

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH101

Box No:

1

Depth:

1.20-4.00m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH101

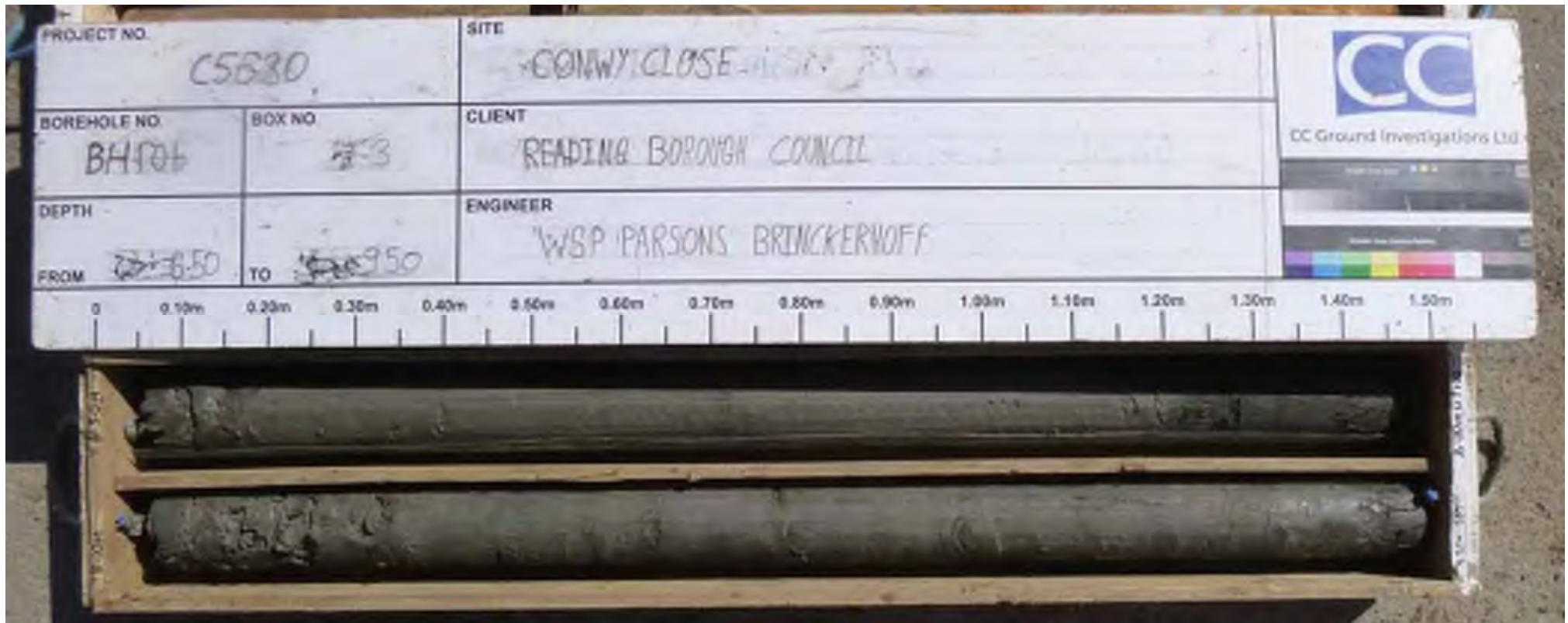
Box No:

2

Depth:

4.00-6.50m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH101

Box No:

3

Depth:

6.50-9.50m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH101

Box No:

4

Depth:

9.50-12.00m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH101

Box No:

5

Depth:

12.00-15.00m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH102

Box No:

Depth:

0.00-1.20m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Borehole ID:

BH102

Contract Name:

Conwy Close

Box No:

Client:

WSP

Depth:

0.00-1.20m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Borehole ID:

BH102

Contract Name:

Conwy Close

Box No:

Client:

WSP

Depth:

0.00-1.20m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH102

Box No:

1

Depth:

1.20-4.00m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH102

Box No:

2

Depth:

4.00-6.00m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH102

Box No:

3

Depth:

6.00-9.00m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Borehole ID:

BH102

Contract Name:

Conwy Close

Box No:

4

Client:

WSP

Depth:

9.00-12.00m

Core Photograph



CC Ground Investigations Ltd

Contract ID:

C5630

Contract Name:

Conwy Close

Client:

WSP

Borehole ID:

BH102

Box No:

5

Depth:

12.00-15.00m

APPENDIX D

Appendix D – Laboratory Test Results



LABORATORY REPORT



4043

Contract Number: PSL17/2128

Report Date: 24 May 2017
Client's Reference: C5630
Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Richard Tucker

Contract Title: Conwy Close
Date Received: 8/5/2017
Date Commenced: 8/5/2017
Date Completed: 24/5/2017

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson
(Director)


A Watkins
(Director)

R Berriman
(Quality Manager)

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(Senior Technician)

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(Senior Technician)

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Page 1 of

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH101		B	1.50	2.00	Brown very gravelly silty SAND.
BH101		D	4.00		Brown slightly sandy CLAY.
BH101		B	4.50	4.80	Dark brown slightly sandy CLAY.
BH101		UT100	5.00	5.45	Stiff dark brown slightly sandy CLAY.
BH101		B	7.50	8.00	Dark brown slightly sandy CLAY.
BH101		UT100	8.00	8.45	Stiff brown slightly sandy CLAY.
BH101		D	10.00		Dark brown sandy CLAY.
BH101		D	13.40		Grey slightly sandy CLAY.
BH101		CS	14.50	14.88	Stiff reddish brown mottled grey slightly sandy CLAY.
BH102		B	1.00		Dark brown very sandy silty GRAVEL.
BH102		B	2.00	3.00	Brown gravelly silty SAND.
BH102		D	3.50		Brown slightly sandy CLAY.
BH102		UT100	4.00	4.45	Firm dark brown slightly sandy CLAY.
BH102		UT100	6.50	6.95	Stiff dark brown sandy CLAY.
BH102		UT100	9.00	9.45	Stiff dark brown slightly sandy CLAY.
BH102		CS	10.20	10.50	Very stiff dark brown sandy CLAY.
BH102		CS	14.60	14.90	Very stiff reddish brown mottled grey slightly sandy CLAY.
BH102		UT100	15.00	15.45	Grey slightly sandy CLAY.
TP101		B	1.40	1.60	Brown gravelly silty SAND.



Conwy Close

Contract No:

PSL17/2128

Client Ref:

C5630

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

[illegible]

PSL
Professional Soils Laboratory

Conwy Close

Contract No:

PSL17/2128

Client Ref:

C5630

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
BH101		B	1.50	2.00	10							
BH101		D	4.00		29			66	27	39	100	High plasticity CH.
BH101		UT100	5.00	5.45	27			61	26	35	100	High plasticity CH.
BH101		UT100	8.00	8.45	24			52	23	29	100	High plasticity CH.
BH101		D	10.00		23			47	22	25	100	Intermediate plasticity CI.
BH101		D	13.40		26			62	24	38	100	High plasticity CH.
BH101		CS	14.50	14.88	23			62	26	36	100	High plasticity CH.
BH102		B	1.00		4.3							
BH102		B	2.00	3.00	11							
BH102		D	3.50		30			67	28	39	100	High plasticity CH.
BH102		UT100	4.00	4.45	27			57	25	32	100	High plasticity CH.
BH102		UT100	6.50	6.95	22			49	23	26	100	Intermediate plasticity CI.
BH102		UT100	9.00	9.45	24			59	24	35	100	High plasticity CH.
BH102		CS	10.20	10.50	20			44	21	23	100	Intermediate plasticity CI.
BH102		CS	14.60	14.90	18			67	28	39	100	High plasticity CH.
BH102		UT100	15.00	15.45	17			64	27	37	100	High plasticity CH.
TP101		B	1.40	1.60	11							
TP102		B	4.30	4.50	10							
TP103		B	2.50	2.70	14							

SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.



Conwy Close

Contract No:

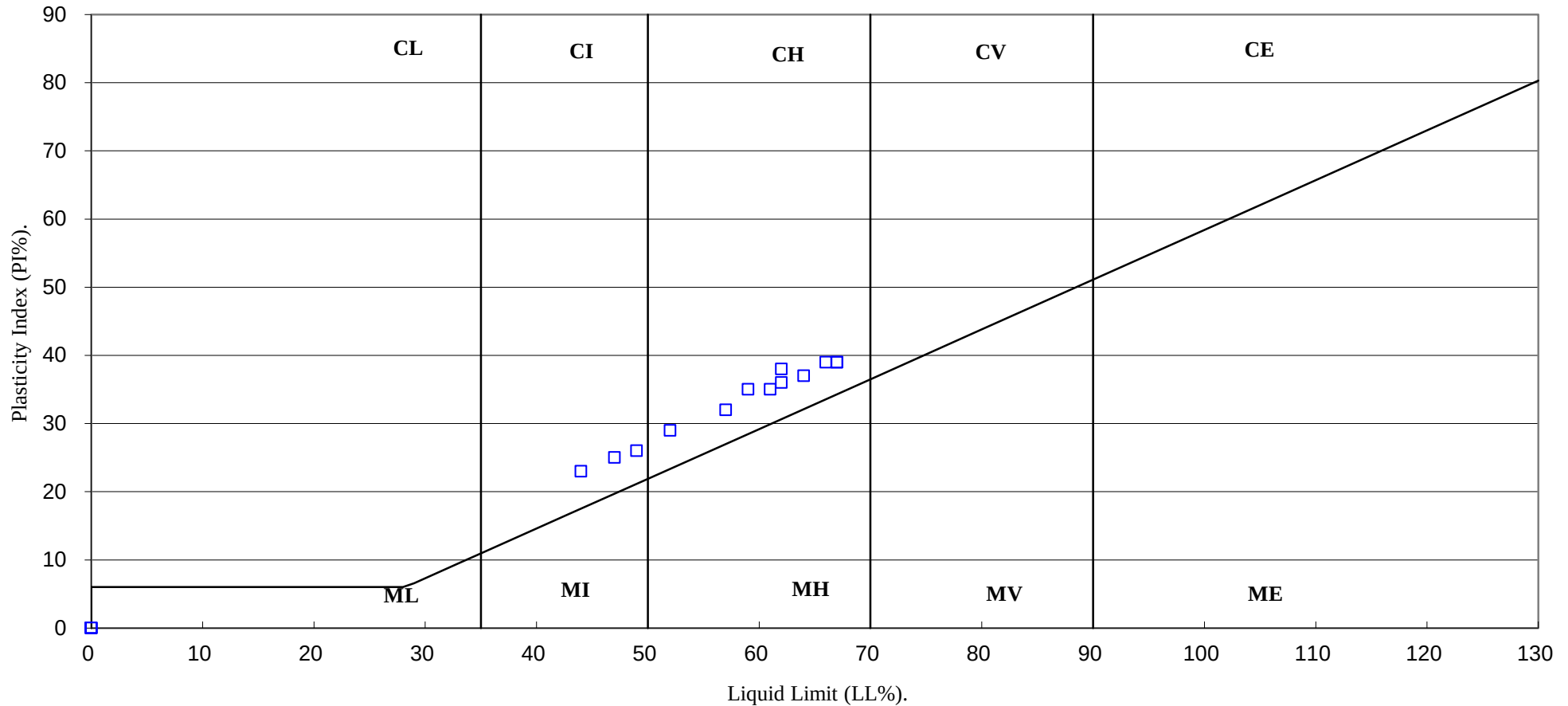
PSL17/2128

Client Ref:

C5630

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

[illegible]

SYMBOLS : NP : Non Plastic

*** : Liquid Limit and Plastic Limit Wet Sieved.**



PSL
Professional Soils Laboratory

Conwy Close

Contract No:

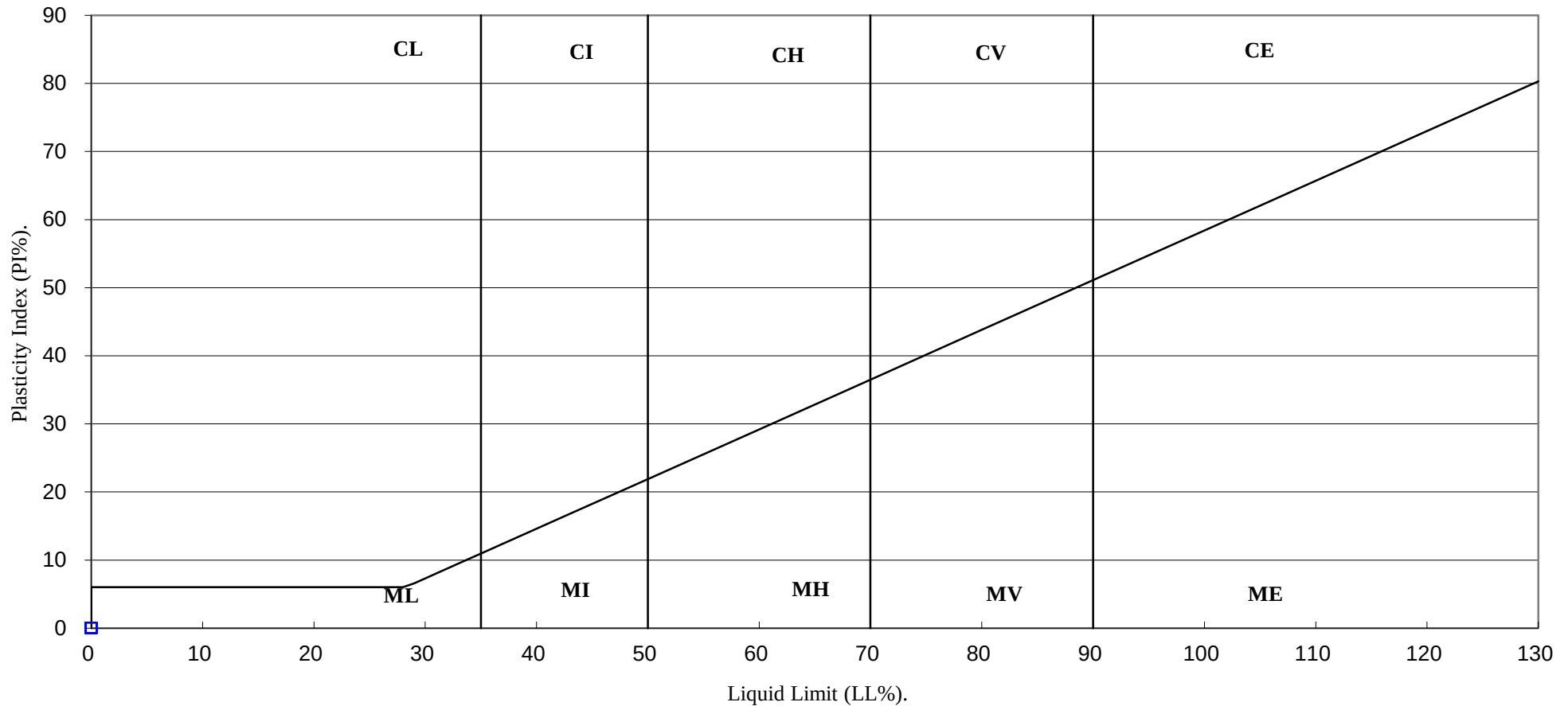
PSL17/2128

Client Ref:

C5630

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

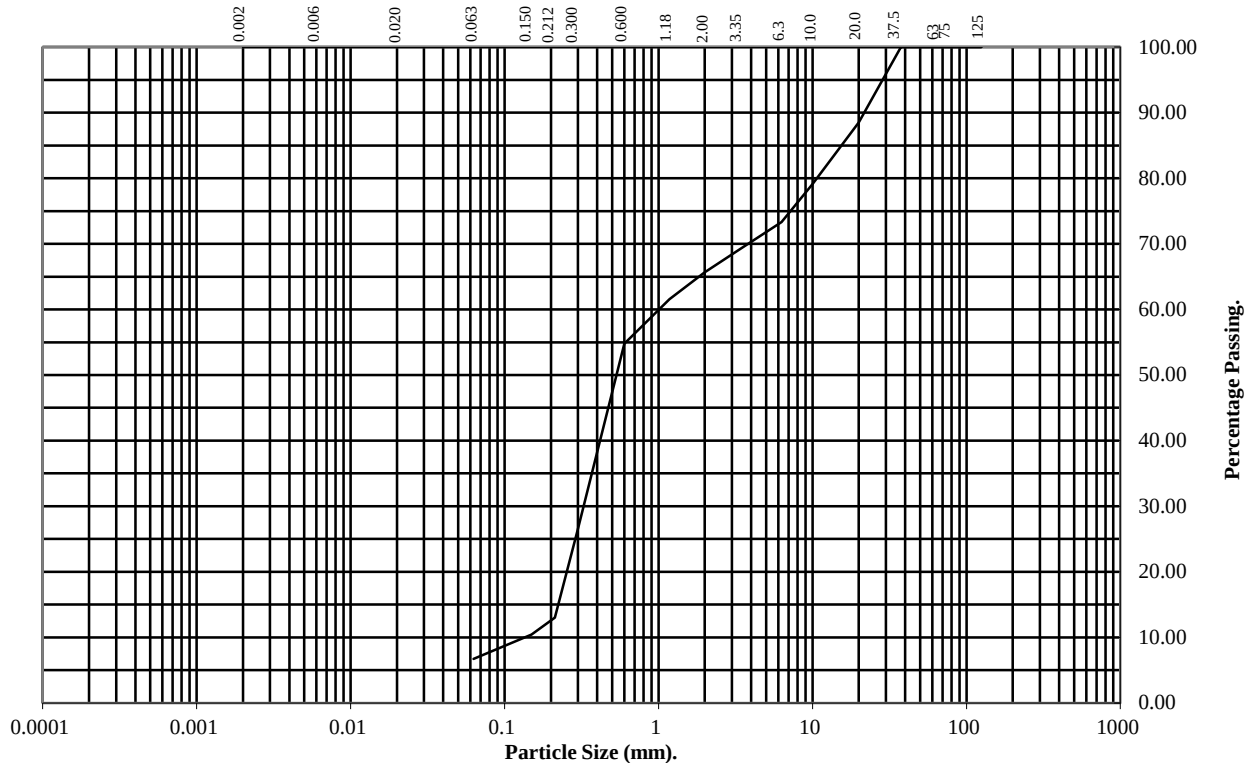
Hole Number: BH101

Top Depth (m): 1.50

Sample Number:

Base Depth(m): 2.00

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	88
10	79
6.3	73
3.35	69
2	66
1.18	62
0.6	55
0.3	27
0.212	13
0.15	10
0.063	7

Soil Fraction	Total Percentage
Cobbles	0
Gravel	34
Sand	59
Silt/Clay	7

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

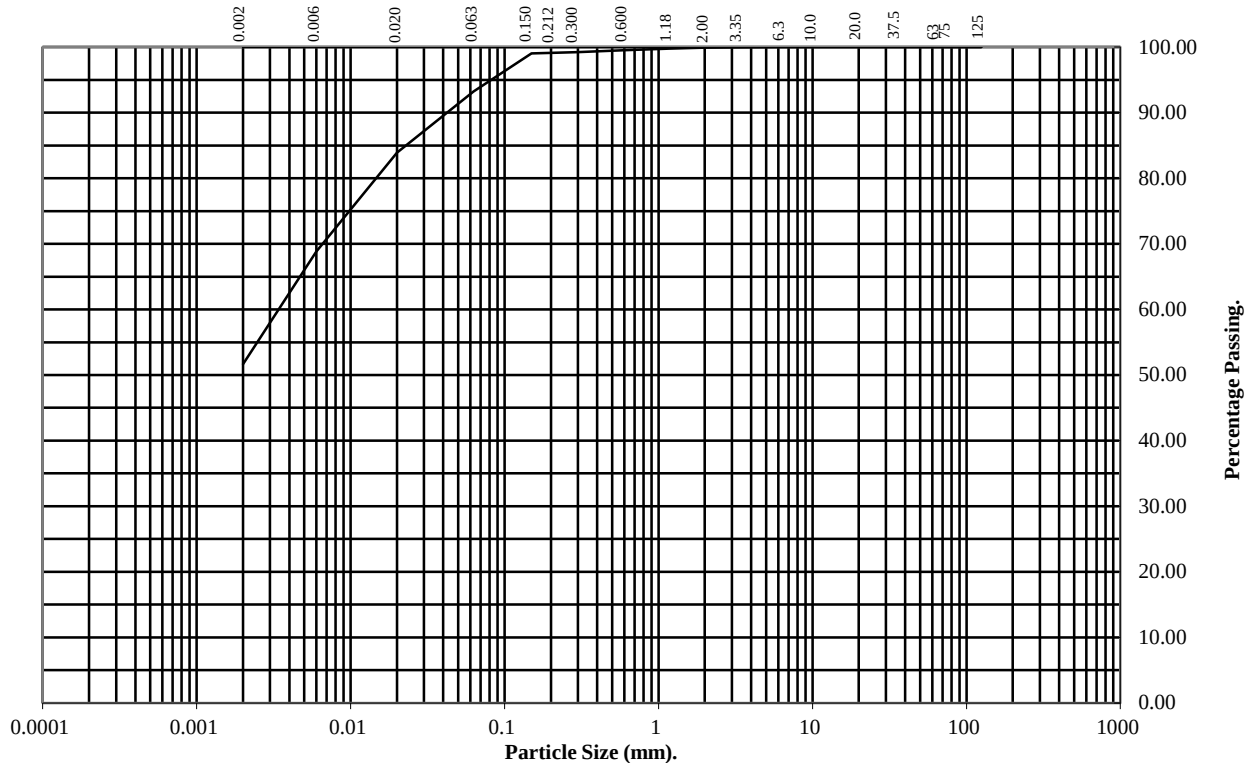
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: BH101 Top Depth (m): 4.50

Sample Number: Base Depth(m): 4.80

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	99
0.212	99
0.15	99
0.063	93

Particle Diameter	Percentage Passing
0.02	84
0.006	69
0.002	52

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	7
Silt	41
Clay	52

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

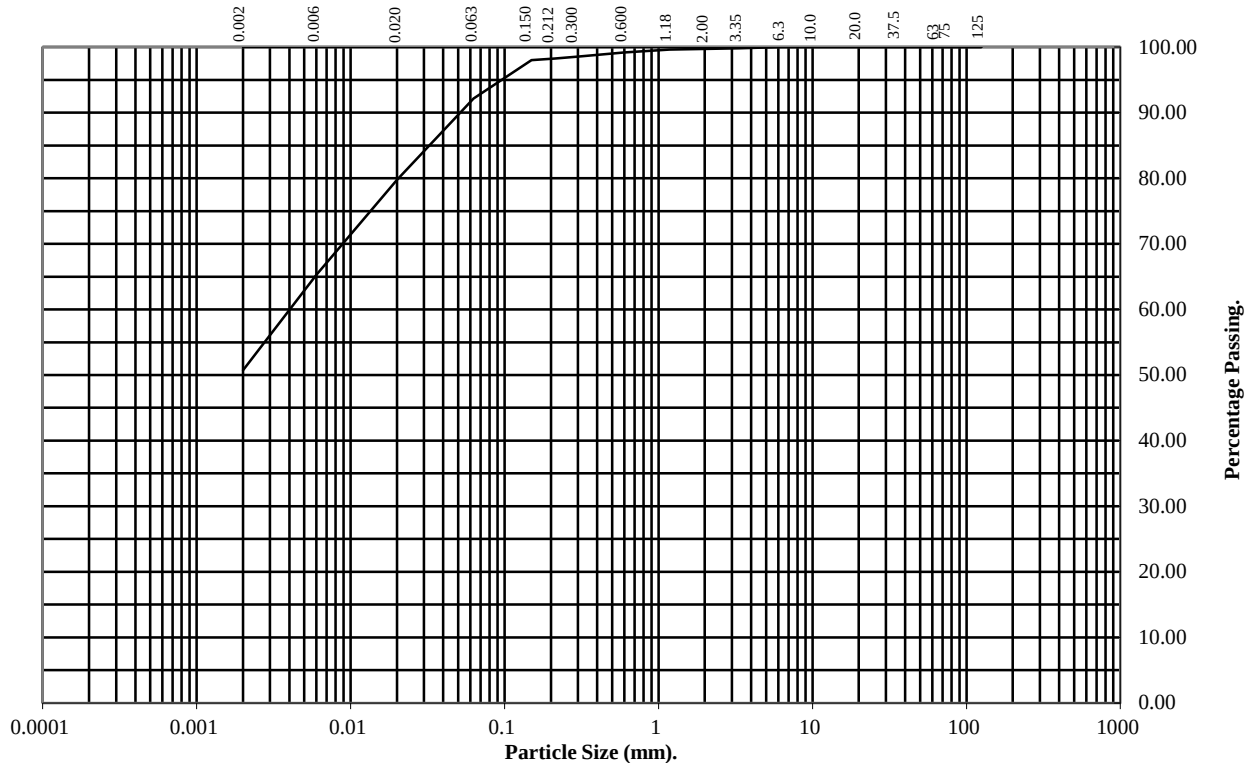
Hole Number: BH101

Top Depth (m): 7.50

Sample Number:

Base Depth(m): 8.00

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	99
0.3	99
0.212	98
0.15	98
0.063	92

Particle Diameter	Percentage Passing
0.02	80
0.006	65
0.002	51

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	8
Silt	41
Clay	51

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

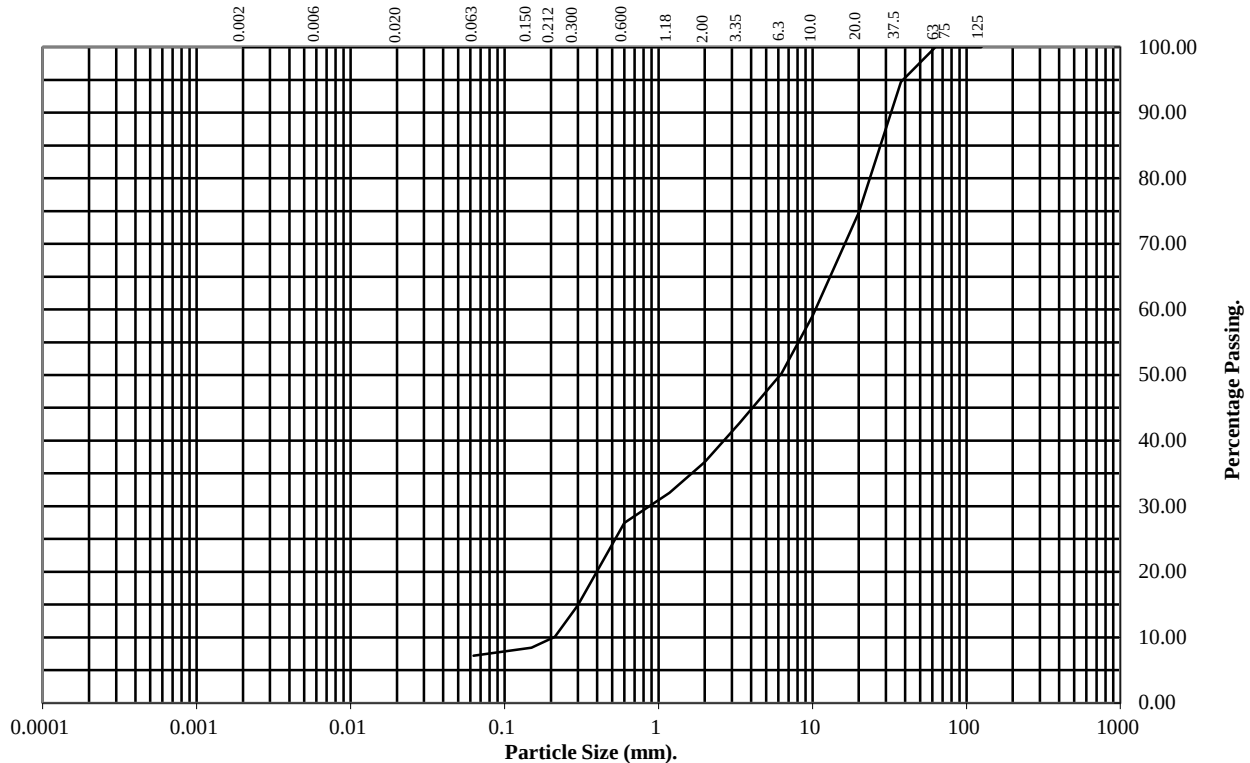
Hole Number: BH102

Top Depth (m): 1.00

Sample Number:

Base Depth (m):

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	95
20	75
10	59
6.3	50
3.35	43
2	37
1.18	32
0.6	27
0.3	15
0.212	10
0.15	8
0.063	7

Soil Fraction	Total Percentage
Cobbles	0
Gravel	63
Sand	30
Silt/Clay	7

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

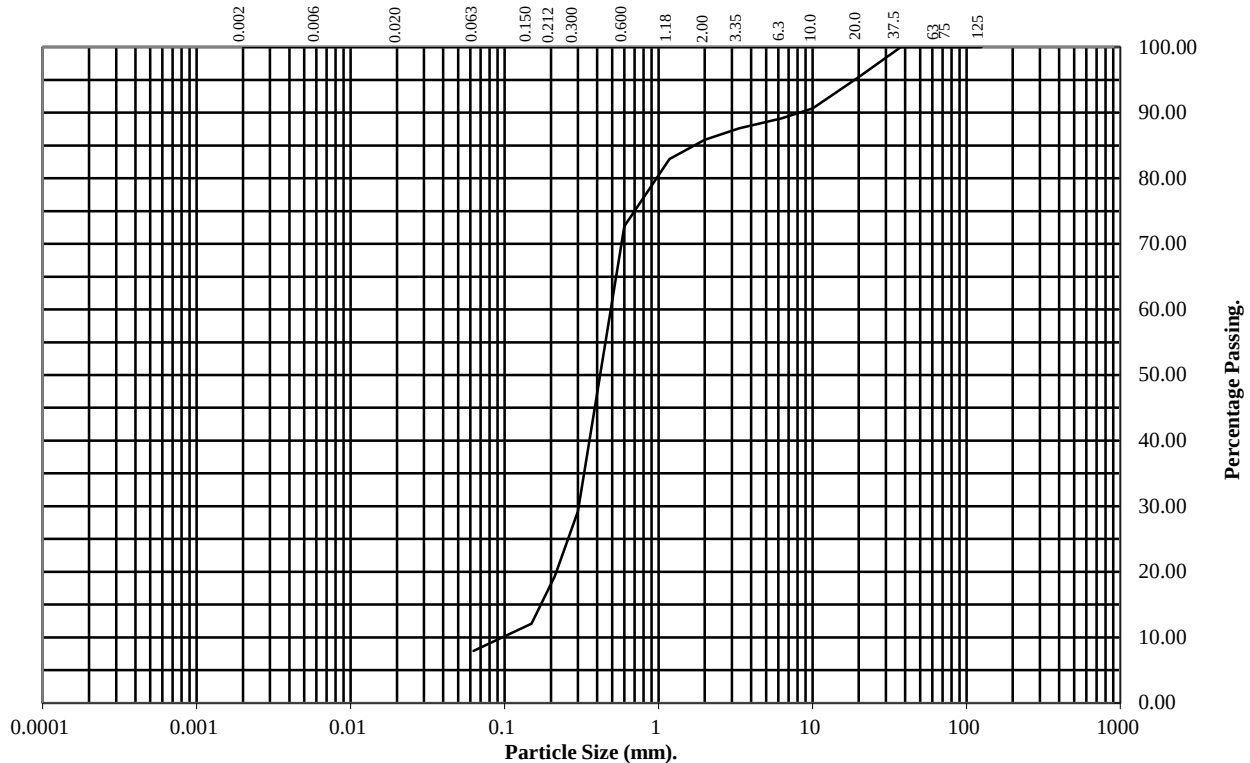
Hole Number: BH102

Top Depth (m): 2.00

Sample Number:

