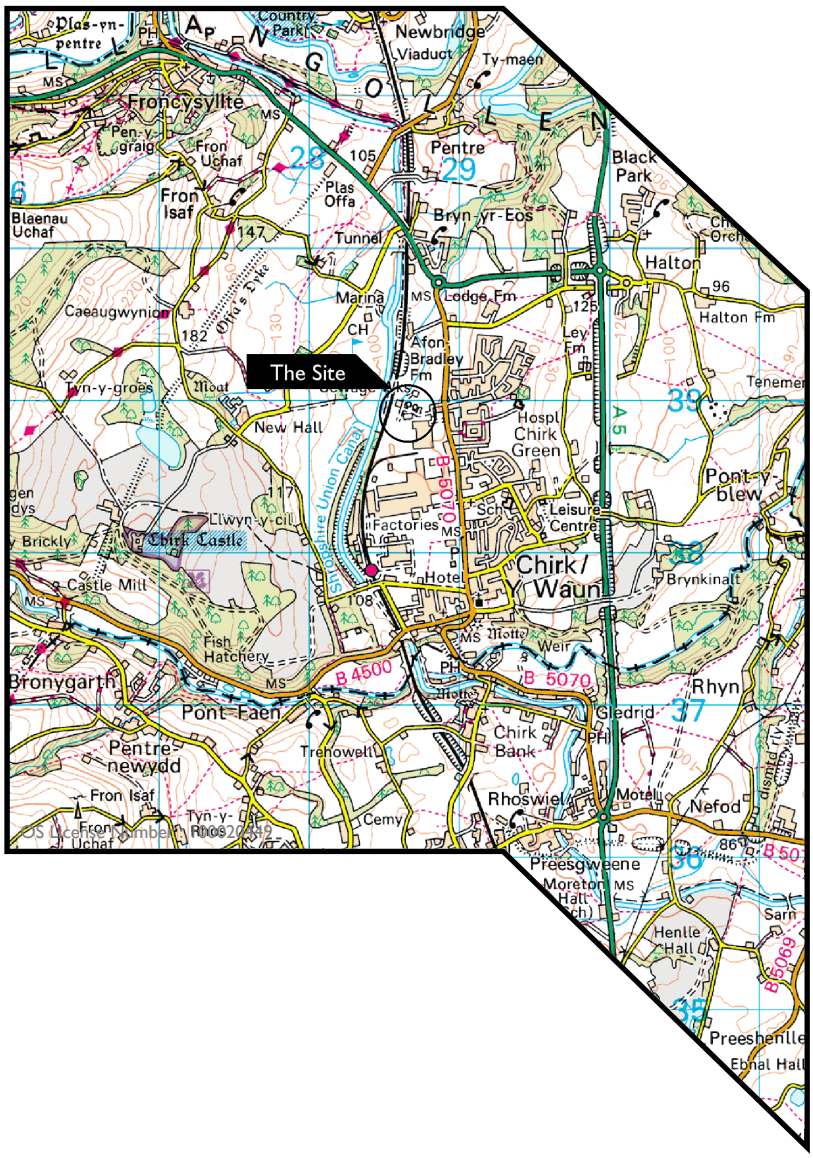

Ground Investigation at

NORTH LOG YARD, CHIRK

Factual Report

for

Kronospan Limited

Engineer : Gifford

Project Number : PN092178

February 2010

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Factual Report

NORTH LOG YARD, CHIRK

for
Kronospan Limited

Engineer :
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Ground Investigation
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1.0 INTRODUCTION

A geotechnical and geoenvironmental investigation was undertaken by Geotechnics Limited at the site of the existing North Log Yard at the Kronospan factory in Chirk. The investigation was carried out to the instructions of the Client, Kronospan Limited, with laboratory testing to the requirements of Gifford (Engineer). This report describes the work undertaken and presents the data obtained.

2.0 OBJECT AND SCOPE OF THE INVESTIGATION

The object of the investigation was to obtain information on the ground and groundwater conditions relating to the design of the proposed works within the limitations posed by trial hole numbers, locations, depths, methods adopted and the scope of approved in situ and laboratory testing. The investigation comprised trial pits, laboratory testing and reporting. A geotechnical and geoenvironmental interpretation and evaluation of the data obtained was not commissioned.

3.0 PRESENTATION

A description of the site and a summary of the procedures followed during the investigation process are presented in Sections 4 to 6. The factual data so obtained are presented in Appendices 2 to 5 of this report.

In addition, data in electronic format in accordance with "The Electronic Transfer of Geotechnical Data from Ground Investigations" (Third Edition) published by the AGS (the AGS Format) are presented separately on disk together with a copy of the report in electronic PDF format.

Attention is drawn to the General Notes and Investigation Procedures presented in Appendix 6 to aid an understanding of the procedures followed and the context in which the report should be read.

4.0 THE SITE

4.1 Location

The site is located within the Kronospan factory complex in Chirk, approximately 12km to the south-south-west of Wrexham. The approximate Ordnance Survey National Grid Reference for the centre of the site is SJ 287 389 and an extract from the relevant 1:50,000 Scale O.S. Map is included as Appendix 1.

4.2 Description

The north log yard is roughly rectangular in shape with maximum dimensions of approximately 75m by 60m. The ground surface comprises a mixture of crushed stone and mulch. Many piles of logs are stored within the yard.

The site is bounded to the north by a chainlink fence. Chainlink fencing and water filtration plant form the eastern boundary and an access roadway bounds the site to the south. To the west of the site ground levels fall down towards two lagoons.

5.0 PROCEDURE

5.1 Commissioning

The work was awarded following submission of a proposal for ground investigation of the site in accordance with the Client's requirements.

