

DETERMINATION OF THE PARTICLE SIZE DISTRIBUTION OF SOIL MATERIALS

BS 1377 : Part 2 : 1990 : clause 9.2 : Wet Sleving

REPORT NUMBER:

F14-146115-133191-1a

CLIENT:

S W Attwood and Partners

SAMPLE NUMBER:

133191/1

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

CLIENT REFERENCE:

samp1

SITE:

Reservoir Site, Southleas

DATE RECEIVED:

02.05.2014

SUPPLIER:

DATE SAMPLED

MATERIAL:

Details Not Supplie

29.04.2014

CLASSIFICATION:

Brown CLAY

SAMPLED BY: DATE TESTED

Client 02-09.05.2014

LOCATION:

Isle of Sheppey

Class 2A wet cohesive material

TESTED BY:

KK/MG

PREPARATION METHOD:

BS 1377:Part 1:1990 clause 7.3 & 7.4.5

SPECIFICATION FOR HIGHWAY WORKS

ORIENTATION OF TEST SPECIMEN

VARIATIONS:

No variations

WITHIN ORIGINAL SPECIMEN:

N/A

TYPE OF SAMPLE:

Disturbed

RESULT:

		SPECIFICATION	FOR HIG	CANONA LWAND
BS TEST SIEVE	PERCENTAGE PASSING	GRADING SE	ECIFICAT	TION LIMITS
mm	%			
125	100	100		100
100	100			
90	100			
75	100			
63	100			
50	100			
37.5	100			
28	100			
20	100			
14	100			
10	100			
6.3	100			
5.0	100			
3.35	100			
2.00	100	80	8	100
1.18	100			
0.600	100			
0.425	99			
0.300	99			
0.212	99			
0.150	99			
0.063	98	15	-	100

REMARKS:

Amended test report. This test report supersedes test report number F14-146115-133191-1

The material tested complies with the grading specification requirements stated above .

For and on behalf of CET

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1

Report Format: L/Rep S6a/9

Northdown House, Ashford Road Harrietsham, Nr Maidstone Kent ME17 1QW

Jon Champion - National Operations Manager John Newbery - Laboratory Manager Matt Oliver- Site Manager Adrian McGilvery - Senior Technician Nick Ring - Principal Technician

Approved Signatory 15-May-14

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www.cet-uk.com





DETERMINATION OF THE MOISTURE CONTENT OF SOIL MATERIAL

BS 1377:Part 2:1990 clause 3.2 - oven drying method

REPORT No.:

F14-146115-133191-2a

CLIENT:

S W Attwood and Partners

SAMPLE No.:

133191/2

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

CLIENT REF:

samp1

SITE:

Reservoir Site, Southleas

DATE SAMPLED:

Reservon site, soutilleas

29.04.2014

SUPPLIER:

Details Not Supplied

SAMPLED BY:

Client

MATERIAL:

Brown CLAY

DATE RECEIVED:

02.05.2014

LOCATION:

Isle of Sheppey

DATE TESTED:

02-06.05.2014

ACCEPT STD.:

Contract Specification

TESTED BY:

KK/NR

PREPARATION METHOD: BS1377:Part1:1990 clauses 7.3 and 7.4.5

TYPE OF SAMPLE:

Disturbed

MATERIAL MOISTURE CONTENT:

VARIATIONS:

None

ORIENTATION OF TEST SPECIMEN WITHIN

ORIGINAL SAMPLE: N/A

RESULTS:

SPECIFICATION REQUIREMENTS

Lower Limit

Upper Limit

29 %

N/A

N/A

DEMANDES.

