



Appendix

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PDisp Analysis – Contour output - Stage 2
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Stage 1
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XDisp Analysis – Horizontal movements
XDisp Analysis – Tabular input and output

Stage 2
XDisp Analysis – Vertical movements
XDisp Analysis – Horizontal movements
XDisp Analysis – Tabular input and output

Stage 3
XDisp Analysis – Vertical movements
XDisp Analysis – Horizontal movements
XDisp Analysis – Tabular input and output



appendix a

Field Work

Site Plan
Borehole Records
Trial Pit Records



GEA

Geotechnical & Environmental Associates

www.gea-ltd.co.uk

Site Plan

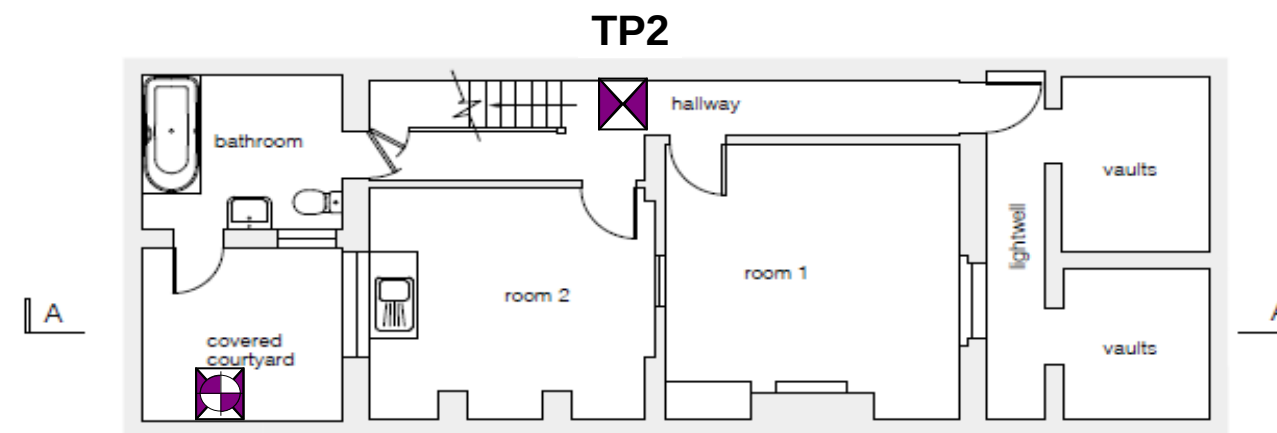
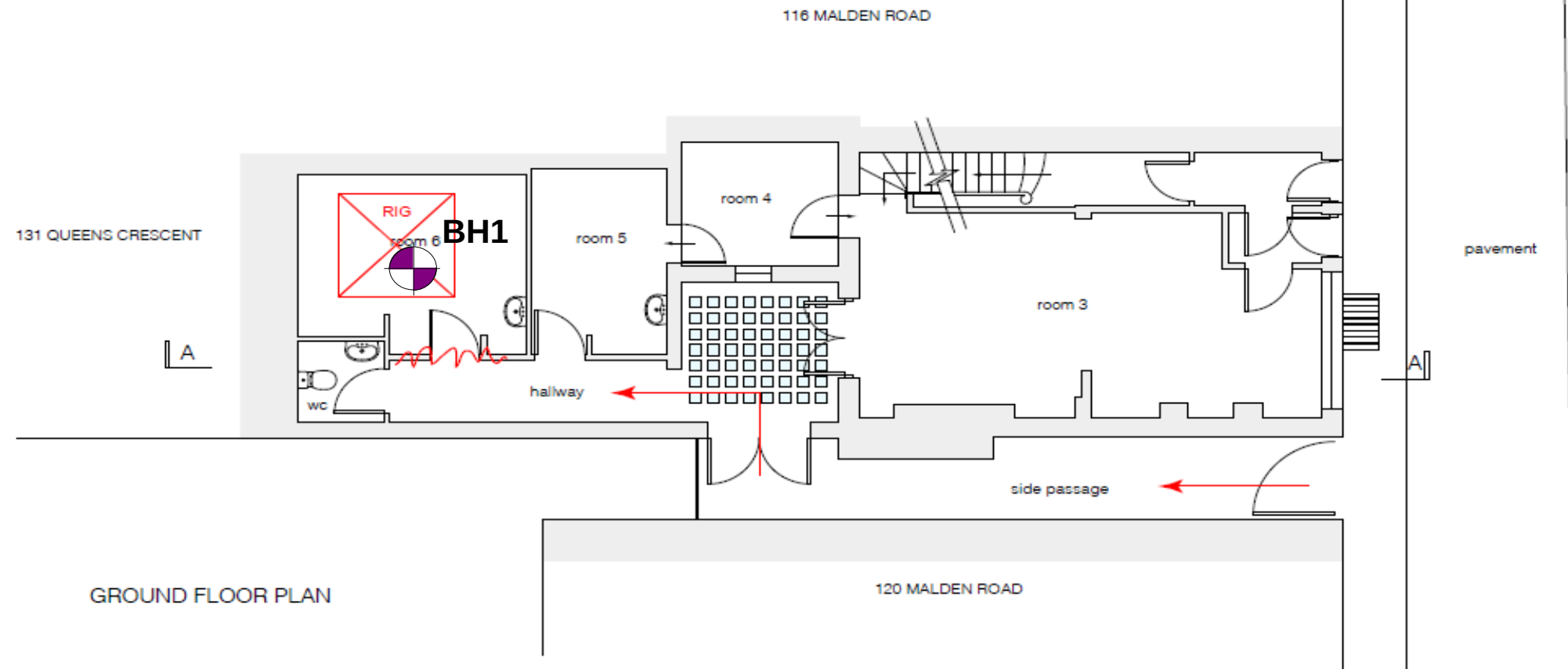
Site 118 Malden Road, London NW5 4BY