5.2 General

The procedures followed in this site investigation are based on *BS 5930 (1999) - Code of Practice for Site Investigations*. The soils encountered have been described in accordance with Amendment 1 to BS5930, dated December 2007. The Trial Pit Records are included in Appendix 2 and their approximate positions are shown on the Exploratory Hole Location Plan in Appendix 5.

The Exploratory Hole locations were specified by the Client. The depths shown on the Trial Pit Records are quoted in metres below ground level.

5.3 Trial Pits

Two (2 No.) Trial Pits were excavated to depths of 3.50m (TP01) and 2.60m (TP02) below ground level using a CAT 428 excavator on the 21st December 2009. This work was supervised on site by a geotechnical engineer.

The profiles of strata or other features were recorded as excavation proceeded and measurements taken from ground level. Pits were entered where safe to do so to allow in situ measurement of strata conditions. Representative samples were taken, where appropriate, for laboratory examination and analysis and in addition, Environmental samples (ES) were recovered at the depths indicated on the Trial Pit Records. At depths in excess of 1.20m below ground level or in unstable conditions, samples were taken directly from excavated materials deposited at the surface. Groundwater observations and trench stability notes are included on the Trial Pit Records.

6.0 LABORATORY TESTING

6.1 Geotechnical

The laboratory testing schedule was specified by Gifford in order to relate to the proposed development. Gifford specified some testing on recompacted samples at the optimum moisture content. Testing to determine the optimum moisture content was commissioned following additional instructions from the Client. The tests, where appropriate, conform *to BS 1377 - Methods of Test for Soils for Civil Engineering Purposes (1990)* and were carried out in Geotechnics Limited's UKAS accredited Laboratory (Testing No. 1365). Any descriptions, opinions and interpretations are outside the scope of UKAS accreditation.

The tests undertaken can be summarised as follows:-

BS 1377 (1990) Test No.		**Test Description**
Part 2		
3.2	6 No.	Moisture Content Determination
4.3 & 5.3	4 No.	Liquid and Plastic Limit Determination
9.2 & 9.3	4 No.	Mechanical Analysis – Wet Sieving
9.4	4 No.	Mechanical Analysis - Sedimentation
Part 3		
5.3, 5.5	3 No.	Sulphate Analysis - Water Extract
9.5	3 No.	pH Determination
Part 4		
3.3	3 No.	Dry Density/Moisture Content relationship determination. Compaction Test - British Standard (2.5 kg Hammer)
3.7	2 No.	Dry Density/Moisture Content relationship determination. Compaction Test - Modified (Vibrating Hammer).
7	3 No.	California Bearing Ratio (CBR) Measurement – recompacted (2.5kg Hammer)
7	2 No.	California Bearing Ratio (CBR) Measurement - recompacted (Vibrating Hammer)

The results of these tests are presented in Appendix 3.

6.2 Contamination

Selected samples of soil were tested at the laboratories of Alcontrol for a number of determinands in order to check on potential site contamination. The determinands were specified by Gifford.

The results are presented in Appendix 4.

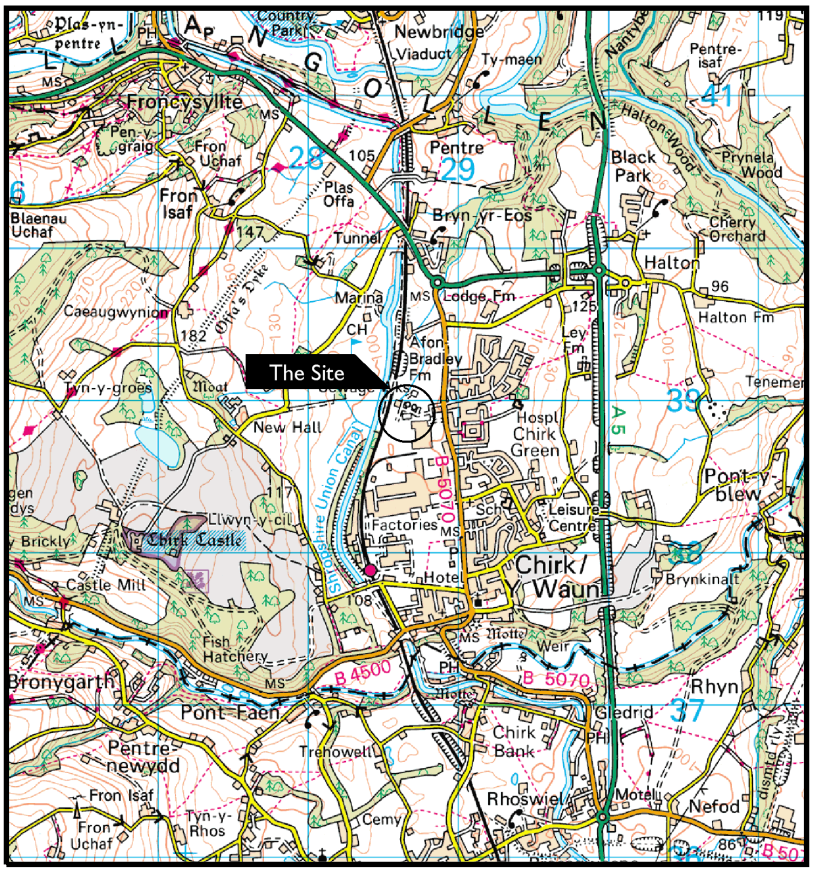
Written by: .....
Colin Dodd, BSc (Hons), MSc, CEng, MICE
Principal Engineer

Checked by: .....
Keith Nicholls, BSc, MSc, CEng, FIM^3, MIQ, MICE
Principal Engineer
for GEOTECHNICS LIMITED - North West Office