Base Depth(m): 3.00

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	95
10	91
6.3	89
3.35	88
2	86
1.18	83
0.6	73
0.3	29
0.212	19
0.15	12
0.063	8

Soil Fraction	Total Percentage
Cobbles	0
Gravel	14
Sand	78
Silt/Clay	8

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

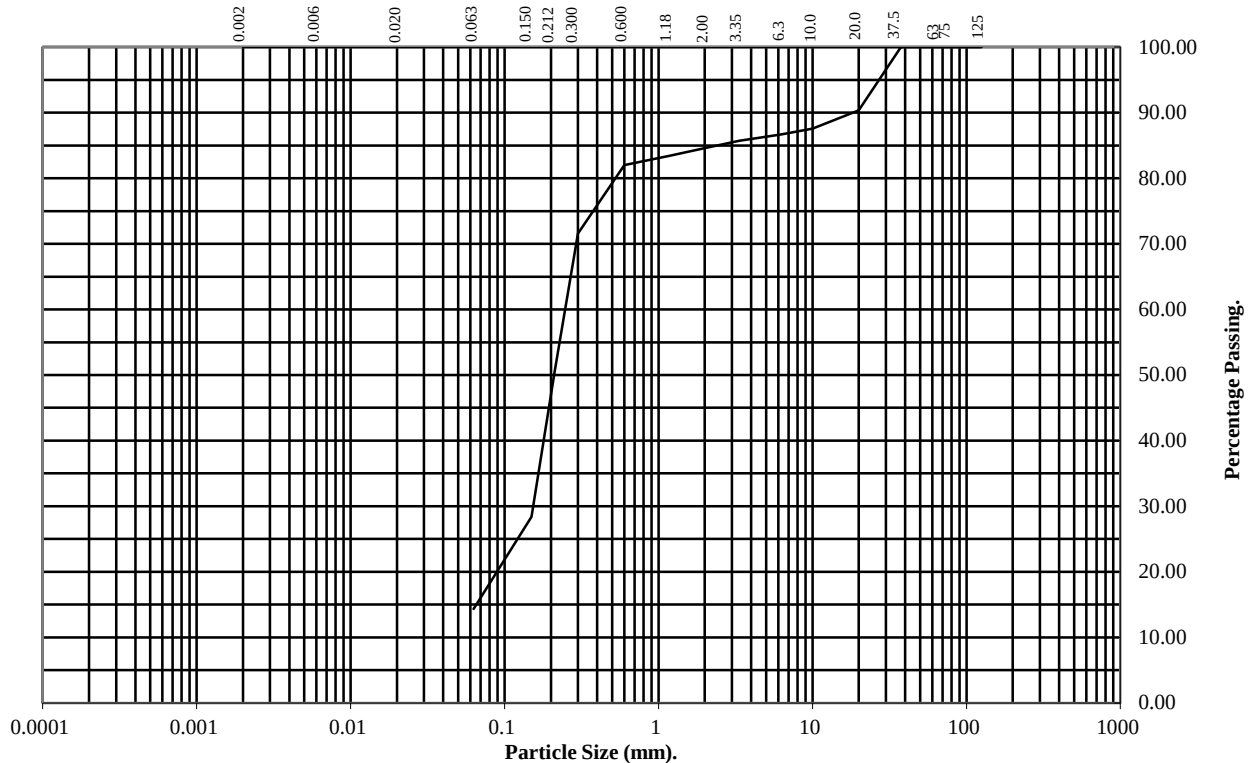
Hole Number: TP101

Top Depth (m): 1.40

Sample Number:

Base Depth(m): 1.60

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	90
10	88
6.3	87
3.35	86
2	85
1.18	83
0.6	82
0.3	72
0.212	51
0.15	28
0.063	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	15
Sand	71
Silt/Clay	14

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

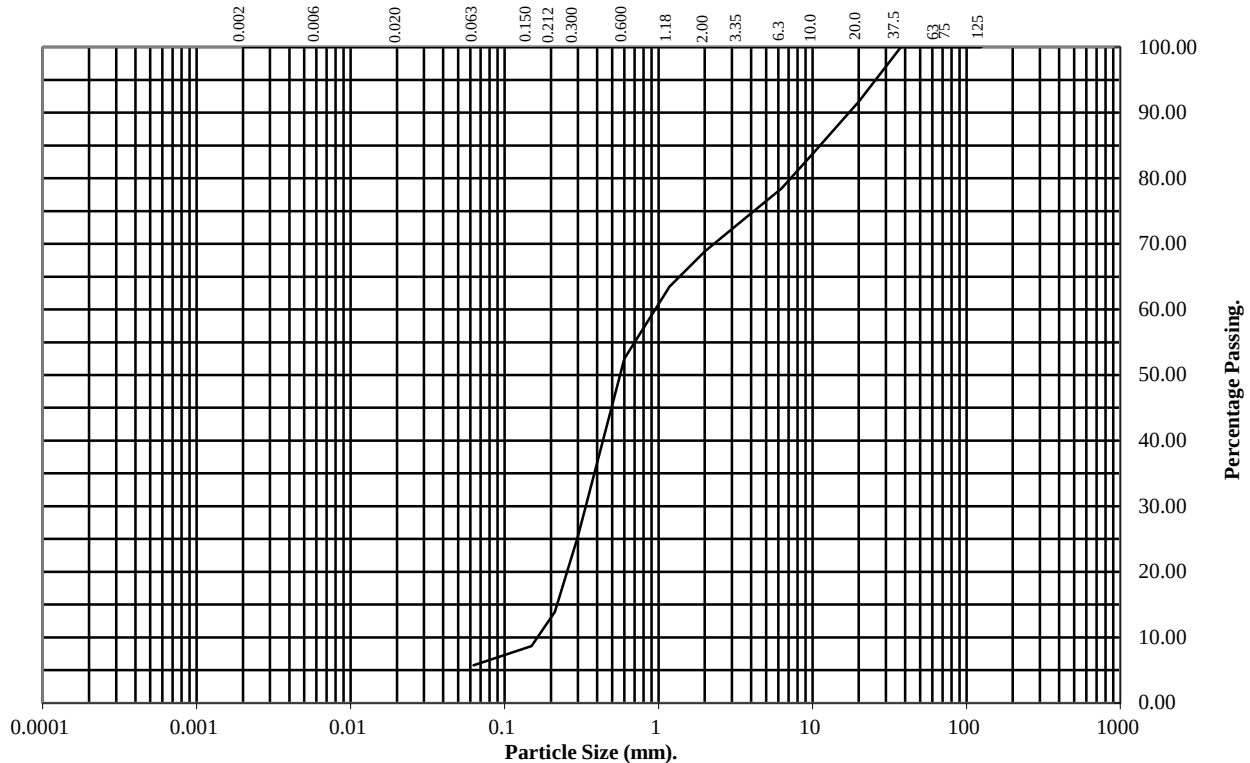
Hole Number: TP102

Top Depth (m): 4.30

Sample Number:

Base Depth(m): 4.50

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	92
10	84
6.3	78
3.35	73
2	69
1.18	63
0.6	53
0.3	25
0.212	14
0.15	9
0.063	6

Soil Fraction	Total Percentage
Cobbles	0
Gravel	31
Sand	63
Silt/Clay	6

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

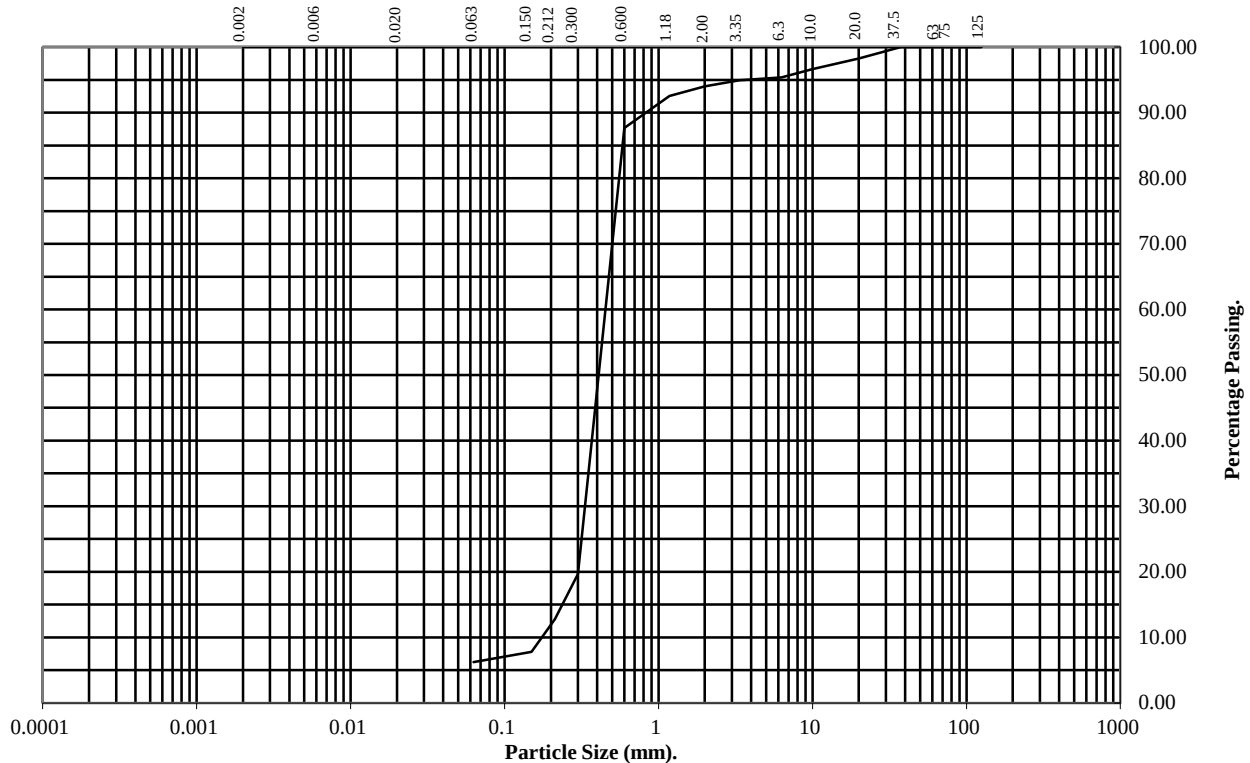
Hole Number: TP103

Top Depth (m): 2.50

Sample Number:

Base Depth(m): 2.70

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	97
6.3	95
3.35	95
2	94
1.18	93
0.6	88
0.3	20
0.212	13
0.15	8
0.063	6

Soil Fraction	Total Percentage
Cobbles	0
Gravel	6
Sand	88
Silt/Clay	6

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

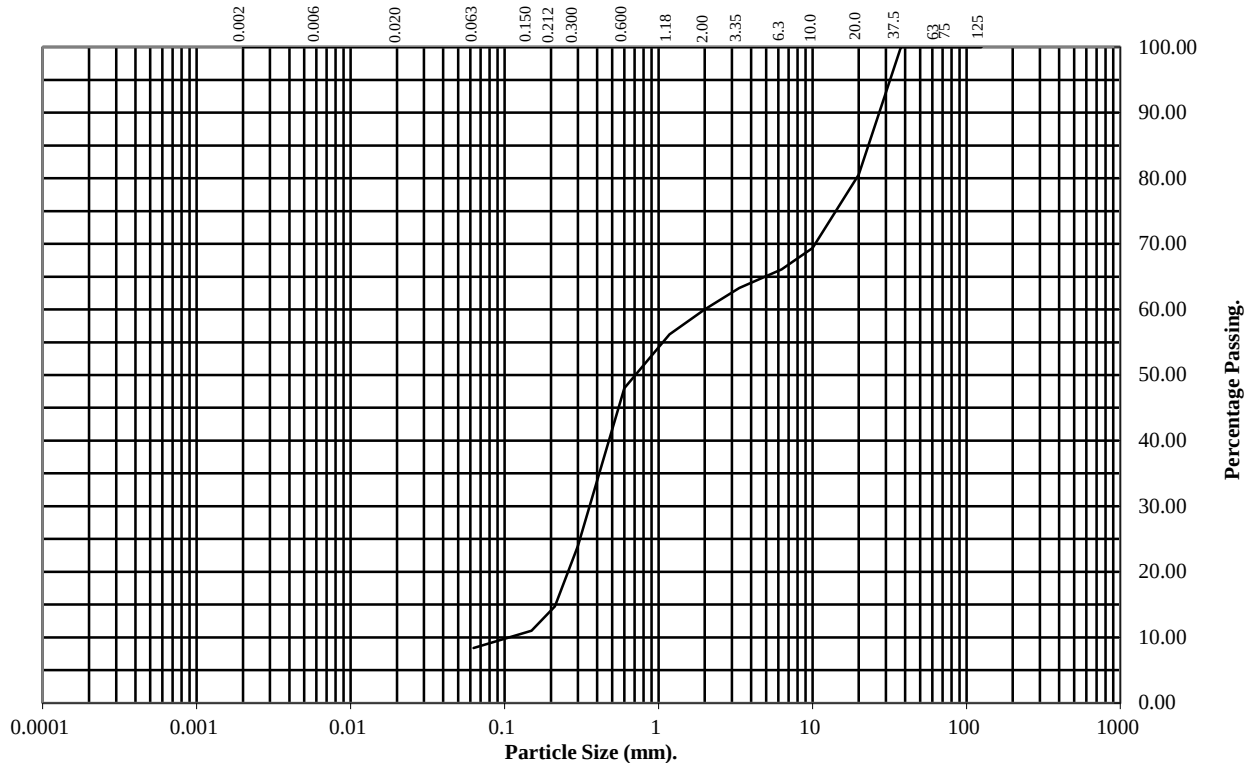
Hole Number: TP104

Top Depth (m): 1.60

Sample Number:

Base Depth(m): 1.80

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	81
10	69
6.3	66
3.35	63
2	60
1.18	56
0.6	48
0.3	24
0.212	15
0.15	11
0.063	8