Client William Carter Limited

Engineer Martin Redston Associates

Job Number
J23153

Sheet
1 / 1



TP1 and BH2

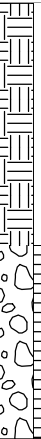
Project 118 Malden Road, London NW5 4BY				BOREHOLE No BH1	
Job No J23153	Date 21-06-23 21-06-23	Ground Level (m OD)	Co-Ordinates ()		
Client William Carter Limited		Engineer Martin Redston Associates		Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA				Instrument / Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	DESCRIPTION	
						(0.30) 0.30	REINFORCED CONCRETE SLAB	
0.50	ES					(0.30) 0.60	MADE GROUND (mid brown mottled dark grey gravelly slightly sandy silty clay. Gravel comprises fine to medium brick and charcoal fragments)	
0.70	D						Stiff to very stiff fissured mid-brown silty CLAY with rare pockets of orange brown clayey sand and rare blue grey veining with root traces.	
1.00	D						0.60 - 1.00 Occasional coarse sand to fine gravel sized flint	
1.50	D					(1.40)		
1.90	D					2.00		

Boring Progress and Water Observations						GENERAL REMARKS
Depth	Date	Time	Casing Depth	Casing Dia. mm	Water Depth	
						Hand dug services pit to 1.20 m Groundwater not encountered Borehole refused at 2.00 m due to very stiff ground conditions Borehole backfilled on completion

All dimensions in metres Scale 1:31.25	Method/ Plant Used Hand-held window sampler	Logged By AG
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SAMPLES & TESTS			Water	STRATA			Instrument / Backfill	
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)		DESCRIPTION
						(0.40) 0.40	AS TRIAL PIT NO 1	
0.70	D					(1.40)	Stiff to very stiff mid-brown fissured silty CLAY with occasional blue grey veining and root traces on fissured surfaces and fine crystals	
1.10	D							
1.40	D							
1.70	D					1.80		
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								

All dimensions in metres Scale 1:31.25	Method/ Plant Used Hand-held window sampler	Logged By AG
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Report ID: CABLE PERCUSSION | Project: J23153 - 118 MALDERN ROAD.GPJ | Library: GEA LIBRARY.GLB | Date: 07 July 2023



GEA

www.gea-ltd.co.uk

Herts | 01727 824666 Notts | 01509 674888

Trial Pit No

1

Site: 118 Malden Road, London NW5 4BY

Client: William Carter Limited

Engineer: Martin Redston Associates

Job Number

J23153

Sheet

1/3

Date

21/06/2023

Excavation Method

Manual

Dimensions

450 x 350 x 400

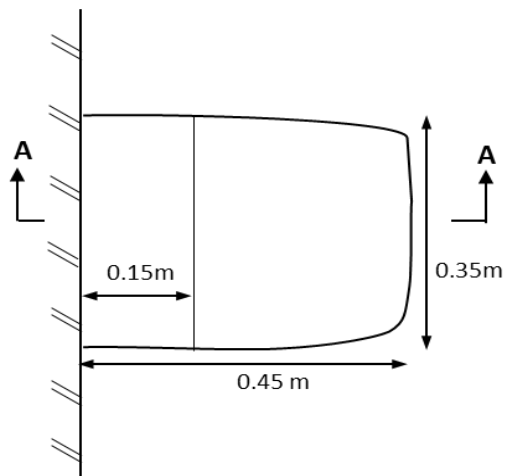
Ground Level (m OD)

Basement level

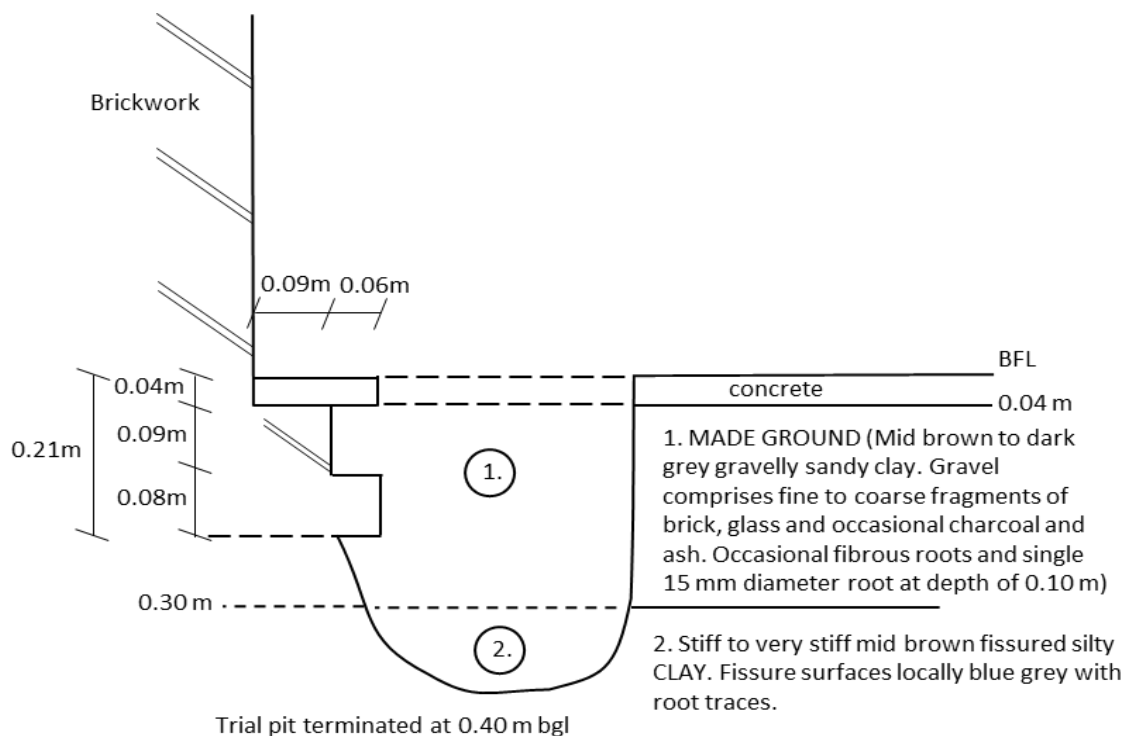
Location

North flank wall

Plan



TP1: Section A-A



Remarks:

All dimensions in metres

Groundwater not encountered

Scale:

NTS

Logged by:

AG



Site: 118 Malden Road, London NW5 4BY

Client: William Carter Limited

Engineer: Martin Redston Associates

Job Number

J23153

Sheet

2/3

Date

21/06/2023

Excavation Method

Manual

Dimensions

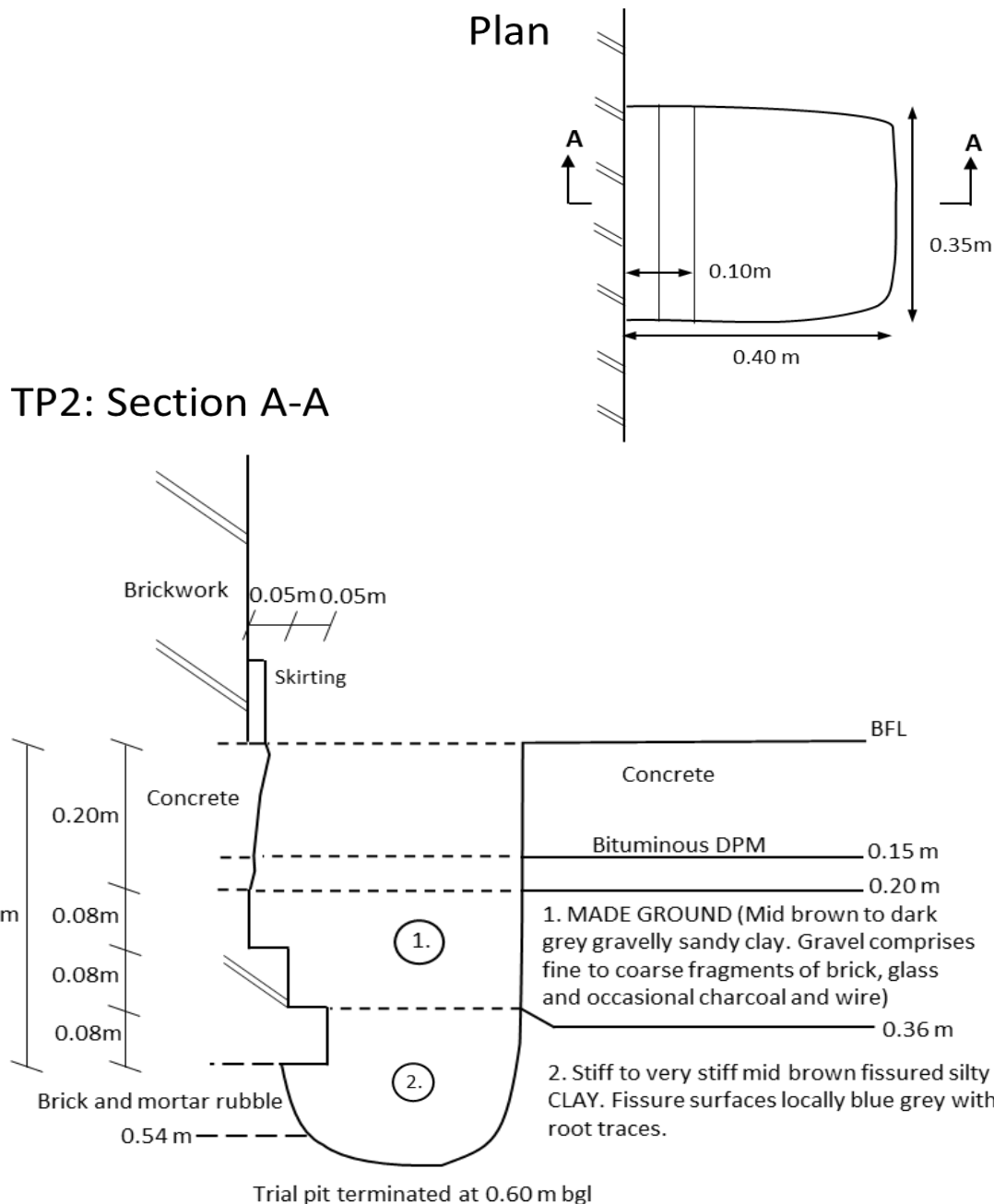
400 x 350 x 600

Ground Level (m OD)

Basement level

Location

118 / 115 party wall



Remarks:

All dimensions in metres

Groundwater not encountered

Scale:

NTS

Logged by:

AG



GEA

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Herts | 01727 824666 Notts | 01509 674888

Trial Pit No

1 & 2

Site: 118 Malden Road, London NW5 4BY

Client: William Carter Limited

Engineer: Martin Redston Associates

Job Number

J23153

Sheet

3/3

Date

21/06/2023

Excavation Method

Dimensions

Ground Level (m OD)

Location

TP1



TP2



Remarks:

Scale:

NTS

Logged by:

AG



appendix b

Lab Testing

Geotechnical Test Results

Chemical Test Results

Generic Risk Based Screening Values

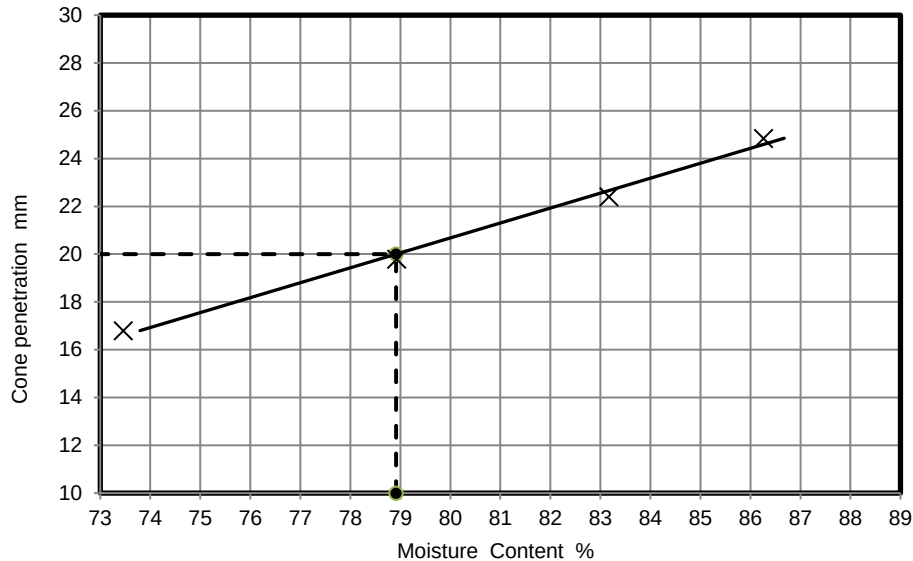
[illegible]



LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	33719
Borehole/Pit No.	BH1
Sample No.	-
Depth Top	1.90 m
Depth Base	- m
Sample Type	D
Samples received	29/06/2023
Schedules received	05/07/2023
Project Started	03/07/2023
Date Tested	18/07/2023