APPENDIX I

Site Location Plan

SITE LOCATION PLAN



Ground Investigation
at
NORTH LOG YARD, CHIRK
for
Kronospan Limited

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APPENDIX 2

Trial Pit Records

DATA SHEET - Symbols and Abbreviations used on Records

Sample Types

B	Bulk disturbed sample
BLK	Block sample
C	Core sample
D	Small disturbed sample (tub/jar)
E	Environmental test sample
ES	Environmental soil sample
EW	Environmental water sample
G	Gas sample
L	Liner sample
P	Piston sample (PF - failed piston sample)
TW	Thin walled push in sample
U -	Open Tube - 102mm diameter with blows to take sample. (UF - failed U sample)
V	Vial sample
W	Water sample
#	Sample Not Recovered

Insitu Testing / Properties

S	Standard Penetration Test (SPT)
C	SPT with cone
VN	Strength from Insitu Vane
HV	Strength from Hand Vane
PP	Strength from Pocket Penetrometer
	(All other strengths from undrained triaxial testing)
w%	Water content
N	SPT Result
-/-	Blows/penetration (mm) after 150mm seating.
-*/- (mm)	Total blows/penetration
( )	Extrapolated value

Rotary Core

RQD — Rock Quality Designation (% of intact core >100mm)

FRACTURE INDEX — Fractures/metre

FRACTURE SPACING (mm)	Maximum Minimum
NI	Non-intact core
NR	No core recovery

(where core recovery is unknown it is assumed to be at the base of the run)

Groundwater

Water Strike

Depth Water Rose To

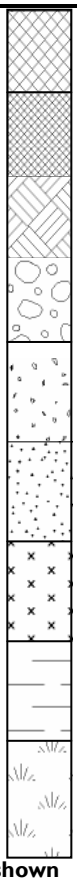
Instrumentation

Seal

Filter

Seal

Strata



Made Ground Type 1

Type 2

Topsoil

Cobbles and Boulders

Gravel

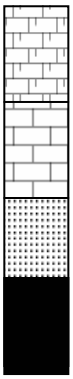
Sand

Silt

Clay

Peat

Note: Composite soil types shown by combined symbols



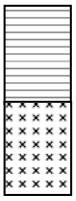
Chalk

Limestone

Sandstone

Coal

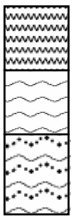
Strata, Continued



Mudstone

Siltstone

Metamorphic Rock

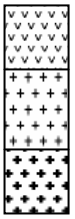


Fine Grained

Medium Grained

Coarse Grained

Igneous Rock



Fine Grained

Medium Grained

Coarse Grained

Backfill Materials

Arisings

Bentonite Seal

Concrete

Fine Gravel Filter

General Fill

Gravel Filter

Grout

Sand Filter

Tarmacadam

TRIAL PIT RECORD

Trial Pit

Project **NORTH LOG YARD**

Engineer **GIFFORD**

Trial Pit **TP01**
Project No **PN092178**

Client **KRONOSPAN LTD**

Scale 1:50

Depth	Type	Stratum No	Results	Description	Depth	Legend
					G.L.	
				MADE GROUND: Dark brown very gravelly wood mulch and bark. Gravel is medium to coarse angular of limestone.	0.05	1
0.50	B		mc=4.8%			2
0.50	ES			MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel of limestone.	0.60	
0.80	D				0.90	3
1.00	D			MADE GROUND: Very stiff pinkish brown slightly sandy gravelly clay. Gravel is fine to coarse angular of sandstone and limestone.		
1.50	B		mc=20%	MADE GROUND: Stiff grey mottled yellowish brown slightly sandy gravelly clay, locally silt, with low cobble content of brick, concrete and pottery. Gravel is fine to coarse subrounded to angular of various lithologies, brick, concrete and pottery.		4
2.00	D					
2.00	ES					
					2.40	
2.50	D			Possibly MADE GROUND: Dark brown fine to coarse angular gravel.		5
					2.70	
3.00	B		mc=28%	Firm grey mottled yellowish brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subrounded to subangular of various lithologies.		6
3.50	D				3.50	
				End of Excavation		

Excavation

Plant **CAT 428**
Date **21/12/2009**
Shoring **None.**
Stability **Stable during excavation.**

Width (B) **0.60**
Length (C) **3.50**
Date Backfilled **21/12/2009**

Groundwater

Depth Observed	Depth of Pit	Details
		Slight ingress from surface and gravel.

Remarks **The Trial Pit was logged in situ to a depth of 1.20m and then at the surface on arisings recovered from the excavator bucket.**
ES Sample = 2 x 60ml VOC vials, 1 x 1kg plastic tub and 1 x 258ml amber jars

Logged by **JG**

Figure **1 of 1**
02/02/2010

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

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TRIAL PIT RECORD — Trial Pit

Project **NORTH LOG YARD** | Engineer **GIFFORD** | **Trial Pit** **TP02** | Project No **PN092178**

Client **KRONOSPAN LTD**

Scale 1:50

Depth	Type	Stratum No	Results	Description	Depth	Legend
					G.L.	
				MADE GROUND: Dark brown very gravelly wood mulch and bark. Gravel is medium to coarse angular of limestone.	0.05	1
0.40	B		mc=5.7%			2
				MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel of limestone.	0.50	
0.70	B		mc=5.5%			3
0.70	ES				0.80	
1.00	D			**MADE GROUND: Very stiff pinkish brown gravelly clay. Gravel is fine to coarse angular of limestone.**		
				At 0.70m locally grading to very clayey gravel.		
1.50	B		mc=19%			
1.50	ES			**At 0.80m layer of woven geotextile.**		4
2.00	D			**MADE GROUND: Firm to stiff grey mottled yellowish brown slightly sandy slightly gravelly clay with low cobble content of concrete. Gravel is fine to coarse subrounded to angular of various lithologies, brick, concrete and pottery.**		
2.50	B			**Between 1.70-2.60m high cobble and boulder content of reinforced concrete.**	2.60	
				End of Excavation		

