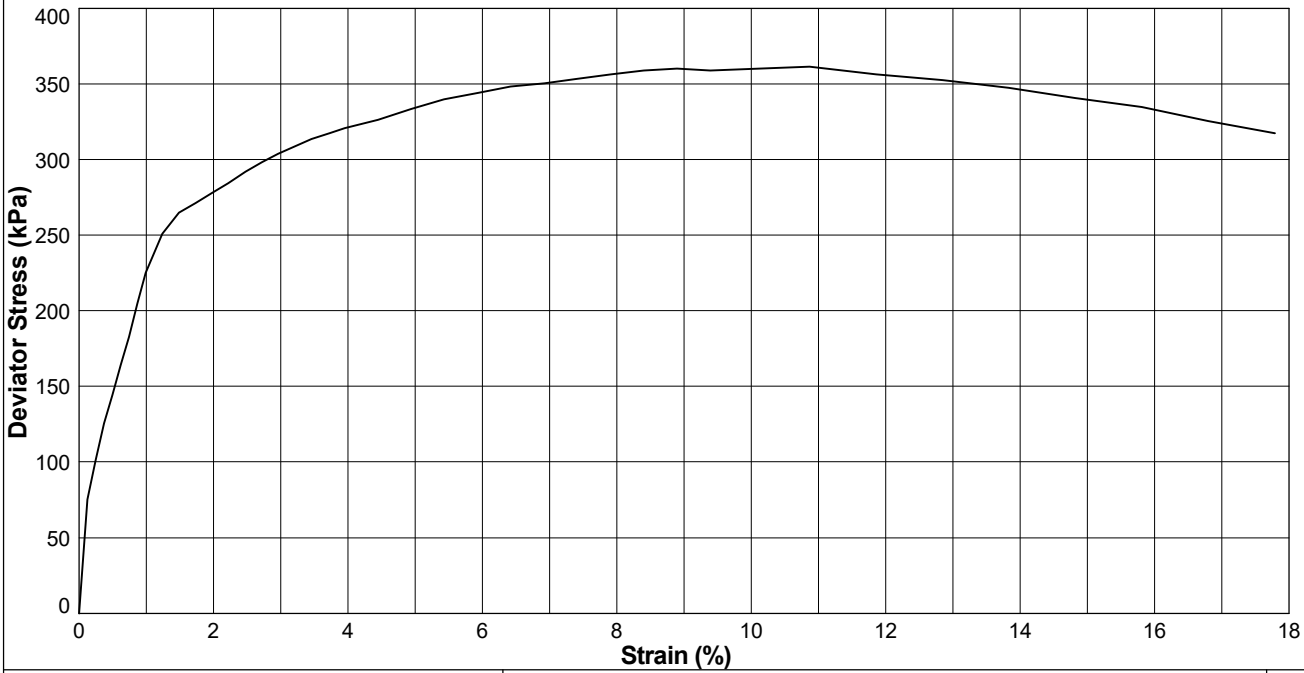
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH1** Sample Ref: **44** Sample Type: **U** Depth (m): **30.50**

Description : **Red mottled light grey CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.69		
	Height	(mm)	202.40		
	Moisture Content	(%)	24		
	Bulk Density	(Mg/m^3)	2.04		
	Dry Density	(Mg/m^3)	1.65		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.38		
	Rate of Axial Displacement	(%/min)	1.09		
	Cell Pressure	(kPa)	610		
	Membrane Correction	(kPa)	0.90		
	Corrected Deviator Stress	(kPa)	361		
	Undrained Shear Strength	(kPa)	181		
FAILURE DETAILS	Strain at Failure	(%)	10.9		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

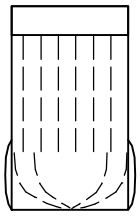
AGS

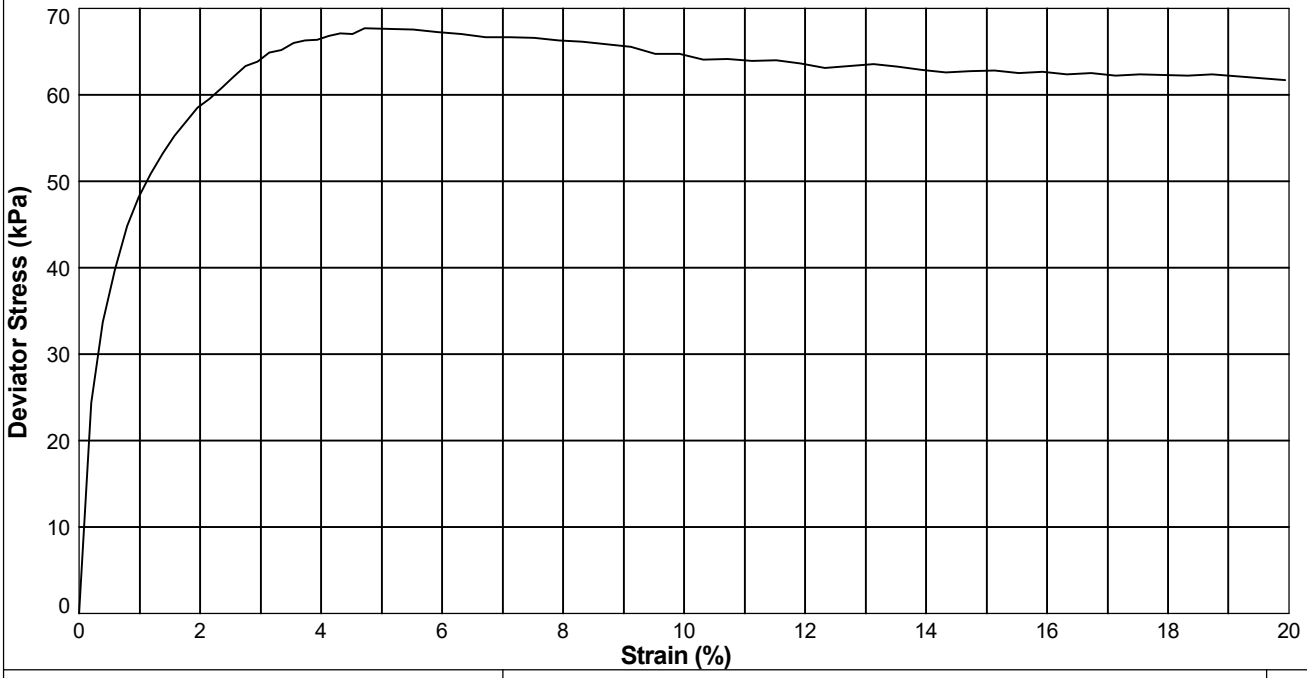
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH2** Sample Ref: **6** Sample Type: **U** Depth (m): **3.23**

Description : **Light brown mottled orange and black CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.19		
	Height	(mm)	201.06		
	Moisture Content	(%)	40		
	Bulk Density	(Mg/m^3)	1.81		
	Dry Density	(Mg/m^3)	1.30		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.25		
	Rate of Axial Displacement	(%/min)	1.34		
	Cell Pressure	(kPa)	60		
	Membrane Correction	(kPa)	0.31		
	Corrected Deviator Stress	(kPa)	68		
	Undrained Shear Strength	(kPa)	34		
FAILURE DETAILS	Strain at Failure	(%)	4.7		
	Mode of Failure 1 : **Semi-plastic (bulging, shear & axial splitting)**				



STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

Compiled By		Date
	DAISY RICHARDS	30/11/20

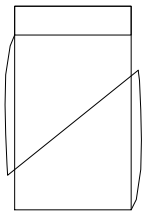
Contract	Contract Ref:
North London Business Park (N.L.B.P)	**584350**

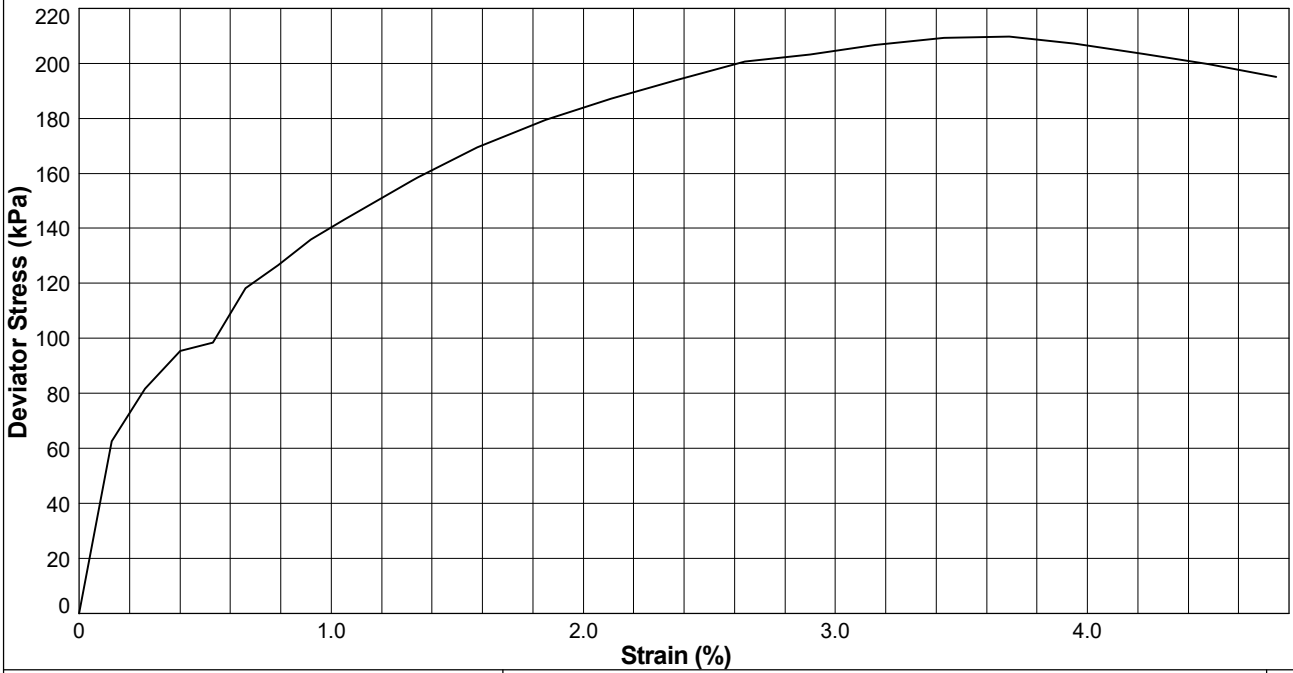
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH2** Sample Ref: **17** Sample Type: **U** Depth (m): **10.00**

Description : **Brown mottled orange CLAY with some gypsum**

STAGE NUMBER			**1**	**2**	**3**
SAMPLE DETAILS	Sample Condition		**Undisturbed**		
	Orientation of sample		**Vertical**		
	Diameter	(mm)	**103.46**		
	Height	(mm)	**189.66**		
	Moisture Content	(%)	**29**		
	Bulk Density	(Mg/m^3)	**1.93**		
	Dry Density	(Mg/m^3)	**1.49**		
TEST DETAILS	Membrane Type		**Rubber**		
	Membrane Thickness	(mm)	**0.28**		
	Rate of Axial Displacement	(%/min)	**1.53**		
	Cell Pressure	(kPa)	**200**		
	Membrane Correction	(kPa)	**0.27**		
	Corrected Deviator Stress	(kPa)	**210**		
	Undrained Shear Strength	(kPa)	**105**		
FAILURE DETAILS	Strain at Failure	(%)	**3.7**		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	**SHARON CAIRNS**	**14/10/20**

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

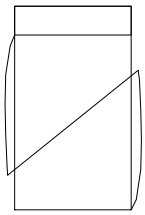
AGS

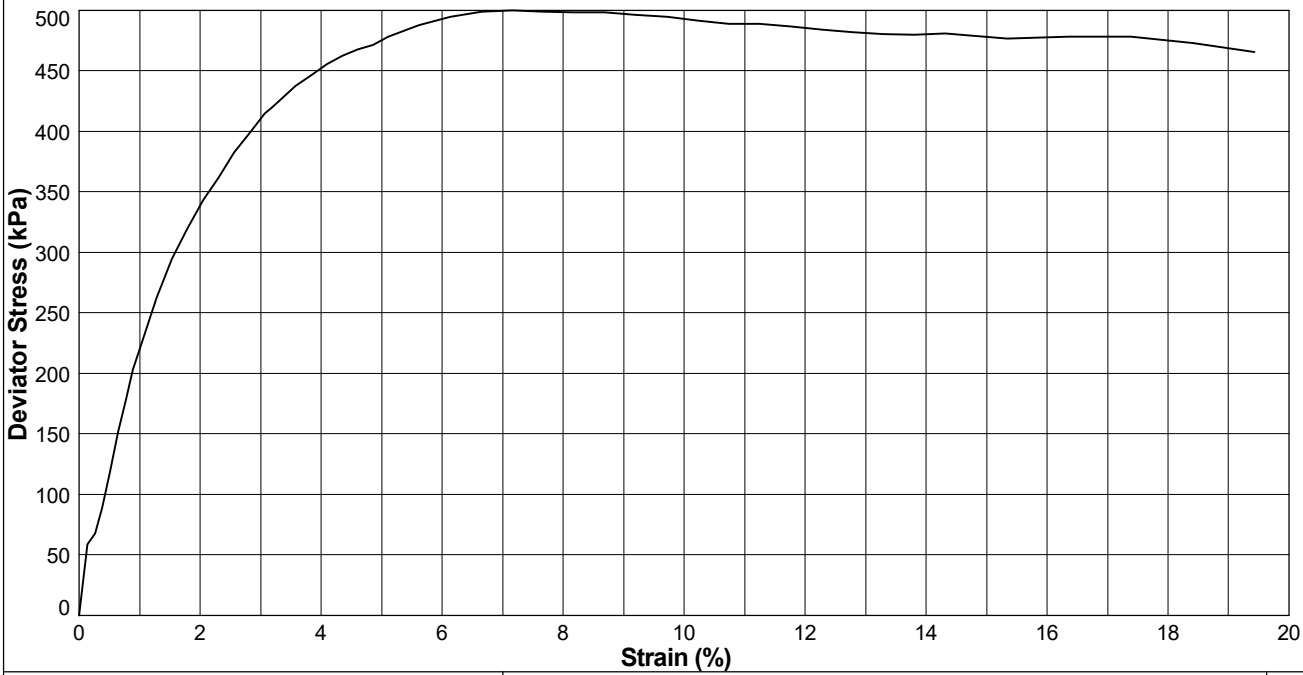
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH2** Sample Ref: **33** Sample Type: **U** Depth (m): **22.00**

Description : **Dark brown slightly sandy CLAY with possible gypsum**

STAGE NUMBER			**1**	**2**	**3**
SAMPLE DETAILS	Sample Condition		**Undisturbed**		
	Orientation of sample		**Vertical**		
	Diameter	(mm)	**104.30**		
	Height	(mm)	**195.57**		
	Moisture Content	(%)	**20**		
	Bulk Density	(Mg/m^3)	**2.04**		
	Dry Density	(Mg/m^3)	**1.70**		
TEST DETAILS	Membrane Type		**Rubber**		
	Membrane Thickness	(mm)	**0.25**		
	Rate of Axial Displacement	(%/min)	**1.12**		
	Cell Pressure	(kPa)	**440**		
	Membrane Correction	(kPa)	**0.42**		
	Corrected Deviator Stress	(kPa)	**500**		
	Undrained Shear Strength	(kPa)	**250**		
FAILURE DETAILS	Strain at Failure	(%)	**7.2**		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	**SHARON CAIRNS**	**14/10/20**

