

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 21/16528

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16/PM30	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16/PM30	please refer to PM16/PM30 and PM12 for method details	Yes			
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.				
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes			
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.	Yes			
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec.1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified				
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec.1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified	Yes			
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes			

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Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM0	No preparation is required.				
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM0	No preparation is required.	Yes			
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.	Yes			
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.	Yes			
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM0	No preparation is required.	Yes			
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM0	No preparation is required.				

Appendix E

Geotechnical Laboratory Results

S U M M A R Y O F G E O C H E M I C A L S I G

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC	LL	PL	PI	<425 µm	Bulk	Dry	Condition	Cell Pressure	Deviator Stress	Shear Stress	pH	2:1 W/S SO4	W/S Mg	
					%	%	%	%	%	Mg/m³	Mg/m³		kPa	kPa	kPa		g/L	mg/L	
BH101	1.20-1.70		B	Brown clayey very sandy GRAVEL.															Particle Size Distribution
BH101	2.00-2.50		B																Chemical
BH101	3.00-3.50		B	Brown sandy GRAVEL. Gravel is flint.															Particle Size Distribution
BH101	5.00-5.50		B	Brown very sandy GRAVEL. Gravel is flint.															Particle Size Distribution
BH101	6.00		D	Dark grey silty CLAY.	25.7	70	23	47	100										Chemical
BH101	8.00-8.45		U	Very stiff fissured dark brown CLAY.	24.0					2.03	1.64	Undisturbed	160	302	151				
BH101	8.50		D																Chemical
BH101	9.00		D	Dark grey silty CLAY.	24.2	65	23	42	100										
BH101	11.00-11.40		U	Very stiff fissured dark brown CLAY.	26.0					2.04	1.62	Undisturbed	220	309	155				
BH101	12.00		D	Dark grey silty CLAY.	25.3														

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by  J Sturges - Operations Manager 26/10/2021	Project Number: Project Name: G O / 4 2 2 S L S A V R 2	
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S U M M A R Y O F G E O C H E M I C A L S I G

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC	LL	PL	PI	<425 µm	Bulk	Dry	Condition	Cell Pressure	Deviator Stress	Shear Stress	pH	2:1 W/S SO4	W/S Mg	
					%	%	%	%	%	Mg/m³	Mg/m³		kPa	kPa	kPa		g/L	mg/L	
BH101	14.00-14.45		U	Very stiff fissured dark brown CLAY.	26.9					2.05	1.62	Undisturbed	280	372	186				
BH101	16.00		D	Dark grey slightly gravelly silty CLAY with rare gypsum. Gravel is fine to medium.	26.8	74	29	45	100										
BH101	17.00-17.35		U	Very stiff fissured dark brown CLAY.	26.7					2.00	1.58	Undisturbed	340	332	166				
BH101	19.00		D	Dark grey silty CLAY.	25.3	77	25	52	100										
BH101	20.00-20.45		U	Very stiff fissured dark brown CLAY.	23.8					2.03	1.64	Undisturbed	400	704	352				
BH101	21.00		D	Dark grey silty CLAY.	23.4	71	24	47	100										
BH101	22.00-22.50		B	Dark brown silty CLAY.															Particle Size Distribution
BH101	23.00-23.45		U	Very stiff fissured dark brown CLAY.	25.6					2.03	1.61	Undisturbed	460	365	182				
BH101	24.00		D	Dark grey slightly gravelly silty CLAY. Gravel is fine to medium.	22.2	61	24	37	98										
BH101	26.00-26.45		U	Dark grey silty CLAY.	24.3					2.00	1.61	Undisturbed	520	453	227				

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by  J Sturges - Operations Manager 26/10/2021	<table style="width: 100%;"> <tr> <td style="width: 30%;">Project Number:</td> <td style="text-align: center; font-size: 1.2em;">G O / 4</td> </tr> <tr> <td>Project Name:</td> <td style="text-align: center; font-size: 1.2em;">2 2 S L S A V R 2</td> </tr> </table>	Project Number:	G O / 4	Project Name:	2 2 S L S A V R 2	
Project Number:	G O / 4					
Project Name:	2 2 S L S A V R 2					

S M M A R O F G E O C H E M I C A L S I G

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC	LL	PL	PI	<425 µm	Bulk	Dry	Condition	Cell Pressure	Deviator Stress	Shear Stress	pH	2:1 W/S SO4	W/S Mg	
					%	%	%	%	%	Mg/m³	Mg/m³		kPa	kPa	kPa		g/L	mg/L	
BH101	27.50-27.95		D	Greyish brown silty CLAY with rare medium gravel.															Particle Size Distribution
BH101	29.00-29.45		U	Very stiff fissured dark brown CLAY.	18.5					2.05	1.73	Undisturbed	580	555	278				
BH101	30.00		D	Dark grey silty CLAY.	22.3	70	25	45	99										
WS102	0.50		D	Greyish brown gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	21.0	30	19	11	93										Chemical
WS102	1.00		D	Orangish brown clayey silty very gravelly SAND.															Particle Size Distribution
WS103	1.10		D																Chemical
WS104	0.50		D																Chemical
WS105	0.50		D																Chemical
WS106	0.50		D																Chemical
WS106	1.00		D																Chemical

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

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SUMMARY OF LIAISON DATA PLASTIC LIMITS

Location	Depth m	Sample Ref	Sample Type	Description	Water Content BS EN ISO 17892-1 : 2014 %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Percentage Passing 425µm %	Atterberg Classification	Test Type	Sample Condition
BH101	6.00		D	Dark grey silty CLAY.	25.7	70	23	47	100	CH	~	1
BH101	9.00		D	Dark grey silty CLAY.	24.2	65	23	42	100	CH	~	1
BH101	12.00		D	Dark grey silty CLAY.	25.3	~	~	~	~	~	~	~
BH101	16.00		D	Dark grey slightly gravelly silty CLAY with rare gypsum. Gravel is fine to medium.	26.8	74	29	45	100	CV	~	1
BH101	19.00		D	Dark grey silty CLAY.	25.3	77	25	52	100	CV	~	1
BH101	21.00		D	Dark grey silty CLAY.	23.4	71	24	47	100	CV	~	1
BH101	24.00		D	Dark grey slightly gravelly silty CLAY. Gravel is fine to medium.	22.2	61	24	37	98	CH	~	1
BH101	30.00		D	Dark grey silty CLAY.	22.3	70	25	45	99	CH	~	1
WS102	0.50		D	Greyish brown gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	21.0	30	19	11	93	CL	~	3

Test type

1 - 1 point 80g / 30° fall cone method.
 2 - 4 point 80g / 30° fall cone method.
 3 - Non plastic determination.

Sample condition

1 - As Received
 2 - Air Dried
 3 - Washed & Air Dried

Checked and Approved by:



J Sturges - Operations Manager
 26/10/2021

Project Number:

G O / 4

Project Name:

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CO SOLIDA D DRAI D RIA IAL COMPR SSIO

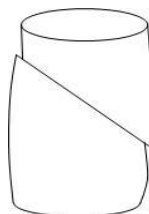
Location BH101
Depth (m) 8.00-8.45
Sample Type U

Description:

Very stiff fissured dark brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.9
Diameter (mm)	103.6
Moisture content (%)	24.0
Bulk density (Mg/m ³)	2.03
Dry density (Mg/m ³)	1.64
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.8
Membrane correction (kPa)	0.7
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	160
Strain at failure (%)	11.9
Maximum deviator stress (kPa)	302
Shear Stress Cu (kPa)	151

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

45

Tested by FA/JJR
Checked and Approved by

J Sturges - Operations Manager
26/10/2021

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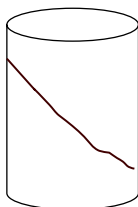
Location BH101
Depth (m) 11.00-11.40
Sample Type U

Description:

Very stiff fissured dark brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.3
Diameter (mm)	103.2
Moisture content (%)	26.0
Bulk density (Mg/m ³)	2.04
Dry density (Mg/m ³)	1.62
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.2
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	220
Strain at failure (%)	4.4
Maximum deviator stress (kPa)	309
Shear Stress Cu (kPa)	155

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

30

Tested by FA/JJR
Checked and Approved by

J Sturges - Operations Manager
26/10/2021

Project Number:

G O / 4

Project Name:

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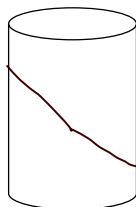
Location BH101
 Depth (m) 14.00-14.45
 Sample Type U

Description:

Very stiff fissured dark brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.9
Diameter (mm)	103.0
Moisture content (%)	26.9
Bulk density (Mg/m ³)	2.05
Dry density (Mg/m ³)	1.62
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.8
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	280
Strain at failure (%)	4.5
Maximum deviator stress (kPa)	372
Shear Stress Cu (kPa)	186

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

30

Tested by FA/DJ

Checked and Approved by

J Sturges - Operations Manager
 26/10/2021

Project Number:

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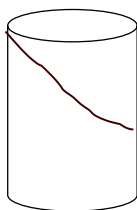
Location BH101
Depth (m) 17.00-17.35
Sample Type U

Description:

Very stiff fissured dark brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.0
Diameter (mm)	103.4
Moisture content (%)	26.7
Bulk density (Mg/m ³)	2.00
Dry density (Mg/m ³)	1.58
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.0
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	340
Strain at failure (%)	3.7
Maximum deviator stress (kPa)	332
Shear Stress Cu (kPa)	166

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

30

Tested by FA/JJR

Checked and Approved by

J Sturges - Operations Manager
26/10/2021

Project Number:

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Location BH101
Depth (m) 20.00-20.45
Sample Type U

Description:

Very stiff fissured dark brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.6
Diameter (mm)	103.9
Moisture content (%)	23.8
Bulk density (Mg/m ³)	2.03
Dry density (Mg/m ³)	1.64
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.5
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	400
Strain at failure (%)	6.9
Maximum deviator stress (kPa)	704
Shear Stress Cu (kPa)	352

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

65

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26/10/2021

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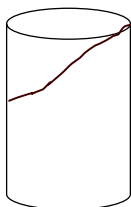
Location BH101
Depth (m) 23.00-23.45
Sample Type U

Description:

Very stiff fissured dark brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.7
Diameter (mm)	102.9
Moisture content (%)	25.6
Bulk density (Mg/m ³)	2.03
Dry density (Mg/m ³)	1.61
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.5
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	460
Strain at failure (%)	4.2
Maximum deviator stress (kPa)	365
Shear Stress Cu (kPa)	182

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

30

Tested by FA/DJ

Checked and Approved by

J Sturges - Operations Manager
26/10/2021

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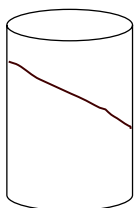
Location BH101
Depth (m) 26.00-26.45
Sample Type U

Description:

Very stiff fissured dark brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.3
Diameter (mm)	104.3
Moisture content (%)	24.9
Bulk density (Mg/m ³)	2.00
Dry density (Mg/m ³)	1.60
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.0
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	520
Strain at failure (%)	3.7
Maximum deviator stress (kPa)	453
Shear Stress Cu (kPa)	227

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

20

Tested by FA/DJ
Checked and Approved by

J Sturges - Operations Manager
26/10/2021

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2 2 S L SAV
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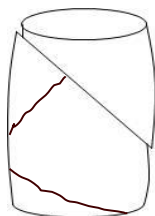
Location BH101
Depth (m) 29.00-29.45
Sample Type U

Description:

Very stiff fissured dark brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.2
Diameter (mm)	104.3
Moisture content (%)	18.5
Bulk density (Mg/m ³)	2.05
Dry density (Mg/m ³)	1.73
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.0
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	580
Strain at failure (%)	6.4
Maximum deviator stress (kPa)	555
Shear Stress Cu (kPa)	278

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

20

Tested by FA/DJ
Checked and Approved by

J Sturges - Operations Manager
26/10/2021

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G O / 4

Project Name:

2 2 S L SAV
R 2



PAR ICL SI DIS RIB IO

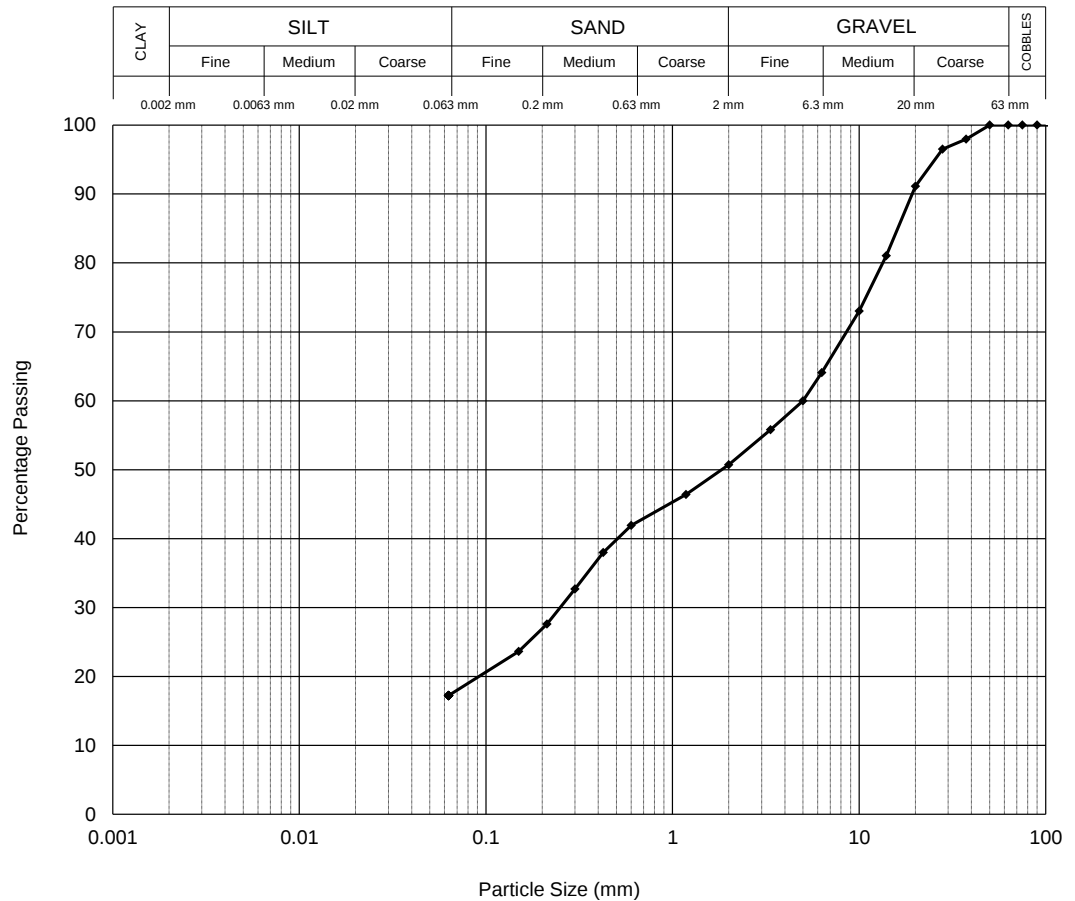
Location BH101
 Depth (m) 1.20-1.70
 Sample Type B

Description

Brown clayey very sandy GRAVEL.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	98
28.0 mm	97
20.0 mm	91
14.0 mm	81
10.0 mm	73
6.30 mm	64
5.00 mm	60
3.35 mm	56
2.00 mm	51
1.18 mm	46
600 µm	42
425 µm	38
300 µm	33
212 µm	28
150 µm	24
63 µm	17



Particle Proportions	
Cobbles	0.0
Gravel	49.3
Sand	33.5
Silt & Clay	17.2

Tested by AW
 Checked and Approved by

[Signature]

J Sturges - Operations Manager
 26/10/2021

Project Number:

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Project Name:

**2 2 S L SAV
 R 2**



PAR ICL SI DIS RIB IO

Location BH101
 Depth (m) 3.00-3.50
 Sample Type B

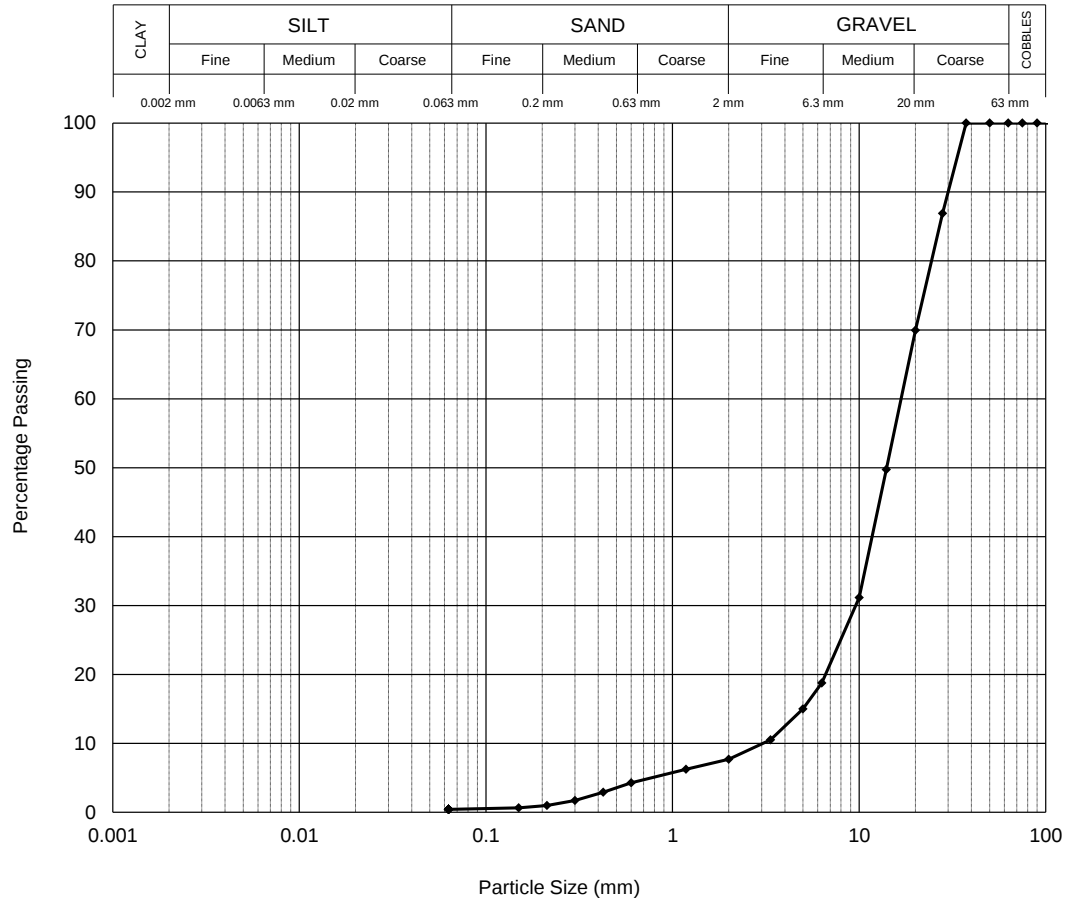
Description

Brown sandy GRAVEL. Gravel is flint.