Excavation

Plant **CAT 428**
Date **21/12/2009**
Shoring **None.**
Stability **Stable during excavation.**
Width (B) **2.10**
Length (C) **3.50**
Date Backfilled **21/12/2009**

Groundwater

Depth Observed	Depth of Pit	Details
		Slight ingress from surface and gravel

Remarks **The Trial Pit was logged in situ to a depth of 1.20m and then at the surface on arisings recovered from the excavator bucket.**
The Trial Pit was terminated at a depth of 2.60m due to obstruction.
ES Sample = 2 x 60ml VOC vials, 1 x 1kg plastic tub and 1 x 258ml amber jars

Logged by **JG**
Figure **1 of 1**
02/02/2010

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with Amendment 1 published December 2007 to BS5930:1999

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APPENDIX 3

Laboratory Test Results - Geotechnical

Classification and Strength

Symbol **C - Clay** **M - Silt**
(0 - containing organic matter)
Plasticity L - Low
I - Intermediate
H - High
V - Very High
E - Extremely High

Ip	Plasticity Index
%	% Retained on 425 µm sieve, shown under Ip value
w_L	Liquid Limit
w_P	Plastic Limit
NP	Non-Plastic
w	Moisture Content
P_d	Particle Density

Test **Quick undrained triaxial tests**
SS Single stage - 102mm diameter.
S3 Single stage - set of 3 38mm diameter.
MS Multistage - 102mm diameter.
D Drained Test
HV Hand Vane
PP Pocket Penetrometer (kg/cm²)
UT Unsuitable for Test

γ_b	Bulk Density
σ_3	Triaxial Cell Pressure
$\sigma_1 - \sigma_3$	Deviator Stress
##	Excessive Strain
c_u	Undrained Cohesion
c	Cohesion Intercept
ϕ	Angle of Shearing Resistance
Linear Shrink	Linear Shrinkage

Consolidation

m_v	Coefficient of Volume Compressibility
c_{v50}	Coefficient of Consolidation - Log t
c_{v90}	Coefficient of Consolidation - $\sqrt{t}$

Chemical Analysis

Acid Soluble	Total sulphate in specimen, expressed as SO_3 %, value in brackets expressed as SO_4 %
Water Soluble	Soluble sulphate in 2:1 water : soil extract, expressed as SO_3 g/l, value in brackets expressed as SO_4 g/l
In Water	Sulphate content of groundwater, expressed as SO_3 g/l, value in brackets expressed as SO_4 g/l
pH	pH value
Organic content	Organic content expressed as a percentage of dry weight
Chloride	Chloride Ion content expressed as a percentage of dry weight

MCV, Compaction, CBR

MCV	Moisture Condition Value at natural moisture content
MCC	Moisture Condition Calibration
CCV	Chalk Crushing Value

Compaction

Type 2.5 = BS 2.5 kg Rammer
4.5 = BS 4.5 kg Rammer
V = BS Vibrating Hammer

γ_b	Bulk Density
γ_d	Dry Density

CBR California Bearing Ratio

Type 2.5 = Test on Specimen Recompacted using BS 2.5 kg Rammer
4.5 = As above but using BS 4.5 kg Rammer
V = As above but using BS Vibrating Hammer
M = Test on open drive mould specimen cut in field
S = Soaked Specimen

Top	CBR at top of mould
Bottom	CBR at bottom of mould
ND	None Detected

All tests performed in accordance with BS 1377 : Parts 1-9 : 1990 incorporating amendments where appropriate.

LABORATORY RESULTS - Classification and Strength

Project NORTH LOG YARD **Project No:** PN092178

Sample					Classification					Strength					
Hole	Depth (Specimen Depth) m	Type	Sample Ref	Description	Symbol	I_p (>425) %	w_L %	w_p %	w (p_d) %	Test	γ_b (γ_d) Mg/m^3	σ_3 kN/m^2	$\sigma_1-\sigma_3$ kN/m^2	c_u kN/m^2	c_{Avg} kN/m^2
TP01	0.50 (0.50)	B	N19916	MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel.					4.8						
TP01	1.50 (1.50)	B	N19917	MADE GROUND: Stiff grey mottled yellowish brown slightly sandy gravelly silt.		(64%)	43	NP	20						
TP01	3.00 (3.00)	B	N19918	Firm grey mottled yellowish brown slightly sandy slightly gravelly CLAY.	CI	16 (24%)	39	23	28						
TP02	0.40 (0.40)	B	N19919	MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel.					5.7						
TP02	0.70 (0.70)	B	N19920	MADE GROUND: Pinkish brown very clayey fine to coarse angular gravel.	CL	16 (76%)	29	13	5.5						
TP02	1.50 (1.50)	B	N19921	MADE GROUND: Firm to stiff grey mottled yellowish brown slightly sandy slightly gravelly clay.	CI	16 (52%)	40	24	19						

Remarks AGS Tests performed in accordance with BS 1377: 1990

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LABORATORY RESULTS - Particle Size Distribution