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

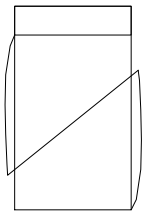
AGS

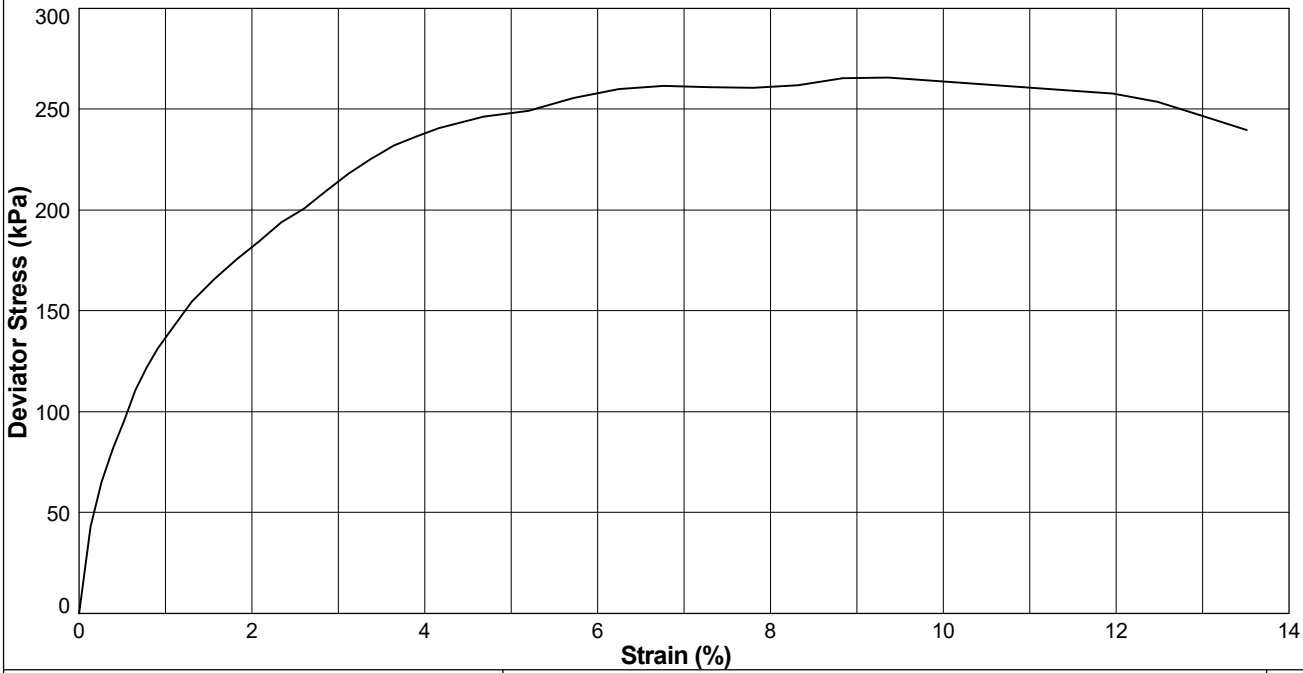
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH3** Sample Ref: **16** Sample Type: **U** Depth (m): **9.50**

Description : **Brown slightly sandy CLAY with some gypsum**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	104.02		
	Height	(mm)	192.38		
	Moisture Content	(%)	24		
	Bulk Density	(Mg/m^3)	1.97		
	Dry Density	(Mg/m^3)	1.59		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.24		
	Rate of Axial Displacement	(%/min)	1.40		
	Cell Pressure	(kPa)	190		
	Membrane Correction	(kPa)	0.50		
	Corrected Deviator Stress	(kPa)	266		
	Undrained Shear Strength	(kPa)	133		
FAILURE DETAILS	Strain at Failure	(%)	9.4		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

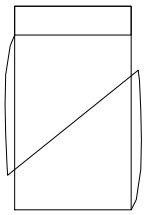
AGS

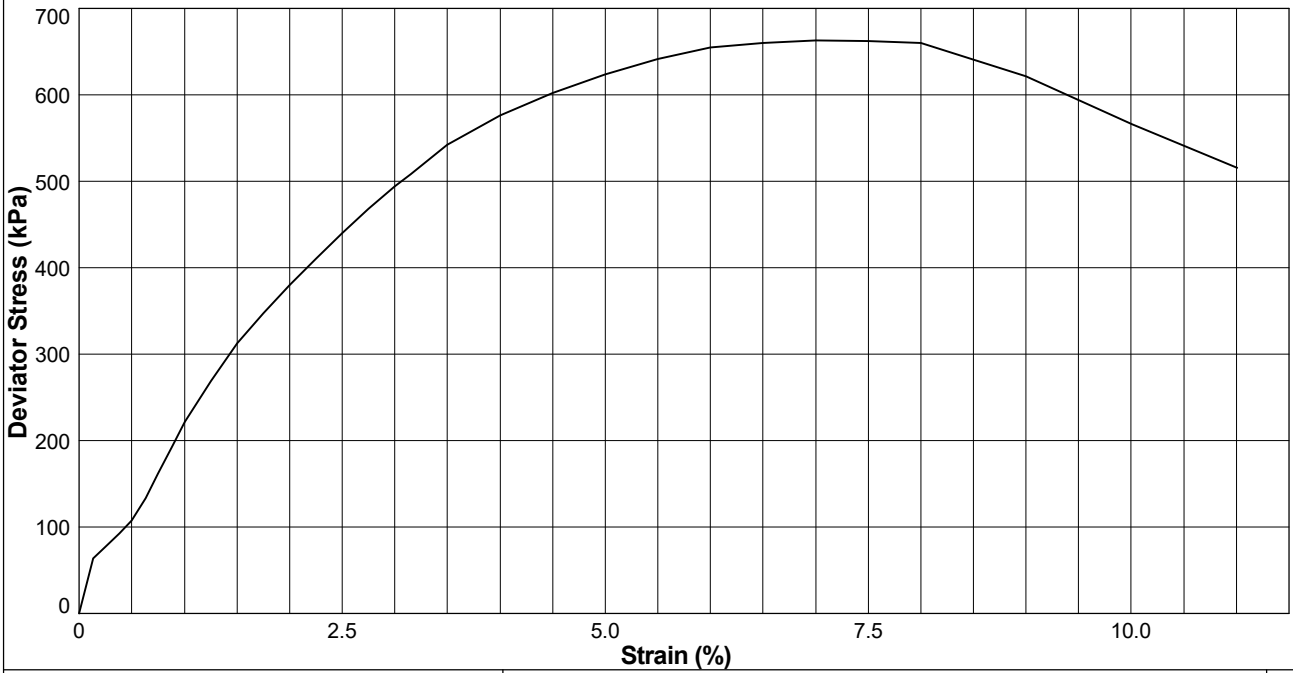
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH3** Sample Ref: **32** Sample Type: **U** Depth (m): **21.50**

Description : **Brown slightly sandy CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	102.91		
	Height	(mm)	199.90		
	Moisture Content	(%)	23		
	Bulk Density	(Mg/m^3)	2.02		
	Dry Density	(Mg/m^3)	1.64		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.38		
	Rate of Axial Displacement	(%/min)	1.30		
	Cell Pressure	(kPa)	430		
	Membrane Correction	(kPa)	0.64		
	Corrected Deviator Stress	(kPa)	663		
	Undrained Shear Strength	(kPa)	331		
FAILURE DETAILS	Strain at Failure	(%)	7.0		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

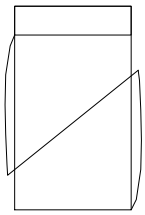
AGS

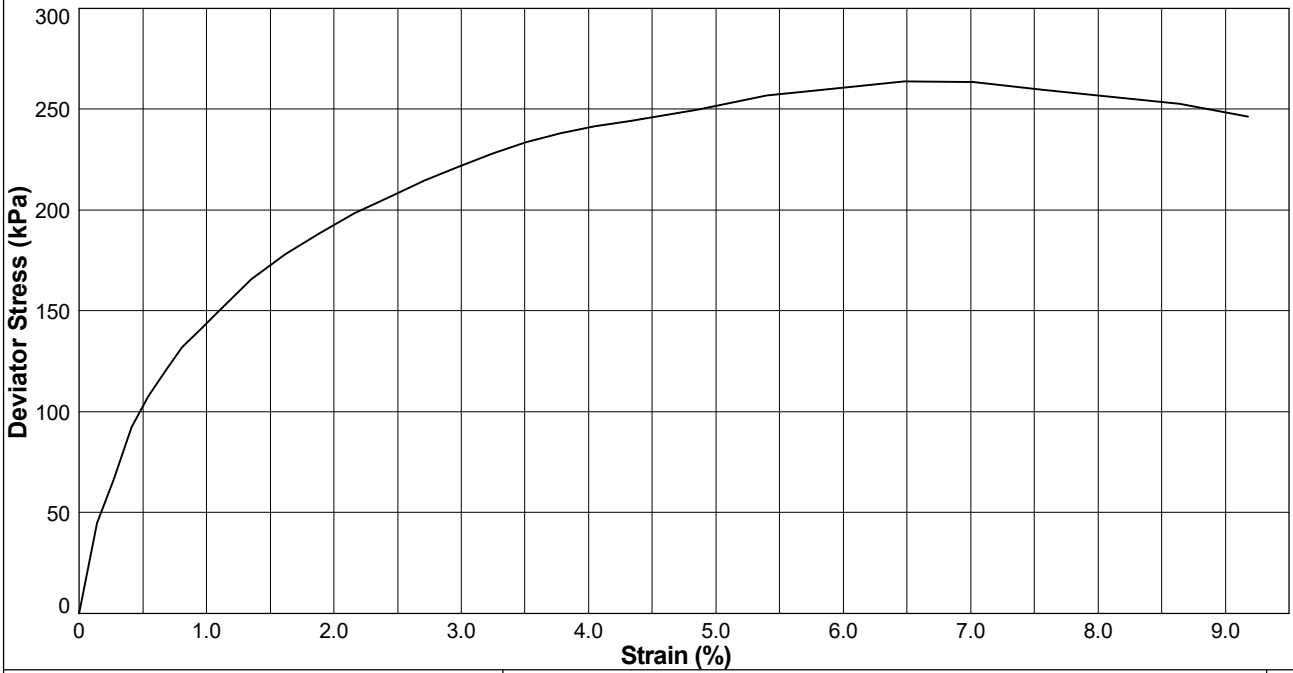
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH4** Sample Ref: **17** Sample Type: **U** Depth (m): **8.00**

Description : **Brown mottled orange CLAY with some gypsum**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	102.10		
	Height	(mm)	185.09		
	Moisture Content	(%)	27		
	Bulk Density	(Mg/m^3)	1.90		
	Dry Density	(Mg/m^3)	1.49		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.38		
	Rate of Axial Displacement	(%/min)	1.62		
	Cell Pressure	(kPa)	160		
	Membrane Correction	(kPa)	0.61		
	Corrected Deviator Stress	(kPa)	264		
	Undrained Shear Strength	(kPa)	132		
FAILURE DETAILS	Strain at Failure	(%)	6.5		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

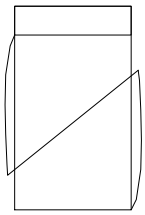
AGS

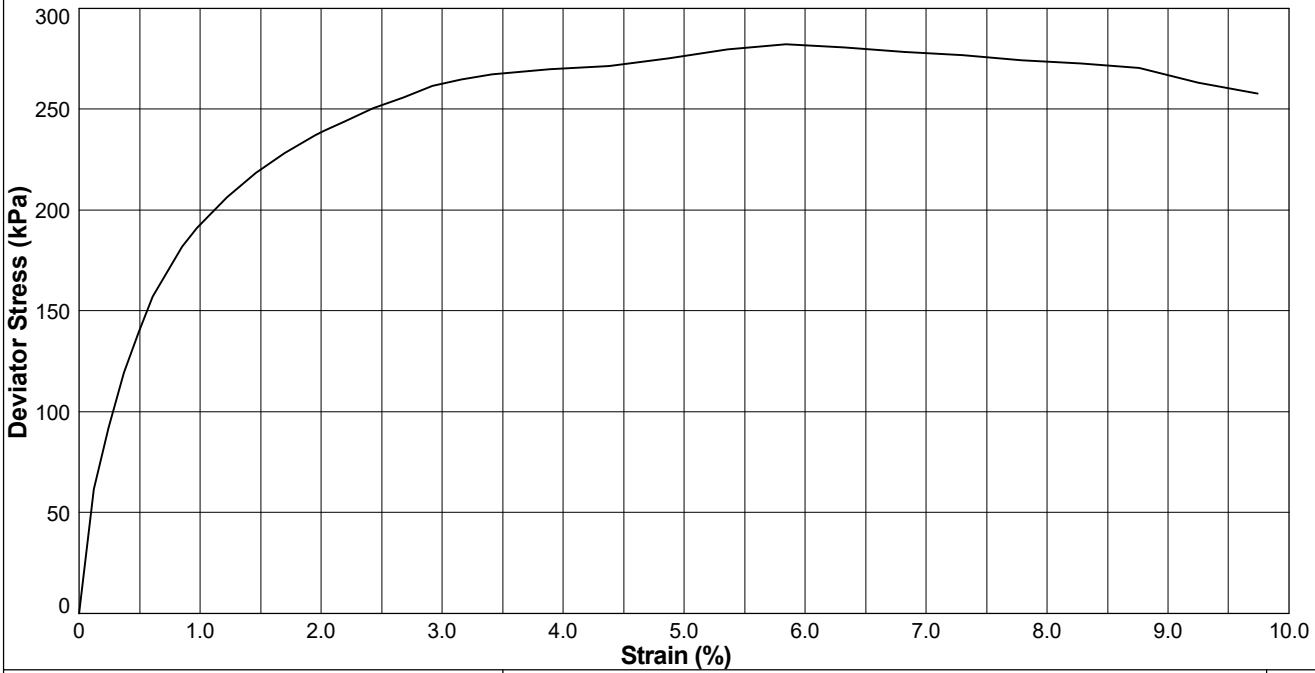
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH4** Sample Ref: **32** Sample Type: **U** Depth (m): **17.00**

Description : **Brown slightly sandy CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		**Undisturbed**		
	Orientation of sample		**Vertical**		
	Diameter	(mm)	**103.56**		
	Height	(mm)	**205.41**		
	Moisture Content	(%)	**25**		
	Bulk Density	(Mg/m^3)	**2.00**		
	Dry Density	(Mg/m^3)	**1.60**		
TEST DETAILS	Membrane Type		**Rubber**		
	Membrane Thickness	(mm)	**0.42**		
	Rate of Axial Displacement	(%/min)	**1.17**		
	Cell Pressure	(kPa)	**340**		
	Membrane Correction	(kPa)	**0.61**		
	Corrected Deviator Stress	(kPa)	**282**		
	Undrained Shear Strength	(kPa)	**141**		
FAILURE DETAILS	Strain at Failure	(%)	**5.8**		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	**SHARON CAIRNS**	**14/10/20**

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

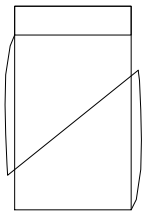
AGS

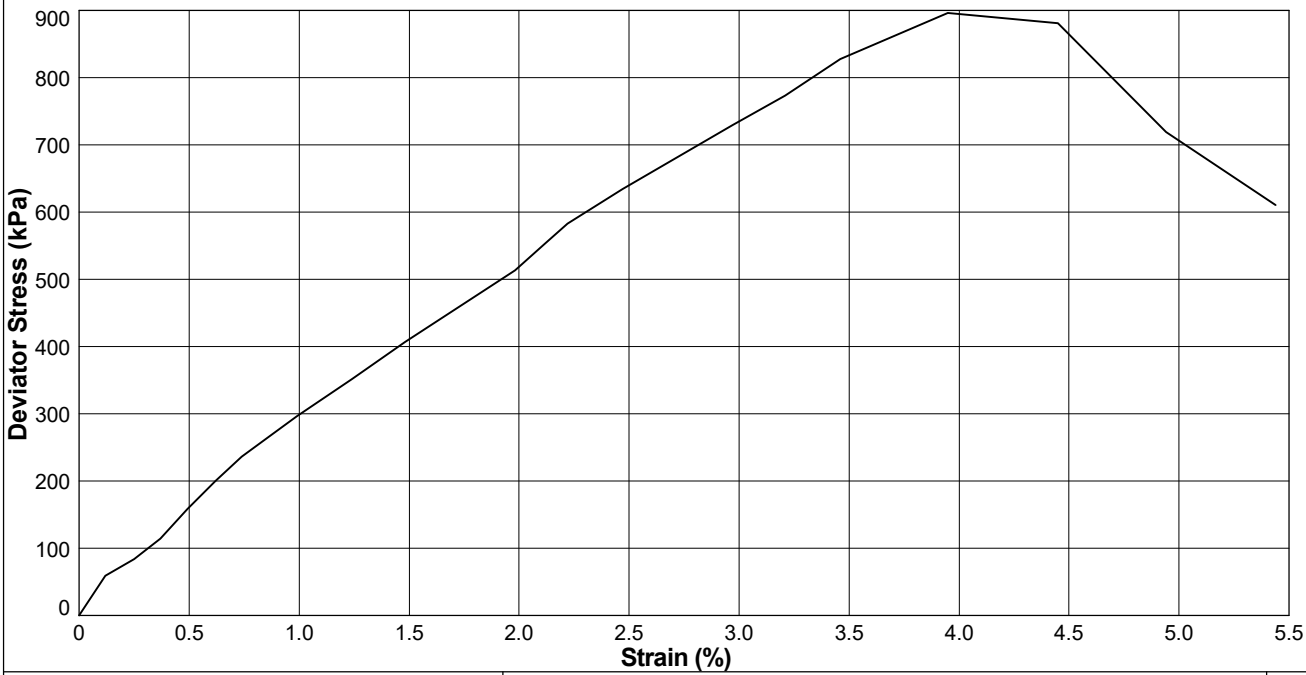
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH4** Sample Ref: **52** Sample Type: **U** Depth (m): **29.00**