Soil Fraction	Total Percentage
Cobbles	0
Gravel	40
Sand	52
Silt/Clay	8

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

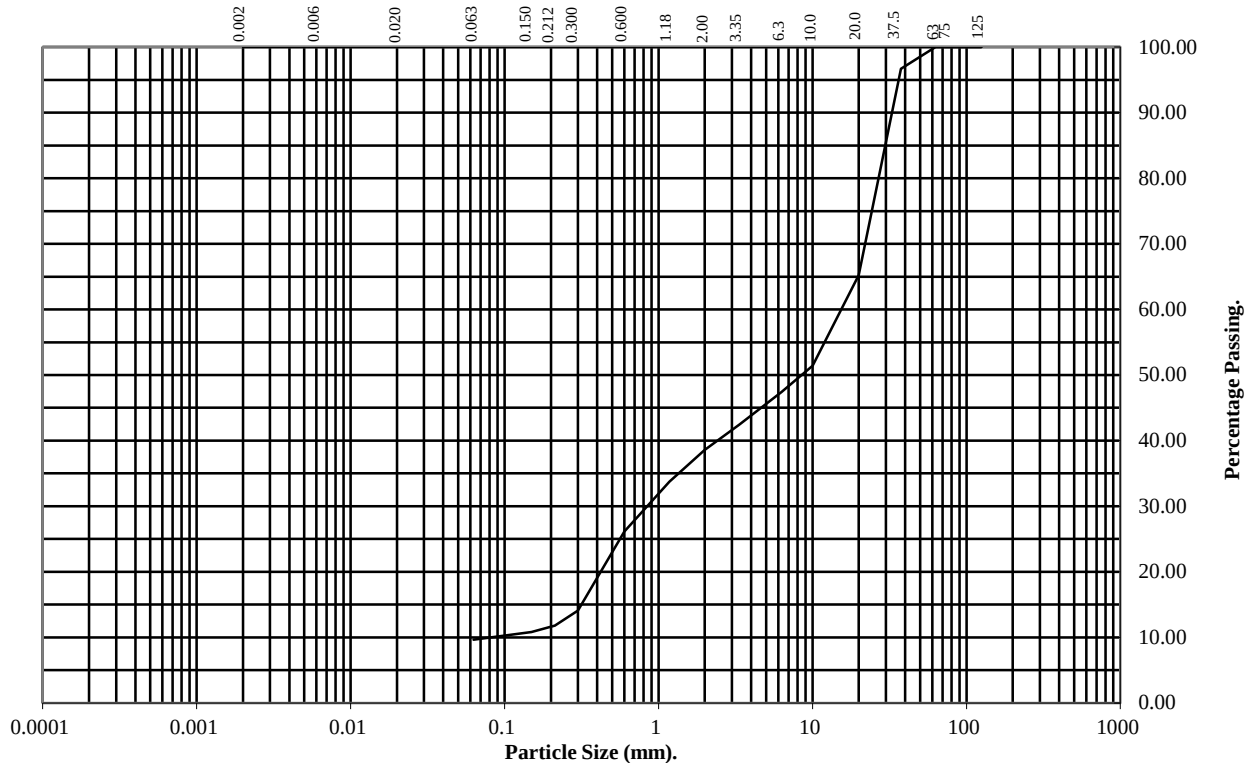
Hole Number: TP105

Top Depth (m): 2.50

Sample Number:

Base Depth(m): 2.70

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	97
20	65
10	51
6.3	47
3.35	42
2	39
1.18	34
0.6	26
0.3	14
0.212	12
0.15	11
0.063	10

Soil Fraction	Total Percentage
Cobbles	0
Gravel	61
Sand	29
Silt/Clay	10

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

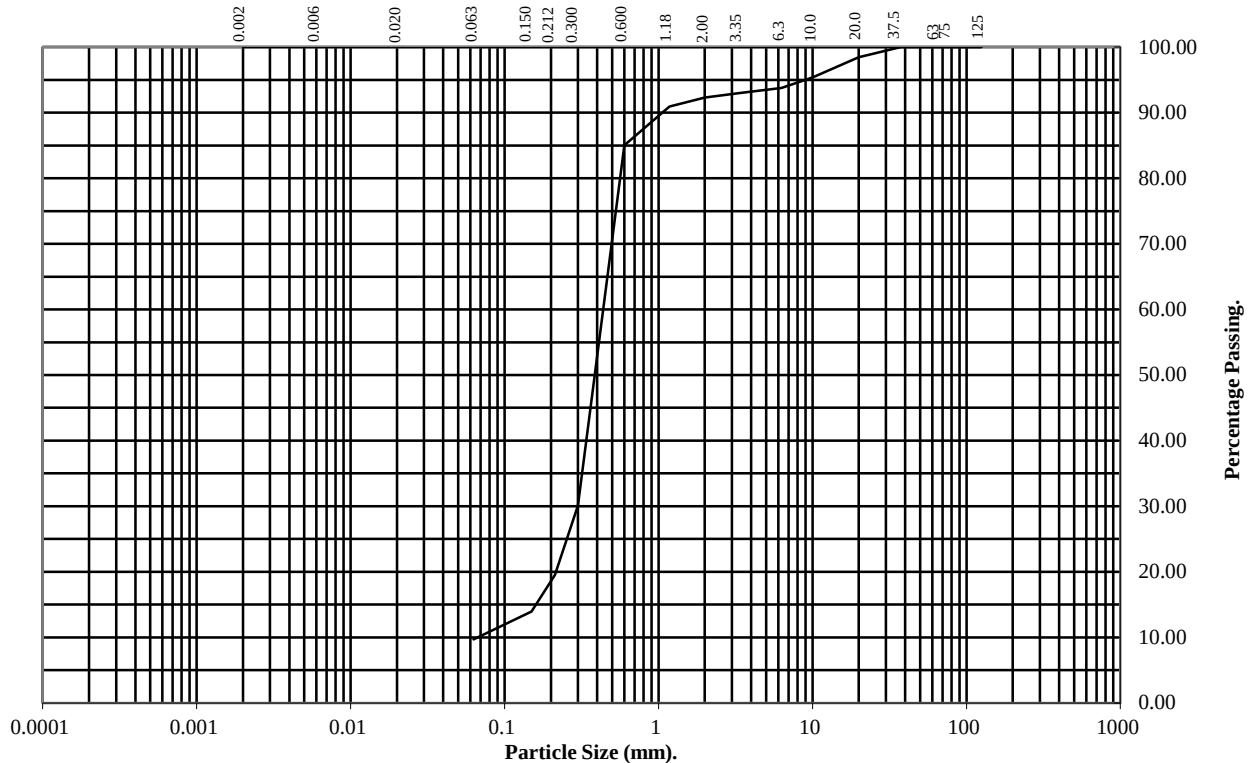
Hole Number: TP106

Top Depth (m): 2.10

Sample Number:

Base Depth(m): 2.30

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	95
6.3	94
3.35	93
2	92
1.18	91
0.6	85
0.3	30
0.212	19
0.15	14
0.063	10

Soil Fraction	Total Percentage
Cobbles	0
Gravel	8
Sand	82
Silt/Clay	10

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

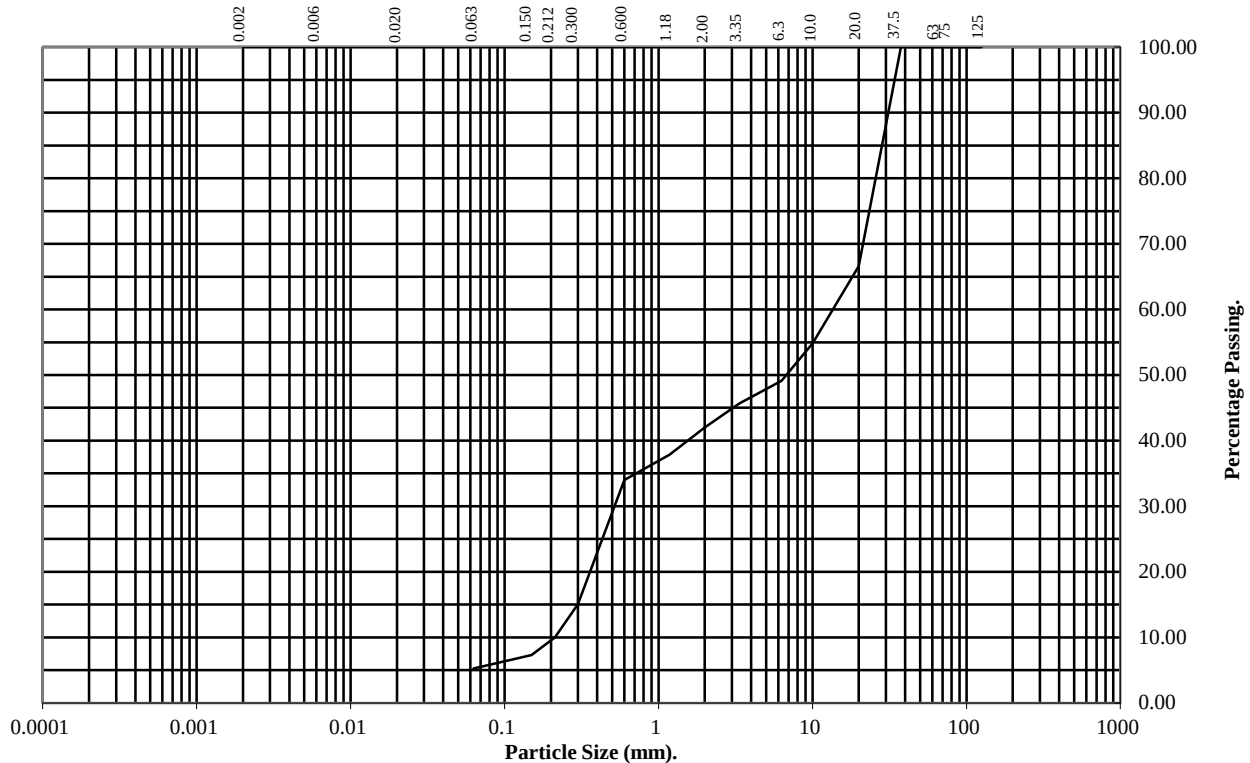
Hole Number: TP107

Top Depth (m): 1.00

Sample Number:

Base Depth(m): 1.20

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	67
10	55
6.3	49
3.35	46
2	42
1.18	38
0.6	34
0.3	15
0.212	10
0.15	7
0.063	5

Soil Fraction	Total Percentage
Cobbles	0
Gravel	58
Sand	37
Silt/Clay	5

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

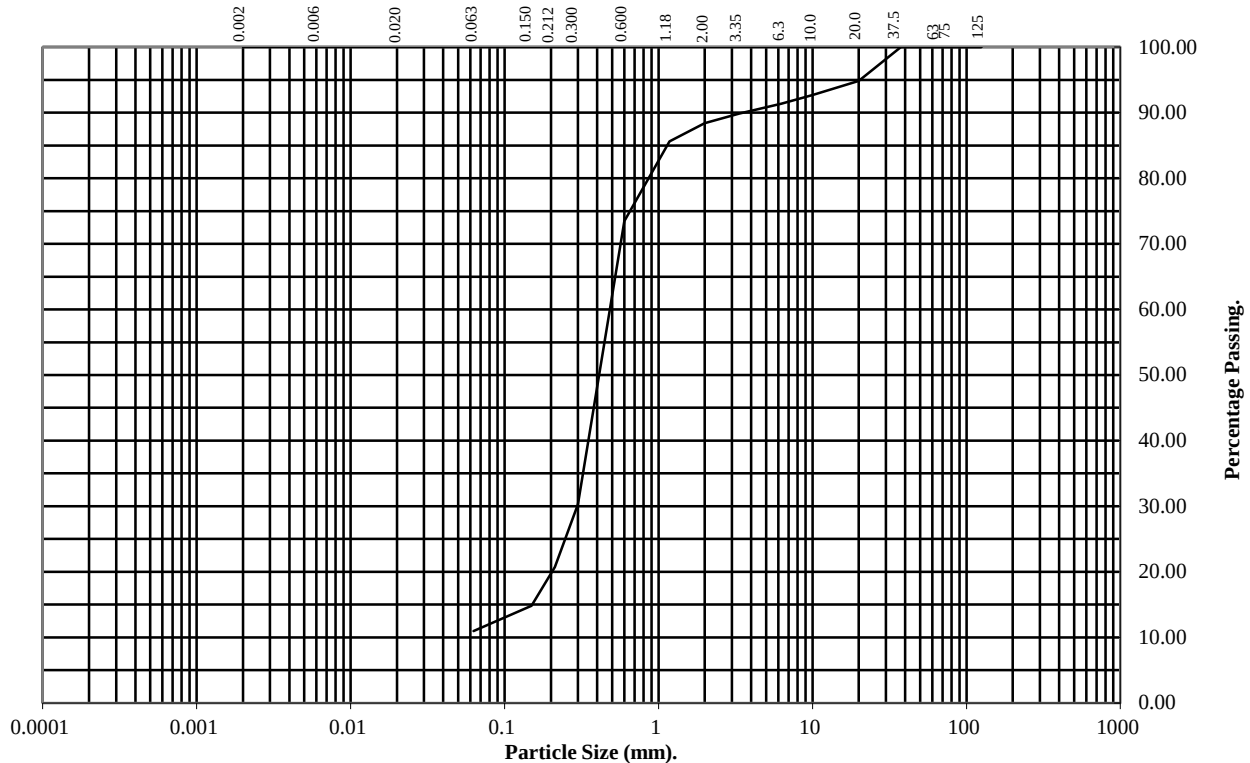
Hole Number: TP108

Top Depth (m): 1.60

Sample Number:

Base Depth(m): 1.80

Sample Type: B



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	95
10	93
6.3	91
3.35	90
2	88
1.18	86
0.6	73
0.3	30
0.212	21
0.15	15
0.063	11

Soil Fraction	Total Percentage
Cobbles	0
Gravel	12
Sand	77
Silt/Clay	11

Remarks:

See summary of soil descriptions.