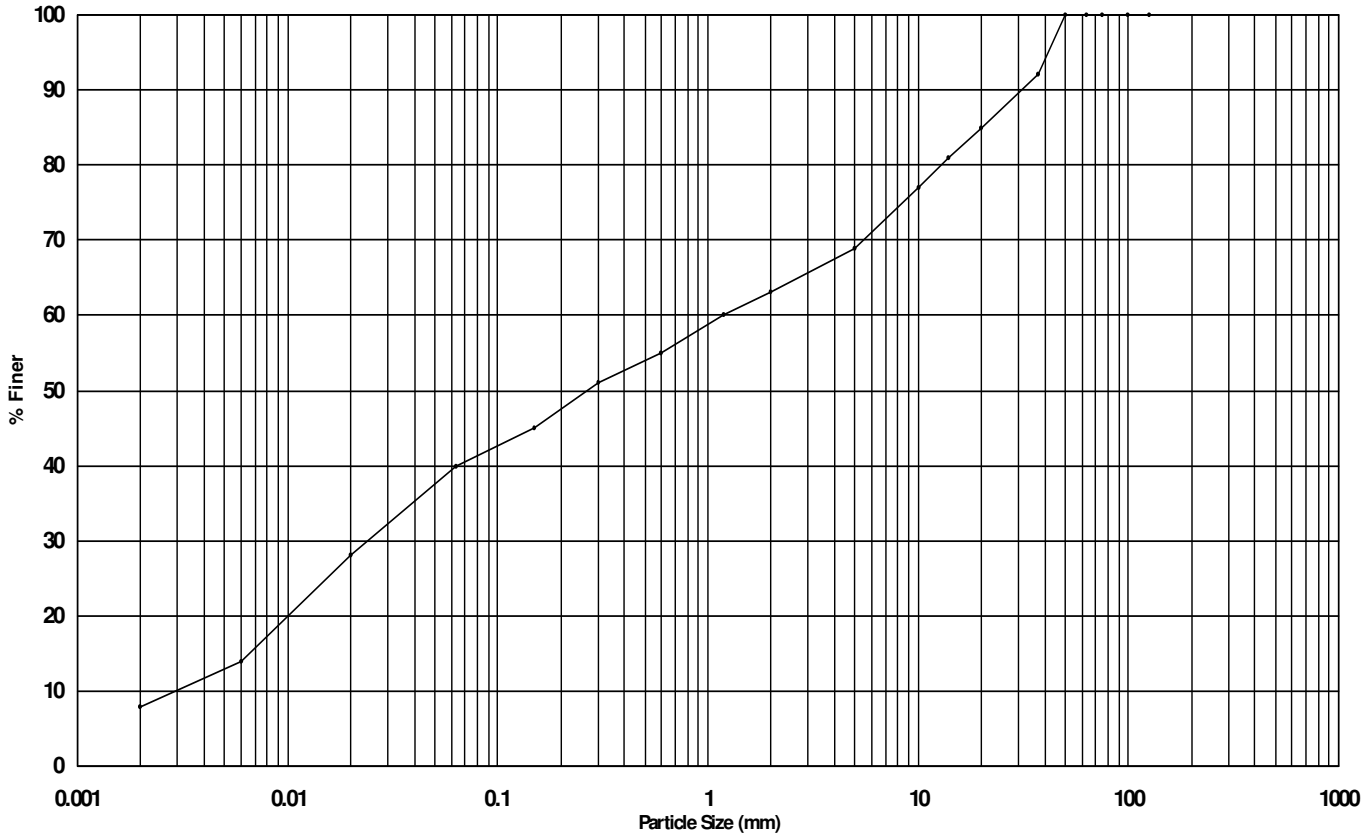
Project: NORTH LOG YARD

Project No: PN092178

Hole	TP01
Sample Depth	1.50m
Sample Type	B
Sample Ref	N19917

Sample Description

MADE GROUND: Stiff grey mottled yellowish brown slightly sandy gravelly silt.



Classification		Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	Cobbles	Boulders
	CLAY	SILT			SAND			Gravel				

Classification	% of each
CLAY	8
SILT	32
SAND	23
GRAVEL	37
COBBLES	0
BOULDERS	0

Size	Percentage Finer
125mm	100
100mm	100
75mm	100
63mm	100
50mm	100
37.5mm	92
28mm	-
20mm	85
14mm	81
10mm	77
6.3mm	-
5mm	69
3.35mm	-

Size	Percentage Finer
2mm	63
1.18mm	60
600µm	55
425µm	-
300µm	51
212µm	-
150µm	45
75µm	-
63µm	40
20µm	28
6µm	14
2µm	8

Uniformity Coefficient
429.96

Sieving Method
Wet sieve

Fine Particle Analysis	
Method	Pipette
Pre-treated with	Hydrogen Peroxide
% loss on Pre-treatment	6.86
Particle Density	2.65 (Assumed)

Remarks Test performed in accordance with BS 1377: Part 2: 1990

Silt and clay proportions taken as all material smaller than 0.063mm.

02/02/2010

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LABORATORY RESULTS - Particle Size Distribution