Description : **Brown mottled grey slightly sandy CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.10		
	Height	(mm)	202.31		
	Moisture Content	(%)	24		
	Bulk Density	(Mg/m^3)	2.05		
	Dry Density	(Mg/m^3)	1.66		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.42		
	Rate of Axial Displacement	(%/min)	1.24		
	Cell Pressure	(kPa)	580		
	Membrane Correction	(kPa)	0.44		
	Corrected Deviator Stress	(kPa)	896		
	Undrained Shear Strength	(kPa)	448		
FAILURE DETAILS	Strain at Failure	(%)	4.0		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	584350

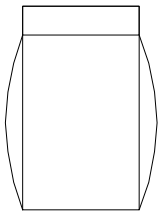
AGS

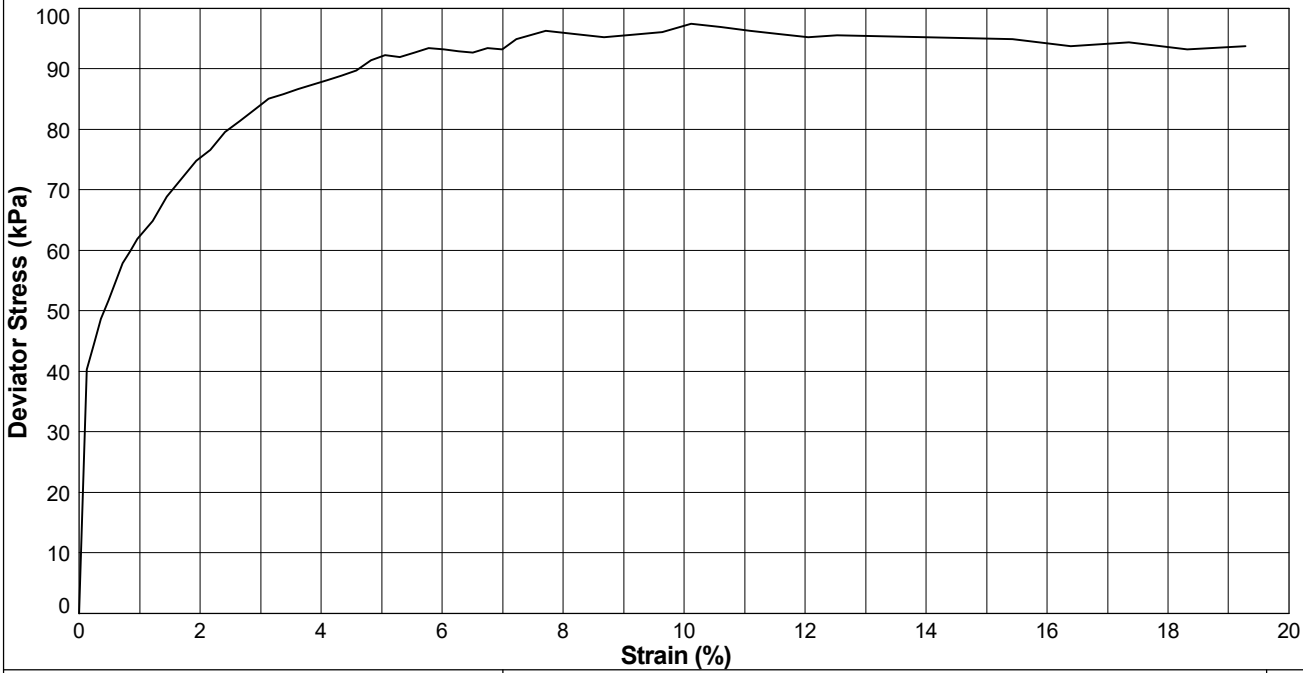
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH5** Sample Ref: **9** Sample Type: **U** Depth (m): **4.00**

Description : **Brown mottled orange and light grey slightly CLAY with some gypsum**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.55		
	Height	(mm)	207.45		
	Moisture Content	(%)	28		
	Bulk Density	(Mg/m^3)	1.93		
	Dry Density	(Mg/m^3)	1.51		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.38		
	Rate of Axial Displacement	(%/min)	1.83		
	Cell Pressure	(kPa)	89		
	Membrane Correction	(kPa)	0.86		
	Corrected Deviator Stress	(kPa)	97		
	Undrained Shear Strength	(kPa)	49		
FAILURE DETAILS	Strain at Failure	(%)	10.1		
	Mode of Failure 1 : **Plastic (Barrelling)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	584350

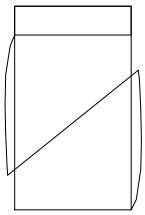
AGS

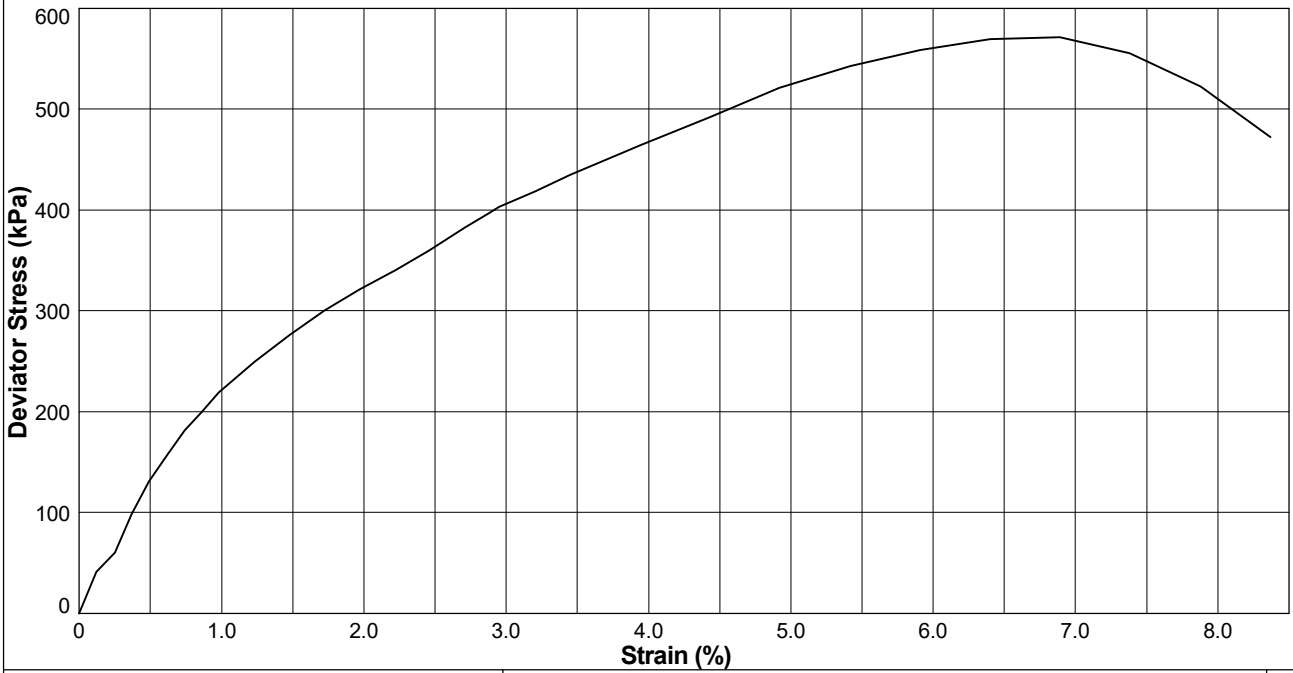
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH5** Sample Ref: **41** Sample Type: **U** Depth (m): **27.50**

Description : **Brown mottled grey slightly sandy CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.74		
	Height	(mm)	203.12		
	Moisture Content	(%)	25		
	Bulk Density	(Mg/m^3)	2.03		
	Dry Density	(Mg/m^3)	1.62		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.38		
	Rate of Axial Displacement	(%/min)	1.23		
	Cell Pressure	(kPa)	550		
	Membrane Correction	(kPa)	0.63		
	Corrected Deviator Stress	(kPa)	572		
	Undrained Shear Strength	(kPa)	286		
FAILURE DETAILS	Strain at Failure	(%)	6.9		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

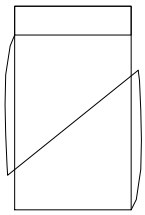
AGS

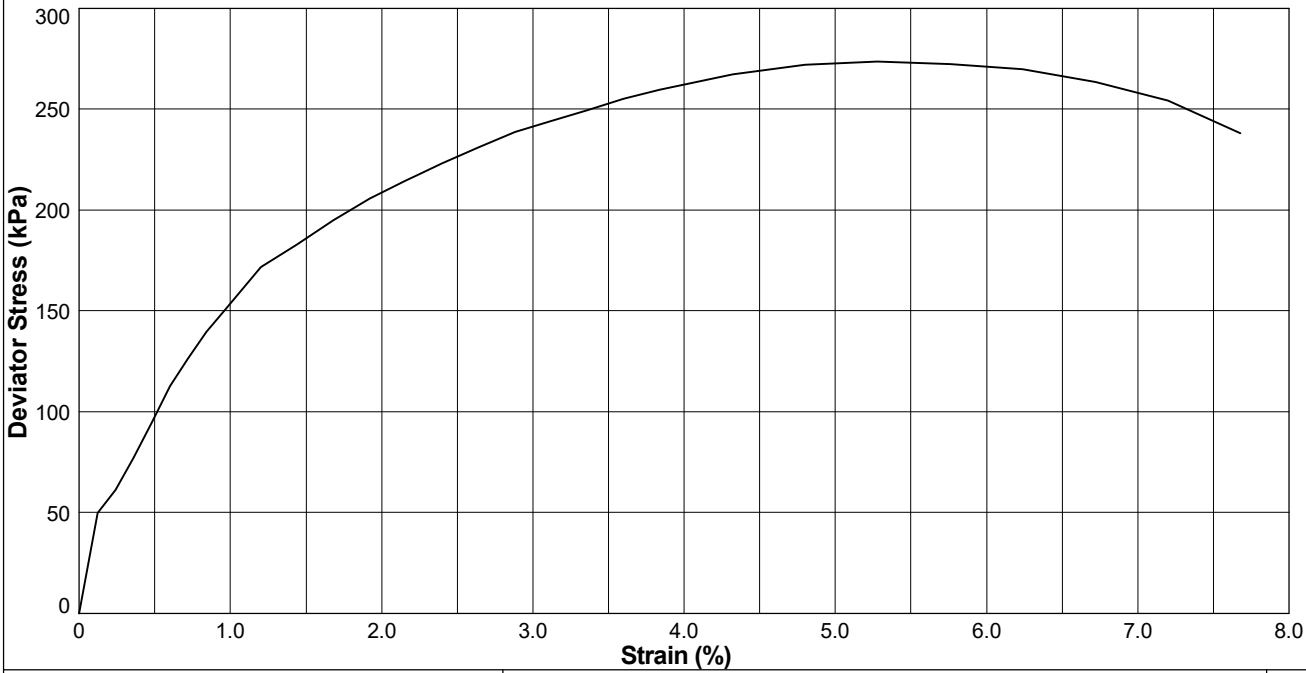
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH6** Sample Ref: **19** Sample Type: **U** Depth (m): **11.00**

Description : **Brown mottled grey CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.62		
	Height	(mm)	208.39		
	Moisture Content	(%)	25		
	Bulk Density	(Mg/m^3)	2.02		
	Dry Density	(Mg/m^3)	1.61		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.38		
	Rate of Axial Displacement	(%/min)	1.25		
	Cell Pressure	(kPa)	29		
	Membrane Correction	(kPa)	0.52		
	Corrected Deviator Stress	(kPa)	274		
	Undrained Shear Strength	(kPa)	137		
FAILURE DETAILS	Strain at Failure	(%)	5.3		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract: **North London Buisness Park (N.L.B.P)**

Contract Ref: **584350**

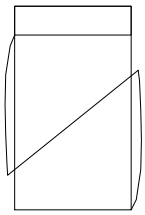
AGS

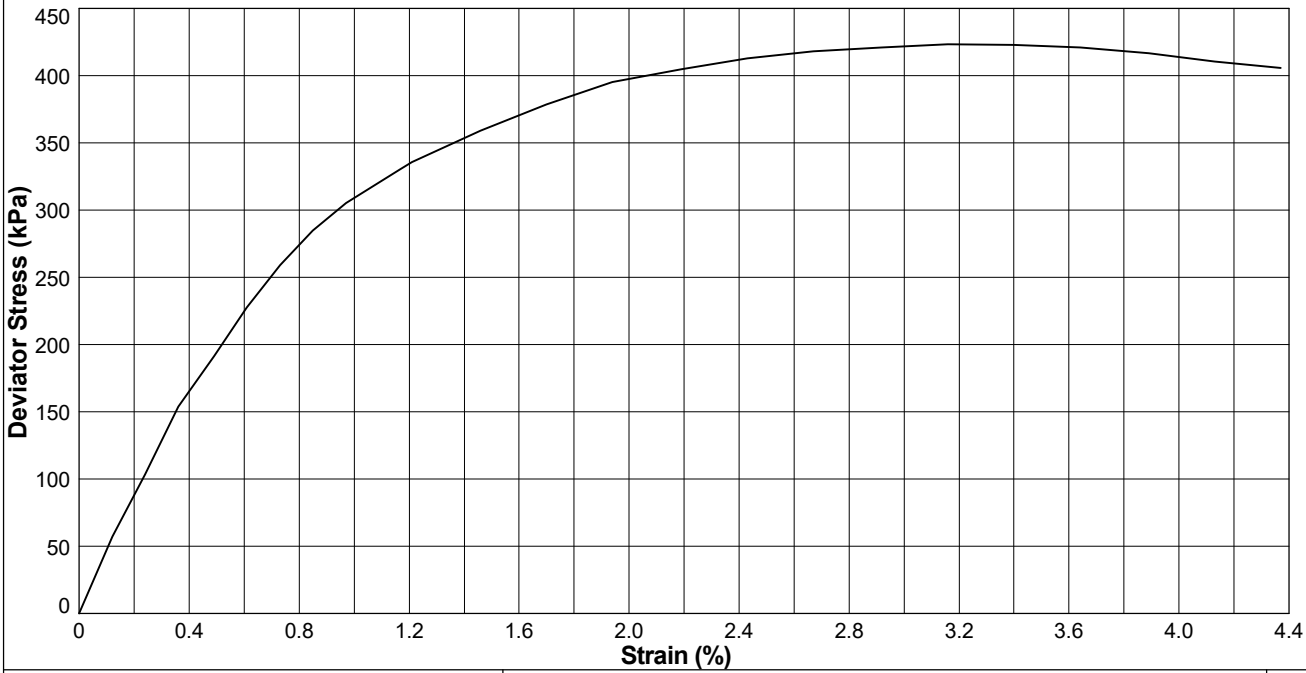
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH6** Sample Ref: **31** Sample Type: **U** Depth (m): **20.00**