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

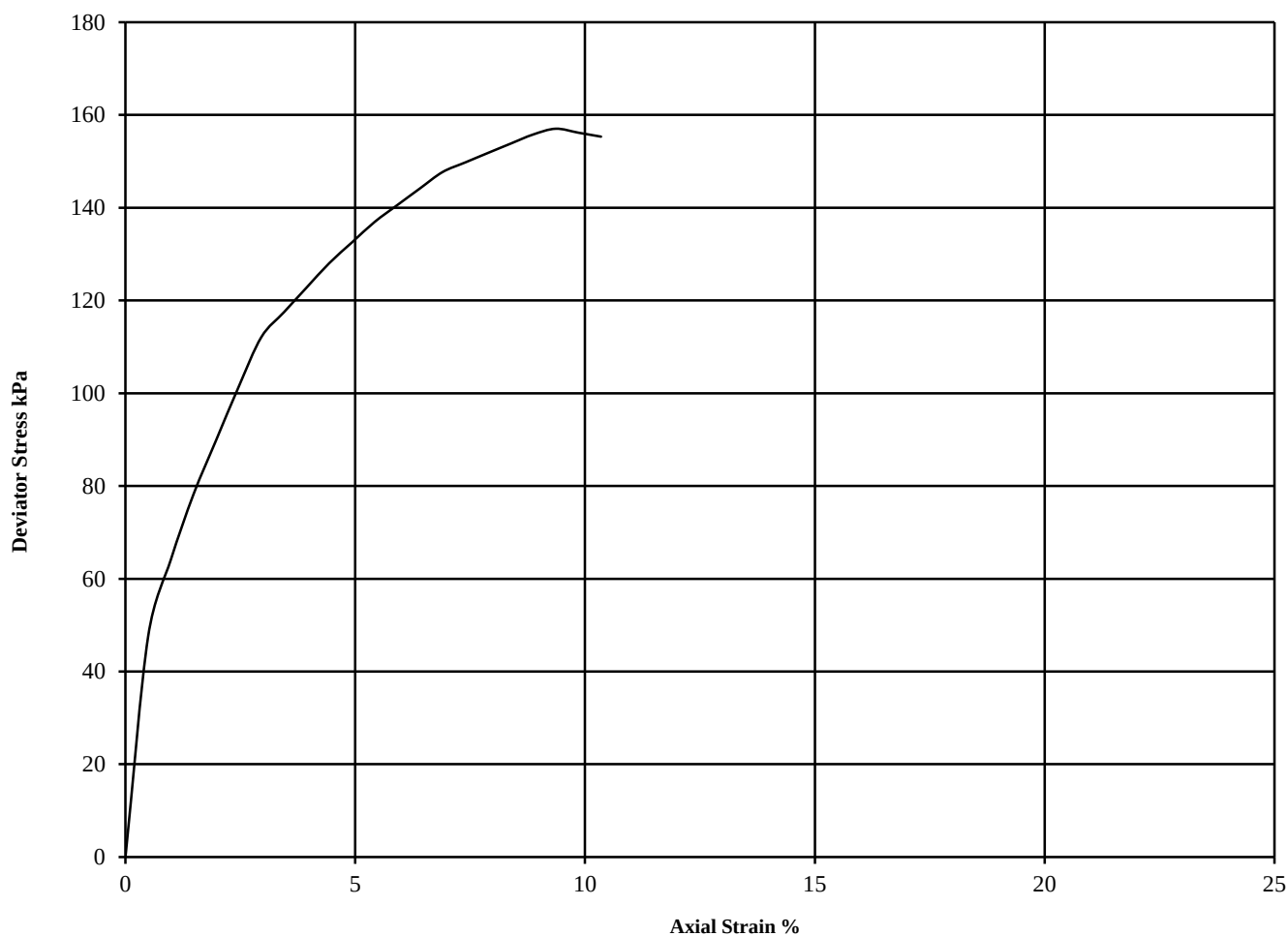
Hole Number: BH101

Top Depth (m): 5.00

Sample Number:

Base Depth (m): 5.45

Sample Type UT100



Diameter (mm):		102.0	Height (mm):		207.0	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure	Corr. Max.	Shear	Failure Strain (%)	Mode of Failure	Undisturbed Sample
				Pressure (kPa)	Deviator Stress (kPa)	Cu (kPa)			Sample taken from top of tube
									Rate of strain = 2 %/min
									Latex Membrane used 0.2 mm thick,
									Correction applied 0.36
1	27	1.99	1.57	100	157	79	9.4	Brittle	See summary of soil descriptions



Conwy Close

Contract No:

PSL17/2128

Client Ref:

C5630

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

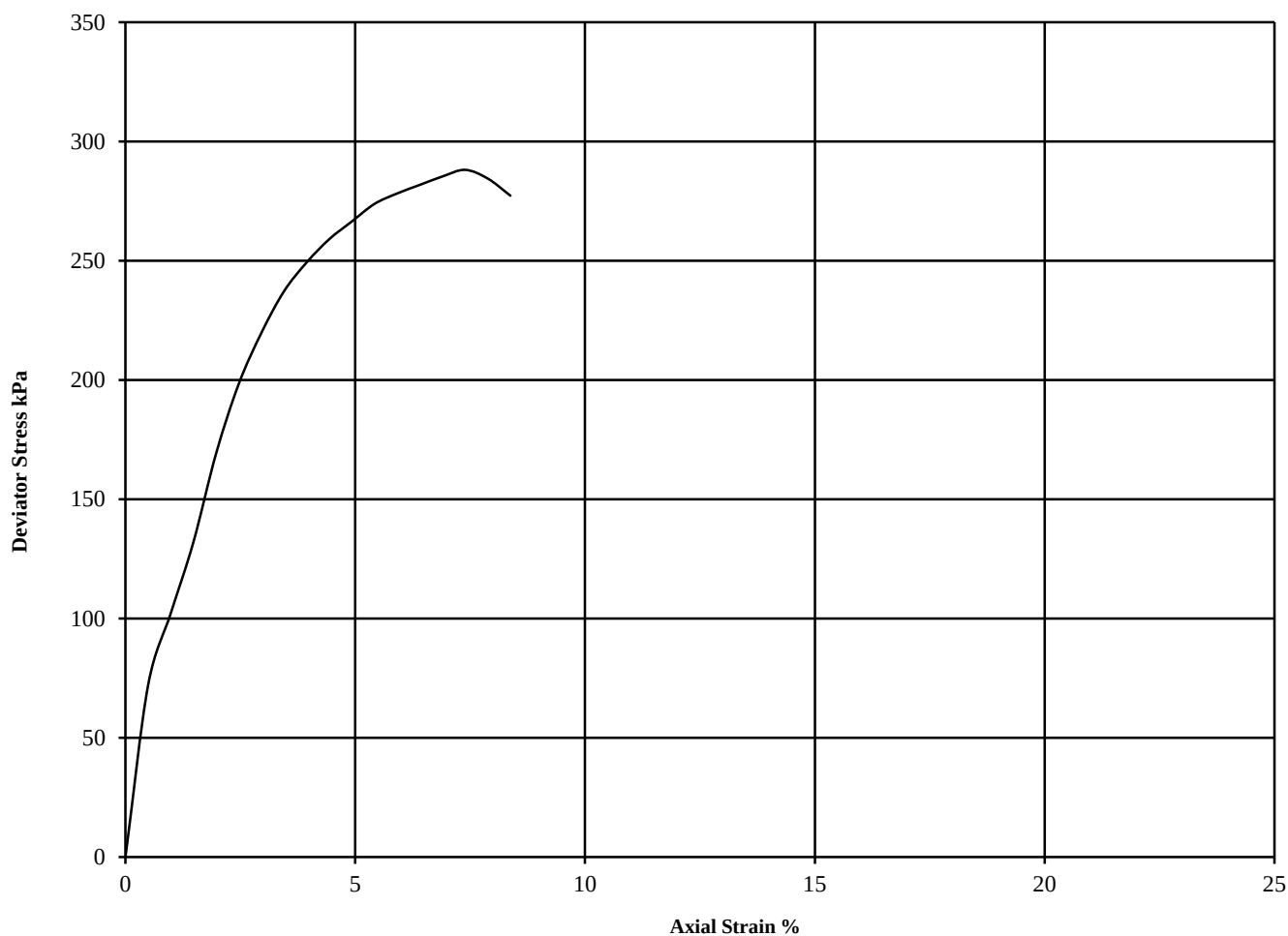
Hole Number: BH101

Top Depth (m): 8.00

Sample Number:

Base Depth (m): 8.45

Sample Type UT100



Diameter (mm):		102.0	Height (mm):		207.0	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$			
1	24	2.05	1.65	160	288	144	7.4	Brittle	



Conwy Close

Contract No:

PSL17/2128

Client Ref:

C5630

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

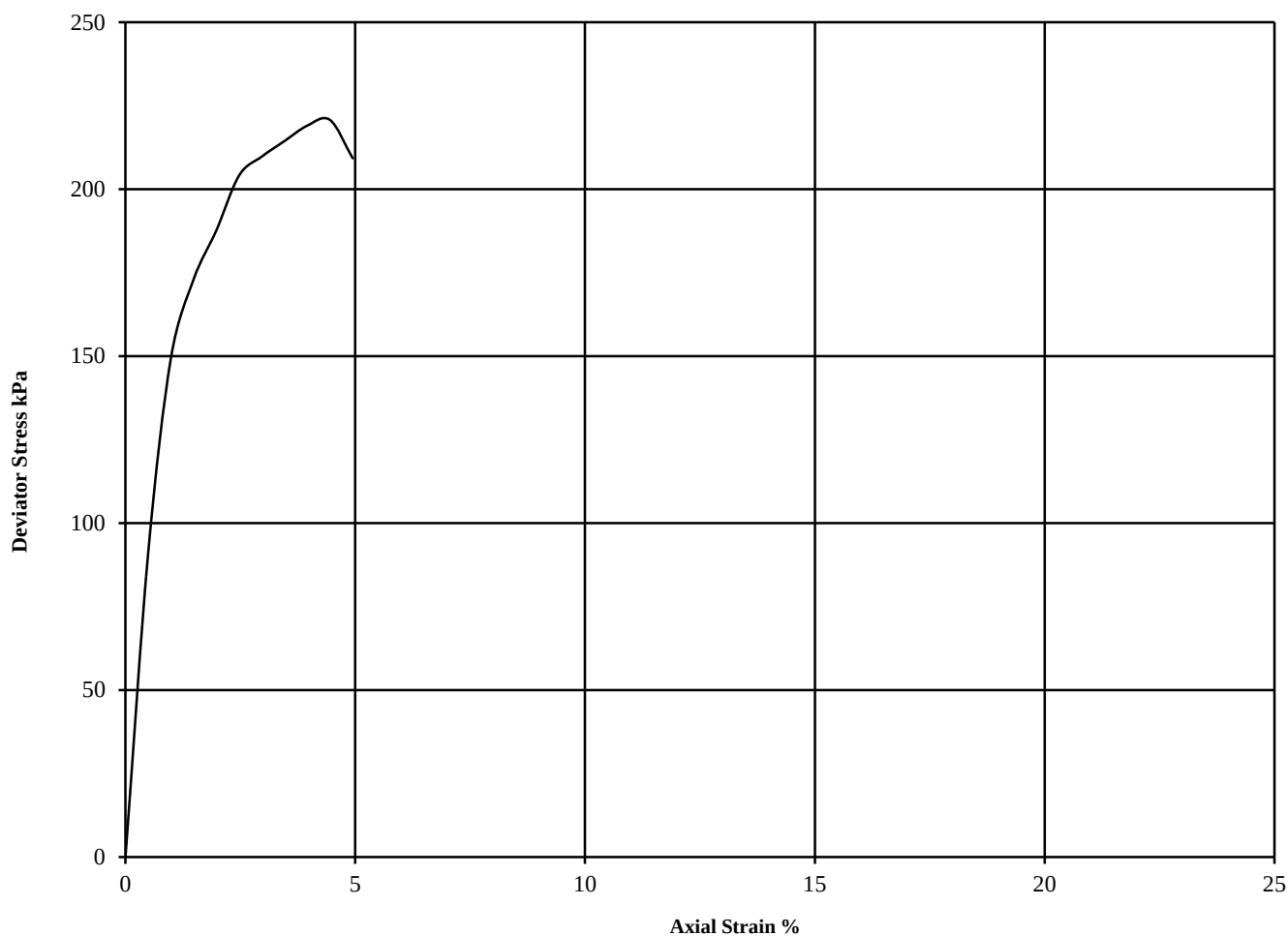
Hole Number: BH101

Top Depth (m): 14.50

Sample Number:

Base Depth (m): 14.88

Sample Type CS



Diameter (mm):		90.0	Height (mm):		182.0	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample
				θ_3	$(\theta_1-\theta_3)_f$	$^{1/2}(\theta_1-\theta_3)_f$			Sample taken from top of tube
									Rate of strain = 2 %/min
									Latex Membrane used 0.2 mm thick,
									Correction applied 0.41
1	23	2.12	1.73	290	221	110	4.5	Brittle	See summary of soil descriptions



Conwy Close

Contract No:

PSL17/2128

Client Ref:

C5630

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

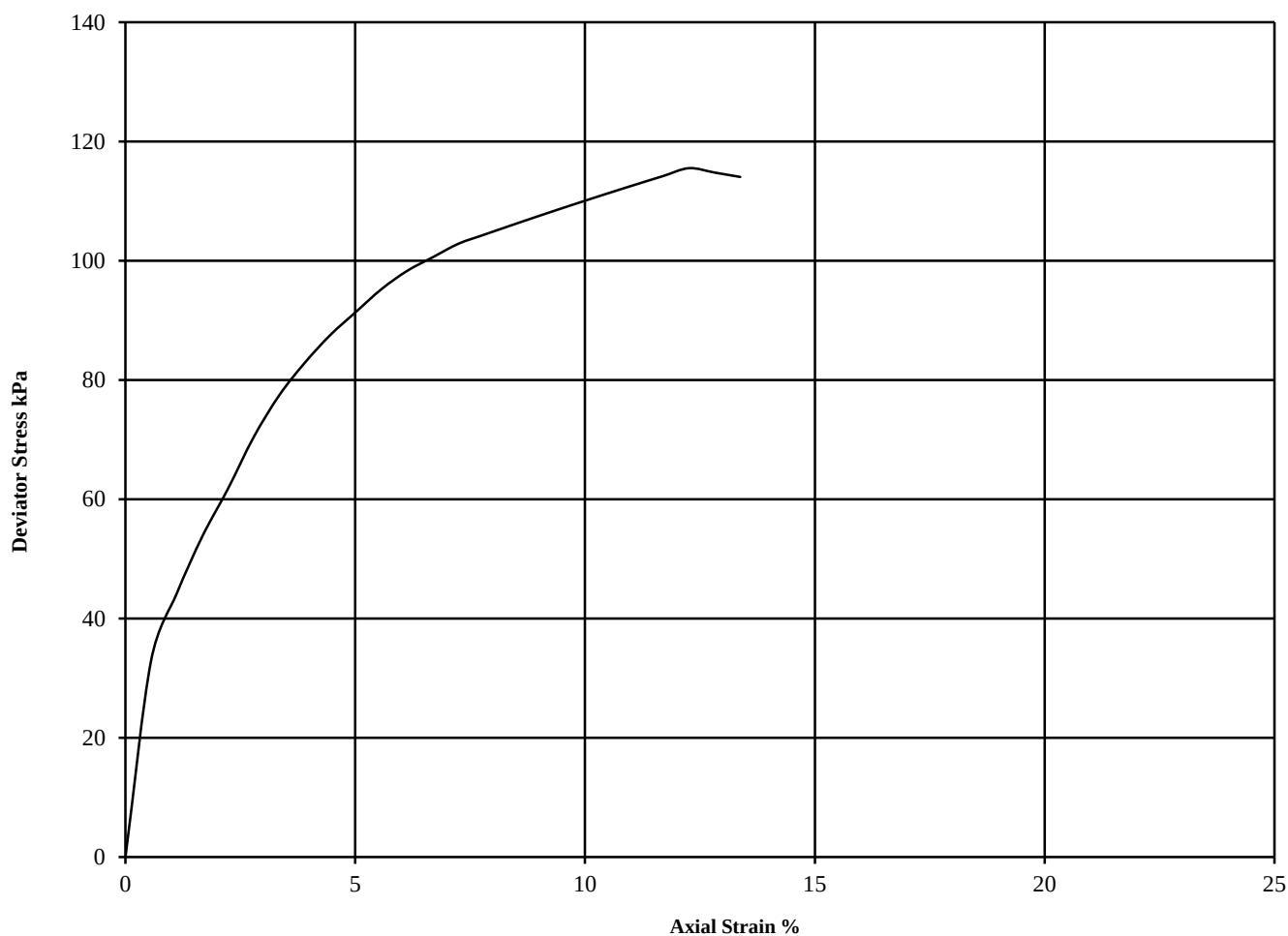
Hole Number: BH102

Top Depth (m): 4.00

Sample Number:

Base Depth (m): 4.45

Sample Type UT100



Diameter (mm):		102.0		Height (mm):		183.0		Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.35 See summary of soil descriptions		
1	27	2.02	1.59	80	116	58	12.3	Brittle			