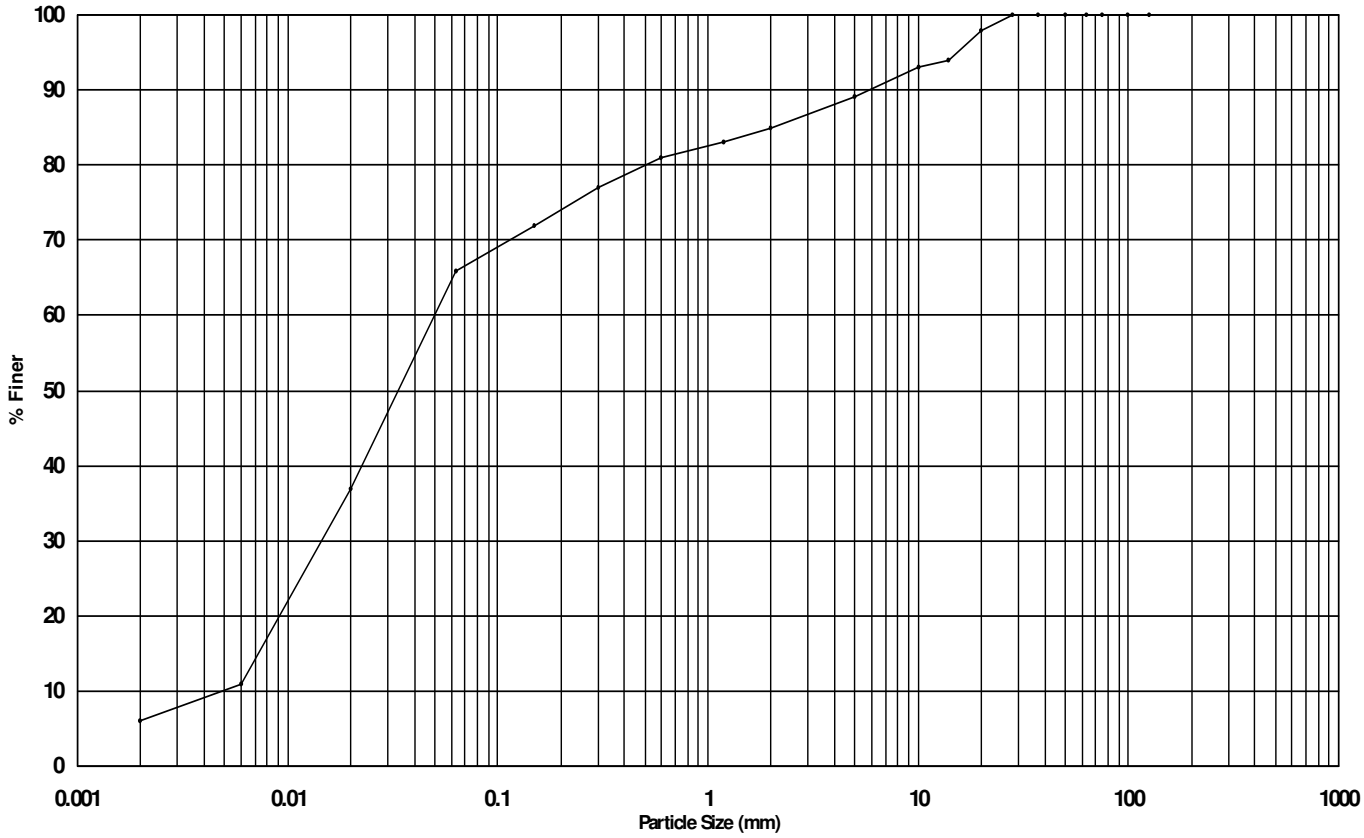
Project: NORTH LOG YARD

Project No: PN092178

Hole	TP01
Sample Depth	3.00m
Sample Type	B
Sample Ref	N19918

Sample Description

Firm grey mottled yellowish brown slightly sandy slightly gravelly CLAY.



Classification		Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	Cobbles	Boulders
	CLAY	SILT			SAND			Gravel				

Classification	% of each
CLAY	6
SILT	60
SAND	19
GRAVEL	15
COBBLES	0
BOULDERS	0

Size	Percentage Finer
125mm	100
100mm	100
75mm	100
63mm	100
50mm	100
37.5mm	100
28mm	100
20mm	98
14mm	94
10mm	93
6.3mm	-
5mm	89
3.35mm	-

Size	Percentage Finer
2mm	85
1.18mm	83
600µm	81
425µm	-
300µm	77
212µm	-
150µm	72
75µm	-
63µm	66
20µm	37
6µm	11
2µm	6

Uniformity Coefficient	
10.44	
Sieving Method	
Wet sieve	
Fine Particle Analysis	
Method	Pipette
Pre-treated with	Hydrogen Peroxide
% loss on Pre-treatment	5.42
Particle Density	2.65 (Assumed)

Remarks Test performed in accordance with BS 1377: Part 2: 1990

Silt and clay proportions taken as all material smaller than 0.063mm.

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LABORATORY RESULTS - Particle Size Distribution