Amended test report. This test report supersedes test report number F14-146115-133191-2

Specification details not available

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1

Report format : L/Rep S2 / rev.8

Northdown House, Ashford Road Harrietsham, Nr Maidstone Kent ME17 1QW For and on behalf of CET



Approved Signatory 15-May-14 Jon Champion - National Operations Manager John Newbery - Laboratory Manager Matt Oliver- Site Manager Adrian McGilvery - Senior Technician Nick Ring - Principal Technician



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DETERMINATION OF THE PLASTICITY INDEX OF SOIL

BS 1377:Part 2:1990 clause 5.4

REPORT No.:

F14-146115-133191-3a

CLIENT:

S W Attwood and Partners

SAMPLE No.:

133191/3

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

CLIENT REF:

samp1

SITE:

Reservoir Site, Southleas

DATE SAMPLED:

29.04.2014

SUPPLIER:

Details Not Supplied

SAMPLED BY:

Client

DATE RECEIVED:

-

MATERIAL:

Brown CLAY

02.05.2014

LOCATION:

Isle of Sheppey

DATE TESTED

09-13.05.2014

ACCEPT STD:

Contract Specification

TESTED BY:

JM

PREPARATION METHOD.

BS 1377:Part 1:1990

TYPE OF SAMPLE:

Disturbed

VARIATIONS:

No Variations

ORIENTATION OF TEST SPECIMEN WITHIN ORIGINAL SAMPLE: N/A

RESULT:

TEST DETAILS

TEST RESULT

SPECIFICATION DETAILS

Lower Limits

Upper Limits

THE LIQUID LIMIT OF THE SAMPLE:

70%

N/A

N/A

BS 1377: Part 2: 1990 clause 4.4 (1 point)

THE PLASTICITY INDEX OF THE SAMPLE:

The Percentage Passing 425µm Test Sieve:

N/A

N/A

THE PLASTIC LIMIT OF THE SAMPLE:

To BS1377: Part2: 1990 cl 5.3

19%

99

51

Sample History:

The material was tested after washing through a 425µm test sieve

REMARKS:

Amended test report. This test report supersedes test report number F14-146115-133191-3

Specification details not applicable.

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1 REPORT FORMAT: L/Rep S3S4/rev.6

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DETERMINATION OF MOISTURE CONDITION VALUE (M.C.V.)

BS 1377 Part 4: 1990 Clause 5.4 - Natural Moisture Content (Lab Test)

REPORT No.:

F14-146115-133191-4a

CLIENT:

S W Attwood and Partners

SAMPLE No.:

133191/4

29.04.2014

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

CLIENT REF:

samp

SITE:

Reservoir Site, Southleas

DATE SAMPLED:

SUPPLIER:

SAMPLED BY:

MATERIAL:

Details Not Supplied

Client

Brown CLAY

DATE RECEIVED:

02.05.2014

CUT LOCATION:

N/A

DATE TESTED:

10-13.05.2014

Isle of Sheppey

TESTED BY:

CD

FILL LOCATION:

ORIENTATION OF TEST SPECIMEN

CERTIFICATE OF SAMPLING:

VARIATIONS FROM STANDARD:

None

WITHIN ORIGINAL SAMPLE:

TYPE OF SAMPLE:

Disturbed

RESULTS:

MOISTURE CONDITION VALUE

13.2

NATURAL MOISTURE CONTENT (%)

24

PERCENTAGE RETAINED 20mm (%)

0.0

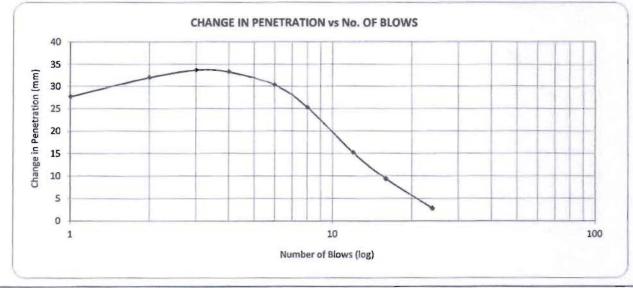
INTERPRETATION OF CURVE

Steepest straight line

PREPARATION METHOD

BS 1377: Part 4: 1990 clause 5.4

(Natural and sleved through 20mm test sleve)



REMARKS:

Amended test report. This test report supersedes test report number F14-146115-133191-4

For and on behalf of CET

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1

Report Format: L/Rep S10a rev.3

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Approved Signatory 15-May-14

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TYPE OF TEST:

DETERMINATION OF COEFFICIENT OF PERMEABILITY UNDER CONSTANT HEAD CONDITIONS

IN A TRIAXIAL CELL: BS 1377: Part 6: 1990 Clause 6

REPORT No.:

F14-146115-133191-5

CLIENT:

S W Attwood and Partners

SAMPLE No.:

133191/5

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

CLIENT REF:

samp1

SITE:

Reservoir Site, Southleas

DATE SAMPLED:

29.04.2014

SUPPLIER:

SAMPLED BY:

Client

MATERIAL:

Details Not Supplied Brown/orange clay

DATE RECEIVED:

02.05.2014

LOCATION:

Isle of Sheppey

DATE TESTED:

06-20.05.2014

ACCEPT STD:

Contract Specification

TESTED BY:

CLT

ORIENTATION OF TEST SPECIMEN

TYPE OF SAMPLE:

Undisturbed

WITHIN ORIGINAL SPECIMEN:

N/A

RESULT:

Lab Reference	133191/5	
Client Reference	samp1	
	Initial	Final
Diameter (mm)	101	N/A
Height (mm)	99	N/A
Bulk Density (Mg/m³)	1.894	2.059
Moisture Content (%)	32.2	33
Dry Density (Mg/m³)	1.433	1.548

Saturation Stage: Performed in accordance with Clause 5.4.3

Initial pore pressure coefficient, 8:

0.3

Final pore pressure coefficient, B:

0.98

Duration of stage

7 days

Consolidation Stage:

Effective pressure

100 kPa

Duration of state

3 days

Permeability stage

Pressure difference across specimen:

20 kPa

Mean effective stress

90 kPa

Duration of stage

2 days

Coefficient of Permeability (Kv) at 20°C

2.5 X 10⁻¹⁰ m/s

REMARKS:

Bulk sample will be kept for a minimum 28 days from date of test.

Page 1 of 1

Report Format: L/Rep UDSS/rev.1

Northdown House, Ashford Road Harrietsham, Nr Maidstone Kent ME17 1QW

For and on behalf of CET



Approved Signatory 22-May-14







TYPE OF TEST:

DETERMINATION OF UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

BS 1377: Part 7: 1990

REPORT No.:

F14-146115-133191-6

SAMPLE No.:

133191/6

29.04.2014

CLIENT REF:

samp1

DATE SAMPLED:

SAMPLED BY:

Client

DATE RECEIVED:

02.05.2014

DATE TESTED:

06-16.05.2014

TESTED BY:

CLT

TYPE OF SAMPLE:

Disturbed

CLIENT:

S W Attwood and Partners

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

N/A

SITE:

Reservoir Site, Southleas

SUPPLIER:

Details Not Supplied

MATERIAL:

Brown/orange CLAY

LOCATION:

Isle of Sheppey

ACCEPT STD:

Contract Specification

ORIENTATION OF TEST SPECIMEN

WITHIN ORIGINAL SPECIMEN:

RESULT:

SPECIMEN LENGTH (mm)

SPECIMEN DIAMETER (mm) MOISTURE CONTENT (%)

BULK DENSITY (Mg/m³)

DRY DENSITY (Mg/m⁸)

RATE OF STRAIN (%/min) LATEX MEMBRANE THICKNESS (mm)

MAXIMUM DEVIATION STRESS (kPa)

MEMBRANE CORRECTION (kPa)

CELL PRESSURE (kPa)

STRAIN AT FAILURE (%)

SHEAR STRENGTH (Cu): kPa MODE OF FAILURE:

203

100

30.0

1.796 1.382

1.5

0.6

2.2

200

211

20

105

Plastic Failure (Barrelling)

REMARKS

Bulk sample will be kept for a minimum 28 days from date of test.