Description : **Brown slightly sandy CLAY with possible gypsum**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		**Undisturbed**		
	Orientation of sample		**Vertical**		
	Diameter	(mm)	**103.83**		
	Height	(mm)	**205.78**		
	Moisture Content	(%)	**23**		
	Bulk Density	(Mg/m^3)	**2.02**		
	Dry Density	(Mg/m^3)	**1.65**		
TEST DETAILS	Membrane Type		**Rubber**		
	Membrane Thickness	(mm)	**0.34**		
	Rate of Axial Displacement	(%/min)	**1.31**		
	Cell Pressure	(kPa)	**409**		
	Membrane Correction	(kPa)	**0.29**		
	Corrected Deviator Stress	(kPa)	**423**		
	Undrained Shear Strength	(kPa)	**212**		
FAILURE DETAILS	Strain at Failure	(%)	**3.2**		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	**SHARON CAIRNS**	**14/10/20**

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

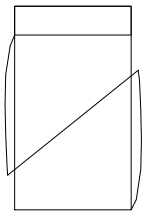
AGS

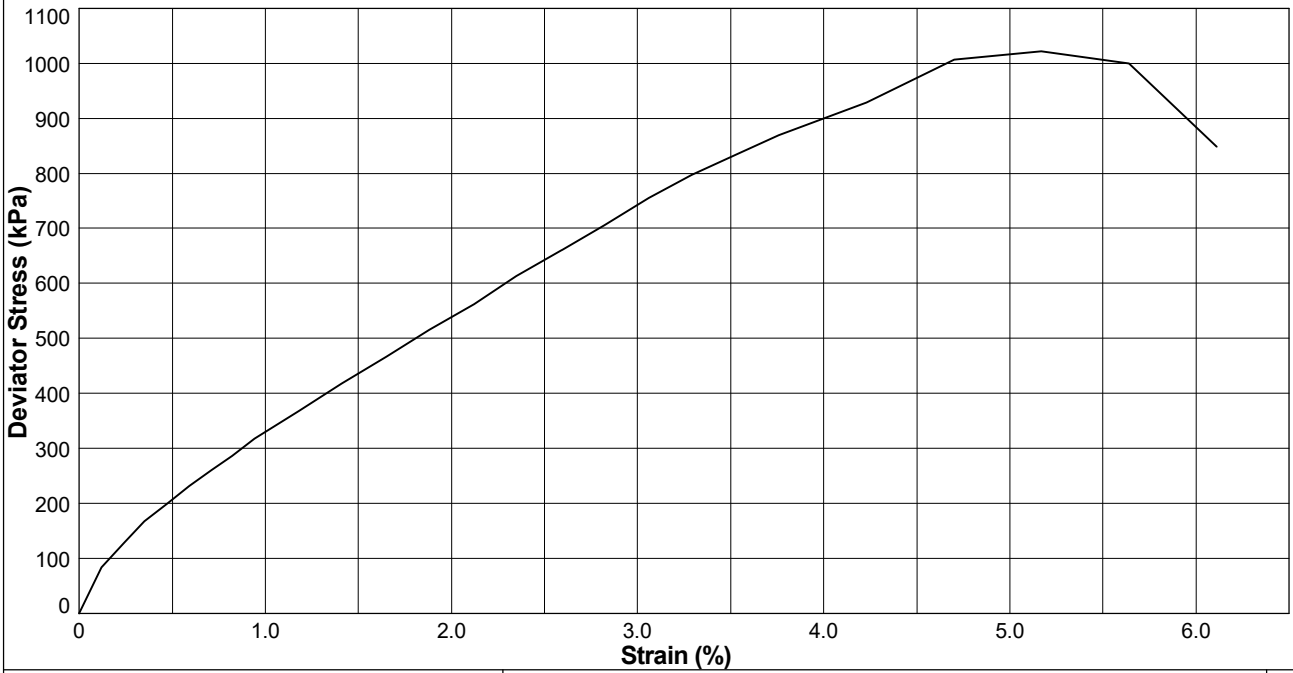
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH6** Sample Ref: **45** Sample Type: **U** Depth (m): **29.00**

Description : **Dark brown slightly sandy CLAY with possible gypsum**

STAGE NUMBER			**1**	**2**	**3**
SAMPLE DETAILS	Sample Condition		**Undisturbed**		
	Orientation of sample		**Vertical**		
	Diameter	(mm)	**103.93**		
	Height	(mm)	**212.59**		
	Moisture Content	(%)	**20**		
	Bulk Density	(Mg/m^3)	**2.08**		
	Dry Density	(Mg/m^3)	**1.72**		
TEST DETAILS	Membrane Type		**Rubber**		
	Membrane Thickness	(mm)	**0.22**		
	Rate of Axial Displacement	(%/min)	**1.08**		
	Cell Pressure	(kPa)	**589**		
	Membrane Correction	(kPa)	**0.29**		
	Corrected Deviator Stress	(kPa)	**1022**		
	Undrained Shear Strength	(kPa)	**511**		
FAILURE DETAILS	Strain at Failure	(%)	**5.2**		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	**SHARON CAIRNS**	**14/10/20**

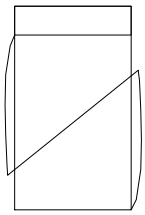
Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

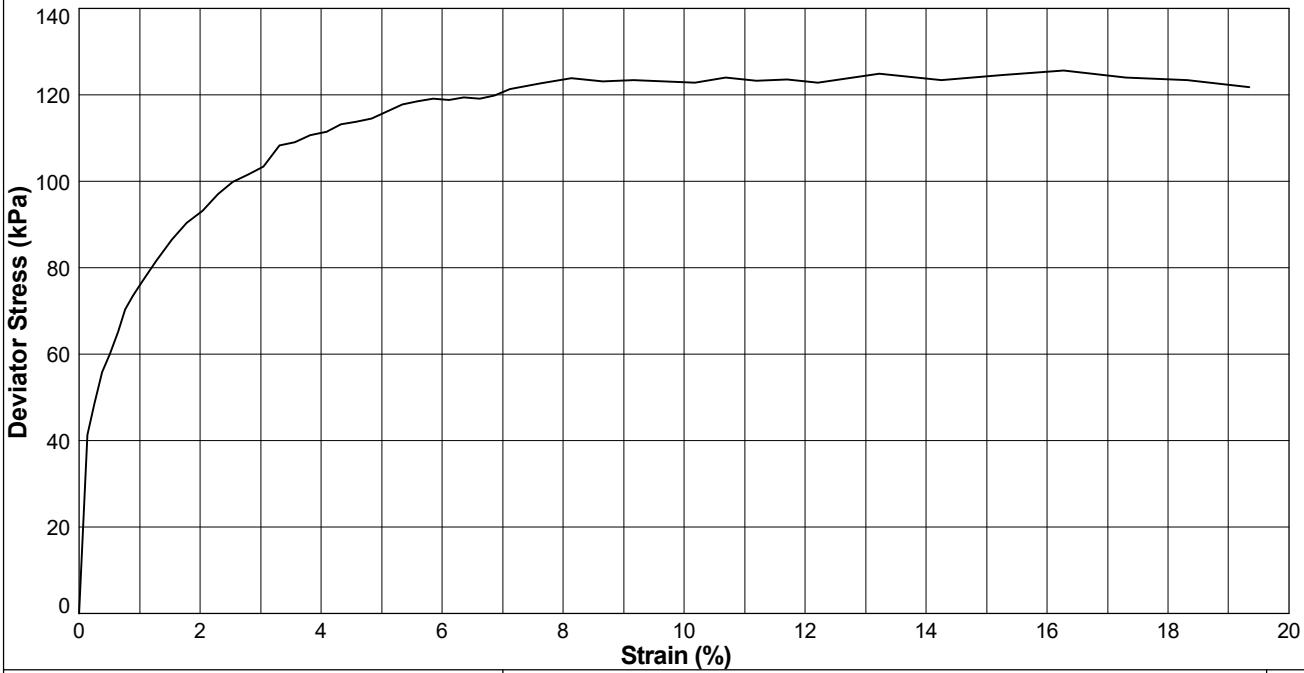
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH7** Sample Ref: **4** Sample Type: **U** Depth (m): **3.00**

Description : **Orangish brown mottled bluish grey slightly sandy CLAY with some gypsum**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.65		
	Height	(mm)	196.51		
	Moisture Content	(%)	31		
	Bulk Density	(Mg/m^3)	1.93		
	Dry Density	(Mg/m^3)	1.47		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.38		
	Rate of Axial Displacement	(%/min)	1.98		
	Cell Pressure	(kPa)	69		
	Membrane Correction	(kPa)	1.19		
	Corrected Deviator Stress	(kPa)	126		
	Undrained Shear Strength	(kPa)	63		
FAILURE DETAILS	Strain at Failure	(%)	16.3		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

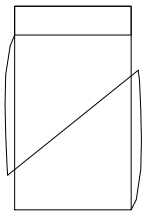
AGS

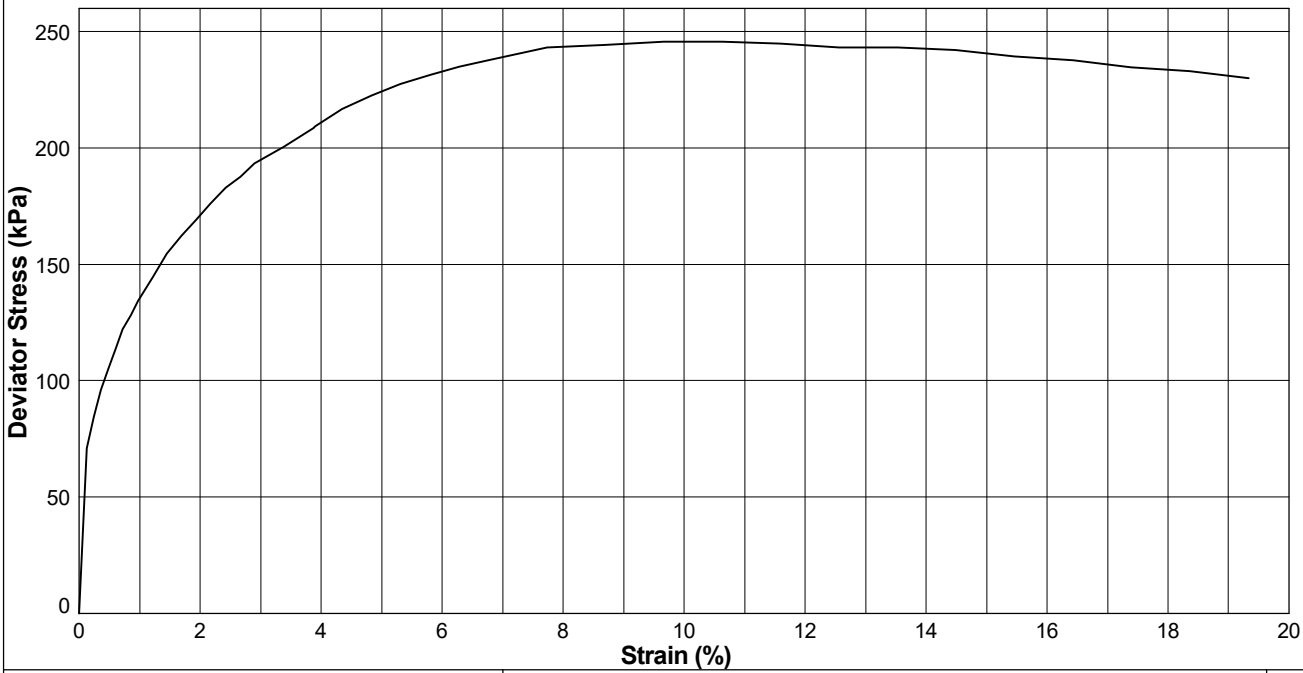
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH7** Sample Ref: **12** Sample Type: **U** Depth (m): **8.00**

Description : **Brown CLAY with some gypsum**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.65		
	Height	(mm)	206.98		
	Moisture Content	(%)	25		
	Bulk Density	(Mg/m^3)	2.00		
	Dry Density	(Mg/m^3)	1.60		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.20		
	Rate of Axial Displacement	(%/min)	1.35		
	Cell Pressure	(kPa)	169		
	Membrane Correction	(kPa)	0.46		
	Corrected Deviator Stress	(kPa)	246		
	Undrained Shear Strength	(kPa)	123		
FAILURE DETAILS	Strain at Failure	(%)	10.6		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

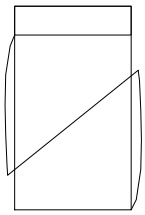
AGS

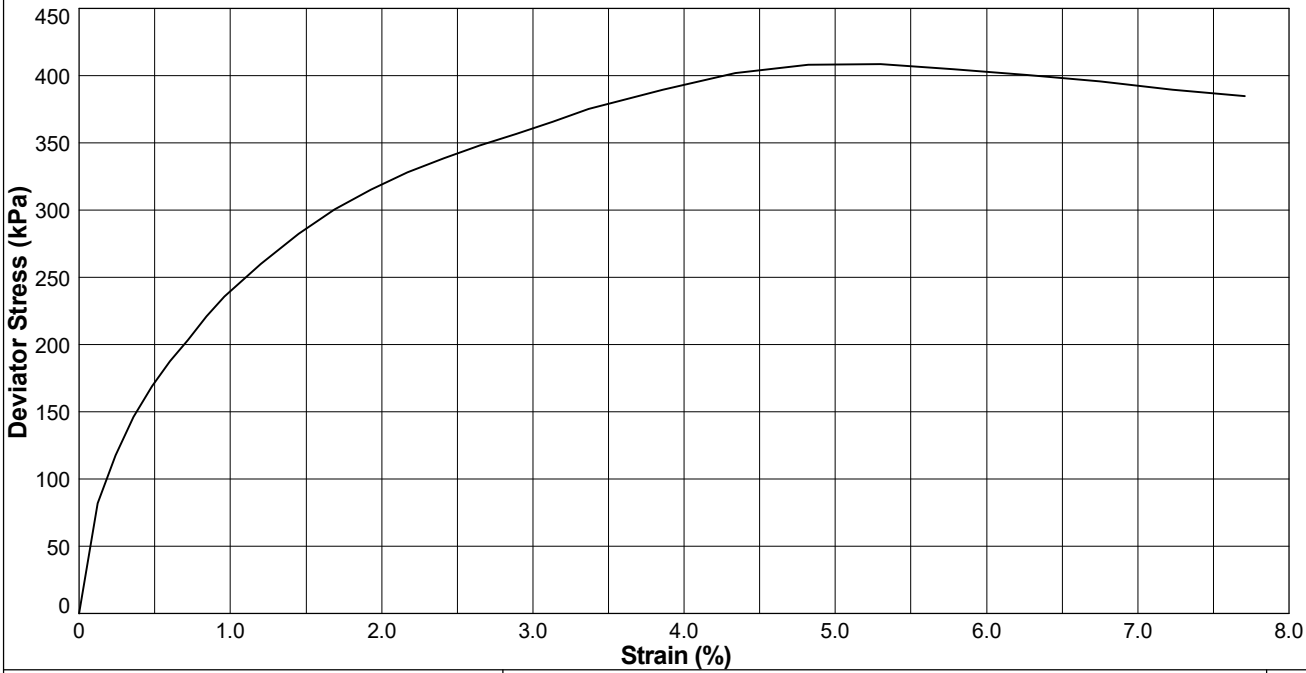
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH7** Sample Ref: **24** Sample Type: **U** Depth (m): **17.00**

Description : **Dark brown slightly sandy CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.56		
	Height	(mm)	207.50		
	Moisture Content	(%)	25		
	Bulk Density	(Mg/m^3)	2.05		
	Dry Density	(Mg/m^3)	1.64		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.28		
	Rate of Axial Displacement	(%/min)	1.20		
	Cell Pressure	(kPa)	349		
	Membrane Correction	(kPa)	0.38		
	Corrected Deviator Stress	(kPa)	409		
	Undrained Shear Strength	(kPa)	204		
FAILURE DETAILS	Strain at Failure	(%)	5.3		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	584350