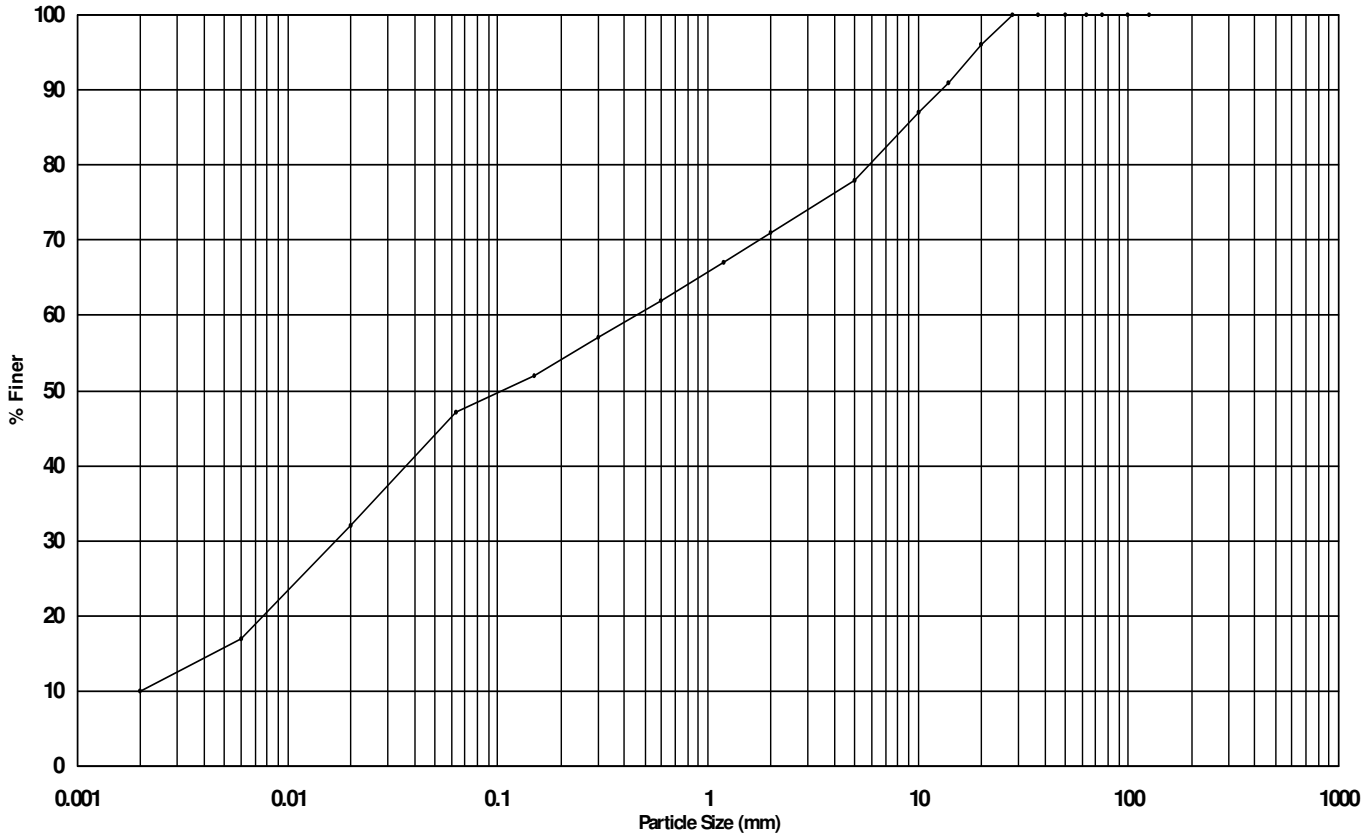
Project: NORTH LOG YARD

Project No: PN092178

Hole	TP02
Sample Depth	1.50m
Sample Type	B
Sample Ref	N19921

Sample Description

MADE GROUND: Firm to stiff grey mottled yellowish brown slightly sandy slightly gravelly clay.



Classification		Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	Cobbles	Boulders
	CLAY	SILT			SAND			Gravel				

Classification	% of each
CLAY	10
SILT	37
SAND	24
GRAVEL	29
COBBLES	0
BOULDERS	0

Size	Percentage Finer
125mm	100
100mm	100
75mm	100
63mm	100
50mm	100
37.5mm	100
28mm	100
20mm	96
14mm	91
10mm	87
6.3mm	-
5mm	78
3.35mm	-

Size	Percentage Finer
2mm	71
1.18mm	67
600µm	62
425µm	-
300µm	57
212µm	-
150µm	52
75µm	-
63µm	47
20µm	32
6µm	17
2µm	10

Uniformity Coefficient
Not Available

Sieving Method
Wet sieve

Fine Particle Analysis	
Method	Pipette
Pre-treated with	Hydrogen Peroxide
% loss on Pre-treatment	6.69
Particle Density	2.65 (Assumed)

Remarks Test performed in accordance with BS 1377: Part 2: 1990

Silt and clay proportions taken as all material smaller than 0.063mm.

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LABORATORY RESULTS - Particle Size Distribution