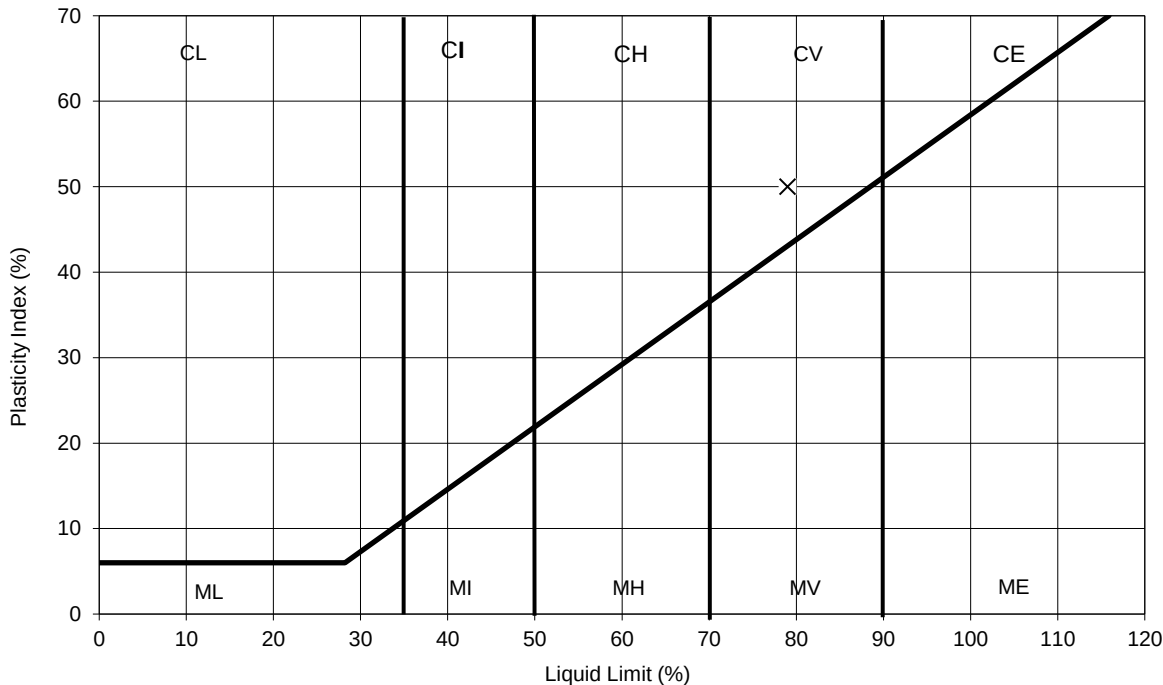
Site Name	118 Malden Road		
Project No.	J23153	Client	GEA
Soil Description	Brown silty CLAY with orangish brown sandy patches		



NATURAL MOISTURE CONTENT	31	%
% PASSING 425µm SIEVE	100	%
LIQUID LIMIT	79	%
PLASTIC LIMIT	29	%
PLASTICITY INDEX	50	%

Remarks

PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

TEST METHOD

BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method

BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index

BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

Tel: 01923 711 288 Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 20/07/2023

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

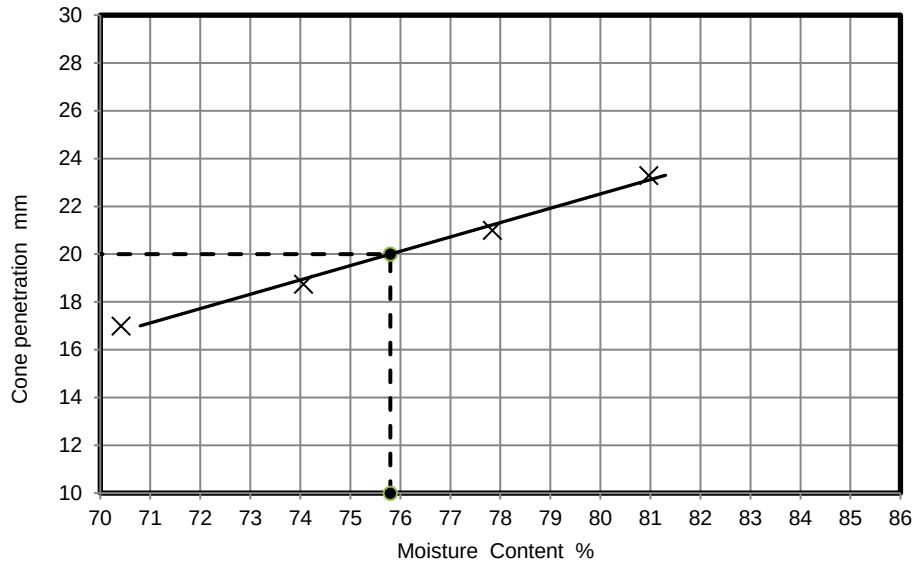
MSF-5 R2



LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	33719
Borehole/Pit No.	BH2
Sample No.	-
Depth Top	1.70 m
Depth Base	- m
Sample Type	D
Samples received	29/06/2023
Schedules received	05/07/2023
Project Started	03/07/2023
Date Tested	18/07/2023