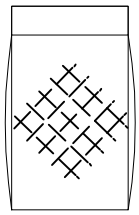
AGS

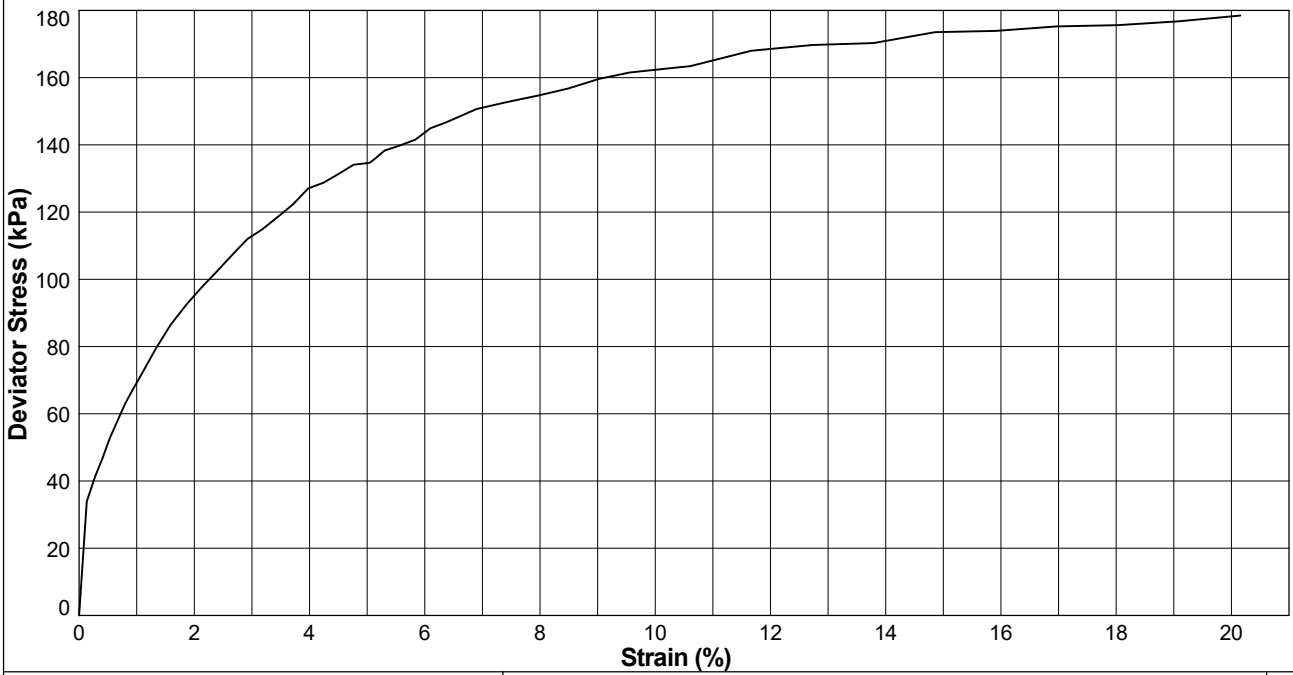
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH8** Sample Ref: **6** Sample Type: **U** Depth (m): **3.00**

Description : **Brown mottled orange CLAY with some gypsum**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.59		
	Height	(mm)	188.53		
	Moisture Content	(%)	27		
	Bulk Density	(Mg/m^3)	2.00		
	Dry Density	(Mg/m^3)	1.57		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.28		
	Rate of Axial Displacement	(%/min)	1.75		
	Cell Pressure	(kPa)	69		
	Membrane Correction	(kPa)	1.04		
	Corrected Deviator Stress	(kPa)	179		
	Undrained Shear Strength	(kPa)	89		
FAILURE DETAILS	Strain at Failure	(%)	20.2		
	Mode of Failure 1 : **Semi-plastic (intermediate)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	584350

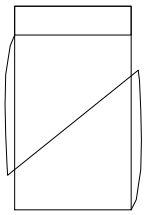
AGS

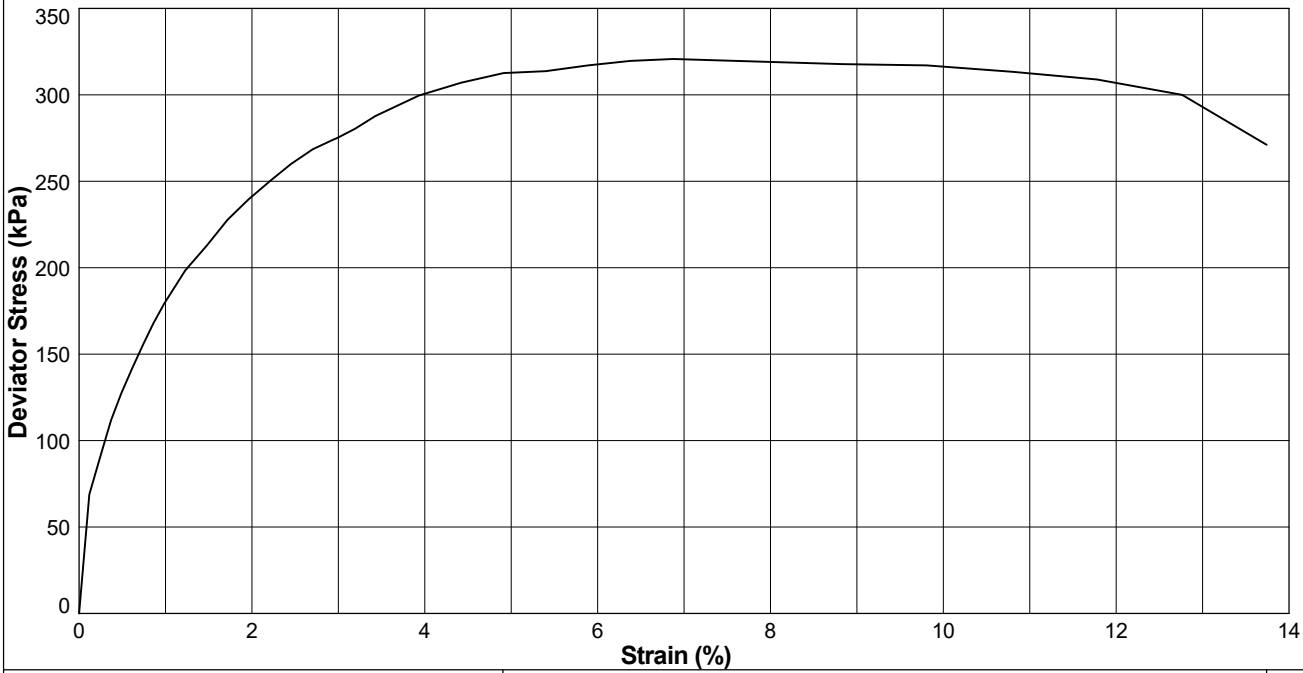
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH8** Sample Ref: **14** Sample Type: **U** Depth (m): **8.00**

Description : **Brown mottled orange CLAY with some gypsum**

STAGE NUMBER			**1**	**2**	**3**
SAMPLE DETAILS	Sample Condition		**Undisturbed**		
	Orientation of sample		**Vertical**		
	Diameter	(mm)	**103.71**		
	Height	(mm)	**203.79**		
	Moisture Content	(%)	**25**		
	Bulk Density	(Mg/m^3)	**1.98**		
	Dry Density	(Mg/m^3)	**1.58**		
TEST DETAILS	Membrane Type		**Rubber**		
	Membrane Thickness	(mm)	**0.42**		
	Rate of Axial Displacement	(%/min)	**1.37**		
	Cell Pressure	(kPa)	**169**		
	Membrane Correction	(kPa)	**0.69**		
	Corrected Deviator Stress	(kPa)	**321**		
	Undrained Shear Strength	(kPa)	**160**		
FAILURE DETAILS	Strain at Failure	(%)	**6.9**		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	**SHARON CAIRNS**	**14/10/20**

Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

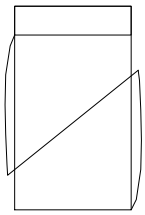
AGS

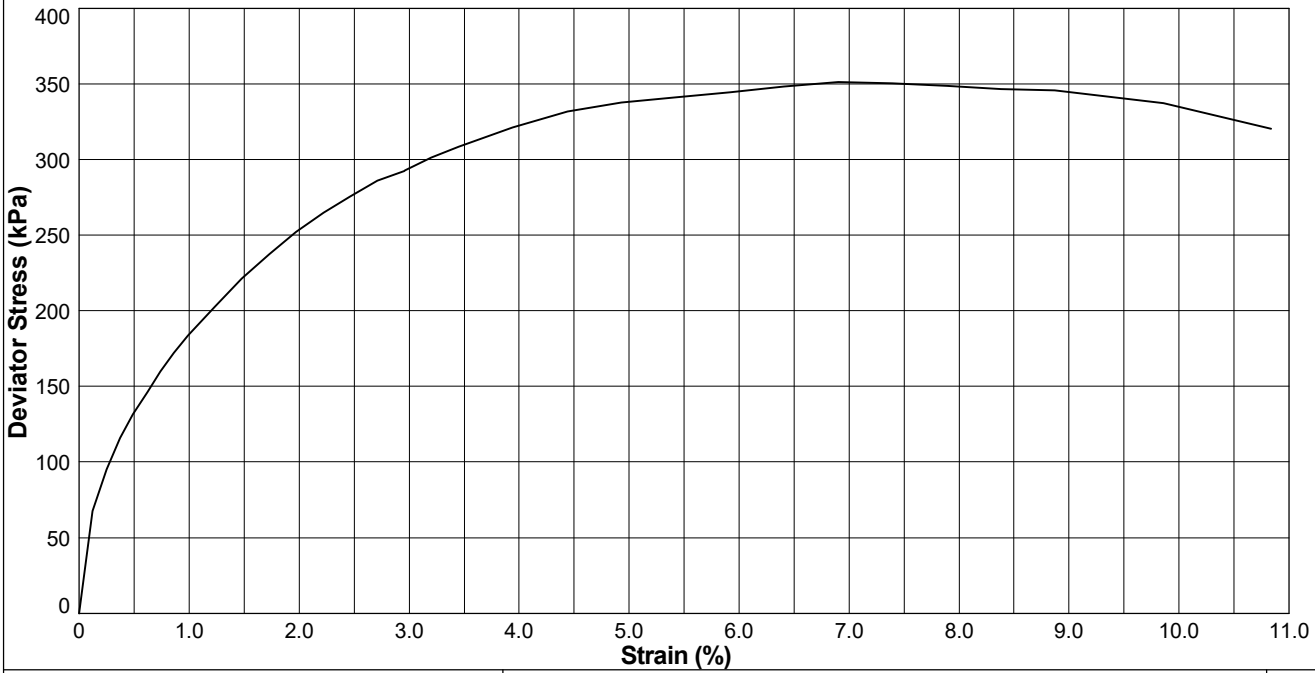
UNCONSOLIDATED QUICK UNDRAINED (SINGLE STAGE) TRIAXIAL COMPRESSION TEST

In accordance with BS1377 Part 7 Clause 8

Borehole: **BH8** Sample Ref: **22** Sample Type: **U** Depth (m): **14.00**

Description : **Brown CLAY**

STAGE NUMBER			1	2	3
SAMPLE DETAILS	Sample Condition		Undisturbed		
	Orientation of sample		Vertical		
	Diameter	(mm)	103.66		
	Height	(mm)	202.86		
	Moisture Content	(%)	27		
	Bulk Density	(Mg/m^3)	2.00		
	Dry Density	(Mg/m^3)	1.58		
TEST DETAILS	Membrane Type		Rubber		
	Membrane Thickness	(mm)	0.38		
	Rate of Axial Displacement	(%/min)	1.33		
	Cell Pressure	(kPa)	289		
	Membrane Correction	(kPa)	0.63		
	Corrected Deviator Stress	(kPa)	351		
	Undrained Shear Strength	(kPa)	176		
FAILURE DETAILS	Strain at Failure	(%)	6.9		
	Mode of Failure 1 : **Brittle (shear plane)**				



STRUCTURAL SOILS
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Compiled By		Date
SC	SHARON CAIRNS	14/10/20

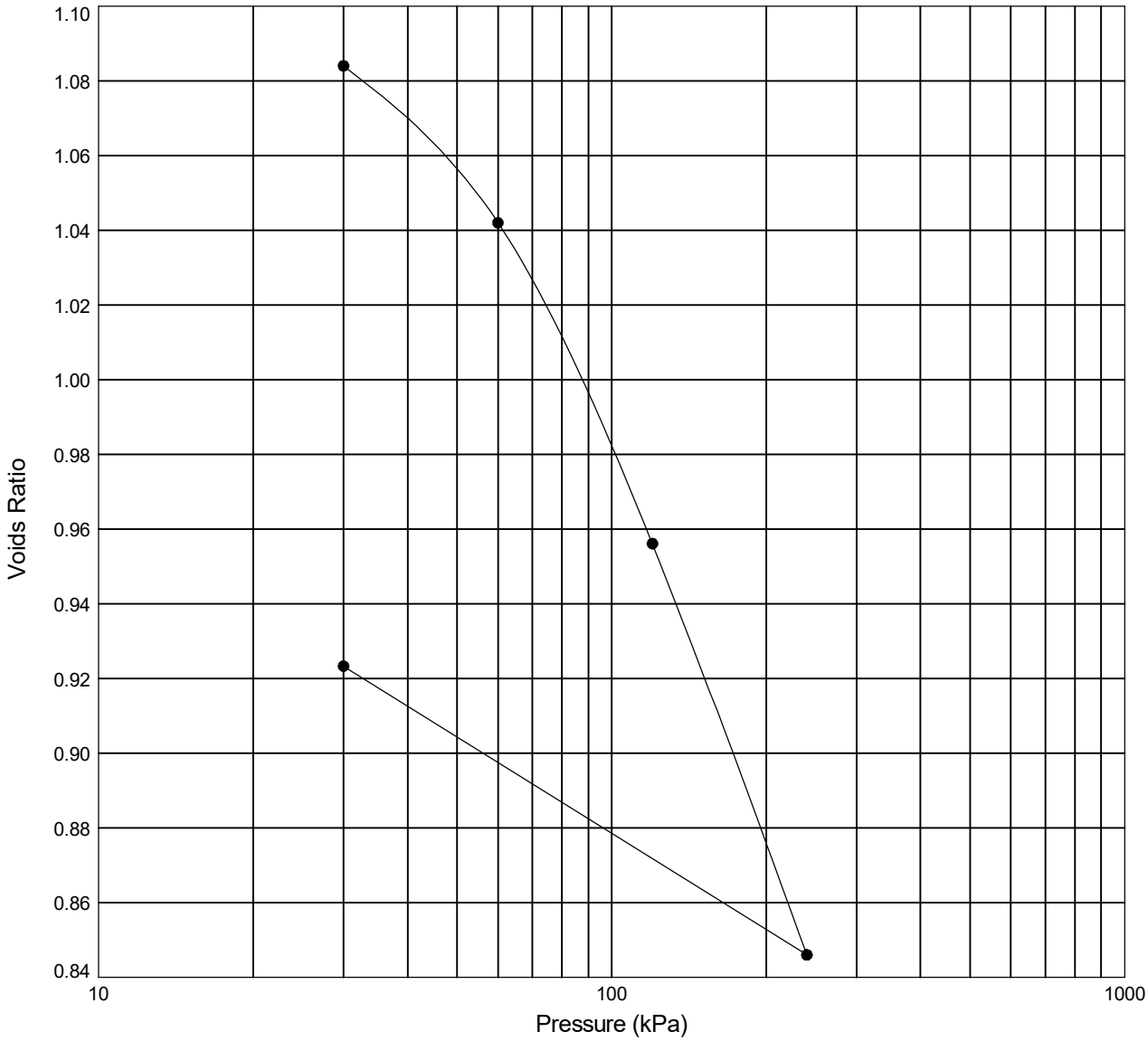
Contract	Contract Ref:
North London Buisness Park (N.L.B.P)	**584350**

AGS

ONE DIMENSIONAL CONSOLIDATION TEST

In accordance with BS1377 Part 5 Clause 3

Borehole: **BH2** Sample Ref: **6** Sample Type: **U** Depth (m): **3.03**



Initial Specimen Condition			Final Specimen Condition		
Moisture Content (%)	:	**44**	Moisture Content (%)	:	**39**
Bulk Density (Mg/m^3)	:	**1.77**	Bulk Density (Mg/m^3)	:	**1.88**
Dry Density (Mg/m^3)	:	**1.23**	Dry Density (Mg/m^3)	:	**1.35**
Void Ratio	:	**1.116**	Void Ratio	:	**0.9233**

Specimen Details			
Description	Height (mm)	:	**18.83**
Light brown CLAY	Diameter (mm)	:	**74.92**
	Particle Density (Mg/m^3) (assumed)	:	**2.60**
	Swelling Pressure (kPa)	:	**NA**