Remarks Insufficient sample supplied to comply with BS EN ISO 17892-4 : 2016 minimum mass requirements

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	87
20.0 mm	70
14.0 mm	50
10.0 mm	31
6.30 mm	19
5.00 mm	15
3.35 mm	10
2.00 mm	8
1.18 mm	6
600 µm	4
425 µm	3
300 µm	2
212 µm	1
150 µm	1
63 µm	0



Particle Proportions	
Cobbles	0.0
Gravel	92.3
Sand	7.3
Silt & Clay	0.4

Tested by AW
 Checked and Approved by

J Sturges - Operations Manager
 26/10/2021

Project Number:

G O / 4

Project Name:

**2 2 S L SAV
 R 2**



PAR ICL SI DIS RIB IO

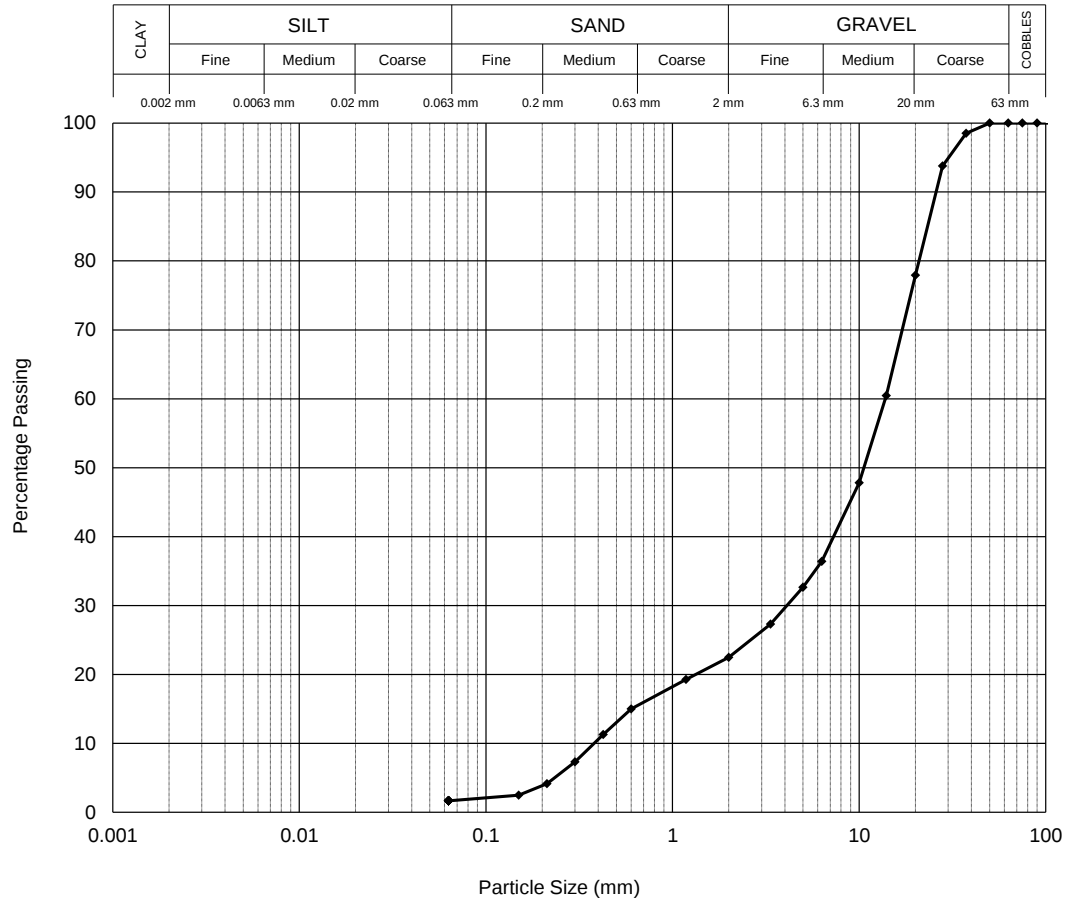
Location BH101
 Depth (m) 5.00-5.50
 Sample Type B

Description

Brown very sandy GRAVEL. Gravel is flint.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	99
28.0 mm	94
20.0 mm	78
14.0 mm	60
10.0 mm	48
6.30 mm	36
5.00 mm	33
3.35 mm	27
2.00 mm	22
1.18 mm	19
600 µm	15
425 µm	11
300 µm	7
212 µm	4
150 µm	2
63 µm	2



Particle Proportions	
Cobbles	0.0
Gravel	77.5
Sand	20.8
Silt & Clay	1.7

Tested by AW
 Checked and Approved by

J Sturges - Operations Manager
 26/10/2021

Project Number:

G O / 4

Project Name:

2 2 S L SAV
R 2



PAR ICL SI DIS RIB IO

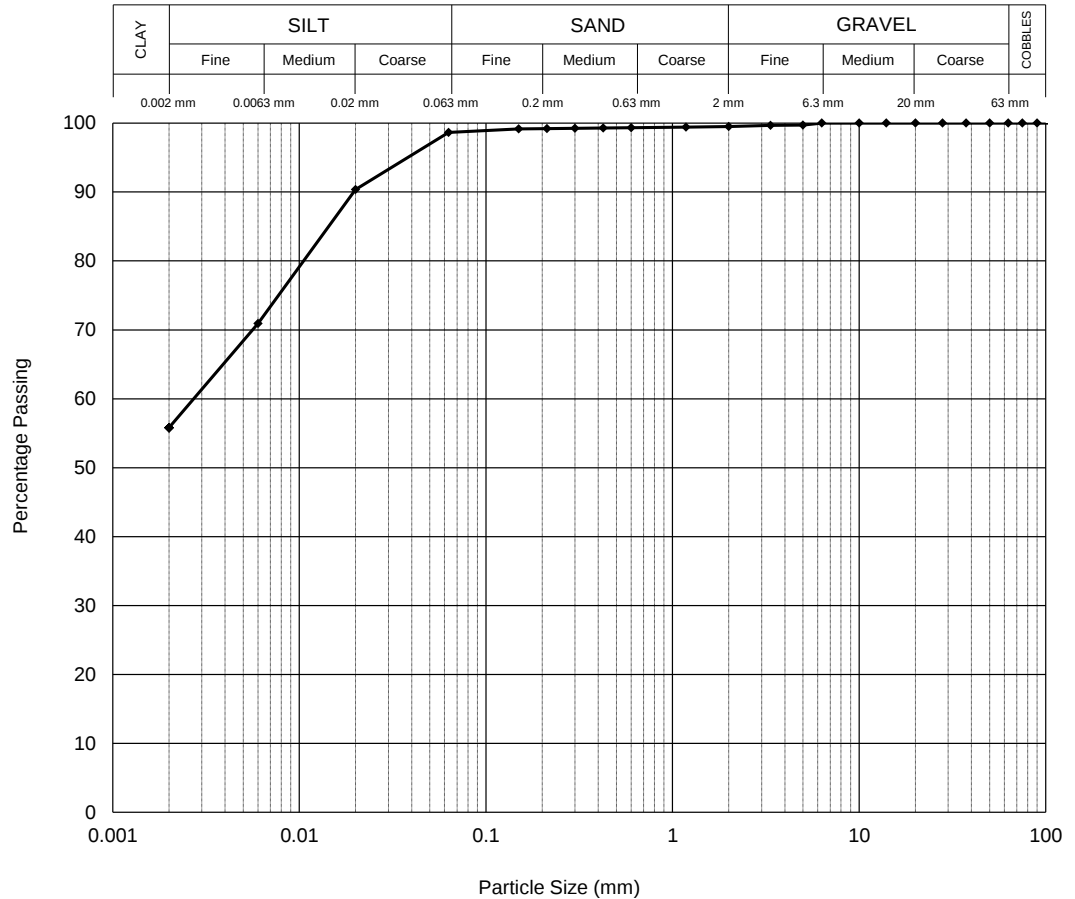
Location BH101
 Depth (m) 22.00-22.50
 Sample Type B

Description

Dark brown silty CLAY.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.4 - Sedimentation by Pipette

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	100
5.00 mm	100
3.35 mm	100
2.00 mm	100
1.18 mm	99
600 µm	99
425 µm	99
300 µm	99
212 µm	99
150 µm	99
63 µm	99



Sedimentation	
No Pre-treatment used	
Temp (°C)	25.0
Size	% Pass
20 µm	90
6 µm	71
2 µm	56

Particle Proportions	
Cobbles	0.0
Gravel	0.5
Sand	0.9
Silt	42.8
Clay	55.8

Particle Density 2.70(A) Mg/m³

Tested by AW
 Checked and Approved by

J Sturges - Operations Manager
 26/10/2021

Project Number:

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Project Name:

2 2 S L SAV
R 2



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Location
Depth (m)
Sample Type