Conwy Close

Contract No:

PSL17/2128

Client Ref:

C5630

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

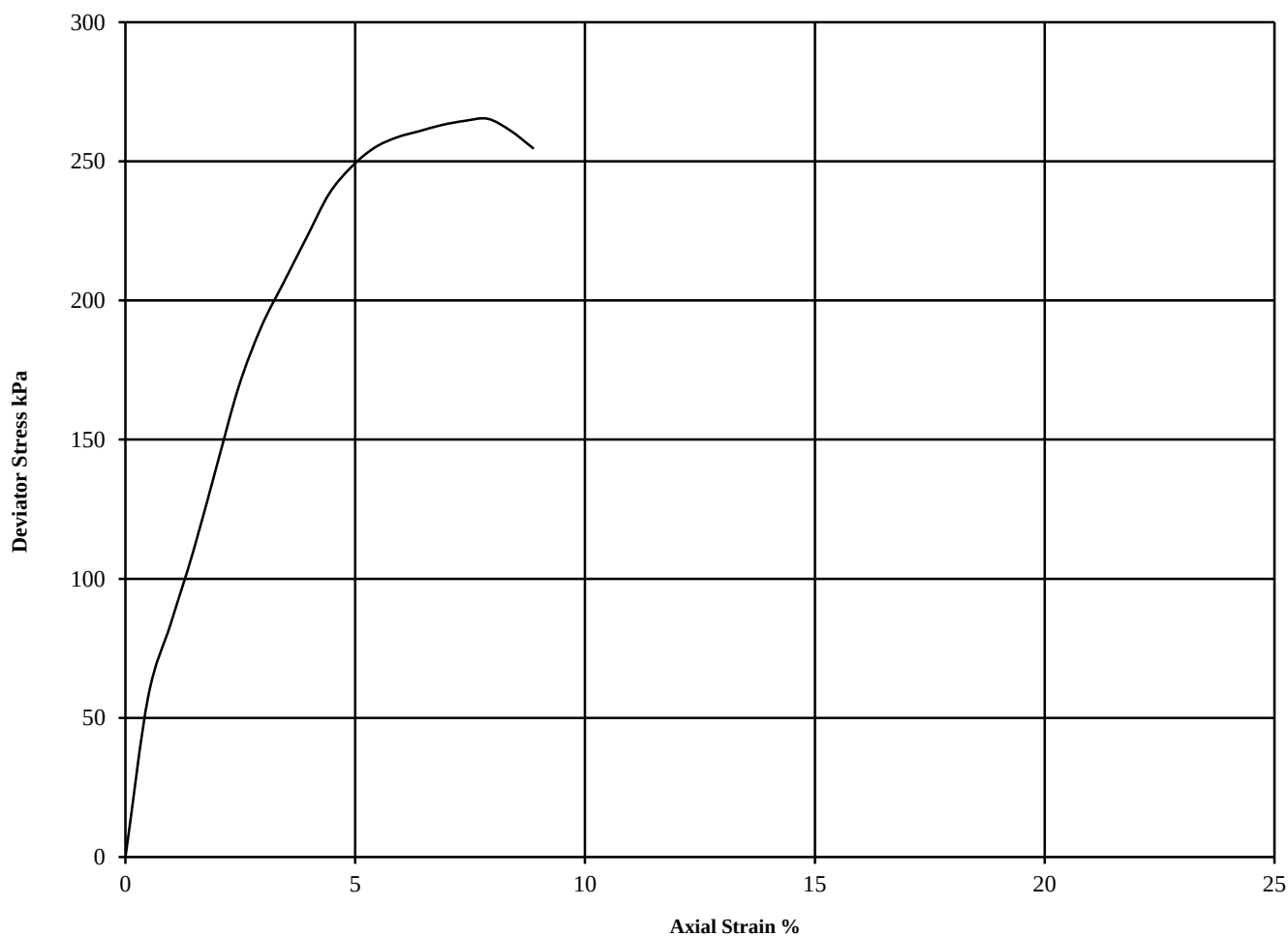
Hole Number: BH102

Top Depth (m): 6.50

Sample Number:

Base Depth (m): 6.95

Sample Type UT100



Diameter (mm):		102.0	Height (mm):		207.0	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$			
1	22	2.06	1.68	130	265	133	7.9	Brittle	



Conwy Close

Contract No:

PSL17/2128

Client Ref:

C5630

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

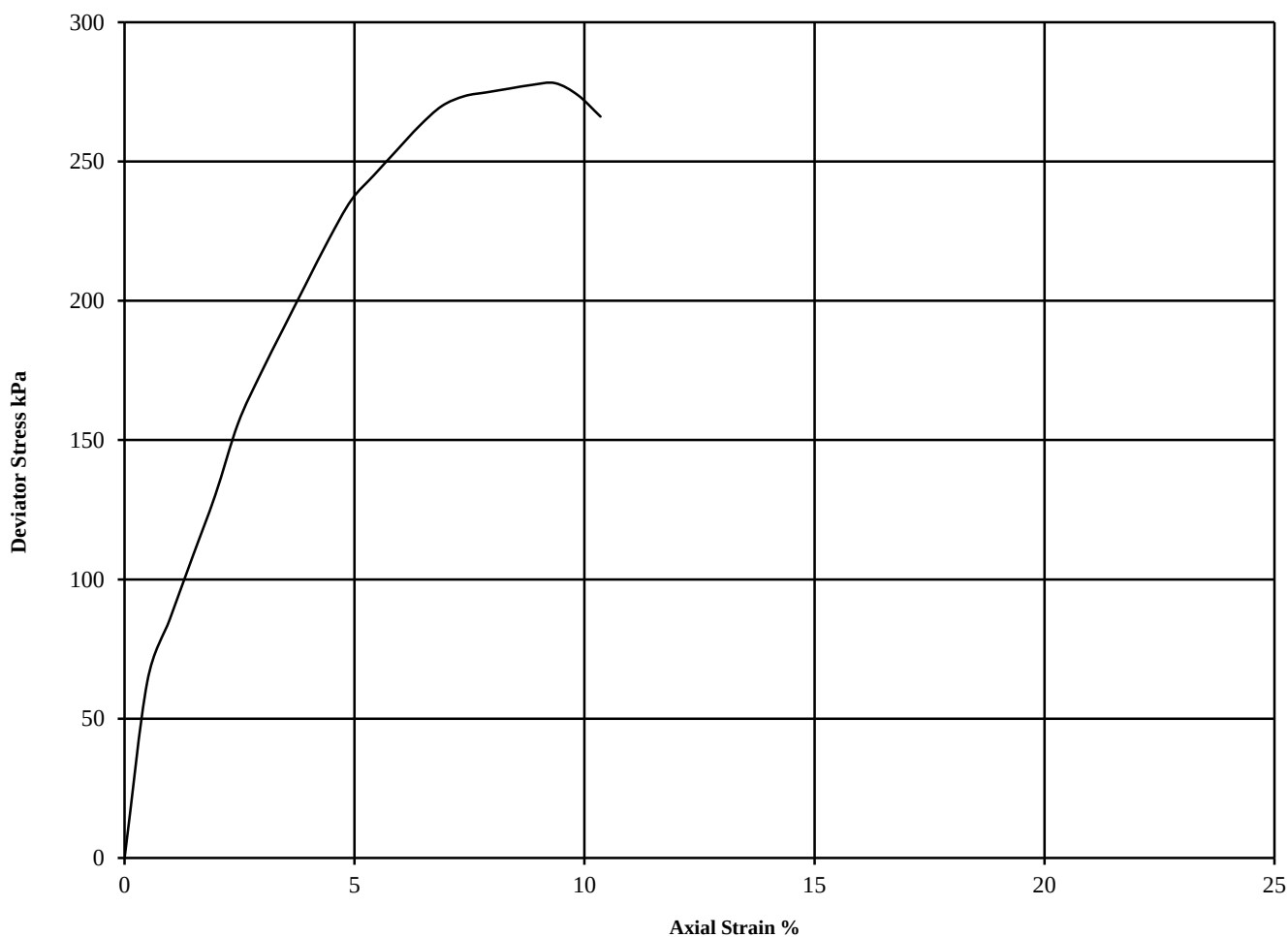
Hole Number: BH102

Top Depth (m): 9.00

Sample Number:

Base Depth (m): 9.45

Sample Type UT100



Diameter (mm):		102.0	Height (mm):		207.0	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$			
1	24	2.07	1.67	180	278	139	9.4	Brittle	



Conwy Close

Contract No:

PSL17/2128

Client Ref:

C5630

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number:

BH102

Top Depth (m):

10.20

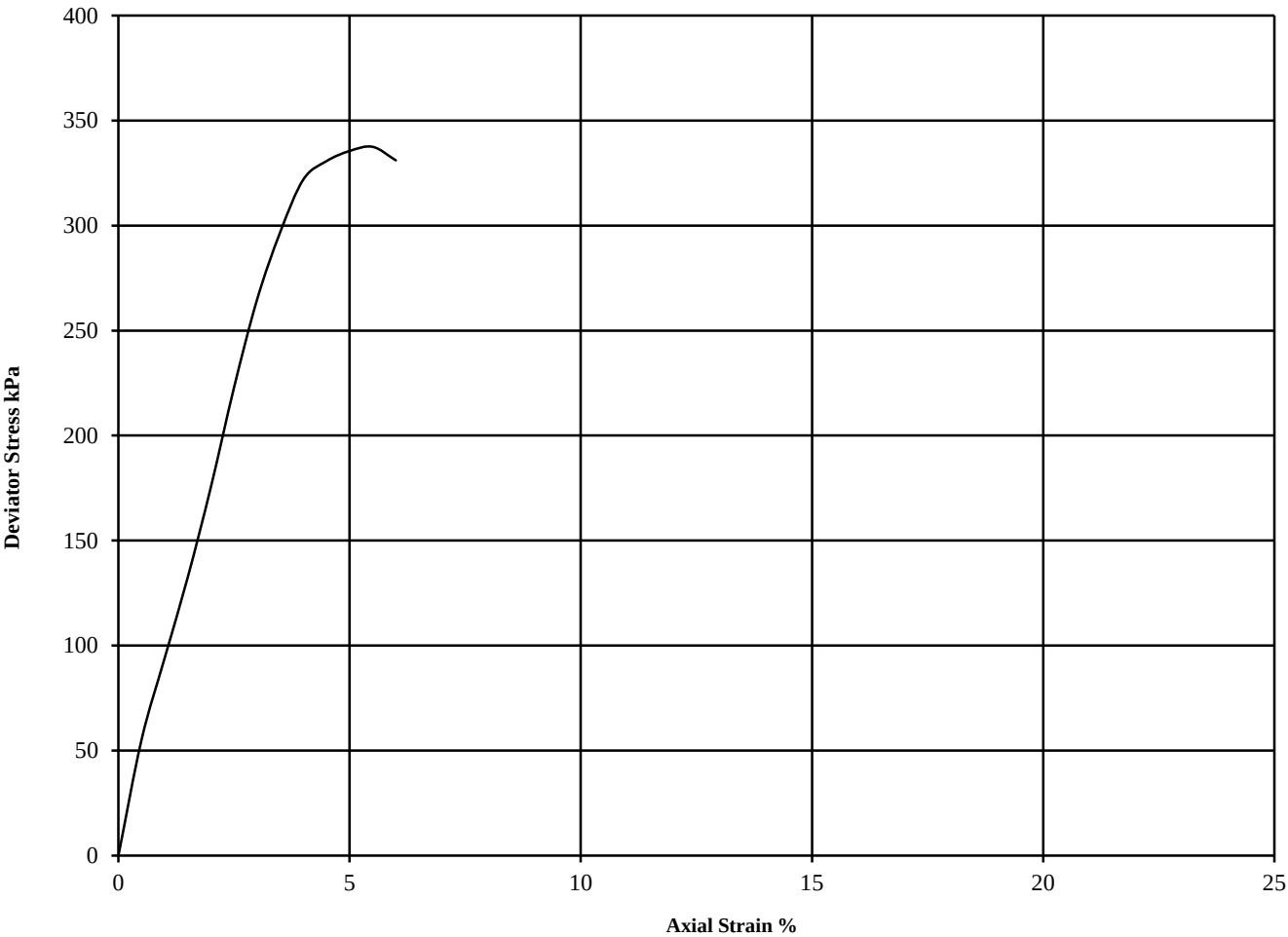
Sample Number:

Base Depth (m):

10.50

Sample Type

UT100



Diameter (mm):		Height (mm):			Test:	UU Single Stage			Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.41 See summary of soil descriptions
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$			
1	20	2.13	1.78	205	337	169	5.5	Brittle	



Conwy Close

Contract No:

PSL17/2128

Client Ref:

C5630

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

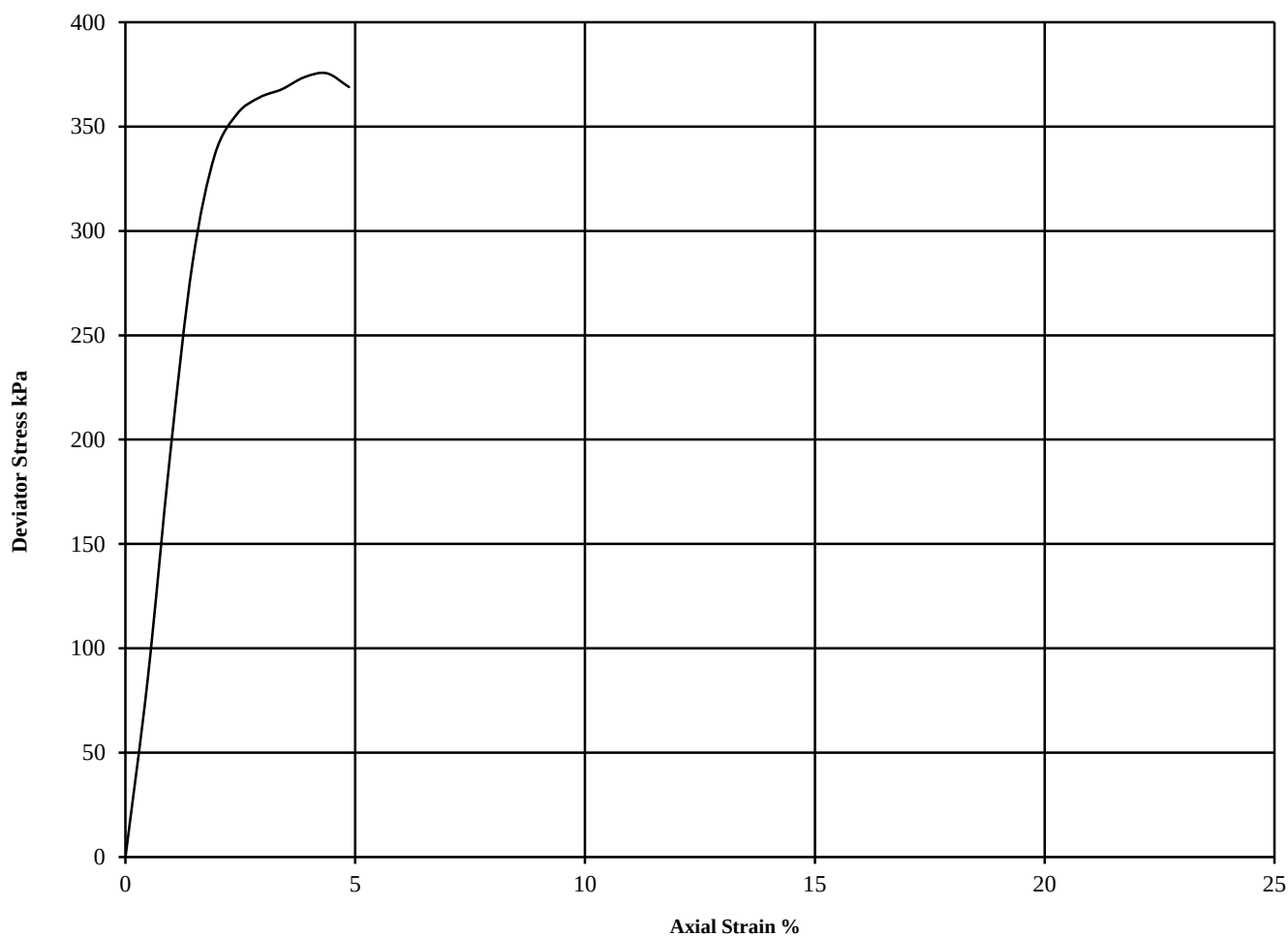
Hole Number: BH102

Top Depth (m): 14.60

Sample Number:

Base Depth (m): 14.90

Sample Type CS



Diameter (mm):		90.0		Height (mm):		185.0	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	$(\theta_1 - \theta_3)_f$	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.41 See summary of soil descriptions
1	18	2.19	1.86	290	376	188	$\frac{1}{2}(\theta_1 - \theta_3)_f$	4.4	Brittle	



Conwy Close

Contract No:
PSL17/2128
Client Ref:
C5630



Certificate of Analysis

Certificate Number 17-99423

17-May-17

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference 17-99423

Client Reference PSL17/2128

Order No (not supplied)

Contract Title CONWY CLOSE C5630

Description 20 Soil samples.