Test Results			
Pressure Range (kPa)	Mv (m^2/MN)	Cv (m^2/yr)	Voids Ratio
0 - 30	**0.50**	**28**	**1.084**
30 - 60	**0.68**	**18**	**1.042**
60 - 120	**0.70**	**5.5**	**0.9561**
120 - 240	**0.47**	**0.56**	**0.8460**
240 - 30	**NA**	**NA**	**0.9233**

Notes: Method of time-setting used: **T90.** Temperature range during test (degC): **18.5 - 20.9.**

STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

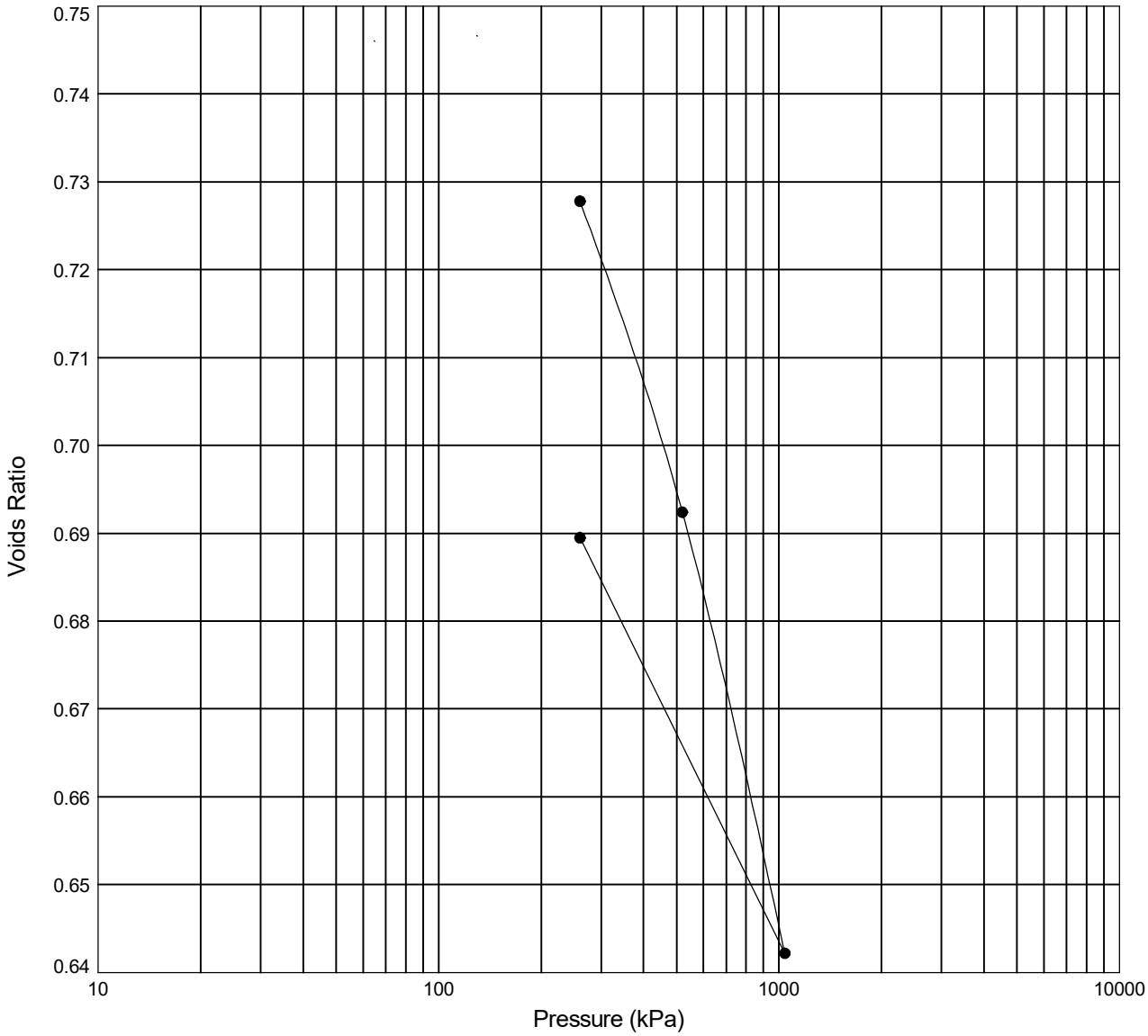
Compiled By		Date
D. Richards	**DAISY RICHARDS**	**30/11/20**

Contract	Contract Ref:
North London Business Park (N.L.B.P)	**584350**

ONE DIMENSIONAL CONSOLIDATION TEST

In accordance with BS1377 Part 5 Clause 3

Borehole: **BH5** Sample Ref: **U** Sample Type: **U** Depth (m): **6.59**



Initial Specimen Condition			Final Specimen Condition		
Moisture Content (%)	:	**30**	Moisture Content (%)	:	**29**
Bulk Density (Mg/m^3)	:	**1.96**	Bulk Density (Mg/m^3)	:	**2.03**
Dry Density (Mg/m^3)	:	**1.51**	Dry Density (Mg/m^3)	:	**1.57**
Void Ratio	:	**0.7517**	Void Ratio	:	**0.6895**

Specimen Details		
Description	Height (mm)	: **19.02**
Yellowish brown CLAY with some gypsum	Diameter (mm)	: **74.97**
	Particle Density (Mg/m^3) (assumed)	: **2.65**
	Swelling Pressure (kPa)	: **NA**

Test Results			
Pressure Range (kPa)	Mv (m^2/MN)	Cv (m^2/yr)	Voids Ratio
0 - 65	**Sample**	**Swelling**	**0.7460**
65 - 130	**Sample**	**Swelling**	**0.7466**
130 - 260	**0.083**	**10**	**0.7278**
260 - 520	**0.079**	**2.0**	**0.6924**
520 - 1040	**0.057**	**3.0**	**0.6422**
1040 - 260	**NA**	**NA**	**0.6895**

Notes: Method of time-setting used: **T90.** Temperature range during test (degC): **18 - 21.3.**

STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

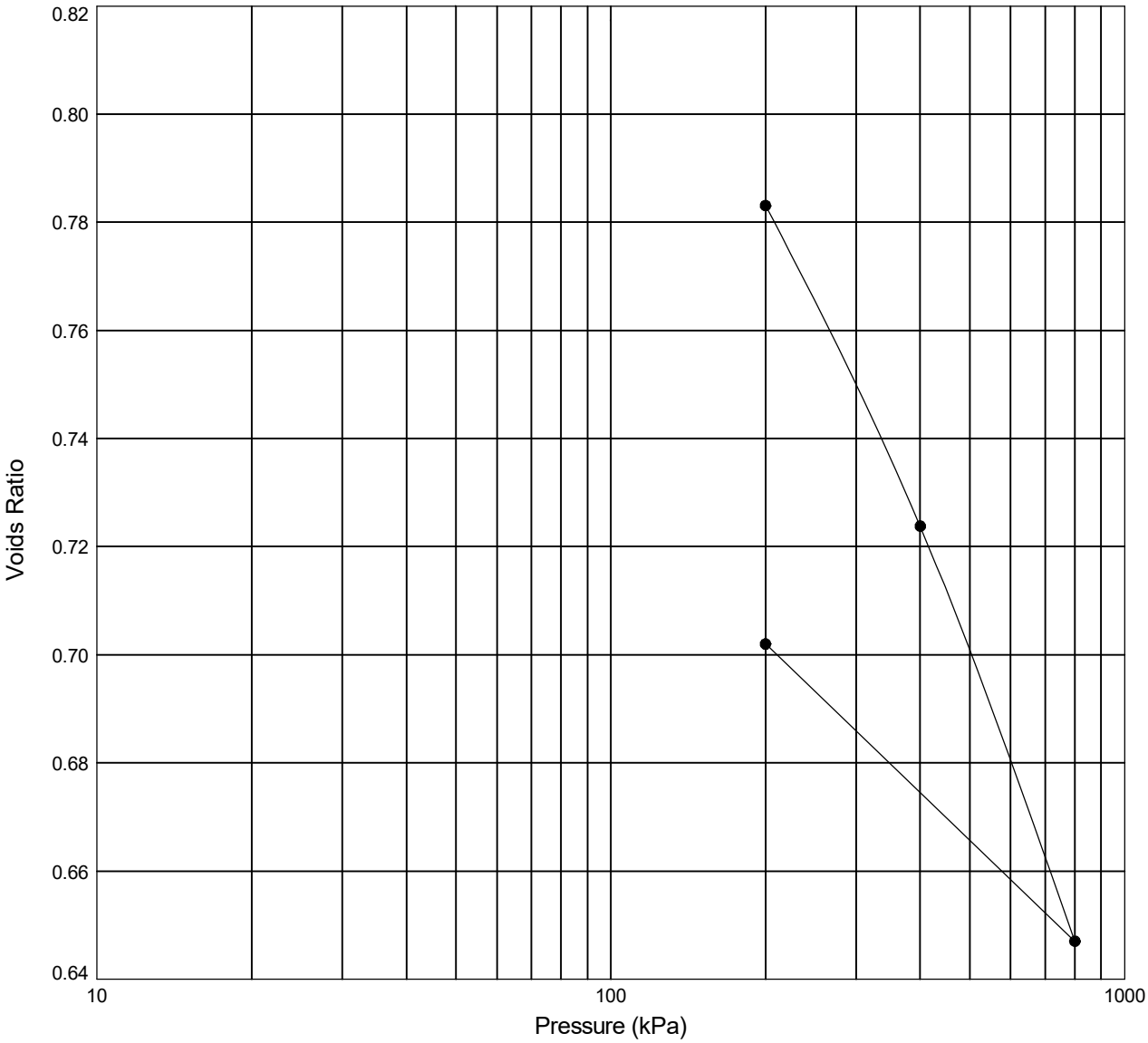
Compiled By		Date
D. Richards	**DAISY RICHARDS**	**30/11/20**

Contract	Contract Ref:
North London Business Park (N.L.B.P)	**584350**

ONE DIMENSIONAL CONSOLIDATION TEST

In accordance with BS1377 Part 5 Clause 3

Borehole: **BH6** Sample Ref: **U** Sample Type: **U** Depth (m): **5.05**



Initial Specimen Condition			Final Specimen Condition		
Moisture Content (%)	:	**32**	Moisture Content (%)	:	**31**
Bulk Density (Mg/m^3)	:	**1.91**	Bulk Density (Mg/m^3)	:	**2.04**
Dry Density (Mg/m^3)	:	**1.45**	Dry Density (Mg/m^3)	:	**1.56**
Void Ratio	:	**0.8285**	Void Ratio	:	**0.7020**

Specimen Details			
Description	Height (mm)	:	**19.04**
	Diameter (mm)	:	**74.88**
Brown CLAY with some gypsum	Particle Density (Mg/m^3) (assumed)	:	**2.65**
	Swelling Pressure (kPa)	:	**NA**

Test Results			
Pressure Range (kPa)	Mv (m^2/MN)	Cv (m^2/yr)	Voids Ratio
0 - 50	**Sample**	**Swelling**	**0.8200**
50 - 100	**Sample**	**Swelling**	**0.8173**
100 - 200	**0.19**	**12**	**0.7831**
200 - 400	**0.17**	**34**	**0.7238**
400 - 800	**0.11**	**17**	**0.6470**
800 - 200	**NA**	**NA**	**0.7020**

Notes: Method of time-setting used: **T90.** Temperature range during test (degC): **17.4 - 21.3.**

STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

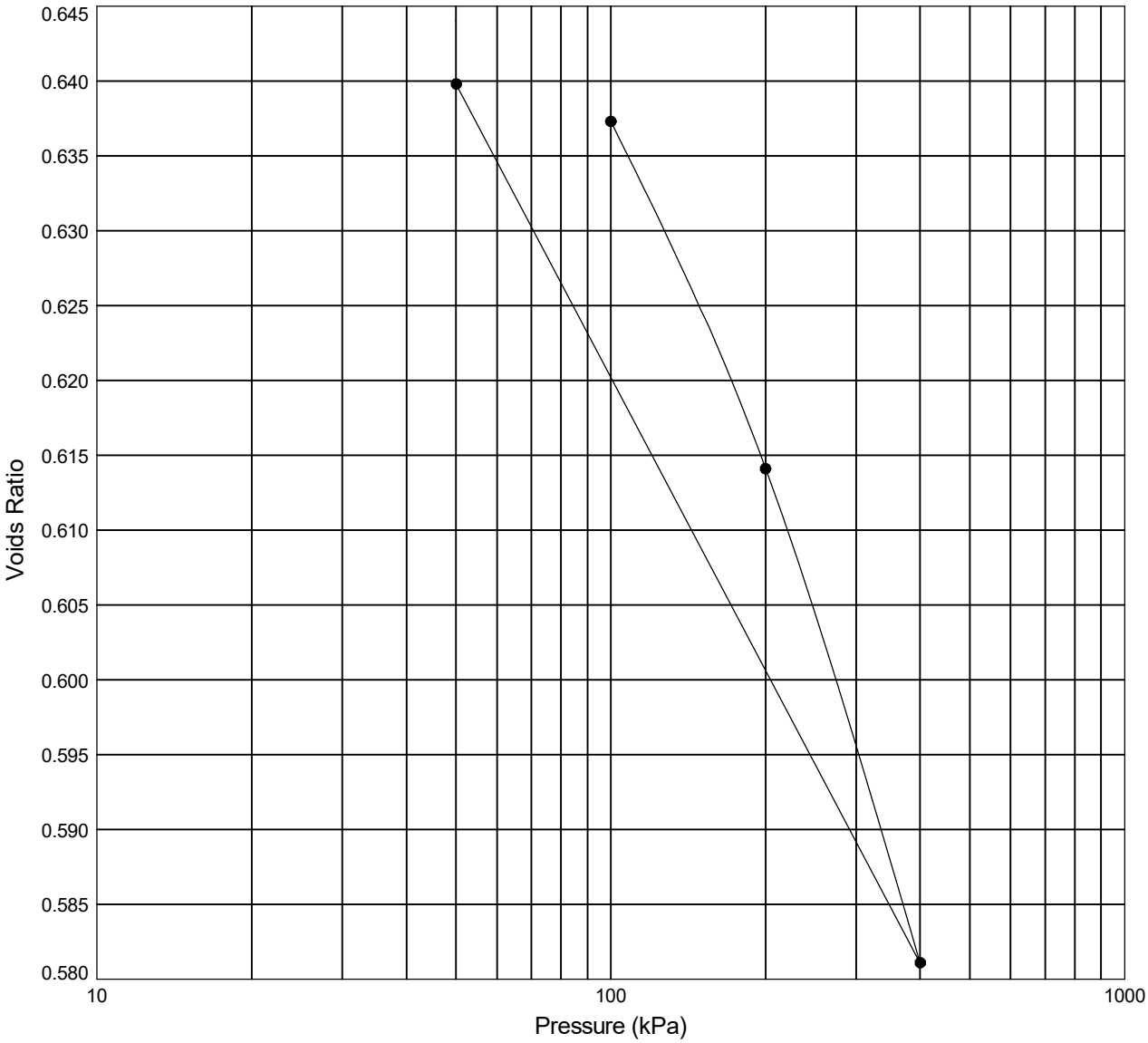
Compiled By		Date
	THOMAS DAVIES	**30/11/20**

Contract	Contract Ref:
North London Business Park (N.L.B.P)	**584350**

ONE DIMENSIONAL CONSOLIDATION TEST

In accordance with BS1377 Part 5 Clause 3

Borehole: **BH8** Sample Ref: **U** Sample Type: **U** Depth (m): **5.07**



Initial Specimen Condition			Final Specimen Condition		
Moisture Content (%)	:	**26**	Moisture Content (%)	:	**27**
Bulk Density (Mg/m^3)	:	**2.02**	Bulk Density (Mg/m^3)	:	**2.06**
Dry Density (Mg/m^3)	:	**1.60**	Dry Density (Mg/m^3)	:	**1.62**
Void Ratio	:	**0.6516**	Void Ratio	:	**0.6398**

Specimen Details			
Description	Height (mm)	:	**19.02**
	Diameter (mm)	:	**75.00**
Yellowish brown CLAY with occasional gypsum	Particle Density (Mg/m^3) (assumed)	:	**2.65**
	Swelling Pressure (kPa)	:	**NA**