BH101
27.50-27.95
D

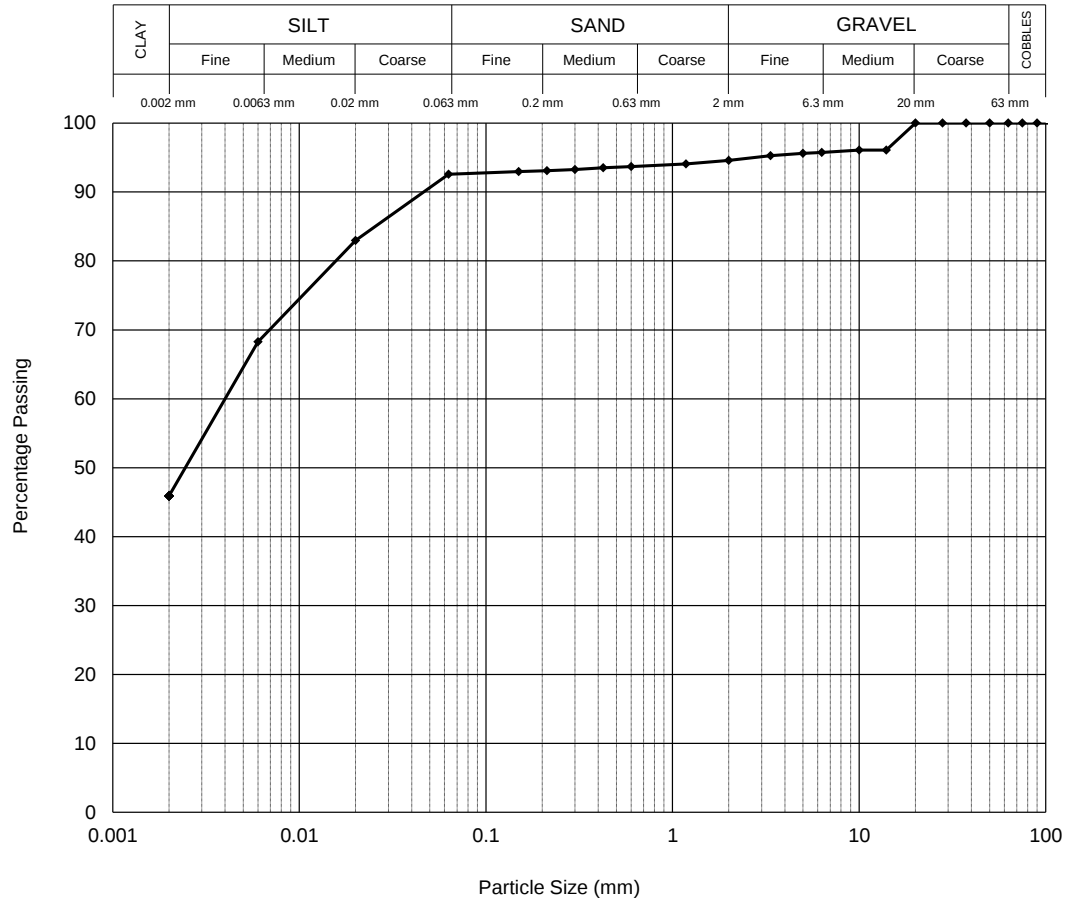
Description

Greyish brown silty CLAY with rare medium gravel.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

BS EN ISO 17892-4 : 2016 : Clause 5.4 - Sedimentation by Pipette

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	96
10.0 mm	96
6.30 mm	96
5.00 mm	96
3.35 mm	95
2.00 mm	95
1.18 mm	94
600 µm	94
425 µm	93
300 µm	93
212 µm	93
150 µm	93
63 µm	93



Sedimentation	
No Pre-treatment used	
Temp (°C)	25.0
Size	% Pass
20 µm	83
6 µm	68
2 µm	46

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	5.4
Sand	2.0
Silt	46.7
Clay	45.9

Tested by AW
Checked and Approved by

[Signature]

J Sturges - Operations Manager
26/10/2021

Project Number:

G O / 4

Project Name:

**2 2 S L SAV
R 2**



PAR ICL SI DIS RIB IO

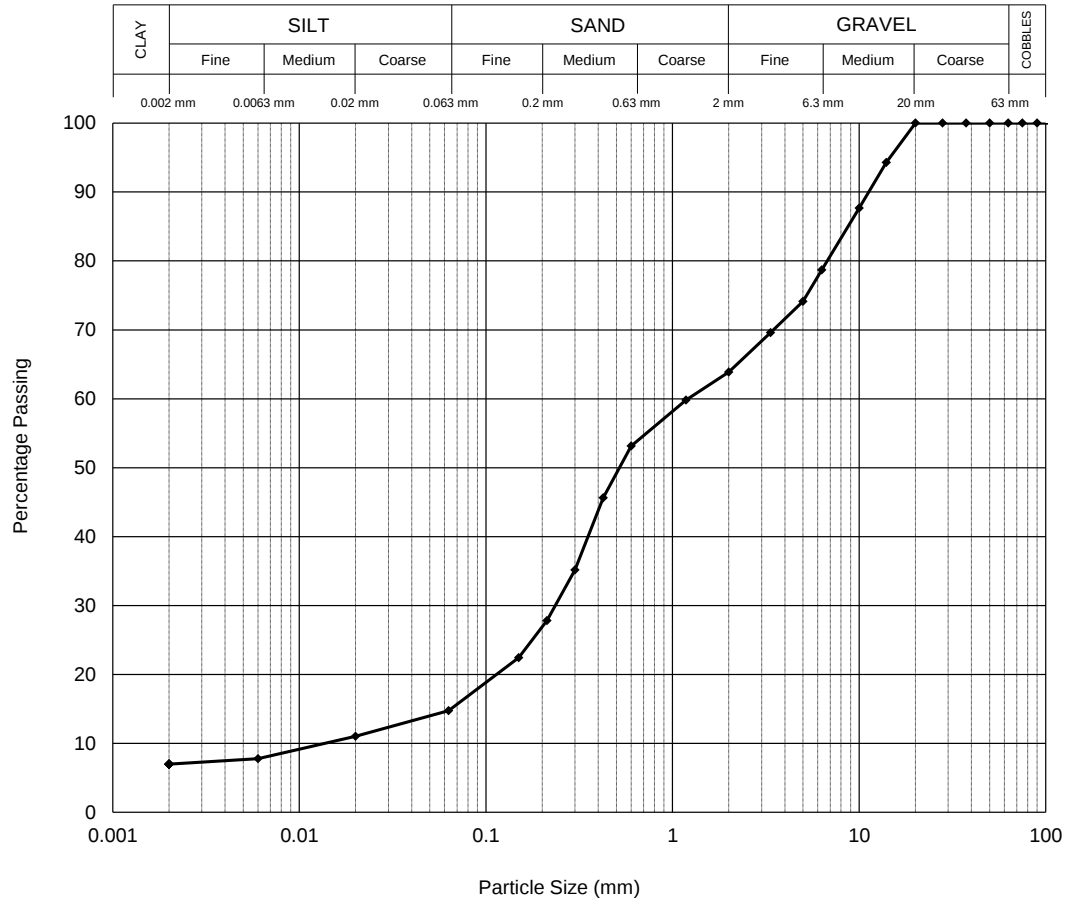
Location WS102
Depth (m) 1.00
Sample Type D

Description

Orangish brown clayey silty very gravelly SAND.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
BS EN ISO 17892-4 : 2016 : Clause 5.4 - Sedimentation by Pipette

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	94
10.0 mm	88
6.30 mm	79
5.00 mm	74
3.35 mm	70
2.00 mm	64
1.18 mm	60
600 µm	53
425 µm	46
300 µm	35
212 µm	28
150 µm	22
63 µm	15



Sedimentation	
No Pre-treatment used	
Temp (°C)	25.0
Size	% Pass
20 µm	11
6 µm	8
2 µm	7

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	36.1
Sand	49.2
Silt	7.7
Clay	7.0

Tested by AW
Checked and Approved by

J Sturges - Operations Manager
26/10/2021

Project Number:

G O / 4

Project Name:

**2 2 S L SAV
R 2**



SUMMARY OF CHEMICAL ANALYSIS OF SOIL

Location	Depth m	Sample Ref	Sample Type	pH Value	Total Acid Soluble Sulphate as SO ₄ %	Water Soluble Sulphate as SO ₄ 2:1 Water:Soil Extract g/l	Total Sulphur %	Water Soluble Chloride g/l	Water Soluble Nitrate g/l	Magnesium g/l	Organic Content %	Mass Loss on Ignition %	Carbonate Content %
BH101	2.00-2.50		B	8.7	0.043	0.26	0.023	0.011	< 0.010	-	-	-	-
BH101	6.00		D	7.5	0.043	0.24	0.58	-	-	-	-	-	-
BH101	8.50		D	8.0	0.15	0.24	0.37	-	-	-	-	-	-
WS102	0.50		D	8.1	0.12	0.14	0.067	< 0.010	< 0.010	-	-	-	-
WS103	1.10		D	8.2	0.042	0.16	0.029	< 0.010	< 0.010	-	-	-	-
WS104	0.50		D	8.2	0.068	0.15	0.095	< 0.010	< 0.010	-	-	-	-
WS105	0.50		D	8.1	0.060	0.098	0.048	< 0.010	< 0.010	-	-	-	-
WS106	0.50		D	6.9	0.045	< 0.010	0.028	< 0.010	0.018	-	-	-	-
WS106	1.00		D	7.9	<0.01	0.012	< 0.010	< 0.010	0.021	-	-	-	-

Tested by Chemtest Ltd : MCERTS / UKAS No 2183

Checked and Approved by:


J Sturges - Operations Manager
26/10/2021

Project Number:

G O / 4

Project Name:

2 2 S L SAV
R 2




Appendix D: Geo-environmental Risk Assessment Matrix

Qualitative Risk Assessment Approach (Geoenvironmental Risk Assessment)

A-squared Studio Engineers Ltd. qualitative risk assessment for geoenvironmental purposes is undertaken in accordance with *CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001)*. The CIRIA C552 risk categories and the assessment methodology are summarised below in Table 1, Table 2 and Table 3. Potential magnitude and potential likelihood are both classified to enable a risk rating to be assessed.