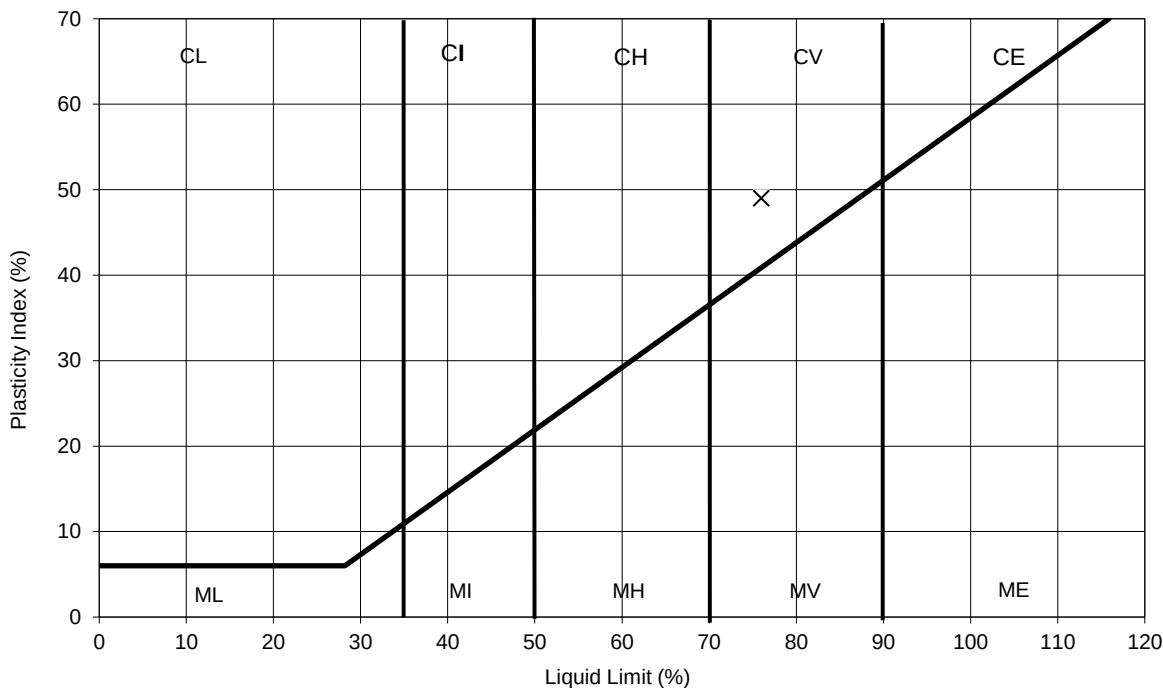
Site Name	118 Malden Road		
Project No.	J23153	Client	
Soil Description	Brown silty CLAY with sandy patches		



NATURAL MOISTURE CONTENT	30	%
% PASSING 425µm SIEVE	100	%
LIQUID LIMIT	76	%
PLASTIC LIMIT	27	%
PLASTICITY INDEX	49	%

Remarks

PLASTICITY INDEX



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BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method

BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index

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Tel: 01923 711 288 Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 20/07/2023

MSF-5 R2

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)





LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.

33719

Borehole/Pit No.

TP1

Site Name

118 Malden Road

Sample No.

-

Project No.

J23153

Client

GEA

Depth Top

0.40

m

Depth Base

-

m

Sample Type

D

Soil Description

Brown silty CLAY with orangish brown sandy patches and rare fine gravel

Samples received

29/06/2023

Schedules received

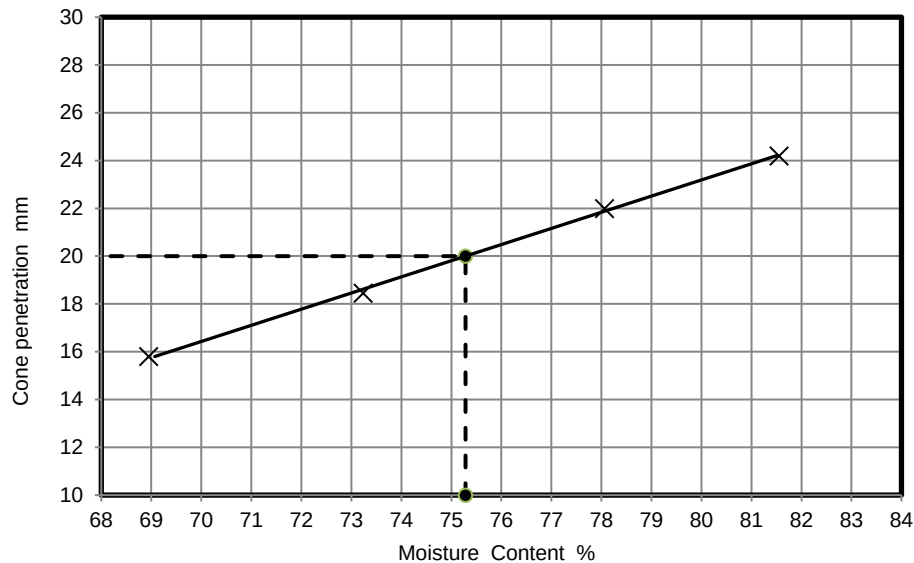
05/07/2023

Project Started

03/07/2023

Date Tested

18/07/2023



NATURAL MOISTURE CONTENT

33

%

% PASSING 425µm SIEVE

99

%

LIQUID LIMIT

75

%

PLASTIC LIMIT

30

%

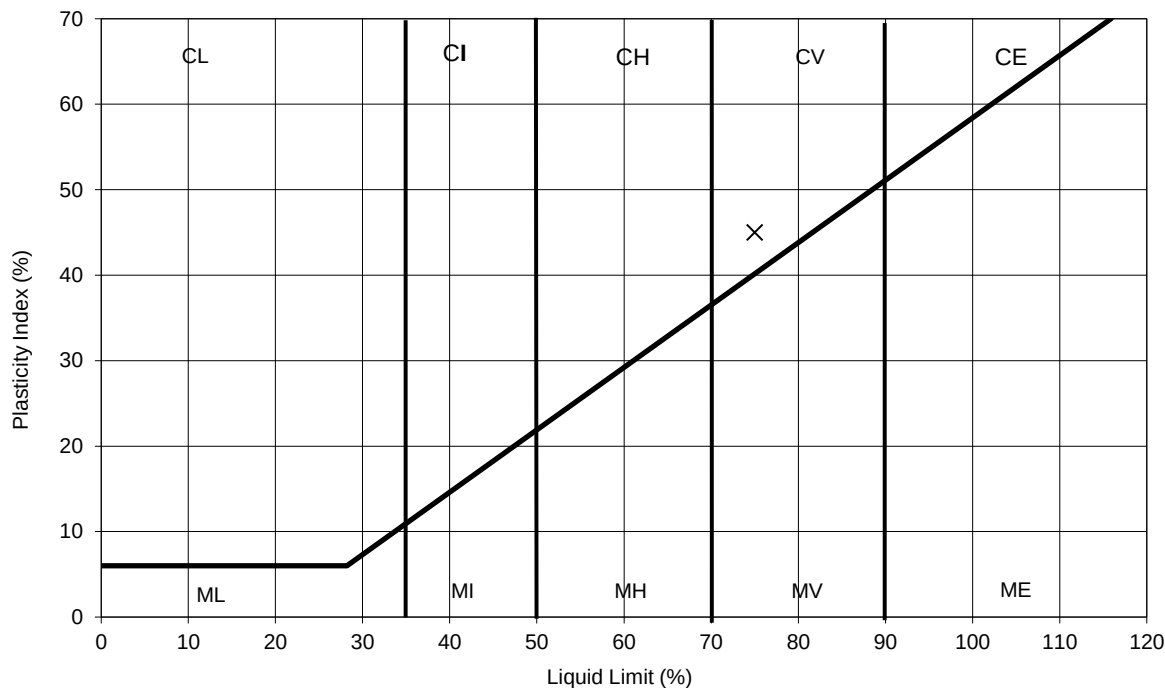
PLASTICITY INDEX

45

%

Remarks

PLASTICITY INDEX



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BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method

BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index

BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying

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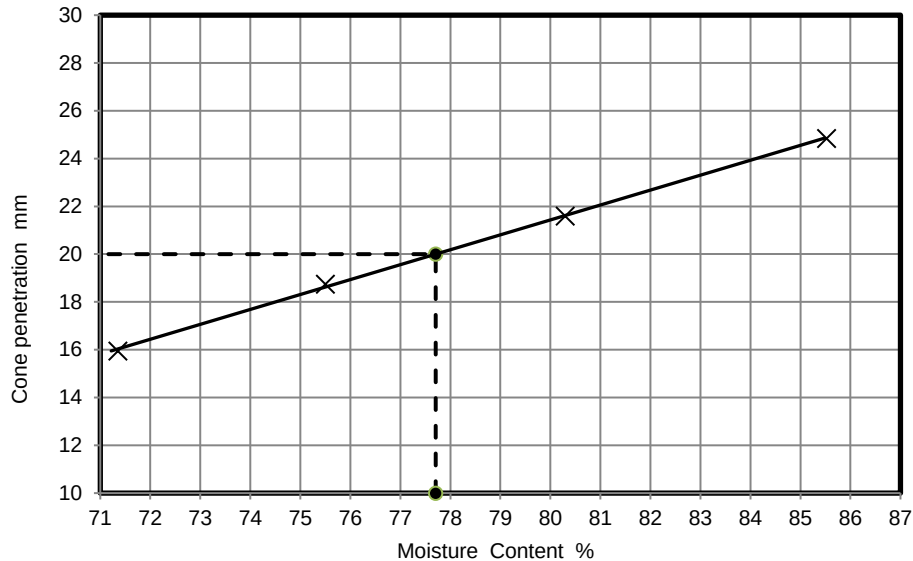
MSF-5 R2



LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	33719
Borehole/Pit No.	TP2
Sample No.	-
Depth Top	0.50 m
Depth Base	- m
Sample Type	D
Samples received	29/06/2023
Schedules received	05/07/2023
Project Started	03/07/2023
Date Tested	18/07/2023

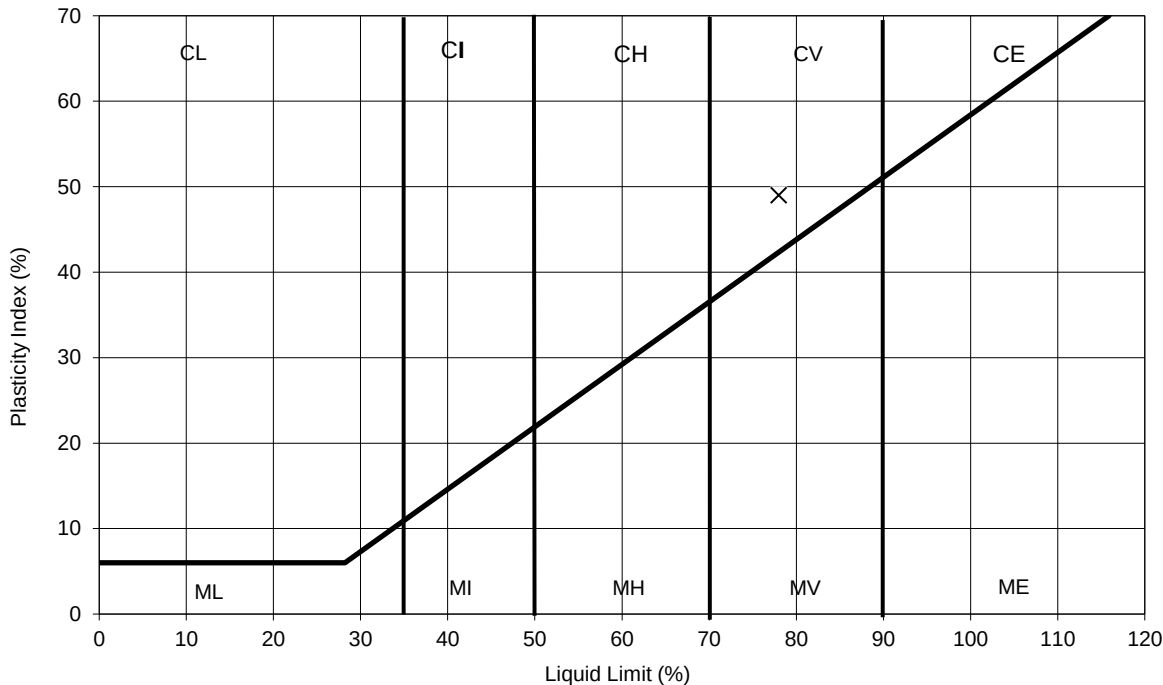
Site Name	118 Malden Road		
Project No.	J23153	Client	GEA
Soil Description	Brown silty CLAY with sandy patches and rare fine gravel		



NATURAL MOISTURE CONTENT	30	%
% PASSING 425µm SIEVE	99	%
LIQUID LIMIT	78	%
PLASTIC LIMIT	29	%
PLASTICITY INDEX	49	%

Remarks

PLASTICITY INDEX



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TEST METHOD

BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method

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Tel: 01923 711 288 Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 20/07/2023