Test Results			
Pressure Range (kPa)	Mv (m^2/MN)	Cv (m^2/yr)	Voids Ratio
0 - 50	**Sample**	**Swelling**	**0.6440**
50 - 100	**0.082**	**44**	**0.6373**
100 - 200	**0.14**	**18**	**0.6141**
200 - 400	**0.10**	**19**	**0.5811**
400 - 50	**NA**	**NA**	**0.6398**

Notes: Method of time-setting used: **T90.** Temperature range during test (degC): **18 - 21.4.**

STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

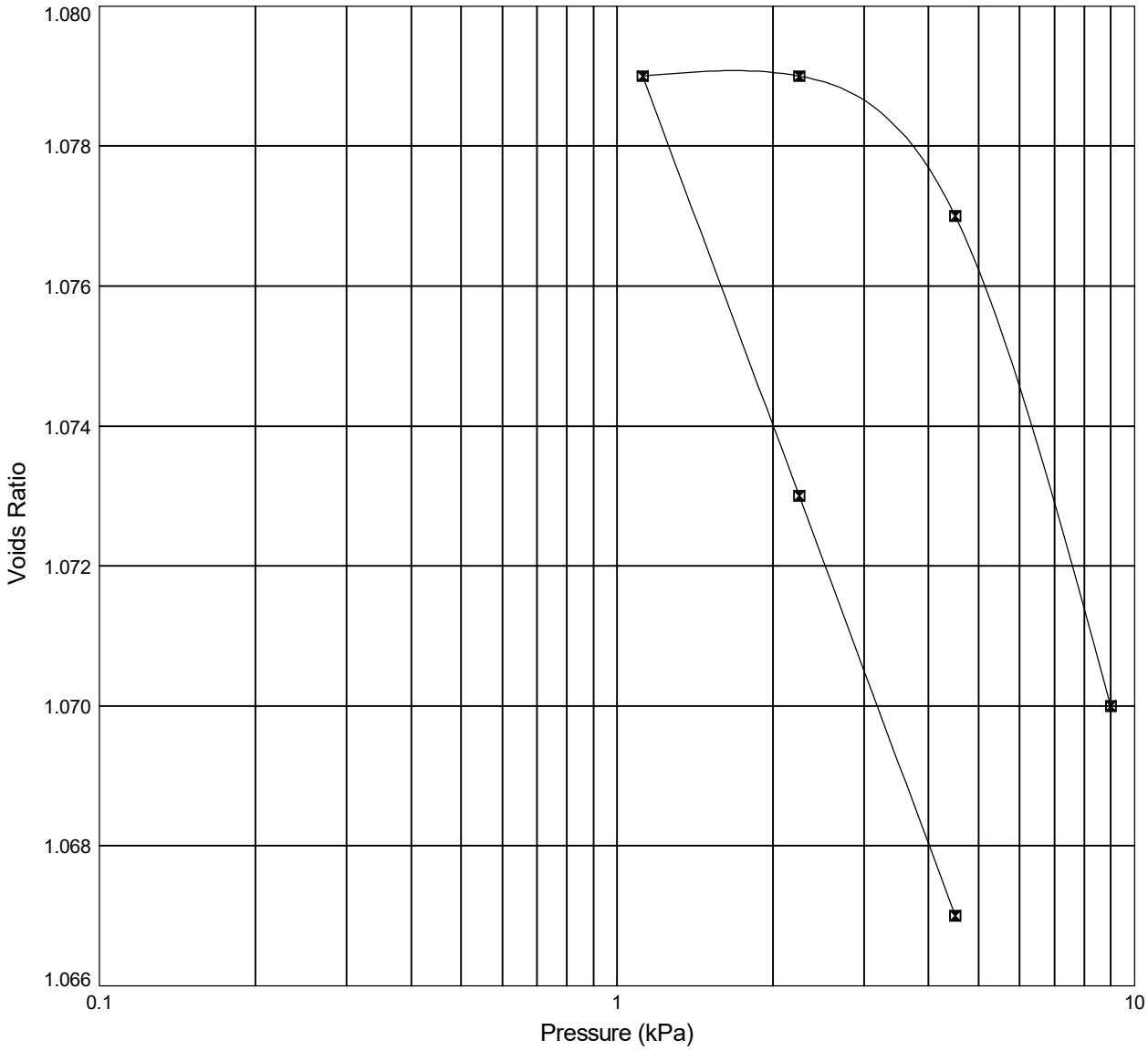
Compiled By		Date
D. Richards	**DAISY RICHARDS**	**30/11/20**

Contract	Contract Ref:
North London Business Park (N.L.B.P)	**584350**

MEASUREMENT OF SWELLING TEST

In accordance with BS1377:Part 5:1990

Borehole: **BH2** Sample Ref: **6** Sample Type: **U** Depth (m): **3.07**



Initial Specimen Condition			Final Specimen Condition		
Moisture Content (%)	:	**42**	Moisture Content (%)	:	**43**
Bulk Density (Mg/m^3)	:	**1.79**	Bulk Density (Mg/m^3)	:	**1.80**
Dry Density (Mg/m^3)	:	**1.26**	Dry Density (Mg/m^3)	:	**1.26**
Void Ratio	:	**1.061**	Void Ratio	:	**1.070**

Specimen Details			
Description	Height (mm)	:	**15.00**
Light brown CLAY	Diameter (mm)	:	**74.91**
	Particle Density (Mg/m^3) (assumed)	:	**2.60**
	Swelling Pressure (kPa)	:	**9**

Test Results			
Pressure Range (kPa)	Mv (m^2/MN)	Cv (m^2/yr)	Voids Ratio
9 - 4.5	**NA**	**NA**	**1.067**
4.5 - 2.25	**NA**	**NA**	**1.073**
2.25 - 1.12	**NA**	**NA**	**1.079**
1.12 - 2.25	**0.23**	**2.2**	**1.079**
2.25 - 4.5	**0.47**	**1.3**	**1.077**
4.5 - 9	**0.66**	**5.1**	**1.070**

Notes: Method of time-setting used: **T90.** Temperature range during test (degC): **16.1 - 21.1.**

STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

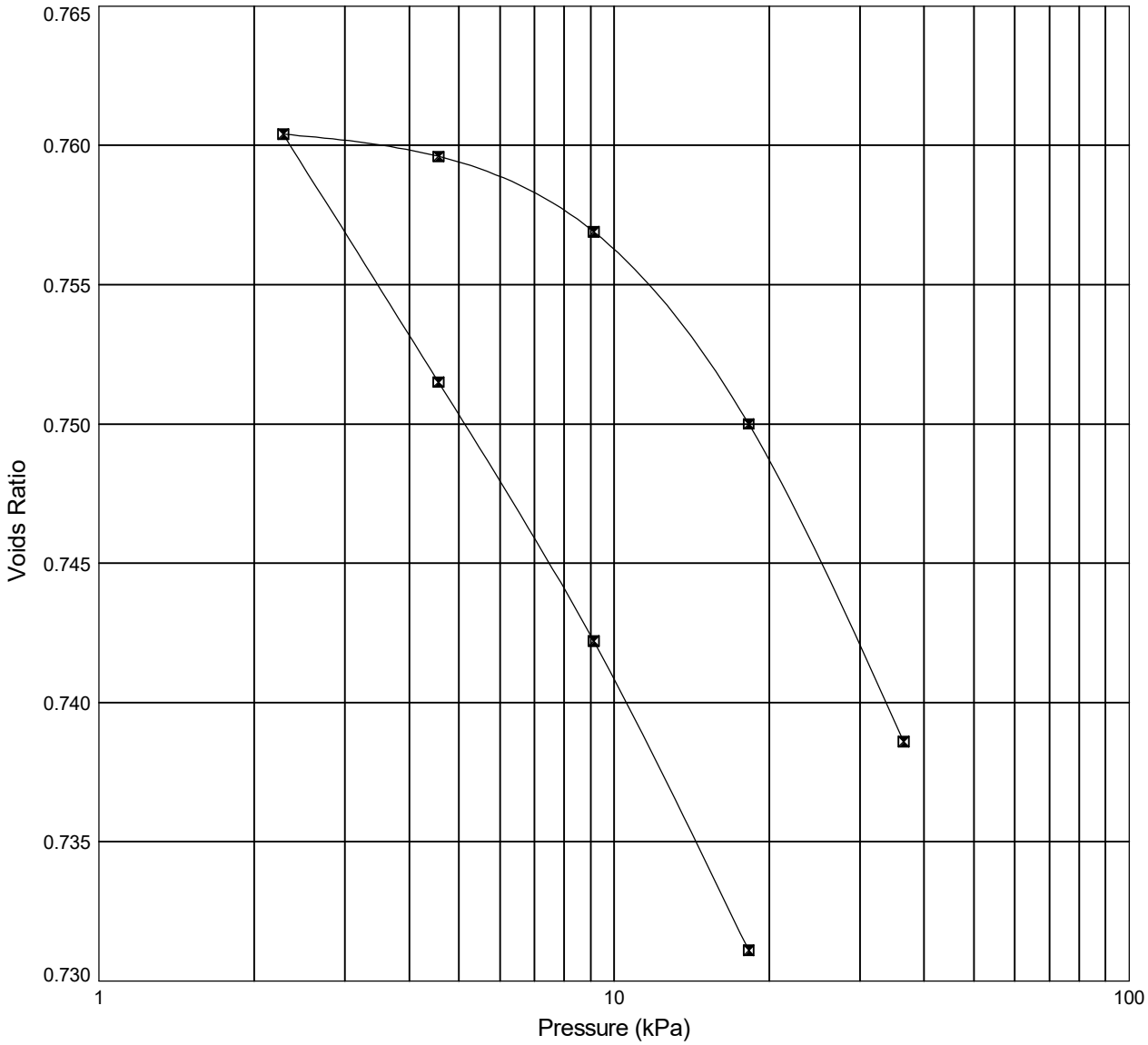
Compiled By		Date
D. Richards	**DAISY RICHARDS**	**30/11/20**

Contract	Contract Ref:
North London Business Park (N.L.B.P)	**584350**

MEASUREMENT OF SWELLING TEST

In accordance with BS1377:Part 5:1990

Borehole: **BH5** Sample Ref: **U** Sample Type: **U** Depth (m): **6.62**



Initial Specimen Condition			Final Specimen Condition		
Moisture Content (%)	:	**28**	Moisture Content (%)	:	**31**
Bulk Density (Mg/m^3)	:	**1.97**	Bulk Density (Mg/m^3)	:	**2.00**
Dry Density (Mg/m^3)	:	**1.54**	Dry Density (Mg/m^3)	:	**1.53**
Void Ratio	:	**0.7228**	Void Ratio	:	**0.7386**

Specimen Details			
Description	Height (mm)	:	**14.97**
Yellowish brown CLAY with some gypsum	Diameter (mm)	:	**75.00**
	Particle Density (Mg/m^3) (assumed)	:	**2.65**
	Swelling Pressure (kPa)	:	**36.5**

Test Results			
Pressure Range (kPa)	Mv (m^2/MN)	Cv (m^2/yr)	Voids Ratio
36.5 - 18.25	**NA**	**NA**	**0.7311**
18.25 - 9.12	**NA**	**NA**	**0.7422**
9.12 - 4.56	**NA**	**NA**	**0.7515**
4.56 - 2.28	**NA**	**NA**	**0.7604**
2.28 - 4.56	**0.20**	**1.3**	**0.7596**
4.56 - 9.12	**0.34**	**3.4**	**0.7569**
9.12 - 18.25	**0.43**	**3.8**	**0.7500**
18.25 - 36.5	**0.36**	**6.4**	**0.7386**

Notes: Method of time-setting used: **T90.** Temperature range during test (degC): **16.1 - 21.3.**

STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

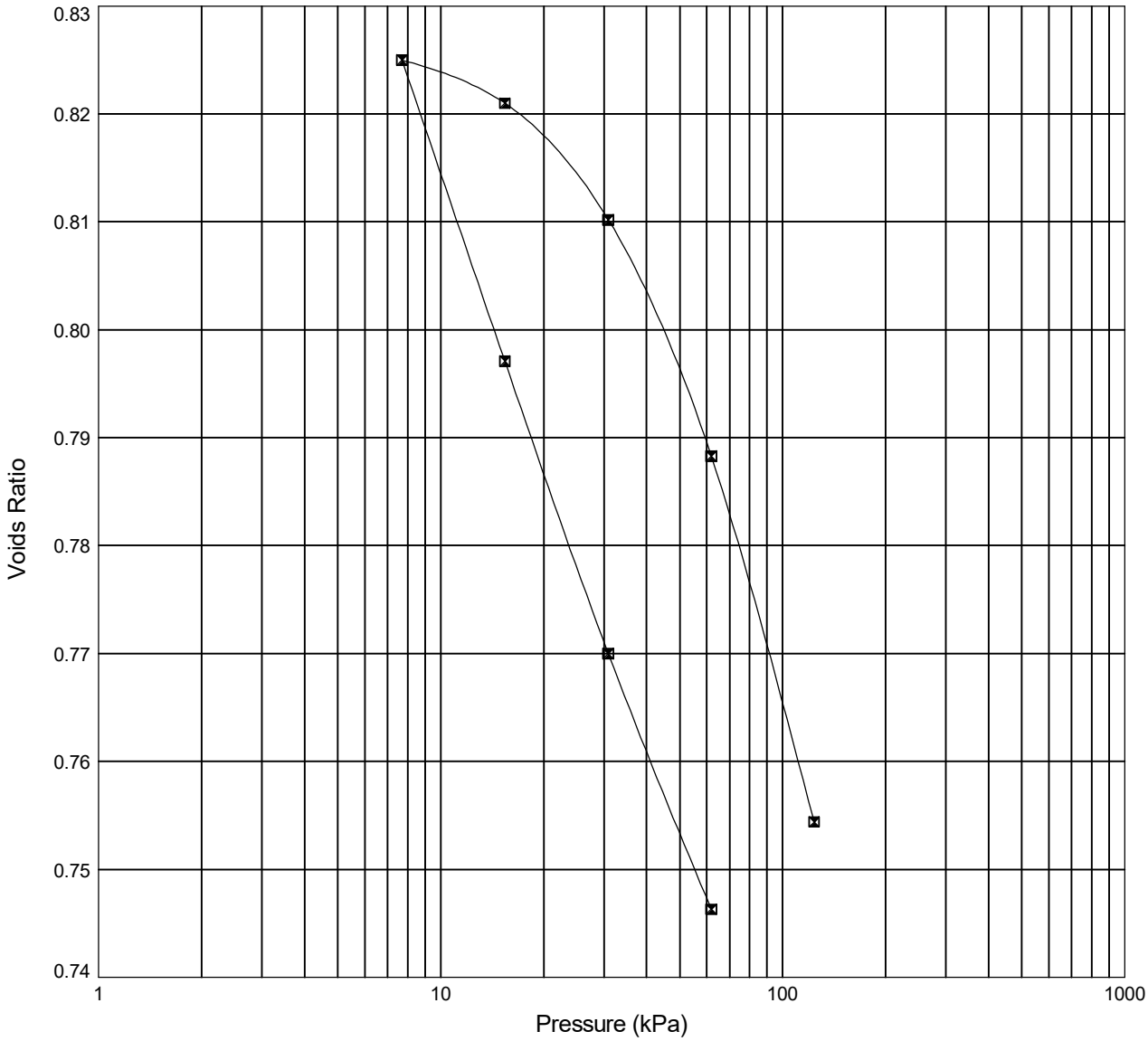
Compiled By		Date
D. Richards	**DAISY RICHARDS**	**30/11/20**

Contract	Contract Ref:
North London Business Park (N.L.B.P)	**584350**

MEASUREMENT OF SWELLING TEST

In accordance with BS1377:Part 5:1990

Borehole: **BH6** Sample Ref: **U** Sample Type: **U** Depth (m): **5.10**



Initial Specimen Condition			Final Specimen Condition		
Moisture Content (%)	:	**29**	Moisture Content (%)	:	**31**
Bulk Density (Mg/m^3)	:	**1.98**	Bulk Density (Mg/m^3)	:	**1.99**
Dry Density (Mg/m^3)	:	**1.53**	Dry Density (Mg/m^3)	:	**1.52**
Void Ratio	:	**0.7291**	Void Ratio	:	**0.7544**