Potential magnitude takes into account the potential consequences should a complete source–pathway–receptor linkage be present. Potential magnitude is classified as per Table 1.

Table 1 – Definition of Potential Magnitude of Consequence

Category	Definition
Severe	Acute risks to human health, catastrophic damage to buildings / property, major pollution to controlled waters.
Medium	Chronic risk to human health, pollution of sensitive controlled waters, significant effects on sensitive ecosystems or species, significant damage to buildings or structures.
Mild	Pollution of non-sensitive waters, minor damage to buildings or structures.
Minor	Damage to non-sensitive ecosystems or species.

Potential likelihood takes into account the presence of the hazard and receptor as well as the integrity of the pathway for exposure i.e. whether a source-pathway-receptor linkage is present or not. Potential likelihood is classified as per Table 2.

Table 2 – Definition of Potential Likelihood of Exposure

Category	Definition
High Likelihood	Pollutant linkage may be present, and is almost certain to occur in the long-term. Or there is evidence of harm to the receptor.
Likely	Pollutant linkage may be present, and it is probable that it will occur over the long-term.
Low Likelihood	Pollutant linkage may be present, and there is a possibility that it will occur, although there is no certainty that it will do so.
Unlikely	Pollutant linkage may be present, but it is improbable that it will occur.

The potential magnitude of consequence and the potential likelihood of exposure are assessed in accordance with the risk matrix presented in Table 3.

Table 3 – Geoenvironmental Risk Assessment Matrix

		Potential Magnitude of Consequence			
		Severe	Medium	Mild	Minor
Potential Likelihood of Exposure	High Likelihood	Very High	High	Moderate	Low to Moderate
	Likely	High	Moderate	Low to Moderate	Low
	Low Likelihood	Moderate	Low to Moderate	Low	Very Low
	Unlikely	Low to Moderate	Low	Very Low	Very Low



Appendix E: GQRA Screening Tables

Controlled Waters Generic Quantitative Assessment for Groundwater

Nestles Avenue

Key:

	Exceedance of the Drinking Water GAC
	Exceedance of Environmental Quality GAC
	Exceedance of both GAC
GAC - Generic Assessment Criteria	

Exploratory Location Ref.	Units	UK and EU Drinking Water Standards and WHO Guideline Values	Environmental Quality Standards (EQS) published by the UK, EU and EA	BH01	BH02	BH03	BH05	BH101	BH06
Sample Date				07/10/2021	07/10/2021	07/10/2021	07/10/2021	07/10/2021	14/10/21
Aquifer Unit				Superficial	Superficial	Superficial	Superficial	Superficial	Superficial
GAC Refs.									
Anions and Other									
pH	pH units	-		7.15	7.30	7.28	7.39	7.16	7.31
Total Organic Carbon	mg/l	-	0.0077	<2	<2	<2	<2	<2	<2
Phenol	mg/l	-	400	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sulphate as SO ₄	mg/l	250	-	70.1	62.5	48.4	62.4	64.7	38.7
Total Cyanide	mg/l	0.05 (total)	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Hexavalent Chromium	mg/l	-	3.4	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sulphide	mg/l	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Heavy Metals and Metalloids									
Dissolved Arsenic	ug/l	10	50	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Dissolved Cadmium	ug/l	5	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Dissolved Chromium	ug/l	50 (total Cr)	4.7	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Dissolved Copper	ug/l	2000	1 (bioavailable)	<7	<7	<7	<7	<7	<7
Dissolved Lead	ug/l	10	1.2	<5	<5	<5	<5	<5	<5
Dissolved Mercury	ug/l	1	None	<1	<1	<1	<1	<1	<1
Dissolved Nickel	ug/l	20	4	<2	<2	<2	<2	4	<2
Dissolved Selenium	ug/l	10	-	<3	<3	<3	<3	<3	<3
Dissolved Zinc	ug/l	3,000	10.9 (bioavailable)	4	<3	<3	<3	5	<3
Total Hardness Dissolved (as CaCO ₃)	mg/l	-		297	329	349	329	272	255

PAHs									
Naphthalene [#]	ug/l	-	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene [#]	ug/l	-		<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Acenaphthene [#]	ug/l	-		<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Fluorene [#]	ug/l	-		<0.014	<0.014	<0.014	<0.014	<0.014	<0.014
Phenanthrene [#]	ug/l	-		<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
Anthracene [#]	ug/l	-	0.1	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Fluoranthene [#]	ug/l	-	0.006	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
Pyrene [#]	ug/l	-		<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Benzo(a)anthracene [#]	ug/l	-		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Chrysene [#]	ug/l	-		<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
Benzo(k)fluoranthene [#]	ug/l	-		<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
Benzo(a)pyrene [#]	ug/l	0.01	0.0002	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
Indeno(123cd)pyrene [#]	ug/l	-		<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
Benzo(ghi)perylene [#]	ug/l	0.1 (sum)	-	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
Benzo(b)fluoranthene [#]	ug/l	-		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(k)fluoranthene [#]	ug/l	-		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenzo(ah)anthracene [#]	ug/l	-		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH 16 Total [#]	ug/l	-		<0.195	<0.195	<0.195	<0.195	<0.195	<0.195
PAH Surrogate % Recovery	%	-		75	80	83	82	83	71

BTEX and MTBE									
Methyl Tertiary Butyl Ether [#]	ug/l	15	-	<0.1	<0.1	<0.1	<0.1	-	<0.1
Benzene [#]	ug/l	1	10	<0.5	<0.5	<0.5	<0.5	-	<0.5
Toluene [#]	ug/l	700	74	<5	<5	<5	<5	-	<5
Ethylbenzene [#]	ug/l	300	20	<1	<1	<1	<1	-	<1
m/p-Xylene [#]	ug/l	500	30	<2	<2	<2	<2	-	<2
o-Xylene [#]	ug/l	500	30	<1	<1	<1	<1	-	<1
Surrogate Recovery Toluene D8	%	-		76	111	111	110	-	89
Surrogate Recovery 4-Bromofluorobenzene	%	-		80	113	112	110	-	89

TPH CWG									
Aliphatics									
>C5-C6 [#]	ug/l	300	20	<10	<10	<10	<10	<10	<10
>C6-C8 [#]	ug/l	300	20	<10	<10	<10	<10	<10	<10
>C8-C10 [#]	ug/l	300	20	<10	<10	<10	<10	<10	<10
>C10-C12 [#]	ug/l	300	20	<5	<5	<5	<5	<5	<5
>C12-C16 [#]	ug/l	300	20	<10	<10	<10	<10	<10	<10
>C16-C21 [#]	ug/l	Insoluble	Insoluble	<10	<10	<10	<10	<10	<10
>C21-C35 [#]	ug/l	Insoluble	Insoluble	<10	<10	<10	<10	<10	<10
Total aliphatics C5-35 [#]	ug/l	-		<10	<10	<10	<10	<10	<10

Aromatics									
>C5-EC7 [#]	ug/l	1	10	<10	<10	<10	<10	<10	<10
>EC7-EC8 [#]	ug/l	700	74	<10	<10	<10	<10	<10	<10
>EC8-EC10 [#]	ug/l	300	20	<10	<10	<10	<10	<10	<10
>EC10-EC12 [#]	ug/l	90	20	<5	<5	<5	<5	<5	<5
>EC12-EC16 [#]	ug/l	90	20	<10	<10	<10	<10	<10	<10
>EC16-EC21 [#]	ug/l	90	20	<10	<10	<10	<10	<10	<10
>EC21-EC35 [#]	ug/l	90	20	<10	<10	<10	<10	<10	<10
Total aromatics C5-35 [#]	ug/l	-		<10	<10	<10	<10	<10	<10

Total aliphatics and aromatics(C5-35) [#]	ug/l	-		<10	<10	<10	<10	<10	<10
--	------	---	--	-----	-----	-----	-----	-----	-----

PCBs									
PCB 28	ug/l	-		-	-	<0.1	-	-	-
PCB 52	ug/l	-		-	-	<0.1	-	-	-
PCB 101	ug/l	-		-	-	<0.1	-	-	-
PCB 118	ug/l	-		-	-	<0.1	-	-	-
PCB 138	ug/l	-		-	-	<0.1	-	-	-
PCB 153	ug/l	-		-	-	<0.1	-	-	-
PCB 180	ug/l	-		-	-	<0.1	-	-	-
Total 7 PCBs	ug/l	-		-	-	<0.7	-	-	-

Human Health Generic Quantitative Assessment for Soil

Key:	
	Exceedance of the GAC
	GAC - Generic Assessment Criteria

		GAC	GAC Ref.	RPS 2021														
Exploratory Location Ref.	Units	Residential without plant uptake		BH101	BH101	WS103	WS104	TP102	TP103	TP104	TP105	WS106	WS105	ACM1	ACM2	ACM3	ACM4	ACM5
				0.80	1.10	0.70	0.30	0.40	0.50	0.50	0.50	0.20	0.50	-	-	-	-	-
				13/9/21	13/9/21	14/9/21	14/9/21	07/07/2021	08/07/2021	08/07/2021	08/07/2021	08/07/2021	08/07/2021	14/7/21	14/7/21	14/7/21	14/7/21	14/7/21
				Made Ground / Natural ?	1% SOM	MG	MG	MG	MG	MG	MG	MG	MG	MG	MG	MG	MG	MG