Date Received 11-May-17

Date Started 11-May-17

Date Completed 17-May-17

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the scope of UKAS accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in blue ink, appearing to read "A Fenwick", is written over a faint circular stamp.

Adam Fenwick
Contracts Manager



Summary of Chemical Analysis Soil Samples

Our Ref 17-99423

Client Ref PSL17/2128

Contract Title CONWY CLOSE C5630

Lab No	1171782	1171783	1171784	1171785	1171786	1171787	1171788	1171789	1171790	1171791	1171792
Sample ID	BH101	BH101	BH101	BH101	BH101	BH101	BH102	BH102	BH102	BH102	BH102
Depth	1.50-2.00	4.00	5.45-5.50	8.45-8.55	13.40	14.90	1.00	3.50	4.30	6.95-7.05	9.45-9.55
Other ID											
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units											
Metals														
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10	< 10	< 10	< 10	15	< 10	< 10	< 10	< 10	10	10
Inorganics														
pH	DETSC 2008#			8.9	7.9	7.4	7.3	7.4	8.0	7.5	6.8	6.7	7.3	7.7
Chloride Aqueous Extract	DETSC 2055	1	mg/l	< 1.0	3.4	2.0	2.2	2.4	4.3	6.1	1.4	1.0	1.9	1.4
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.6	1.3	< 1.0	< 1.0	< 1.0	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	< 10	< 10	120	140	230	41	130	25	190	130	200
Sulphur as S, Total	DETSC 2320	0.01	%	< 0.01	< 0.01	0.65	0.74	1.0	0.04	0.07	0.02	0.85	0.61	0.76
Sulphate as SO4, Total	DETSC 2321#	0.01	%	< 0.01	0.02	0.08	0.07	0.12	0.02	0.05	0.01	0.09	0.09	0.10

Summary of Chemical Analysis Soil Samples

Our Ref 17-99423

Client Ref PSL17/2128

Contract Title CONWY CLOSE C5630

Lab No	1171793	1171794	1171795	1171796	1171797	1171798	1171799	1171800	1171801
Sample ID	BH102	BH102	TP101	TP102	TP103	TP104	TP105	TP106	TP107
Depth	14.20	15.45-15.55	1.00-1.20	1.50	1.70-1.90	1.60-1.80	1.70-1.90	1.20-1.40	1.00-1.20
Other ID									
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17	08/05/17
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units									
Metals												
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10	< 10	< 10	11	< 10	< 10	< 10	< 10	< 10
Inorganics												
pH	DETSC 2008#			9.1	8.8	8.1	7.3	7.3	7.2	7.4	7.6	7.3
Chloride Aqueous Extract	DETSC 2055	1	mg/l	1.8	1.3	< 1.0	2.5	1.0	1.3	2.4	2.2	3.6
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.4	3.9	2.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	91	71	20	1100	29	38	44	95	88
Sulphur as S, Total	DETSC 2320	0.01	%	0.14	0.09	0.01	0.14	< 0.01	< 0.01	< 0.01	0.01	0.01
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.05	0.04	0.02	0.38	0.02	0.02	0.02	0.03	0.03

Information in Support of the Analytical Results

Our Ref 17-99423
Client Ref PSL17/2128
Contract CONWY CLOSE C5630

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1171782	BH101 1.50-2.00 SOIL	08/05/17	PT 1L		
1171783	BH101 4.00 SOIL	08/05/17	PT 1L		
1171784	BH101 5.45-5.50 SOIL	08/05/17	PT 1L		
1171785	BH101 8.45-8.55 SOIL	08/05/17	PT 1L		
1171786	BH101 13.40 SOIL	08/05/17	PT 1L		
1171787	BH101 14.90 SOIL	08/05/17	PT 1L		
1171788	BH102 1.00 SOIL	08/05/17	PT 1L		
1171789	BH102 3.50 SOIL	08/05/17	PT 1L		
1171790	BH102 4.30 SOIL	08/05/17	PT 1L		
1171791	BH102 6.95-7.05 SOIL	08/05/17	PT 1L		
1171792	BH102 9.45-9.55 SOIL	08/05/17	PT 1L		
1171793	BH102 14.20 SOIL	08/05/17	PT 1L		
1171794	BH102 15.45-15.55 SOIL	08/05/17	PT 1L		
1171795	TP101 1.00-1.20 SOIL	08/05/17	PT 1L		
1171796	TP102 1.50 SOIL	08/05/17	PT 1L		
1171797	TP103 1.70-1.90 SOIL	08/05/17	PT 1L		
1171798	TP104 1.60-1.80 SOIL	08/05/17	PT 1L		
1171799	TP105 1.70-1.90 SOIL	08/05/17	PT 1L		
1171800	TP106 1.20-1.40 SOIL	08/05/17	PT 1L		
1171801	TP107 1.00-1.20 SOIL	08/05/17	PT 1L		

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



Richard Tucker
CC Ground Investigation Ltd
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GL3 1DL

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f: 01452 739 220
e: Richard@ccground.co.uk

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

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

Analytical Report Number : 17-47420

Project / Site name:	Conwy Close	Samples received on:	05/05/2017
Your job number:	C5630	Samples instructed on:	05/05/2017
Your order number:		Analysis completed by:	15/05/2017
Report Issue Number:	1	Report issued on:	15/05/2017
Samples Analysed:	24 soil samples		

Signed:

Rexona Rahman
Reporting Manager
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.

Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743966	743967	743968	743969	743970
Sample Reference				BH101	BH101	BH102	BH102	BH102
Sample Number				0.50	4.20	0.20	0.50	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				26/04/2017	26/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	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	< 0.1	39
Moisture Content	%	N/A	NONE	8.2	19	6.9	5.2	2.8
Total mass of sample received	kg	0.001	NONE	2.0	1.7	1.9	2.0	2.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.2	7.0	9.6	7.9	8.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	< 2.5	440	3100	870	230
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	< 1.25	220	1540	433	113
Organic Matter	%	0.1	MCERTS	2.1	2.5	2.8	1.2	0.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.76	0.20	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.18	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.4	0.36	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.3	0.28	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.53	0.12	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.72	0.14	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.66	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.38	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.54	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.27	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.39	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	7.09	1.10	< 0.80
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Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743966	743967	743968	743969	743970
Sample Reference				BH101	BH101	BH102	BH102	BH102
Sample Number				0.50	4.20	0.20	0.50	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				26/04/2017	26/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4.7	12	16	11	7.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	10	34	19	16	22
Copper (aqua regia extractable)	mg/kg	1	MCERTS	20	27	21	17	12
Lead (aqua regia extractable)	mg/kg	1	MCERTS	23	16	41	21	12
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	5.5	26	11	8.8	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	23	34	78	32	18

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	5.5	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	21	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	180	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	200	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	5.4	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	19	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	170	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	11	< 10	190	< 10	< 10



Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743966	743967	743968	743969	743970
Sample Reference				BH101	BH101	BH102	BH102	BH102
Sample Number				0.50	4.20	0.20	0.50	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				26/04/2017	26/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

VOCs

Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Tribromomethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-

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The results included within the report are representative of the samples submitted for analysis.

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Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number	743966	743967	743968	743969	743970
Sample Reference	BH101	BH101	BH102	BH102	BH102
Sample Number	0.50	4.20	0.20	0.50	1.00
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	26/04/2017	26/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs

Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	0.76	0.20	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	0.18	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	1.4	0.36	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-	1.3	0.28	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	0.53	0.12	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	0.72	0.14	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	0.66	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	0.38	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	0.54	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	0.27	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	0.39	< 0.05	-

Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743971	743972	743973	743974	743975
Sample Reference				TP101	TP101	TP102	TP102	TP103
Sample Number				0.20	1.00	0.10	1.10	0.20
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	44	36	< 0.1	< 0.1	32
Moisture Content	%	N/A	NONE	5.6	8.6	8.2	5.8	5.3
Total mass of sample received	kg	0.001	NONE	2.0	1.9	1.8	2.0	2.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.3	7.9	7.2	7.8	7.2
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	18	51	120	54	< 2.5
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	8.84	25.6	60.8	26.9	< 1.25
Organic Matter	%	0.1	MCERTS	0.8	0.3	3.0	3.2	3.8

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.19	< 0.05	0.32	0.22	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.59	< 0.05	1.3	0.98	0.42
Pyrene	mg/kg	0.05	MCERTS	0.46	< 0.05	1.0	0.84	0.40
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.20	< 0.05	0.43	0.41	0.10
Chrysene	mg/kg	0.05	MCERTS	0.33	< 0.05	0.68	0.41	0.23
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.42	< 0.05	0.81	0.64	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.17	< 0.05	0.38	0.28	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.28	< 0.05	0.46	0.40	0.19
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.15	< 0.05	0.39	0.23	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.18	< 0.05	0.48	0.27	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	2.97	< 0.80	6.24	4.68	1.34
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Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743971	743972	743973	743974	743975
Sample Reference				TP101	TP101	TP102	TP102	TP103
Sample Number				0.20	1.00	0.10	1.10	0.20
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	12	11	12	7.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	0.3
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	21	21	17	9.0
Copper (aqua regia extractable)	mg/kg	1	MCERTS	20	22	22	24	21
Lead (aqua regia extractable)	mg/kg	1	MCERTS	35	11	44	49	51
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	10	11	10	5.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	58	24	74	93	44

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	4.3	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	14	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	20	17	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	27	20	10



Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743971	743972	743973	743974	743975
Sample Reference				TP101	TP101	TP102	TP102	TP103
Sample Number				0.20	1.00	0.10	1.10	0.20
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Chloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Tribromomethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0



Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743971	743972	743973	743974	743975
Sample Reference				TP101	TP101	TP102	TP102	TP103
Sample Number				0.20	1.00	0.10	1.10	0.20
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	0.19	-	0.32	0.22	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	0.59	-	1.3	0.98	0.42
Pyrene	mg/kg	0.05	MCERTS	0.46	-	1.0	0.84	0.40
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.20	-	0.43	0.41	0.10
Chrysene	mg/kg	0.05	MCERTS	0.33	-	0.68	0.41	0.23
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.42	-	0.81	0.64	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.17	-	0.38	0.28	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.28	-	0.46	0.40	0.19
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.15	-	0.39	0.23	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.18	-	0.48	0.27	< 0.05

Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743976	743977	743978	743979	743980
Sample Reference				TP103	TP104	TP104	TP105	TP105
Sample Number				0.50	0.40	0.80	0.50	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	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	36	< 0.1
Moisture Content	%	N/A	NONE	6.0	5.4	13	8.3	11
Total mass of sample received	kg	0.001	NONE	2.0	2.0	2.0	2.0	2.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.0	7.2	6.7	10.1	7.2
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	43	33	75	1900	2500
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	21.4	16.7	37.3	970	1270
Organic Matter	%	0.1	MCERTS	0.6	0.7	0.4	2.7	0.5

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.42	< 0.05	0.26	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.14	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.2	< 0.05	0.72	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.87	< 0.05	0.65	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.36	< 0.05	0.24	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.45	< 0.05	0.29	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.51	< 0.05	0.32	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.32	< 0.05	0.26	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.33	< 0.05	0.35	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.21	< 0.05	0.15	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.21	< 0.05	0.17	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	4.99	< 0.80	3.41	< 0.80
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Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743976	743977	743978	743979	743980
Sample Reference				TP103	TP104	TP104	TP105	TP105
Sample Number				0.50	0.40	0.80	0.50	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.6	4.5	12	6.3	20
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	10	24	13	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	12	13	20	17
Lead (aqua regia extractable)	mg/kg	1	MCERTS	7.8	12	11	32	12
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.9	5.8	10	7.8	10
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	19	14	21	35	29

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	2.1	< 2.0	4.5	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	14	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	17	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	35	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10



Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743976	743977	743978	743979	743980
Sample Reference				TP103	TP104	TP104	TP105	TP105
Sample Number				0.50	0.40	0.80	0.50	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chloroethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tribromomethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-

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The results included within the report are representative of the samples submitted for analysis.