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5 R2

		Sulphate Content (Gravimetric Method) for 2:1 Soil: Water Extract and pH Value - Summary of Results Tested in accordance with BS1377 : Part 3 : 2018, Clause 7.6 & Clause 12								
		Job No. 33719						Project Name 118 Malden Road		Programme Samples received 29/06/2023 Schedule received 05/07/2023 Project started 06/07/2023 Testing Started 19/07/2023
Project No. J23153		Client GEA								
Hole No.	Sample				Soil description	Dry Mass passing 2mm %	SO4 Content mg/l	pH	Remarks	
	Ref	Top m	Base m	Type						
BH1	-	1.00	-	D	Brown silty CLAY with sandy patches	100	190	7.7		
BH1	-	1.50	-	D	Brown silty CLAY with orangish brown sandy patches	100	290	7.6		
BH2	-	0.70	-	D	Brown silty CLAY with sandy patches	100	190	7.7		
		Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com These results only apply to the items tested NOTE: The report shall not be reproduced except in full without authority of the laboratory							Checked and Approved Initials J.P. Date: 20/07/2023	
		Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)							MSF-5-R29	
2519										

Alexander Goodsell

Geotechnical & Environmental Associates
Widbury Barn
Widbury Hill
Ware
Hertfordshire
SG127QE

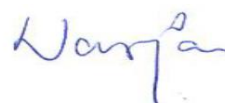
i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

e: AlexGoodsell@gea-ltd.co.uk

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 23-41012

Project / Site name:	118 Maiden Road	Samples received on:	22/06/2023
Your job number:	J23153	Samples instructed on/ Analysis started on:	23/06/2023
Your order number:		Analysis completed by:	30/06/2023
Report Issue Number:	1	Report issued on:	30/06/2023
Samples Analysed:	3 soil samples		



Signed:

Dominika Warjan
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-41012
Project / Site name: 118 Maiden Road

Lab Sample Number				2724408	2724409	2724410
Sample Reference				BH1	TP1	TP2
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.30
Date Sampled				21/06/2023	21/06/2023	21/06/2023
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	18	18	15
Total mass of sample received	kg	0.001	NONE	1	1	1

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	LFT	LFT	LFT

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8	8	10.1
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	810	1600	32000
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.31	0.56	2
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	1.9
Water Soluble Chloride (2:1)	mg/kg	1	MCERTS	46	42	280
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.2	0.6	0.6

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.47	0.15	0.19
Anthracene	mg/kg	0.05	MCERTS	0.12	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.4	0.25	0.3
Pyrene	mg/kg	0.05	MCERTS	1.3	0.25	0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.62	0.13	0.17
Chrysene	mg/kg	0.05	MCERTS	0.63	0.13	0.19
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.75	0.17	0.23
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.27	0.05	0.07
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.51	0.1	0.17
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.28	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.08	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.36	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	6.76	1.23	1.62
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	23	14
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	38	22	27
Copper (aqua regia extractable)	mg/kg	1	MCERTS	41	130	110
Lead (aqua regia extractable)	mg/kg	1	MCERTS	270	290	540
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1.1	0.7	0.7
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	22	18	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120	76	130

Analytical Report Number: 23-41012
Project / Site name: 118 Maiden Road

Lab Sample Number				2724408	2724409	2724410
Sample Reference				BH1	TP1	TP2
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.30
Date Sampled				21/06/2023	21/06/2023	21/06/2023
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			

Petroleum Hydrocarbons

TPH C10 - C40 _{EH_CU_1D_TOTAL}	mg/kg	10	MCERTS	< 10	< 10	< 10
TPH (C8 - C10) _{HS_1D_TOTAL}	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1
TPH (C10 - C12) _{EH_CU_1D_TOTAL}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPH (C12 - C16) _{EH_CU_1D_TOTAL}	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0
TPH (C16 - C21) _{EH_CU_1D_TOTAL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPH (C21 - C35) _{EH_CU_1D_TOTAL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPH Total C8 - C35 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	< 10	< 10	< 10

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

Analytical Report Number : 23-41012
Project / Site name: 118 Maiden Road

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2724408	BH1	None Supplied	0.5	Brown clay and sand with gravel.
2724409	TP1	None Supplied	0.2	Brown clay and sand with gravel and glass
2724410	TP2	None Supplied	0.3	Brown sand with rubble.

Analytical Report Number : 23-41012
Project / Site name: 118 Maiden Road

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS

Analytical Report Number : 23-41012
Project / Site name: 118 Maiden Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