Anions and other

Ammonical Nitrogen as N	mg/kg	-		<0.6	-	-	-	-	<0.6	<0.6	-	<0.6	<0.6	-	-	-	-	-
Hexavalent Chromium	mg/kg	21	DEFRA C4SLs	<0.3	-	-	-	-	<0.3	<0.3	-	<0.3	<0.3	-	-	-	-	-
Nitrate as NO3	mg/kg	-		118.3	-	-	-	-	98.8	13.3	-	11.5	53.1	-	-	-	-	-
Nitrate as NO2	mg/kg	-		<0.05	-	-	-	-	0.53	<0.05	-	<0.05	3.61	-	-	-	-	-
Total sulphate as SO4	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulphate as SO4 (2:1 Ext)	g/l	-		0.2591	-	-	-	-	0.1000	0.1521	-	0.0298	0.0795	-	-	-	-	-
Sulphide	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water soluble chloride (2:1)	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium III	mg/kg	910	LQM S4ULs	61.4	-	-	-	-	51.0	69.1	-	57.7	62.4	-	-	-	-	-
Free cyanide	mg/kg	34	Atkins AtRisk	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	-
Total cyanide	mg/kg	-		<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	-
Total Organic Carbon	%	-		3.1	-	2.63	-	2.77	5.03	2.45	3.16	2.56	0.75	-	-	-	-	-
Fraction Organic carbon	-	-		0.031	0.002	0.026	-	0.028	0.050	0.025	0.032	0.026	0.008	-	-	-	-	-
Organic matter	%	-		5.3	-	4.5	-	4.8	8.7	4.2	5.4	4.4	1.3	-	-	-	-	-
pH	pH units	-		8.05	-	7.91	8.57	-	10.80	8.94	-	8.40	10.41	-	-	-	-	-
Natural Moisture Content	%	-		20.8	-	18.4	19.1	-	22.2	21.3	-	18.0	20.7	-	-	-	-	-

Asbestos

Asbestos	%	Asbestos	A-squared	NAD	-	NAD	Chrysotile	-	NAD	NAD		NAD	NAD	NAD	NAD	NAD	NAD	NAD
Quantification	%	Asbestos present	A-squared	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-

Heavy Metals and Metalloids

Arsenic	mg/kg	40	DEFRA C4SLs	15.8	-	17.7	19.5	-	7.0	10.3	-	11.3	10.8	-	-	-	-	-
Barium	mg/kg	1,300	CL-AIRE GAC	128	-	172	457	-	72	194	-	224	114	-	-	-	-	-
Beryllium	mg/kg	1.7	LQM S4ULs	1.8	-	1.5	1.7	-	0.7	1.2	-	2.0	1.2	-	-	-	-	-
Cadmium	mg/kg	150	DEFRA C4SLs	0.2	-	0.2	0.4	-	<0.1	0.3	-	1.6	<0.1	-	-	-	-	-
Chromium	mg/kg	910	LQM S4ULs	61.4	-	56	25.8	-	51.0	69.1	-	57.7	62.4	-	-	-	-	-
Copper	mg/kg	7,100	LQM S4ULs	60	-	113	85	-	15	83	-	80	26	-	-	-	-	-
Lead	mg/kg	310	DEFRA C4SLs	215	-	307	241	-	88	129	-	229	74	-	-	-	-	-
Mercury	mg/kg	15	LQM S4ULs	1	-	1.4	2.1	-	0.2	0.3	-	5.9	0.3	-	-	-	-	-
Molybdenum	mg/kg	670	CL-AIRE GAC	3.8	-	3.1	2.5	-	4.3	5.6	-	5.4	4.3	-	-	-	-	-
Nickel	mg/kg	180	LQM S4ULs	29.2	-	26.6	34.8	-	15.8	20.3	-	35.2	25.2	-	-	-	-	-
Selenium	mg/kg	430	LQM S4ULs	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	-	-	-	-
Silver	mg/kg	-		<1	-	<1	<1	-	<1	<1	-	<1	8	-	-	-	-	-
Sulphur as S	mg/kg	-		0.05	-	0.04	0.1	-	0.09	0.04	-	0.05	0.03	-	-	-	-	-
Total Sulphate as SO4	mg/kg	-		787	-	765	2336	-	1454	810	-	801	549	-	-	-	-	-
Vanadium	mg/kg	1,200	LQM S4ULs	49	-	55	57	-	40	36	-	68	39	-	-	-	-	-
Zinc	mg/kg	40,000	LQM S4ULs	116	-	124	243	-	73	138	-	1560	74	-	-	-	-	-

Human Health Generic Quantitative Assessment for Soil

Key:	
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	GAC - Generic Assessment Criteria

Exploratory Location Ref.	Units	GAC	GAC Ref.	RPS 2021														
				BH101	BH101	WS103	WS104	TP102	TP103	TP104	TP105	WS106	WS105	ACM1	ACM2	ACM3	ACM4	ACM5
Sample Depth (m)				0.80	1.10	0.70	0.30	0.40	0.50	0.50	0.50	0.20	0.50	-	-	-	-	-
Sample Date				13/9/21	13/9/21	14/9/21	14/9/21	07/07/2021	08/07/2021	08/07/2021	08/07/2021	08/07/2021	08/07/2021	14/7/21	14/7/21	14/7/21	14/7/21	14/7/21

PAH																		
Naphthalene	mg/kg	2.3	LQM S4ULs	0.05	-	0.08	0.26	-	0.05	0.07	-	0.33	<0.04	-	-	-	-	-
Acenaphthylene	mg/kg	2.900	LQM S4ULs	<0.03	-	0.06	0.11	-	0.06	0.11	-	0.13	0.04	-	-	-	-	-
Acenaphthene	mg/kg	3.000	LQM S4ULs	<0.05	-	0.07	0.17	-	<0.05	<0.05	-	0.13	<0.05	-	-	-	-	-
Fluorene	mg/kg	2.800	LQM S4ULs	<0.04	-	0.06	0.17	-	<0.04	<0.04	-	0.09	<0.04	-	-	-	-	-
Phenanthrene	mg/kg	1.300	LQM S4ULs	0.29	-	0.77	2.11	-	0.64	1.02	-	1.13	0.25	-	-	-	-	-
Anthracene	mg/kg	31.000	LQM S4ULs	0.06	-	0.3	0.6	-	0.20	0.34	-	0.27	0.10	-	-	-	-	-
Fluoranthene	mg/kg	1.500	LQM S4ULs	0.6	-	2.33	3.69	-	1.22	4.86	-	2.28	0.82	-	-	-	-	-
Pyrene	mg/kg	3.700	LQM S4ULs	0.54	-	2.14	3.05	-	1.01	4.17	-	1.99	0.72	-	-	-	-	-
Benzo(a)anthracene	mg/kg	11	LQM S4ULs	0.36	-	1.48	1.6	-	0.60	2.26	-	1.12	0.47	-	-	-	-	-
Chrysene	mg/kg	30	LQM S4ULs	0.4	-	1.43	1.93	-	0.67	2.00	-	1.38	0.43	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	3.9	LQM S4ULs	0.57	-	1.95	2.51	-	0.94	2.70	-	1.98	0.60	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	110	LQM S4ULs	0.22	-	0.76	0.97	-	0.37	1.05	-	0.77	0.24	-	-	-	-	-
Benzo(a)pyrene	mg/kg	5.3	DEFRA C4SLs	0.4	-	1.53	1.88	-	0.71	1.94	-	1.46	0.43	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	45	LQM S4ULs	0.27	-	0.92	1.08	-	0.48	1.19	-	0.99	0.29	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	0.31	LQM S4ULs	0.06	-	0.25	0.23	-	0.11	0.23	-	0.18	0.06	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	360	LQM S4ULs	0.28	-	0.99	1.19	-	0.46	1.14	-	1.03	0.28	-	-	-	-	-
Benzo(bk)fluoranthene	mg/kg	-		0.79	-	2.71	3.48	-	1.31	3.75	-	2.75	0.84	-	-	-	-	-
Total PAH(16)	mg/kg	-		4.1	-	15.1	21.6	-	7.5	23.1	-	15.3	4.7	-	-	-	-	-
PAH Surrogate % Recovery	mg/kg	-		98	-	97	92	-	95	95	-	92	96	-	-	-	-	-