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Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743976	743977	743978	743979	743980
Sample Reference				TP103	TP104	TP104	TP105	TP105
Sample Number				0.50	0.40	0.80	0.50	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	0.42	-	0.26	-
Anthracene	mg/kg	0.05	MCERTS	-	0.14	-	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	1.2	-	0.72	-
Pyrene	mg/kg	0.05	MCERTS	-	0.87	-	0.65	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.36	-	0.24	-
Chrysene	mg/kg	0.05	MCERTS	-	0.45	-	0.29	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.51	-	0.32	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.32	-	0.26	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.33	-	0.35	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.21	-	0.15	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	0.21	-	0.17	-

Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743981	743982	743983	743984	743985
Sample Reference				TP106	TP106	TP107	TP107	TP107
Sample Number				0.10	0.60	0.20	0.60	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	38	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	11	6.2	10	9.3	5.6
Total mass of sample received	kg	0.001	NONE	1.9	2.0	2.0	1.9	2.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	11.1	7.9	10.5	7.7	7.6
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	3400	290	3600	1000	220
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	1680	145	1800	509	109
Organic Matter	%	0.1	MCERTS	1.5	1.3	2.3	2.7	0.3

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.59	< 0.05	0.53	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.21	< 0.05	0.21	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.7	< 0.05	1.6	0.29	< 0.05
Pyrene	mg/kg	0.05	MCERTS	1.6	< 0.05	1.4	0.31	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.77	< 0.05	0.73	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.76	< 0.05	0.81	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.83	< 0.05	1.0	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.73	< 0.05	0.52	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.94	< 0.05	0.85	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.48	< 0.05	0.36	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.67	< 0.05	0.50	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	9.27	< 0.80	8.46	< 0.80	< 0.80
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Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743981	743982	743983	743984	743985
Sample Reference				TP106	TP106	TP107	TP107	TP107
Sample Number				0.10	0.60	0.20	0.60	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	8.2	13	7.8	9.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	< 0.2	0.4	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	17	20	14	11
Copper (aqua regia extractable)	mg/kg	1	MCERTS	34	16	23	21	9.2
Lead (aqua regia extractable)	mg/kg	1	MCERTS	57	18	58	47	7.3
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.6	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	12	13	7.7	6.6
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	22	90	48	14

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	3.8	3.4	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	12	< 8.0	11	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	84	8.3	76	11	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	100	17	89	15	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	12	< 10	13	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	77	< 10	63	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	89	< 10	78	11	< 10



Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743981	743982	743983	743984	743985
Sample Reference				TP106	TP106	TP107	TP107	TP107
Sample Number				0.10	0.60	0.20	0.60	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Tribromomethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-

Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743981	743982	743983	743984	743985
Sample Reference				TP106	TP106	TP107	TP107	TP107
Sample Number				0.10	0.60	0.20	0.60	1.00
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	0.59	-	0.53	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	0.21	-	0.21	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	2.1	-	< 0.2	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	1.7	-	1.6	0.29	-
Pyrene	mg/kg	0.05	MCERTS	1.6	-	1.4	0.31	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.77	-	0.73	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	0.76	-	0.81	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.83	-	1.0	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.73	-	0.52	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.94	-	0.85	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.48	-	0.36	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.67	-	0.50	< 0.05	-

Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743986	743987	744037	744038	
Sample Reference				TP108	TP108	TP102	TP102	
Sample Number				0.60	1.00	None Supplied	None Supplied	
Depth (m)				None Supplied	None Supplied	1.50	1.80	
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	
Time Taken				None Supplied	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	< 0.1	
Moisture Content	%	N/A	NONE	9.8	5.3	2.8	4.6	
Total mass of sample received	kg	0.001	NONE	1.7	2.0	2.0	2.0	

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	Chrysotile	-	
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	< 0.001	-	
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	< 0.001	-	

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.4	7.6	7.5	8.2	
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	310	210	2700	90	
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	157	105	1370	44.8	
Organic Matter	%	0.1	MCERTS	2.1	0.3	1.0	< 0.1	

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Phenanthrene	mg/kg	0.05	MCERTS	0.16	< 0.05	< 0.05	< 0.05	
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Fluoranthene	mg/kg	0.05	MCERTS	0.46	< 0.05	0.52	< 0.05	
Pyrene	mg/kg	0.05	MCERTS	0.42	< 0.05	0.56	< 0.05	
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.19	< 0.05	
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.31	< 0.05	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.30	< 0.05	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.18	< 0.05	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.25	< 0.05	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	1.04	< 0.80	2.31	< 0.80	
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Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743986	743987	744037	744038	
Sample Reference				TP108	TP108	TP102	TP102	
Sample Number				0.60	1.00	None Supplied	None Supplied	
Depth (m)				None Supplied	None Supplied	1.50	1.80	
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.8	4.5	11	16	
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.7	< 0.2	
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	12	6.8	9.8	19	
Copper (aqua regia extractable)	mg/kg	1	MCERTS	21	5.7	21	19	
Lead (aqua regia extractable)	mg/kg	1	MCERTS	46	7.7	75	14	
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.4	< 0.3	< 0.3	< 0.3	
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.4	3.6	6.5	18	
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	39	9.8	92	33	

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	

Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743986	743987	744037	744038	
Sample Reference				TP108	TP108	TP102	TP102	
Sample Number				0.60	1.00	None Supplied	None Supplied	
Depth (m)				None Supplied	None Supplied	1.50	1.80	
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
Chloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	< 1.0	-	
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Tribromomethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	

Analytical Report Number: 17-47420

Project / Site name: Conwy Close

Lab Sample Number				743986	743987	744037	744038	
Sample Reference				TP108	TP108	TP102	TP102	
Sample Number				0.60	1.00	None Supplied	None Supplied	
Depth (m)				None Supplied	None Supplied	1.50	1.80	
Date Sampled				27/04/2017	27/04/2017	27/04/2017	27/04/2017	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2	-	
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2	-	
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	-	
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
Phenanthrene	mg/kg	0.05	MCERTS	0.16	-	< 0.05	-	
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	
Fluoranthene	mg/kg	0.05	MCERTS	0.46	-	0.52	-	
Pyrene	mg/kg	0.05	MCERTS	0.42	-	0.56	-	
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	-	
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	0.19	-	
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	0.31	-	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	0.30	-	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	0.18	-	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	0.25	-	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	



Analytical Report Number: **17-47420**
Project / Site name: **Conwy Close**
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
744037	TP102	1.50	167	Loose Fibres	Chrysotile	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



Analytical Report Number : 17-47420

Project / Site name: Conwy Close

* 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 *
743966	BH101	0.50	None Supplied	Brown loam and clay with gravel and vegetation.
743967	BH101	4.20	None Supplied	Brown clay.
743968	BH102	0.20	None Supplied	Brown sandy loam with rubble and brick.
743969	BH102	0.50	None Supplied	Brown loam and clay with gravel.
743970	BH102	1.00	None Supplied	Brown sand with gravel and stones.
743971	TP101	0.20	None Supplied	Brown loam and clay with gravel and stones.
743972	TP101	1.00	None Supplied	Light brown sandy clay with gravel and stones.
743973	TP102	0.10	None Supplied	Brown loam and clay with gravel and vegetation.
743974	TP102	1.10	None Supplied	Brown loam and sand with gravel and vegetation.
743975	TP103	0.20	None Supplied	Brown loam and sand with vegetation and stones.
743976	TP103	0.50	None Supplied	Brown sand with gravel.
743977	TP104	0.40	None Supplied	Brown loam and sand with gravel.
743978	TP104	0.80	None Supplied	Brown clay and sand with gravel.
743979	TP105	0.50	None Supplied	Brown loam and sand with gravel and stones.
743980	TP105	1.00	None Supplied	Brown sandy clay with gravel.
743981	TP106	0.10	None Supplied	Brown loam and sand with gravel.
743982	TP106	0.60	None Supplied	Brown loam and sand with gravel and stones.
743983	TP107	0.20	None Supplied	Brown loam and sand with gravel.
743984	TP107	0.60	None Supplied	Brown loam with gravel.
743985	TP107	1.00	None Supplied	Light brown sand with gravel.
743986	TP108	0.60	None Supplied	Brown loam and sand with gravel.
743987	TP108	1.00	None Supplied	Light brown sand with gravel.
744037	TP102	None Supplied	1.50	Brown loam and sand with gravel and vegetation.
744038	TP102	None Supplied	1.80	Brown sandy clay with gravel.

Analytical Report Number : 17-47420

Project / Site name: Conwy Close

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in ouse method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-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
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	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
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	BS1377 Part 3, 1990, Chemical and Electrochemical Tests""	L009-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	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
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
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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil by Gallery 16hr	Determination of water soluble Sulphate by discrete analyser (precipitation method).	In house method based on BS1377-3: 1990.	L082B-PL	D	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.

Iss No 17-47420-1 Conwy Close C5630

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The results included within the report are representative of the samples submitted for analysis.

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Analytical Report Number : 17-47922

Project / Site name:	Conwy Close	Samples received on:	08/05/2017
Your job number:	C5630	Samples instructed on:	10/05/2017
Your order number:		Analysis completed by:	19/05/2017
Report Issue Number:	1	Report issued on:	19/05/2017
Samples Analysed:	2 water samples		

Signed:

Emma Winter
Assistant Reporting Manager
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

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Analytical Report Number: 17-47922

Project / Site name: Conwy Close

Lab Sample Number				746708	746709			
Sample Reference				BH101	BH102			
Sample Number				None Supplied	None Supplied			
Depth (m)				1.85	1.52			
Date Sampled				08/05/2017	08/05/2017			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

General Inorganics

pH	pH Units	N/A	ISO 17025	7.1	7.3			
Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	86	1000			

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	49	< 10			
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Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01			
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01			
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01			

Total PAH

Total EPA-16 PAHs	µg/l	0.16	NONE	< 0.16	< 0.16			
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.71	0.64			
Boron (dissolved)	µg/l	10	ISO 17025	45	38			
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	< 0.02			
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.5	0.4			
Copper (dissolved)	µg/l	0.5	ISO 17025	0.8	1.0			
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2			
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05			
Nickel (dissolved)	µg/l	0.5	ISO 17025	16	6.8			
Selenium (dissolved)	µg/l	0.6	ISO 17025	< 0.6	1.5			
Zinc (dissolved)	µg/l	0.5	ISO 17025	3.9	3.1			



Analytical Report Number: 17-47922

Project / Site name: Conwy Close

Lab Sample Number				746708	746709			
Sample Reference				BH101	BH102			
Sample Number				None Supplied	None Supplied			
Depth (m)				1.85	1.52			
Date Sampled				08/05/2017	08/05/2017			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0			
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0			
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0			
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0			
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0			

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	NONE	< 1.0	< 1.0			
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	NONE	< 1.0	< 1.0			
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	NONE	< 1.0	< 1.0			
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	86			
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	310	1700			
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	310	1800			

TPH-CWG - Aromatic >C5 - C7	µg/l	1	NONE	< 1.0	< 1.0			
TPH-CWG - Aromatic >C7 - C8	µg/l	1	NONE	< 1.0	< 1.0			
TPH-CWG - Aromatic >C8 - C10	µg/l	1	NONE	< 1.0	< 1.0			
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10			

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 17-47922

Project / Site name: Conwy Close

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Boron in water	Determination of boron in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW	In-house method based on MEWAM	L039-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
pH at 20oC in water (automated)	Determination of pH in water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	W	ISO 17025
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L0102B-PL	W	NONE
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.

APPENDIX E

Appendix E – Gas and Groundwater Monitoring

Peak Gas and Groundwater Monitoring

Borehole	Date	Barometric Pressure (mb)	Methane (%)	Carbon Dioxide (%)	Oxygen (min) (%)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Flow (min/max) (Litres/hour)	Water Level (mbgl)	Comments
BH101	08/05/17	1017	0.10	2.80	11.80	6.00	0.00	0.0/0.0	1.85	Full water samples taken
BH102	08/05/17	1017	0.10	0.10	20.60	8.00	0.00	18.7/7.4	1.52	Full water samples taken
 CC Ground Investigations Ltd		Contract Name:					Conwy Close			
		Contract ID:					C5630			
		Client:					WSP Remediation			
		Instrument used:					GA5000 Gas analyser. Geotechnical Instruments dip meter.			

APPENDIX F

Appendix F – SPT Calibration Data

SPT Calibration Report

Hammer Energy Measurement Report

Type of Hammer SPT HAMMER
 Client CC GROUND INVESTIGATIONS LTD
 Test No EQU1703
 Test Depth (m) 8.50
 Date of Test 03 January 2017
 Valid until 03 January 2018
 Hammer ID CC06

Mass of the hammer $m = 63.5\text{ kg}$
 Falling height $h = 0.76\text{ m}$
 $E_{\text{theor}} = m \times g \times h = 473\text{ J}$
Characteristics of the instrumented rod
 Diameter $d_r = 0.052\text{ m}$
 Length of the instrumented rod 0.558 m
 Area $A = 11.61\text{ cm}^2$
 Modulus $E_s = 206843\text{ MPa}$

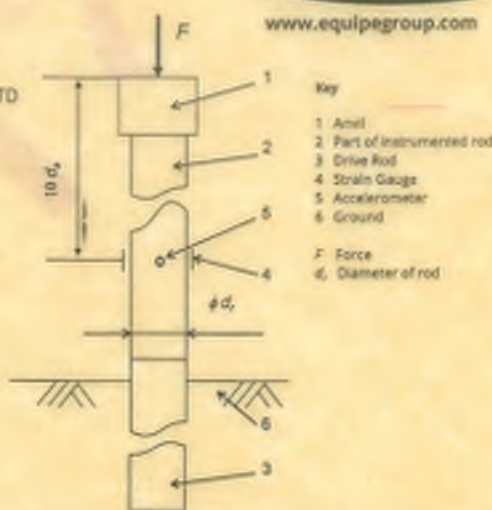
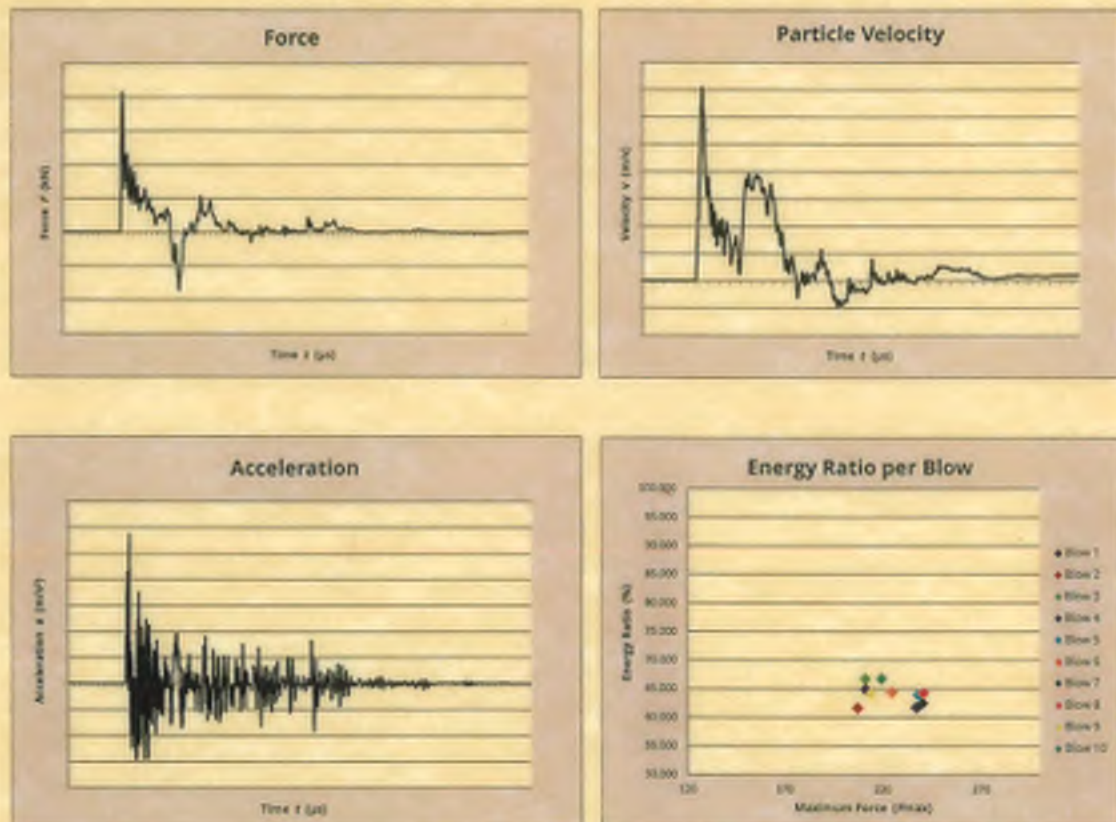


Fig. B.1 and B.2 BS EN ISO 22476-3:2005 + A1:2011



Observations:
 1.

$E_{\text{meas}} = 0.307\text{ kN-m}$
 $E_{\text{theor}} = 0.473\text{ kN-m}$

Energy Ratio = $\frac{E_{\text{meas}}}{E_{\text{theor}}}$ 64.95%

Equipe SPT Analyzer Operators:

AF

Prepared by:

[Signature]

Checked by:

[Signature]

Date

01/02/2017