		Widbury Barn Widbury Hill Ware SG12 7QE	Generic Risk-Based Soil Screening Values																																																																																																																																																																																																																																					
Site	118 Malden Road, London NW5 4BY			Job Number J23170																																																																																																																																																																																																																																				
Client	William Carter Limited			Sheet 1 / 1																																																																																																																																																																																																																																				
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(%)</td><td>6</td><td>Methanogenic potential</td></tr><tr><td>Total Cyanide</td><td>140</td><td>WRAS</td></tr><tr><td>Total Mono Phenols</td><td>184</td><td>SGV</td></tr><tr><td colspan="3">PAH</td></tr><tr><td>Naphthalene</td><td>2.30</td><td>S4UL</td></tr><tr><td>Acenaphthylene</td><td>170</td><td>S4UL</td></tr><tr><td>Acenaphthene</td><td>210</td><td>S4UL</td></tr><tr><td>Fluorene</td><td>170</td><td>S4UL</td></tr><tr><td>Phenanthrene</td><td>95</td><td>S4UL</td></tr><tr><td>Anthracene</td><td>2,400</td><td>S4UL</td></tr><tr><td>Fluoranthene</td><td>280</td><td>S4UL</td></tr><tr><td>Pyrene</td><td>620</td><td>S4UL</td></tr><tr><td>Benzo(a)anthracene</td><td>7.2</td><td>S4UL</td></tr><tr><td>Chrysene</td><td>15</td><td>S4UL</td></tr><tr><td>Benzo(b)fluoranthene</td><td>2.6</td><td>S4UL</td></tr><tr><td>Benzo(k)fluoranthene</td><td>77.0</td><td>S4UL</td></tr><tr><td>Benzo(a)pyrene</td><td>4.35</td><td>C4SL</td></tr><tr><td>Indeno(1 2 3 cd)pyrene</td><td>27.0</td><td>S4UL</td></tr><tr><td>Dibenz(a h)anthracene</td><td>0.24</td><td>S4UL</td></tr><tr><td>Benzo (g h i)perylene</td><td>320</td><td>S4UL</td></tr><tr><td>Total PAH Screen</td><td>62.1</td><td>B(a)P / 0.15</td></tr></table>			Contaminant	Screening Value mg/kg	Data Source	Metals			Arsenic	37	C4SL	Cadmium	22	C4SL	Chromium (III)	910	S4UL	Chromium (VI)	21	C4SL	Copper	2,400	S4UL	Lead	200	C4SL	Elemental Mercury	1.2	S4UL	Inorganic Mercury	40	S4UL	Nickel	130	S4UL	Selenium	350	SGV	Zinc	3,700	S4UL	Anions			Soluble Sulphate	500 mg/l	Structures	Sulphide	50	Structures	Chloride	400	Structures	Others			Organic Carbon (%)	6	Methanogenic potential	Total Cyanide	140	WRAS	Total Mono Phenols	184	SGV	PAH			Naphthalene	2.30	S4UL	Acenaphthylene	170	S4UL	Acenaphthene	210	S4UL	Fluorene	170	S4UL	Phenanthrene	95	S4UL	Anthracene	2,400	S4UL	Fluoranthene	280	S4UL	Pyrene	620	S4UL	Benzo(a)anthracene	7.2	S4UL	Chrysene	15	S4UL	Benzo(b)fluoranthene	2.6	S4UL	Benzo(k)fluoranthene	77.0	S4UL	Benzo(a)pyrene	4.35	C4SL	Indeno(1 2 3 cd)pyrene	27.0	S4UL	Dibenz(a h)anthracene	0.24	S4UL	Benzo (g h i)perylene	320	S4UL	Total PAH Screen	62.1	B(a)P / 0.15	<table><tr><th>Contaminant</th><th>Screening Value mg/kg</th><th>Data Source</th></tr><tr><td colspan="3">Hydrocarbons</td></tr><tr><td>Banded TPH (8-10)</td><td>52</td><td>Calc1</td></tr><tr><td>Banded TPH (10-12)</td><td>114</td><td>Calc1</td></tr><tr><td>Banded TPH (12-16)</td><td>215</td><td>Calc1</td></tr><tr><td>Banded TPH (16-21)</td><td>400</td><td>Calc1</td></tr><tr><td>Banded TPH (21-35)</td><td>1692</td><td>Calc1</td></tr><tr><td>Benzene</td><td>0.2</td><td>C4SL</td></tr><tr><td>Toluene</td><td>120</td><td>SGV</td></tr><tr><td>Ethyl 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Oil (C₂₈ –C₄₄)</td><td>66,100</td><td>Calc2</td></tr><tr><td>TPH</td><td>750</td><td>Trigger to consider speciated testing</td></tr><tr><td colspan="3">Chlorinated Solvents</td></tr><tr><td>1,1,1 trichloroethane (TCA)</td><td>8.8</td><td>S4UL</td></tr><tr><td>tetrachloroethane (PCA)</td><td>1.2</td><td>S4UL</td></tr><tr><td>tetrachloroethene (PCE)</td><td>0.18</td><td>S4UL</td></tr><tr><td>trichloroethene (TCE)</td><td>0.016</td><td>S4UL</td></tr><tr><td>1,2-dichloroethane (DCA)</td><td>0.0071</td><td>S4UL</td></tr><tr><td>vinyl chloride (Chloroethene)</td><td>0.00064</td><td>S4UL</td></tr><tr><td>tetrachloromethane (Carbon tetra</td><td>0.026</td><td>S4UL</td></tr><tr><td>trichloromethane (Chloroform)</td><td>0.91</td><td>S4UL</td></tr></table>		Contaminant	Screening Value mg/kg	Data Source	Hydrocarbons			Banded TPH (8-10)	52	Calc1	Banded TPH (10-12)	114	Calc1	Banded TPH (12-16)	215	Calc1	Banded TPH (16-21)	400	Calc1	Banded TPH (21-35)	1692	Calc1	Benzene	0.2	C4SL	Toluene	120	SGV	Ethyl Benzene	65	SGV	Xylene	42	SGV	Aliphatic C5-C6	42	S4UL	Aliphatic C6-C8	100	S4UL	Aliphatic C8-C10	27	S4UL	Aliphatic C10-C12	130	S4UL	Aliphatic C12-C16	1100	S4UL	Aliphatic C16-C35	65,000	S4UL	Aromatic C6-C7	See Benzene	S4UL	Aromatic C7-C8	See Toluene	S4UL	Aromatic C8-C10	34	S4UL	Aromatic C10-C12	74	S4UL	Aromatic C12-C16	140	S4UL	Aromatic C16-C21	260	S4UL	Aromatic C21-C35	1100	S4UL	PRO (C ₅ –C ₁₀)	323	Calc2	DRO (C ₁₂ –C ₂₈)	66,500	Calc2	Lube Oil (C ₂₈ –C ₄₄)	66,100	Calc2	TPH	750	Trigger to consider speciated testing	Chlorinated Solvents			1,1,1 trichloroethane (TCA)	8.8	S4UL	tetrachloroethane (PCA)	1.2	S4UL	tetrachloroethene (PCE)	0.18	S4UL	trichloroethene (TCE)	0.016	S4UL	1,2-dichloroethane (DCA)	0.0071	S4UL	vinyl chloride (Chloroethene)	0.00064	S4UL	tetrachloromethane (Carbon tetra	0.026	S4UL	trichloromethane (Chloroform)	0.91	S4UL
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trichloromethane (Chloroform)	0.91	S4UL																																																																																																																																																																																																																																						
Notes : Concentrations measured below these screening values may be considered to represent 'uncontaminated conditions' which pose a 'LOW' risk to human health. Concentrations measured in excess of these values indicate a potential risk which require further, site specific risk assessment.																																																																																																																																																																																																																																								
C4SL - Defra Category 4 Screening value based on Low Level of Toxicological Risk																																																																																																																																																																																																																																								
SGV - Soil Guideline Value, derived from the CLEA model and published by Environment Agency 2009 - where not superseded by C4SL																																																																																																																																																																																																																																								
S4UL - LQM/CIEH Suitable for use Level (2015) based on 'minimal' level of risk																																																																																																																																																																																																																																								
Calc1 - sum of thresholds for Ali & Aro fractions - assuming a 35% Aro:65% Ali ratio as is commonly encountered in the soil																																																																																																																																																																																																																																								
Calc2 - sum of nearest available carbon range specified including BTEX for PRO fraction																																																																																																																																																																																																																																								
Total PAH based on B(a)P / 0.15 - GEA experience indicates that Benzo(a) pyrene rarely exceeds 15% of the total PAH concentration																																																																																																																																																																																																																																								