Page 1 of 1

Report Format: L/Rep UDSS/rev.1

Northdown House, Ashford Road Harrietsham, Nr Maidstone Kent ME17 1QW

For and on behalf of CET



Approved Signatory 16-May-14

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Jon Champion - National Operations Manager



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DETERMINATION OF THE PARTICLE SIZE DISTRIBUTION OF SOIL MATERIALS

BS 1377: Part 2: 1990: clause 9.2: Wet Sieving

REPORT NUMBER:

F14-146115-133805-1

CLIENT:

S W Attwood and Partners

SAMPLE NUMBER:

133805/1

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

CLIENT REFERENCE:

Wallend

SITE:

Reservoir Site, Southleas

DATE RECEIVED:

15.05.2014

SUPPLIER:

DATE SAMPLED

Site Won

SAMPLED BY:

15.05.2014 Client

MATERIAL: CLASSIFICATION: **Brown Clay**

DATE TESTED

16-19.05.2014

LOCATION:

TESTED BY:

Reservoir Site

No variations

ORIENTATION OF TEST SPECIMEN

Michael Gray

PREPARATION METHOD: VARIATIONS:

BS 1377:Part 1:1990 clause 7.3 & 7.4.5

Class 2A wet cohesive material

WITHIN ORIGINAL SPECIMEN:

N/A

TYPE OF SAMPLE:

Disturbed

RESULT:

				HWAY WORKS
BS TEST SIEVE	PERCENTAGE PASSING	GRADING S	PECIFICAT	TION LIMITS
mm	%			
125	100	100	Α,	100
100	100			
90	100			
75·	100			
63	100			
50	100			
37.5	100			
28	100			
20	100			
14	100			
10	100			
6.3	100			
5.0	100			
3.35	100			
2.00	99	80	:-	100
1.18	99			
0.600	99			
0.425	99			
0.300	99			
0.212	99			
0.150	99			
0.063	99	15	-	100

REMARKS:

The material tested complies with the grading specification requirements stated above .

For and on behalf of CET

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1

Report Format: L/Rep S6a/9

Approved Signatory 02-Jun-14

Jon Champion - National Operations Manager John Newbery - Laboratory Manager Matt Oliver-Site Manager Adrian McGilvery - Senior Technician Nick Ring - Principal Technician

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DETERMINATION OF THE MOISTURE CONTENT OF SOIL MATERIAL TEST REPORT:

BS 1377:Part 2:1990 clause 3.2 - oven drying method

REPORT No .:

F14-146115-133805-2

CLIENT:

S W Attwood and Partners

SAMPLE No.:

133805/2

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

CLIENT REF:

Wallend

SITE:

Reservoir Site, Southleas

DATE SAMPLED:

15/05/2014

SUPPLIER:

Site Won

SAMPLED BY:

Client

MATERIAL:

Brown Clay

DATE RECEIVED:

15/05/2014

LOCATION:

Reservoir Site

DATE TESTED:

15/05/2014

ACCEPT STD .:

Contract Specification

TESTED BY:

Keith Kellow

PREPARATION METHOD: BS1377:Part1:1990 clauses 7.3 and 7.4.5

TYPE OF SAMPLE:

VARIATIONS:

ORIENTATION OF TEST SPECIMEN WITHIN

ORIGINAL SAMPLE: N/A

RESULTS:

SPECIFICATION REQUIREMENTS

Lower Limit

Upper Limit

(%)

(%)

MATERIAL MOISTURE CONTENT:

35 %

N/A

N/A

REMARKS:

Specification details not available

For and on behalf of CET

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1

Report format : L/Rep S2 / rev.8

Approved Signatory

31-May-14





DETERMINATION OF THE PLASTICITY INDEX OF SOIL

BS 1377:Part 2:1990 clause 5.4

REPORT No .:

F14-146115-133805-3

CLIENT:

S W Attwood and Partners

SAMPLE No.:

133805/3

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

CLIENT REF:

Wallend

SITE:

Reservoir Site, Southleas

DATE SAMPLED:

15.05.2014

SUPPLIER:

Site Won

SAMPLED BY:

Client

MATERIAL:

Brown Clay

DATE RECEIVED:

15.05.2014

LOCATION:

Reservoir Site

DATE TESTED:

23-24.05.2014

ACCEPT STD:

Contract Specification

TESTED BY:

IMG

PREPARATION METHOD:

BS 1377:Part 1:1990

TYPE OF SAMPLE:

Disturbed

VARIATIONS:

No Variations

ORIENTATION OF TEST SPECIMEN WITHIN ORIGINAL SAMPLE: N/A

RESULT:

TEST DETAILS

TEST RESULT

SPECIFICATION DETAILS

Lower Limits

Upper Limits

THE LIQUID LIMIT OF THE SAMPLE:

78%

N/A

N/A

BS 1377: Part 2: 1990 clause 4.4 (1 point)

24%

N/A

THE PLASTIC LIMIT OF THE SAMPLE: To BS1377: Part2: 1990 cl 5.3

THE PLASTICITY INDEX OF THE SAMPLE:

54

N/A

The Percentage Passing 425µm Test Sieve: Sample History:

The material was tested after washing through a 425µm test sieve

REMARKS:

Specification details not applicable.

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1

REPORT FORMAT: L/Rep S3S4/rev.6

For and on behalf of CET

Approved Signatory

02-Jun-14





TEST REPORT: **DETERMINATION OF MOISTURE CONDITION VALUE (M.C.V.)**

BS 1377 Part 4: 1990 Clause 5.4 - Natural Moisture Content (Lab Test)

REPORT No.:

F14-146115-133805-4

CLIENT:

S W Attwood and Partners

SAMPLE No.:

133805/4

ADDRESS:

Newhook Farm, Lower Road, Eastchurch, Kent

CLIENT REF:

Wallend

SITE:

Reservoir Site, Southleas

DATE SAMPLED:

15.05.2014

SAMPLED BY:

SUPPLIER:

Site Won

Client

MATERIAL:

Brown Clay

DATE RECEIVED:

15.05.2014

CUT LOCATION:

N/A

DATE TESTED:

16-19.05.2014

FILL LOCATION:

Reservoir Site

TESTED BY:

Simon Rowe-Leete

CERTIFICATE OF SAMPLING:

No

ORIENTATION OF TEST SPECIMEN

VARIATIONS FROM STANDARD:

None

WITHIN ORIGINAL SAMPLE:

N/A

TYPE OF SAMPLE:

Disturbed

RESULTS:

MOISTURE CONDITION VALUE

13.1

NATURAL MOISTURE CONTENT (%)

39

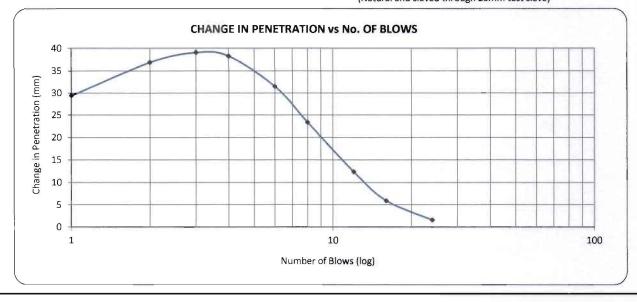
PERCENTAGE RETAINED 20mm (%)

4.3

INTERPRETATION OF CURVE PREPARATION METHOD

Steepest straight line BS 1377: Part 4: 1990 clause 5.4

(Natural and sieved through 20mm test sieve)



REMARKS:

For and on behalf of CET

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1

Report Format: L/Rep S10a rev.3

Approved Signatory

31-May-14

Jon Champion - National Operations Manager John Newbery - Laboratory Manager Matt Oliver- Site Manager Adrian McGilvery - Senior Technician Nick Ring - Principal Technician Nick Ring





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DETERMINATION OF THE MOISTURE CONTENT OF SOIL MATERIAL

BS 1377:Part 2:1990 clause 3.2 - oven drying method

REPORT No.:

F13-146115-128464-1

CLIENT:

S W Attwood and Partners

SAMPLE No.:

128464/1

ADDRESS:

Parsonage Farm, Bredgar, Kent

CLIENT REF:

NHSS1

SITE:

Reservoir Site, Southleas

DATE SAMPLED:

20/11/2013

SUPPLIER:

Insitu

SAMPLED BY:

Client

MATERIAL:

Clay

DATE RECEIVED:

21/11/2013

DATE TESTED:

22-23.11.13

LOCATION:

Reservoir Site

ACCEPT STD .:

Contract Specification

TESTED BY:

PREPARATION METHOD: BS1377:Part1:1990 clauses 7.3 and 7.4.5

TYPE OF SAMPLE:

Disturbed

VARIATIONS:

None

ORIENTATION OF TEST SPECIMEN WITHIN

ORIGINAL SAMPLE: N/A

RESULTS:

SPECIFICATION REQUIREMENTS

Lower Limit

Upper Limit

MATERIAL MOISTURE CONTENT:

34 %

N/A

N/A

REMARKS:

Specification details not available

For and on behalf of CET

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1

Report format : L/Rep S2 / rev.8

Northdown House, Ashford Road Harrietsham, Nr Maidstone Kent ME17 1QW

Approved Signatory 04-Dec-13

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DETERMINATION OF THE PLASTICITY INDEX OF SOIL

BS 1377:Part 2:1990 clause 5.4

REPORT No.:

F13-146115-128464-2

CLIENT:

S W Attwood and Partners

SAMPLE No.:

128464/2

ADDRESS:

Parsonage Farm, Bredgar, Kent

CLIENT REF:

NHSS1

SITE:

Reservoir Site, Southleas

DATE SAMPLED:

20/11/2013

SUPPLIER:

Insitu

SAMPLED BY:

Client

DATE RECEIVED:

MATERIAL:

Clay

DATE TESTED:

21/11/2013 22-29.11.13 LOCATION:

Reservoir Site

ACCEPT STD:

Contract Specification

TESTED BY:

KJ/NR

PREPARATION METHOD:

BS 1377:Part 1:1990

TYPE OF SAMPLE:

Disturbed

VARIATIONS:

No Variations

ORIENTATION OF TEST SPECIMEN WITHIN ORIGINAL SAMPLE: N/A

RESULT:

TEST DETAILS

TEST RESULT

SPECIFICATION DETAILS

Lower Limits

Upper Limits

THE LIQUID LIMIT OF THE SAMPLE:

63%

N/A

N/A

BS 1377: Part 2: 1990 clause 4.4 (1 point)

23%

N/A

N/A

THE PLASTIC LIMIT OF THE SAMPLE:

To BS1377: Part2: 1990 cl 5.3

THE PLASTICITY INDEX OF THE SAMPLE:

The Percentage Passing 425µm Test Sieve :

40

Sample History:

The material was tested after washing through a 425µm test sieve

REMARKS:

Specification details not applicable.

Remaining sample will be retained for a minimum of 28 days from date of report.

Page 1 of 1 REPORT FORMAT: L/Rep \$3\$4/rev.6

Northdown House, Ashford Road Harrietsham, Nr Maidstone Kent ME17 1QW

For and on behalf of CET



Approved Signatory 04-Dec-13

Jon Champion - National Operations Manager John Newbery - Laboratory Manager Matt Oliver- Site Manager Adrian McGilvery - Senior Technician Nick Ring - Principal Technician



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CHEMICAL ANALYSIS TEST REPORT

REPORT No.:

F13-146115-128464-3

CLIENT:

S W Attwood and Partners

SAMPLE No.:

128464/3

ADDRESS:

Parsonage Farm, Bredgar, Kent

CLIENT REF:

NHSS1

20/11/2013

SITE:

Reservoir Site, Southleas

DATE SAMPLED: SAMPLED BY:

SUPPLIER:

Client

Insitu

DATE RECEIVED

21/11/2013

MATERIAL:

Clay

DATE TESTED:

22.11-04.12.13

LOCATION:

Reservoir Site

TESTED BY:

NC

TYPE OF SAMPLE: Disturbed

RESULT:

WASTE ACCEPTANCE CRITERIA - SOIL SUMMARY

NAME	Units	Result	Inert Waste Landfill	Stable Non- Reactive	Harzardous Waste Landfill	
Total Organic Carbon	%	<1.0	3.0	5.0	6.0	
Loss on Ignition	%	5.2	2/	4	10.0	
BTEX (Sum)	mg/kg	<0.3	6.00	4	1.1	
PCB's (7 Congeners)	mg/kg	<0.03	1.00			
Mineral Oil >C ₁₀ to C ₄₀)	mg/kg	<16.1	500	4		
PAH	mg/kg	<1.7	100		-	
PΗ	-	7.7		>6		

REMARKS:

Page 1 of 1

For and on behalf of CET

Northdown House, Ashford Road Harrietsham, Nr Maldstone Kent ME17 1QW

Report Format: L/Rep ICRCL / rev.1

Approved Signatory 04-Dec-13

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CHEMICAL ANALYSIS TEST REPORT

REPORT No .:

F13-146115-128464-3a

SAMPLE No.:

128464/3

CLIENT REF: DATE SAMPLED:

NHSS1 20/11/2013

SAMPLED BY:

Client

DATE RECEIVED DATE TESTED:

21/11/2013 22.11-04.12.13

TESTED BY:

CLIENT:

S W Attwood and Partners

ADDRESS:

Parsonage Farm, Bredgar, Kent

SITE:

Reservoir Site, Southleas

SUPPLIER:

Insitu

MATERIAL:

Clay

LOCATION:

Reservoir Site

TYPE OF SAMPLE: Disturbed

RESULT:

WASTE ACCEPTANCE CRITERIA - 10:1 LEACHATE

NAME	Units	Result	Inert Waste	Stable Non- Reactive hazardous waste in non- hazardous landfili	Harzardous Waste
Arsenic	mg/kg	<0.01	0.50	2	25
Barium	mg/kg	<0.02	20	100	300
Cadmium	mg/kg	<0.01	0.04 0.5 2.0 0.01 0.5 0.4	1 10 50 0.2 10.0	5 70 100 2 30 40
Chromium (Total)	mg/kg	<0.01			
Copper	mg/kg	<0.04			
Mercury	mg/kg	<0.01 <0.01			
Molybdenum	mg/kg				
Nickel	mg/kg	<0.01			
Lead	mg/kg	<0.04	0.5	10.0	50
Antimony	mg/kg	<0.01	0.06	0.7	5 7
Selenium	mg/kg	0.04			
Zinc	mg/kg	<0.04	4	50	200
Chloride	mg/kg	249	800	15000 150	25000 500
Fluoride	mg/kg	1			
Sulphate (as SO ₄)	mg/kg	836	1000	20000	50000
Phenal Index	mg/kg	<0.4	1	-	-
Total Dissolved Solids	mg/kg	4804	4000	60000	100000
Dissolved Organic Carbon	mg/kg	10	500	800	1000

REMARKS:

For and on behalf of CET

Page 1 of 1

Report Format: L/Rep ICRCL / rev.1

Approved Signatory 04-Dec-13

Jon Champion - National Operations Manager John Newbery - Laboratory Manager Matt Oliver- Site Manager Adrian McGilvery - Senior Technician Nick Ring - Principal Technician

Northdown House, Ashford Road Harrietsham, Nr Maidstone Kent ME17 1QW

2 0843 2272362

enquiries@cet-uk.com



CHEMICAL ANALYSIS TEST REPORT

REPORT No .:

F13-146115-128464-3b

128464/3

SAMPLE No.: CLIENT REF:

NHSS1

DATE SAMPLED:

20/11/2013

SAMPLED BY:

Client

DATE RECEIVED

21/11/2013

DATE TESTED:

22.11-04.12.13

TESTED BY:

RESULT:

NC

CLIENT:

S W Attwood and Partners

ADDRESS:

SITE:

Parsonage Farm, Bredgar, Kent

Reservoir Site, Southleas

SUPPLIER:

Insitu

MATERIAL: Clay

LOCATION:

Reservoir Site

TYPE OF SAMPLE: Disturbed

WASTE ACCEPTANCE CRITERIA - ELUATE ANALYSIS

2:1 Eluate				
pH	units	7.7		
Electrical Conductivity	μS/cm	3070		

8:1 Eluate				
pH	units	7.3		
Electrical Conductivity	μS/cm	1724		

REMARKS:

For and on behalf of CET

Page 1 of 1

Report Format: L/Rep ICRCL / rev.1

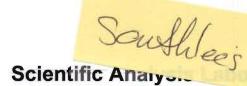
Approved Signatory 04-Dec-13 Jon Champion - National Operations Manager John Newbery - Laboratory Manager Matt Oliver- Site Manager Adrian McGilvery - Senior Technician Nick Ring - Principal Technician 00000

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itories Ltd

3 Crittall Drive Springwood Industrial Estate Braintree Essex CM7 2RT

Tel: 01376 560120 Fax: 01376 552923

Certificate of Analysis

Scientific Analysis Laboratories is a limited company registered in England and Wales (No 2514788) whose address is at Hadfield House, Hadfield Street, Manchester M16 9FE

Report Number: 407115-1

Date of Report: 22-Jul-2014

Customer: CET Infrastructure

Northdown House

Harrietsham Maidstone Kent

ME17 1QW

Customer Contact: Ms Tracy Laing

Customer Job Reference: 146850(135521)
Customer Purchase Order: 576642/K2

Customer Site Reference: S W Attwood + Partners

Date Job Received at SAL: 08-Jul-2014
Date Analysis Started: 09-Jul-2014
Date Analysis Completed: 22-Jul-2014

The results reported relate to samples received in the laboratory

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

This report should not be reproduced except in full without the written approval of the laboratory

Tests covered by this certificate were conducted in accordance with SAL SOPs

All results have been reviewed in accordance with QP22



Report checked and authorised by : Miss Claire Brown Customer Service Manager Issued by : Miss Claire Brown

Customer Service Manager

Page 1 of 2 407115-1

SAL Reference: 407115 Project Site: S W Attwood + Partners Customer Reference: 146850(135521) Analysed as Soil Soil Suite SAL Reference 407115 001 Customer Sample Reference South Lees Reservoir 135521 Supplier Site Won Date Sampled 07-JUL-2014 Sample Description | Light grey/ brown clay Test Sample Method LOD Arsenic T257 A40 2.0 mg/kg 9.7 Boron (water-soluble) T82 A40 mg/kg Cadmium T257 A40 0.1 <0.1 mg/kg T245 A40 0.5 mg/kg 43 Copper T245 A40 mg/kg 28 T257 A40 0.5 20 Mercury T245 A40 mg/kg <1.0 Nickel T257 A40 0.5 mg/kg 41 T257 <3 Selenium A40 mg/kg Zinc T257 A40 0.5 85 mg/kg Asbestos ID T27 A40 Asbestos not detected

T6

T7

A40

A40

mg/kg

Chromium VI

Index to symbols used in 407115-1

<1 7.9

Value	Description	
A40	Assisted dried < 40C	
S	Analysis was subcontracted	
U	U Analysis is UKAS accredited	
N Analysis is not UKAS accredited		

Notes

Where an asbestos result of none detected is reported, this is obtained from analysis of a representative sub sample.

Method Index

Value	Description			
T27	PLM			
T257	ICP/OES (SIM) (Aqua Regia Extraction)			
T245	T245 ICP/OES(Aqua Regia Extraction)			
T7	Probe			
T6 ICP/OES				
T82	ICP/OES (Sim)			

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Arsenic	T257	A40	2.0	mg/kg	U	001
Boron (water-soluble)	T82	A40	1	mg/kg	N	001
Cadmium	T257	A40	0.1	mg/kg	U	001
Chromium	T245	A40	0.5	mg/kg	U	001
Copper	T245	A40	1.0	mg/kg	U	001
Lead	T257	A40	0.5	mg/kg	U	001
Mercury	T245	A40	1.0	mg/kg	U	001
Nickel	T257	A40	0.5	mg/kg	U	001
Selenium	T257	A40	3	mg/kg	U	001
Zinc	T257	A40	0.5	mg/kg	U	001
Asbestos ID	T27	A40			SU	001
Chromium VI	T6	A40	1	mg/kg	N	001
pН	17	A40		1	U	001