TPH																		
>C5-C6 Aliphatic	mg/kg	42	LQM S4ULs	<0.1	-	<0.1	<0.1	-	<0.1 ^{SV}	<0.1	-	<0.1	<0.1	-	-	-	-	-
>C6-C8 Aliphatic	mg/kg	100	LQM S4ULs	<0.1	-	<0.1	<0.1	-	<0.1 ^{SV}	<0.1	-	<0.1	<0.1	-	-	-	-	-
>C8-C10 Aliphatic	mg/kg	27	LQM S4ULs	<0.1	-	<0.1	<0.1	-	<0.1 ^{SV}	<0.1	-	<0.1	<0.1	-	-	-	-	-
>C10-C12 Aliphatic	mg/kg	130	LQM S4ULs	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	-	-	-	-
>C12-C16 Aliphatic	mg/kg	1100	LQM S4ULs	<4	-	<4	<4	-	<4	<4	-	<4	<4	-	-	-	-	-
>C16-C21 Aliphatic	mg/kg	65.000	LQM S4ULs	<7	-	<7	<7	-	10	11	-	<7	13	-	-	-	-	-
>C21-C35 Aliphatic	mg/kg	-		<7	-	<7	<7	-	40	36	-	33	54	-	-	-	-	-
Total aliphatic hydrocarbons (>C5 - C35)	mg/kg	-		<19	-	<19	<19	-	50	47	-	33	67	-	-	-	-	-
>C5-C7 Aromatic	mg/kg	370	LQM S4ULs	<0.1	-	<0.1	<0.1	-	<0.1 ^{SV}	<0.1	-	<0.1	<0.1	-	-	-	-	-
>C7-C8 Aromatic	mg/kg	860	LQM S4ULs	<0.1	-	<0.1	<0.1	-	<0.1 ^{SV}	<0.1	-	<0.1	<0.1	-	-	-	-	-
>C8-C10 Aromatic	mg/kg	47	LQM S4ULs	<0.1	-	<0.1	<0.1	-	<0.1 ^{SV}	<0.1	-	<0.1	<0.1	-	-	-	-	-
>C10-C12 Aromatic	mg/kg	250	LQM S4ULs	<0.2	-	<0.2	<0.2	-	<0.2	2.5	-	<0.2	<0.2	-	-	-	-	-
>C12-C16 Aromatic	mg/kg	1,800	LQM S4ULs	<4	-	<4	<4	-	<4	<4	-	<4	<4	-	-	-	-	-
>C16-C21 Aromatic	mg/kg	1,900	LQM S4ULs	10	-	19	19	-	20	56	-	18	31	-	-	-	-	-
>C21-C35 Aromatic	mg/kg	1,900	LQM S4ULs	43	-	73	71	-	78	201	-	86	122	-	-	-	-	-
Total aromatic hydrocarbons (>C5 - C35)	mg/kg	-		53	-	92	90	-	98	260	-	104	153	-	-	-	-	-
Total petroleum hydrocarbons (>C5 - C40)	mg/kg	-		53	-	92	90	-	148	307	-	137	220	-	-	-	-	-

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Exploratory Location Ref.	Units	GAC	GAC Ref.	RPS 2021														
				BH101	BH101	WS103	WS104	TP102	TP103	TP104	TP105	WS106	WS105	ACM1	ACM2	ACM3	ACM4	ACM5
Sample Depth (m)				0.80	1.10	0.70	0.30	0.40	0.50	0.50	0.50	0.20	0.50	-	-	-	-	-
Sample Date				13/9/21	13/9/21	14/9/21	14/9/21	07/07/2021	08/07/2021	08/07/2021	08/07/2021	08/07/2021	08/07/2021	14/7/21	14/7/21	14/7/21	14/7/21	14/7/21
TPH C10-C40		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH (C8-C10)	mg/kg	27	LQM S4ULs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH (C10-C12)	mg/kg	130	LQM S4ULs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH (C12-C16)	mg/kg	1100	LQM S4ULs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH (C16-C21)	mg/kg	1,900	LQM S4ULs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH (C21-C35)	mg/kg	1,900	LQM S4ULs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

BTEX and MTBE

MTBE	mg/kg	73	CL:AIRE GAC	<5	-	<5	<5	-	<5	<5	-	<5	<5	-	-	-	-	-
Benzene	mg/kg	0.89	DEFRA C4SLs	<5	-	<5	<5	-	<5	<5	-	<5	<5	-	-	-	-	-
Toluene	mg/kg	880	LQM S4ULs	<5	-	<5	<5	-	10	<5	-	<5	<5	-	-	-	-	-
Ethylbenzene	mg/kg	83	LQM S4ULs	<5	-	<5	<5	-	<5	<5	-	<5	<5	-	-	-	-	-
m/p-Xylene	mg/kg	79	LQM S4ULs	<5	-	<5	<5	-	9	<5	-	<5	<5	-	-	-	-	-
o-Xylene	mg/kg	88	LQM S4ULs	<5	-	<5	<5	-	<5	<5	-	<5	<5	-	-	-	-	-

PCBs

PCB 77	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 81	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 105	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 114	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 118	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 123	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 126	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 156	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 157	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 167	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 169	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
PCB 189	mg/kg	-		<5	-	<5	<5	-	-	<5	-	<5	-	-	-	-	-	-
Total 12 PCBs	mg/kg	0.008	EA SGVs	<5	-	<5	<5	-	-	<60	-	<60	-	-	-	-	-	-

PCBs

PCB Congener 28	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB Congener 52	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB Congener 101	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB Congener 118	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB Congener 138	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCe Congener s3	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCe Congener 180	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PCB	mg/kg	0.008	EA SGVs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Human Health Generic Quantitative Assessment for Soil

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Exploratory Location Ref.	Units	GAC	GAC Ref.	RPS 2021														
				BH101	BH101	WS103	WS104	TP102	TP103	TP104	TP105	WS106	WS105	ACM1	ACM2	ACM3	ACM4	ACM5
				0.80	1.10	0.70	0.30	0.40	0.50	0.50	0.50	0.20	0.50	-	-	-	-	-
Sample Depth (m)				13/9/21	13/9/21	14/9/21	14/9/21	07/07/2021	08/07/2021	08/07/2021	08/07/2021	08/07/2021	08/07/2021	14/7/21	14/7/21	14/7/21	14/7/21	14/7/21
Sample Date																		

Phenolics

Total Phenols HPLC	mg/kg	440	LQM S4ULs	<0.15	-	<0.15	<0.15	-	-	<0.15	-	<0.15	-	-	-	-	-	-
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Explosives

Nitrocellulose Colour*		-		-	-	-	-	-	-ve	-ve	-	-ve	-ve	-	-	-	-	-
Nitrocellulose Colourimetric*		-		-	-	-	-	-	<5000	<5000	-	<5000	<5000	-	-	-	-	-
Cyclotetramethylene Tetranitramine (HMX)*		-		-	-	-	-	-	<2	<2	-	<2	<2	-	-	-	-	-
Cyclo-1,3,5-Trimethylene-2,4,6-Trinitramine (RDX)*		-		-	-	-	-	-	<2	<2	-	<2	<2	-	-	-	-	-
Ethylene Glycol Dinitrate (EGDN)*		-		-	-	-	-	-	<1	<1	-	<1	<1	-	-	-	-	-
2,4,6-Trinitro-Phenylmethyl Nitramine (Tetryl)*		-		-	-	-	-	-	<1	<1	-	<1	<1	-	-	-	-	-
Glycerol Trinitrate (NG)*		-		-	-	-	-	-	<1	<1	-	<1	<1	-	-	-	-	-
2,4,6-Trinitrotoluene (TNT)*	65	LQM S4ULs		-	-	-	-	-	0.1	<1	-	<1	<1	-	-	-	-	-
2,6-Dinitrotoluene*	170	CL:AIRE GAC		-	-	-	-	-	<1	<1	-	<1	<1	-	-	-	-	-
2,4-Dinitrotoluene*	78	CL:AIRE GAC		-	-	-	-	-	<1	<1	-	<1	<1	-	-	-	-	-
Hexanitro-Stilbene (HNS)*		-		-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	-
Pentaerythritol Tetranitrate (PETN)*		-		-	-	-	-	-	<5	<5	-	<5	<5	-	-	-	-	-
Nitroguanidine (Picrite)*		-		-	-	-	-	-	<0.25	<0.25	-	<0.25	<0.25	-	-	-	-	-
2,4,6-Trinitro Phenol (Picric Acid)*		-		-	-	-	-	-	<0.1	<0.1	-	<0.1	<0.1	-	-	-	-	-

Human Health Generic Quantit:

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Exploratory Location Ref.	Units	GAC	GEA 2019													
		Residential without plant uptake	BH13	BH15	BH7	BH10	BH16	BH18	BH19	BH17	BH20	BH21	BH11	BH8	BH14	BH8
			0.40	0.40	0.4	0.3	0.3	0.4	0.5	0.3	0.2	0.4	0.5	0.6	0.3	
			18/4/19	24/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	23/4/19	18/4/19	23/4/19	23/4/19
Made Ground / Natural ?		1% SOM	MG	MG	MG	MG	MG	MG	MG	MG	MG	MG	MG	MG	MG	MG

Anions and other

Ammonical Nitrogen as N	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexavalent Chromium	mg/kg	21	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	-
Nitrate as NO3	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate as NO2	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total sulphate as SO4	mg/kg	-	1100	910	2700	680	2000	3400	680	1500	2700	1300	760	890	1200	-
Sulphate as SO4 (2:1 Ext)	g/l	-	0.15	0.13	0.15	0.047	0.37	1.2	0.13	0.2	0.91	0.32	0.12	0.26	0.33	-
Sulphide	mg/kg	-	68	1	1.2	2.2	40	2.3	<1	13	1.2	1.4	<1	<1	<1	-
Water soluble chloride (2:1)	mg/kg	-	35	13	20	21	32	14	5.3	8.3	22	30	3.9	12	24	-
Chromium III	mg/kg	910	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Free cyanide	mg/kg	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total cyanide	mg/kg	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
Total Organic Carbon	%	-	1.2	1.7	0.9	1.7	3.2	1.9	1.1	0.9	2.1	2	1.5	1	0.7	-
Fraction Organic carbon		-														-
Organic matter	%	-														-
pH	pH units	-	9	7.8	11	8.1	8.5	7.5	7.7	8.3	8.3	7.9	8	8.3	7.8	-
Natural Moisture Content	%	-	<0.1	<0.1	<0.1	<0.1	<0.1	18	11	13	12	16	17	18	14	-