Specimen Details			
Description	Height (mm)	:	**15.11**
	Diameter (mm)	:	**74.97**
Brown CLAY with some gypsum	Particle Density (Mg/m^3) (assumed)	:	**2.65**
	Swelling Pressure (kPa)	:	**123.5**

Test Results			
Pressure Range (kPa)	Mv (m^2/MN)	Cv (m^2/yr)	Voids Ratio
123.5 - 61.8	**NA**	**NA**	**0.7463**
61.8 - 30.9	**NA**	**NA**	**0.7700**
30.9 - 15.4	**NA**	**NA**	**0.7971**
15.4 - 7.7	**NA**	**NA**	**0.8250**
7.7 - 15.4	**0.29**	**10**	**0.8210**
15.4 - 30.9	**0.38**	**0.73**	**0.8102**
30.9 - 61.8	**0.39**	**0.27**	**0.7883**
61.8 - 123.5	**0.31**	**0.35**	**0.7544**

Notes: Method of time-setting used: **T90.** Temperature range during test (degC): **16.1 - 21.2.**

STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

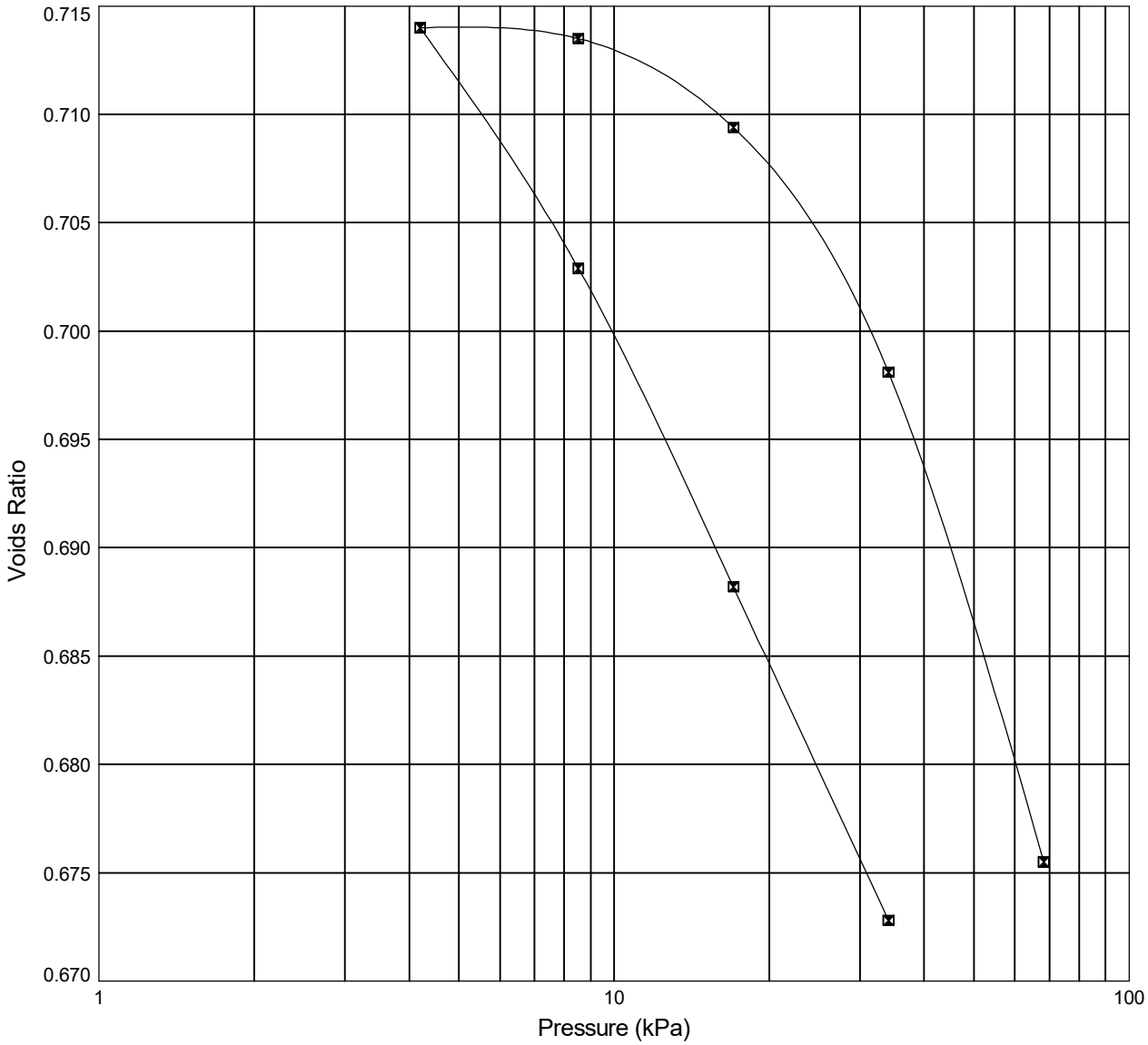
Compiled By		Date
D. Richards	**DAISY RICHARDS**	**03/12/20**

Contract	Contract Ref:
North London Business Park (N.L.B.P)	**584350**

MEASUREMENT OF SWELLING TEST

In accordance with BS1377:Part 5:1990

Borehole: **BH8** Sample Ref: **U** Sample Type: **U** Depth (m): **5.03**



Initial Specimen Condition			Final Specimen Condition		
Moisture Content (%)	:	**26**	Moisture Content (%)	:	**29**
Bulk Density (Mg/m^3)	:	**2.01**	Bulk Density (Mg/m^3)	:	**2.04**
Dry Density (Mg/m^3)	:	**1.60**	Dry Density (Mg/m^3)	:	**1.58**
Void Ratio	:	**0.6591**	Void Ratio	:	**0.6755**

Specimen Details			
Description	Height (mm)	:	**15.15**
	Diameter (mm)	:	**75.88**
Yellowish brown CLAY with occasional gypsum	Particle Density (Mg/m^3) (assumed)	:	**2.65**
	Swelling Pressure (kPa)	:	**68.2**

Test Results			
Pressure Range (kPa)	Mv (m^2/MN)	Cv (m^2/yr)	Voids Ratio
68.2 - 34.1	**NA**	**NA**	**0.6728**
34.1 - 17.05	**NA**	**NA**	**0.6882**
17.05 - 8.52	**NA**	**NA**	**0.7029**
8.52 - 4.2	**NA**	**NA**	**0.7140**
4.2 - 8.52	**0.059**	**6.6**	**0.7135**
8.52 - 17.05	**0.28**	**3.3**	**0.7094**
17.05 - 34.1	**0.39**	**2.2**	**0.6981**
34.1 - 68.2	**0.39**	**2.0**	**0.6755**

Notes: Method of time-setting used: **T90.** Temperature range during test (degC): **17.4 - 21.5.**

STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

Compiled By	Date
DAISY RICHARDS	**30/11/20**

Contract	Contract Ref:
North London Business Park (N.L.B.P)	**584350**

APPENDIX L
LABORATORY CERTIFICATES FOR SURFACE WATER ANALYSIS

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 20/08709
Issue Number: 1 **Date:** 27 October, 2020

Client:
RSK Environment Ltd Hemel
18 Frogmore Road
Hemel Hempstead
Hertfordshire
UK
HP3 9RT

Project Manager: Alex Marcelo
Project Name: North London Business Park (N.L.B.P)
Project Ref: 1921321
Order No: N/A
Date Samples Received: 14/10/20
Date Instructions Received: 14/10/20
Date Analysis Completed: 24/10/20

Prepared by:

Melanie Marshall
Laboratory Coordinator

Approved by:

Danielle Brierley
Client Manager

UKAS TESTING
1247

Envirolab Job Number: 20/08709

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08709/1	20/08709/2						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SWS1	SWS2								
Depth to Top										
Depth To Bottom										
Date Sampled	09-Oct-20	09-Oct-20								
Sample Type	Water - EW	Water - EW								
Sample Matrix Code	N/A	N/A								
pH (w)$_{A}^{\#}$	7.71	7.65						pH	0.01	A-T-031w
Sulphate (w)$_{A}^{\#}$	41	41						mg/l	1	A-T-026w
Arsenic (dissolved)$_{A}^{\#}$	<1	<1						µg/l	1	A-T-025w
Cadmium (dissolved)$_{A}^{\#}$	<0.2	<0.2						µg/l	0.2	A-T-025w
Copper (dissolved)$_{A}^{\#}$	2	3						µg/l	1	A-T-025w
Chromium (dissolved)$_{A}^{\#}$	<1	2						µg/l	1	A-T-025w
Lead (dissolved)$_{A}^{\#}$	1	<1						µg/l	1	A-T-025w
Mercury (dissolved)$_{A}^{\#}$	<0.1	<0.1						µg/l	0.1	A-T-025w
Nickel (dissolved)$_{A}^{\#}$	2	2						µg/l	1	A-T-025w
Selenium (dissolved)$_{A}^{\#}$	1	1						µg/l	1	A-T-025w
Zinc (dissolved)$_{A}^{\#}$	2	7						µg/l	1	A-T-025w

Envirolab Job Number: 20/08709

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08709/1	20/08709/2						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SWS1	SWS2								
Depth to Top										
Depth To Bottom										
Date Sampled	09-Oct-20	09-Oct-20								
Sample Type	Water - EW	Water - EW								
Sample Matrix Code	N/A	N/A								
PAH 16MS (w)										
Acenaphthene (w)$_A^{\#}$	<0.01	<0.01						µg/l	0.01	A-T-019w
Acenaphthylene (w)$_A^{\#}$	<0.01	<0.01						µg/l	0.01	A-T-019w
Anthracene (w)$_A^{\#}$	<0.01	<0.01						µg/l	0.01	A-T-019w
Benzo(a)anthracene (w)$_A^{\#}$	<0.01	<0.01						µg/l	0.01	A-T-019w
Benzo(a)pyrene (w)$_A^{\#}$	0.01	<0.01						µg/l	0.01	A-T-019w
Benzo(b)fluoranthene (w)$_A^{\#}$	0.02	<0.01						µg/l	0.01	A-T-019w
Benzo(ghi)perylene (w)$_A^{\#}$	0.01	<0.01						µg/l	0.01	A-T-019w
Benzo(k)fluoranthene (w)$_A^{\#}$	<0.01	<0.01						µg/l	0.01	A-T-019w
Chrysene (w)$_A^{\#}$	0.02	<0.01						µg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (w)$_A^{\#}$	<0.01	<0.01						µg/l	0.01	A-T-019w
Fluoranthene (w)$_A^{\#}$	0.02	<0.01						µg/l	0.01	A-T-019w
Fluorene (w)$_A^{\#}$	<0.01	<0.01						µg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (w)$_A^{\#}$	0.02	<0.01						µg/l	0.01	A-T-019w
Naphthalene (w)$_A^{\#}$	<0.01	<0.01						µg/l	0.01	A-T-019w
Phenanthrene (w)$_A^{\#}$	<0.01	<0.01						µg/l	0.01	A-T-019w
Pyrene (w)$_A^{\#}$	0.02	<0.01						µg/l	0.01	A-T-019w
Total PAH 16MS (w)$_A^{\#}$	0.12	<0.01						µg/l	0.01	A-T-019w

Envirolab Job Number: 20/08709

Client Project Name: North London Business Park (N.L.B.P)

Client Project Ref: 1921321

Lab Sample ID	20/08709/1	20/08709/2						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SWS1	SWS2								
Depth to Top										
Depth To Bottom										
Date Sampled	09-Oct-20	09-Oct-20								
Sample Type	Water - EW	Water - EW								
Sample Matrix Code	N/A	N/A								
TPH CWG (w)										
Ali >C5-C6 $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w
Ali >C6-C8 $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w
Ali >C8-C10 $(w)_A^{\#}$	<5	<5						µg/l	5	A-T-055w
Ali >C10-C12 $(w)_A^{\#}$	<5	<5						µg/l	5	A-T-055w
Ali >C12-C16 $(w)_A^{\#}$	<5	<5						µg/l	5	A-T-055w
Ali >C16-C21 $(w)_A^{\#}$	<5	<5						µg/l	5	A-T-055w
Ali >C21-C35 $(w)_A^{\#}$	15	<5						µg/l	5	A-T-055w
Total Aliphatics $(w)_A^{\#}$	15	<5						µg/l	5	A-T-055w
Aro >C5-C7 $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w
Aro >C7-C8 $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w
Aro >C8-C10 $(w)_A$	<5	<5						µg/l	5	A-T-055w
Aro >C10-C12 $(w)_A^{\#}$	<5	<5						µg/l	5	A-T-055w
Aro >C12-C16 $(w)_A^{\#}$	<5	<5						µg/l	5	A-T-055w
Aro >C16-C21 $(w)_A^{\#}$	7	<5						µg/l	5	A-T-055w
Aro >C21-C35 $(w)_A^{\#}$	29	<10						µg/l	10	A-T-055w
Total Aromatics $(w)_A$	36	<10						µg/l	10	A-T-055w
TPH (Ali & Aro >C5-C35) $(w)_A$	51	<10						µg/l	10	A-T-055w
BTEX - Benzene $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w
BTEX - Toluene $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w
BTEX - Ethyl Benzene $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w
BTEX - m & p Xylene $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w
BTEX - o Xylene $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w
MTBE $(w)_A^{\#}$	<1	<1						µg/l	1	A-T-022w

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:
Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis.
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:
IS indicates Insufficient Sample for analysis.
US indicates Unsuitable Sample for analysis.
NDP indicates No Determination Possible.
NAD indicates No Asbestos Detected.
N/A indicates Not Applicable.
Superscript # indicates method accredited to ISO 17025.
Superscript "M" indicates method accredited to MCERTS.
Subscript "A" indicates analysis performed on the sample as received.
Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: RSK Environment Ltd Hemel, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, UK, HP3 9RT

Project: North London Business Park (N.L.B.P)

Clients Project No: 1921321

Project No: 20/08709

Date Received: 14/10/2020 (am)

Cool Box Temperatures (°C): 9.6

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

APPENDIX M
GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH

Generic assessment criteria for human health: residential scenario with home-grown produce

Background

RSK's generic assessment criteria (GAC) were initially prepared following the publication by the Environment Agency (EA) of soil guideline value (SGV) and toxicological (TOX) reports, and associated publications in 2009[1]. RSK GAC were updated following the publication of GAC by LQM/CIEH in 2009[2]. RSK GAC are periodically revised when updated information on toxicological, land use or receptor parameters is published.

Updates to the RSK GAC

In 2014, the publication of Category 4 Screening Levels (C4SL)[3,4], as part of the Defra-funded research project SP1010, included modifications to certain exposure assumptions documented within EA Science Report SC050221/SR3 (herein after referred to as SR3)[5] used in the generation of SGVs.

C4SL were published for six substances (cadmium, arsenic, benzene, benzo(a)pyrene, chromium VI and lead) for a sandy loam soil type with 6% soil organic matter, based on a low level of toxicological concern (LLTC; see Section 2.3 of research project report SP1010[3]). Where a C4SL has been published, the RSK GAC duplicates the C4SL published values using all input parameters within the SP1010 final project report[3] and associated appendices[6], and adopts them as GAC for these six substances.

For all other substances the C4SL exposure modifications, with the exception of the "top two" produce type approach taken in the C4SL, have been applied to the current RSK GAC. These include alterations to daily inhalation rates for residential and commercial scenarios, reducing soil adherence factors in children (age classes 1 to 12 only) for residential land use, reducing exposure frequency for dermal contact outdoors for residential land use, and updated produce type consumption rates (90th percentile) based on recent data from the National Diet and Nutrition Survey.

The RSK GAC have also been revised with updated toxicology published by LQM/CIEH in 2015[7] or by the USEPA[14], where a C4SL has not been published.

RSK GAC derivation for metals and organic compounds

Model selection

Soil assessment criteria (SAC) were calculated using the Contaminated Land Exposure Assessment (CLEA) tool v1.071, supporting EA guidance[5,8,9] and revised exposure scenarios published for the C4SL[3]. The SAC are also termed GAC.

Conceptual model

In accordance with SR3[5], the residential with home-grown produce scenario considers risks to a female child between the ages of 0 and 6 years old as the highest risk scenario. In accordance with Box 3.1 of SR3[5], the pathways considered for production of the SAC in the residential with home-grown produce scenario are

- direct soil and dust ingestion