Asbestos

Asbestos	%	Asbestos	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	Chrysotile detected in cement fragment
Quantification	%	Asbestos present	-	-	-	-	-	-	-	-	-	-	-	-	-	

Heavy Metals and Metalloids

Arsenic	mg/kg	40	16	30	18	16	19	19	17	23	14	16	19	17	13	-
Barium	mg/kg	1.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	150	<0.2	<0.2	<0.2	0.4	0.7	0.5	<0.2	0.4	<0.2	0.3	0.2	<0.2	<0.2	-
Chromium	mg/kg	910	24	24	30	30	30	26	28	29	30	21	23	18	36	-
Copper	mg/kg	7.100	70	99	74	85	150	87	53	79	170	98	74	52	40	-
Lead	mg/kg	310	210	240	190	200	220	1900	160	350	140	300	320	200	380	-
Mercury	mg/kg	15	1	1.4	0.9	3.3	0.6	1.5	0.7	1.3	0.6	2	2.4	1.1	3	-
Molybdenum	mg/kg	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	180	17	25	24	30	52	34	27	28	35	17	17	16	30	-
Selenium	mg/kg	430	<1	<1	<1	1.4	2.1	<1	<1	<1	<1	<1	<1	<1	<1	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulphur as S	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Sulphate as SO4	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	1.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	40.000	87	150	140	190	320	260	100	150	120	130	120	76	140	-

Human Health Generic Quantit:

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Exploratory Location Ref.	Units	GAC Residential without plant uptake	GEA 2019													
			BH13	BH15	BH7	BH10	BH16	BH18	BH19	BH17	BH20	BH21	BH11	BH8	BH14	BH8
Sample Depth (m)			0.40	0.40	0.4	0.3	0.3	0.4	0.5	0.3	0.2	0.4	0.5	0.6	0.3	
Sample Date			18/4/19	24/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	23/4/19	18/4/19	23/4/19	23/4/19

PAH																
Naphthalene	mg/kg	2.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-
Acenaphthylene	mg/kg	2.900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-
Acenaphthene	mg/kg	3.000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-
Fluorene	mg/kg	2.800	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-
Phenanthrene	mg/kg	1.300	0.96	0.61	0.93	0.71	1.5	1.4	1.2	0.46	2.5	1.5	1.5	1.3	0.67	-
Anthracene	mg/kg	31.000	0.19	0.14	0.22	0.19	0.32	0.32	0.31	<0.05	0.97	0.28	0.3	0.27	0.19	-
Fluoranthene	mg/kg	1.500	2.1	1.4	2.7	2.1	3.4	5.6	3.1	1.2	6.4	4	3.4	3.1	2.5	-
Pyrene	mg/kg	3.700	1.9	1.4	2.4	1.9	3.2	5.6	3	1.1	5.5	3.5	3.1		2.3	-
Benzo(a)anthracene	mg/kg	11	0.96	0.91	1.4	1.1	1.9	2.6	1.6	0.64	3	2	1.5	2.8	1.6	-
Chrysene	mg/kg	30	0.96	0.71	1.1	0.96	1.6	2.6	1.7	0.53	2.7	1.9	1.5	1.4	1.4	-
Benzo(b)fluoranthene	mg/kg	3.9	1.1	1	1.6	1.6	2.6	3.4	2	0.71	3.5	2.6	2	1.2	1.8	-
Benzo(k)fluoranthene	mg/kg	110	0.83	0.59	0.74	0.57	0.91	1.8	1.5	0.33	1.7	1.7	1.1	1.6	1.1	-
Benzo(a)pyrene	mg/kg	5.3	0.99	0.78	1.3	0.96	1.8	3	2.1	0.46	2.8	2.4	1.7	0.92	1.6	-
Indeno(1,2,3-cd)pyrene	mg/kg	45	0.43	0.43	0.53	0.53	0.48	1.4	0.9	0.23	1.2	1.1	0.84	1.3	0.65	-
Dibenzo(a,h)anthracene	mg/kg	0.31	<0.05	<0.05	<0.05	<0.05	<0.05	0.32	0.29	<0.05	<0.05	0.37	0.2	0.53	0.2	-
Benzo(ghi)perylene	mg/kg	360	0.72	0.58	0.83	0.67	1	1.9	1.2	0.36	1.8	1.6	1.1	<0.05	0.84	-
Benzo(bk)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PAH(16)	mg/kg	-	11.1	8.54	13.6	11.3	18.8	29.9	19	5.97	32.1	23	18.2	15.1	14.7	-
PAH Surrogate % Recovery	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TPH																
>C5-C6 Aliphatic	mg/kg	42	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-
>C6-C8 Aliphatic	mg/kg	100	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-
>C8-C10 Aliphatic	mg/kg	27	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-
>C10-C12 Aliphatic	mg/kg	130	-	-	-	-	-	-	-	-	<1	-	-	-	-	-
>C12-C16 Aliphatic	mg/kg	1100	-	-	-	-	-	-	-	-	20	-	-	-	-	-
>C16-C21 Aliphatic	mg/kg	65,000	-	-	-	-	-	-	-	-	470	-	-	-	-	-
>C21-C35 Aliphatic	mg/kg	-	-	-	-	-	-	-	-	-	1,100	-	-	-	-	-
Total aliphatic hydrocarbons (>C5 - C35)	mg/kg	-	-	-	-	-	-	-	-	-	1,600	-	-	-	-	-
>C5-C7 Aromatic	mg/kg	370	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-
>C7-C8 Aromatic	mg/kg	860	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-
>C8-C10 Aromatic	mg/kg	47	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-
>C10-C12 Aromatic	mg/kg	250	-	-	-	-	-	-	-	-	<1	-	-	-	-	-
>C12-C16 Aromatic	mg/kg	1,800	-	-	-	-	-	-	-	-	3.1	-	-	-	-	-
>C16-C21 Aromatic	mg/kg	1,900	-	-	-	-	-	-	-	-	330	-	-	-	-	-
>C21-C35 Aromatic	mg/kg	1,900	-	-	-	-	-	-	-	-	1,100	-	-	-	-	-
Total aromatic hydrocarbons (>C5 - C35)	mg/kg	-	-	-	-	-	-	-	-	-	1,400	-	-	-	-	-
Total petroleum hydrocarbons (>C5 - C40)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Human Health Generic Quantit

Key:	
	Exceedance of the GAC
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		GAC		GEA 2019												
Exploratory Location Ref.	Units	Residential without plant uptake	BH13	BH15	BH7	BH10	BH16	BH18	BH19	BH17	BH20	BH21	BH11	BH8	BH14	BH8
Sample Depth (m)			0.40	0.40	0.4	0.3	0.3	0.4	0.5	0.3	0.2	0.4	0.5	0.6	0.3	
Sample Date			18/4/19	24/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	23/4/19	18/4/19	23/4/19	23/4/19
TPH C10-C40		-	130	45	45	13	54	150	88	59	3100	150	39	32	90	-
TPH (C8-C10)	mg/kg	27	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
TPH (C10-C12)	mg/kg	130	5.4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	-
TPH (C12-C16)	mg/kg	1100	13	<4	<4	<4	<4	<4	5.9	<4	23	<4	<4	<4	4.1	-
TPH (C16-C21)	mg/kg	1,900	33	12	14	4.8	14	42	28	15	800	26	8.6	13	27	-
TPH (C21-C35)	mg/kg	1,900	71	30	30	7.7	38	100	53	42	2200	110	30	16	54	-

BTEX and MTBE

MTBE	mg/kg	73	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
Benzene	mg/kg	0.89	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
Toluene	mg/kg	880	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
Ethylbenzene	mg/kg	83	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
m/p-Xylene	mg/kg	79	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
o-Xylene	mg/kg	88	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-

PCBs

PCB 77	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 81	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 105	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 114	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 118	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 123	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 126	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 156	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 157	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 167	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 169	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 189	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total 12 PCBs	mg/kg	0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PCBs

PCB Congener 28	mg/kg	-	<0.001	-	<0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	<0.001	-
PCB Congener 52	mg/kg	-	<0.001	-	<0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	<0.001	-
PCB Congener 101	mg/kg	-	<0.001	-	<0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	<0.001	-
PCB Congener 118	mg/kg	-	<0.001	-	<0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	<0.001	-
PCB Congener 138	mg/kg	-	<0.001	-	<0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	<0.001	-
PCe Congener s3	mg/kg	-	<0.001	-	<0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	<0.001	-
PCe Congener 180	mg/kg	-	<0.001	-	<0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	<0.001	-
Total PCB	mg/kg	0.008	<0.007	-	<0.007	-	-	-	-	<0.007	<0.007	-	<0.007	-	<0.007	-

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Sample Depth (m)			0.40	0.40	0.4	0.3	0.3	0.4	0.5	0.3	0.2	0.4	0.5	0.6	0.3	
Sample Date			18/4/19	24/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	18/4/19	23/4/19	18/4/19	23/4/19	23/4/19

Phenolics

Total Phenols HPLC	mg/kg	440	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
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Explosives

Nitrocellulose Colour*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrocellulose Colourimetric*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclotetramethylene Tetranitramine (HMX)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclo-1,3,5-Trimethylene-2,4,6-Trinitramine (RDX)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene Glycol Dinitrate (EGDN)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trinitro-Phenylmethyl Nitramine (Tetryl)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glycerol Trinitrate (NG)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trinitrotoluene (TNT)*	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene*	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene*	78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexanitro-Stilbene (HNS)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentaerythritol Tetranitrate (PETN)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitroguanidine (Picrite)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trinitro Phenol (Picric Acid)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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