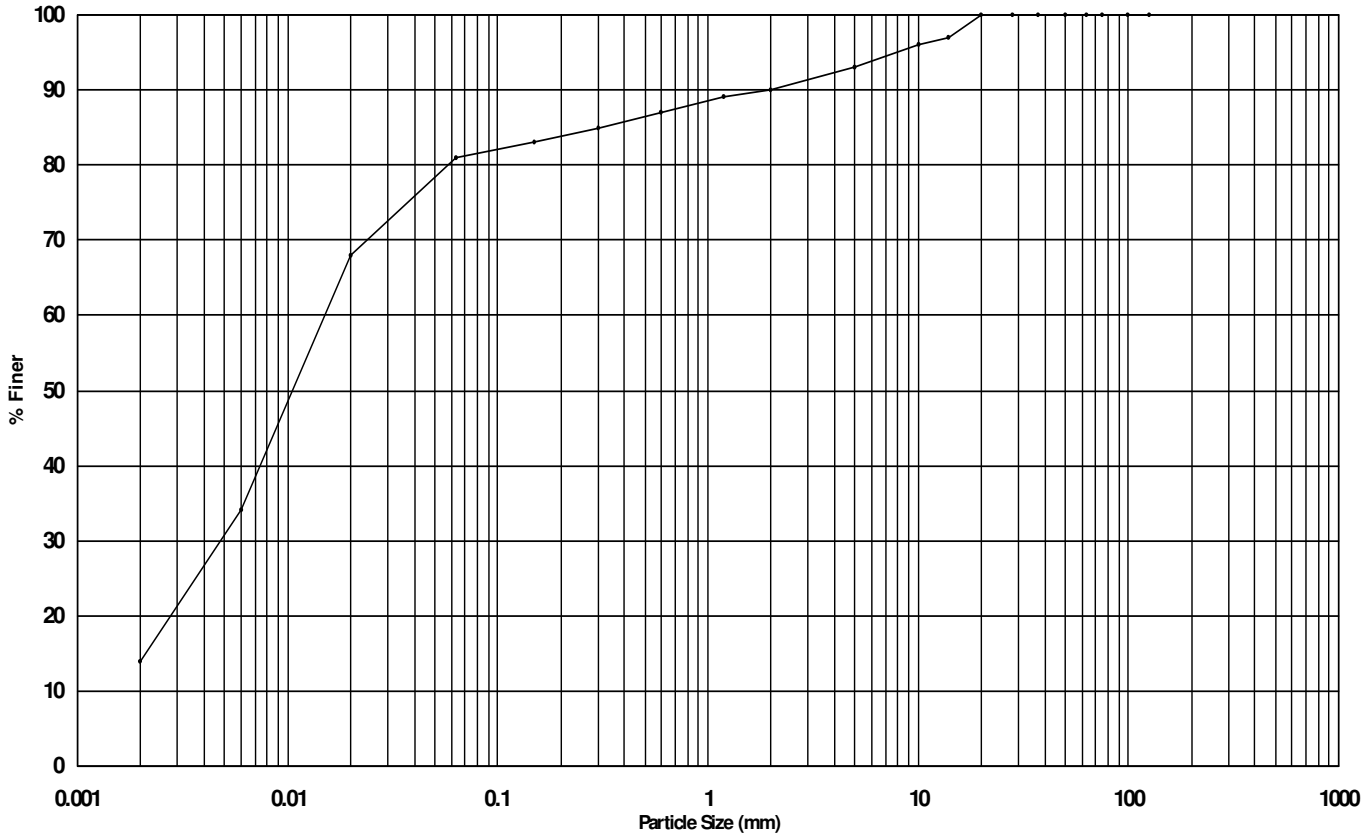
Project: NORTH LOG YARD

Project No: PN092178

Hole	TP02
Sample Depth	2.50m
Sample Type	B
Sample Ref	N19922

Sample Description

MADE GROUND: Firm to stiff grey mottled yellowish brown slightly sandy slightly gravelly clay.



Classification		Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	Cobbles	Boulders
	CLAY	SILT			SAND			Gravel				

Classification	% of each
CLAY	14
SILT	67
SAND	9
GRAVEL	10
COBBLES	0
BOULDERS	0

Size	Percentage Finer
125mm	100
100mm	100
75mm	100
63mm	100
50mm	100
37.5mm	100
28mm	100
20mm	100
14mm	97
10mm	96
6.3mm	-
5mm	93
3.35mm	-

Size	Percentage Finer
2mm	90
1.18mm	89
600µm	87
425µm	-
300µm	85
212µm	-
150µm	83
75µm	-
63µm	81
20µm	68
6µm	34
2µm	14

Uniformity Coefficient
Not Available

Sieving Method
Wet sieve

Fine Particle Analysis	
Method	Pipette
Pre-treated with	Hydrogen Peroxide
% loss on Pre-treatment	0.00
Particle Density	2.65 (Assumed)

Remarks Test performed in accordance with BS 1377: Part 2: 1990

Silt and clay proportions taken as all material smaller than 0.063mm.

02/02/2010

geotechnics

LABORATORY RESULTS - Chemical Analysis

Project NORTH LOG YARD **Project No:** PN092178

Sample					Sulphate			pH	Organic Content	Loss on Ignition	Chloride		
					In Soil						In Soil		
Hole	Depth (Specimen Depth) m	Type	Sample Ref	Description	Acid Soluble %	Water Soluble g/l	In Water g/l		%	%	Acid Soluble %	Water Soluble g/l	In Water g/l
TP01	1.50 (1.50)	B	N19917	MADE GROUND: Stiff grey mottled yellowish brown slightly sandy gravelly silt.		0.063 (0.08)		7.41					
TP01	3.00 (3.00)	B	N19918	Firm grey mottled yellowish brown slightly sandy slightly gravelly CLAY.		0.054 (0.06)		7.24					
TP02	1.50 (1.50)	B	N19921	MADE GROUND: Firm to stiff grey mottled yellowish brown slightly sandy slightly gravelly clay.		0.062 (0.07)		7.36					

Remarks AGS Tests performed in accordance with BS 1377: Part 3: 1990
Sulphate reported as SO3, results in brackets reported as SO4

geotechnics

LABORATORY RESULTS - MCV, Compaction, CBR

Project NORTH LOG YARD **Project No:** PN092178

Sample					MCV		Compaction					CBR				
Hole	Depth (Specimen Depth) m	Type	Sample Ref	Description	MCV	w %	Type	w (Opt) %	ρ_d Mg/m³	γ_b Mg/m³	γ_d (Max) Mg/m³	Type	Top CBR %	Top w %	Bottom CBR %	Bottom w %
TP01	0.50 (0.50)	B	N19916	MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel. (See Test Remarks Sheet for further information)			Vibro	(5.0) 5.1* 1.2 3.2 7.2 9.2	2.65a	1.78 *1.78 1.62 1.70 1.77 1.76	1.69 (1.70) *1.69 1.60 1.65 1.65 1.61	V	200	5.1	233	5.1
TP01	1.50 (1.50)	B	N19917	MADE GROUND: Stiff grey mottled yellowish brown slightly sandy gravelly silt.			2.5kg	(13) 17* 3.8 7.7 11 19	2.65a	2.03 *2.07 1.76 1.90 2.02 1.95	1.80 (1.82) *1.77 1.69 1.76 1.83 1.64	2.5kg	32	13	35	14
TP01	3.00 (3.00)	B	N19918	Firm grey mottled yellowish brown slightly sandy slightly gravelly CLAY.			2.5kg	(15) 26* 5.1 10 14 19	2.65a	2.03 *1.94 1.77 1.88 1.98 2.01	1.76 (1.76) *1.54 1.68 1.71 1.73 1.69	2.5kg	21	15	22	16
TP02	0.40 (0.40)	B	N19919	MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel.			Vibro	(5.0) 5.4* 1.4 3.3 7.4 9.4	2.75a	2.47 *2.46 2.26 2.35 2.40 2.36	2.34 (2.34) *2.33 2.23 2.28 2.24 2.15	V	155	5.4	181	5.4
TP02	1.50 (1.50)	B	N19921	MADE GROUND: Firm to stiff grey mottled yellowish brown slightly sandy slightly gravelly clay.			2.5kg	(15) 18* 4.4 8.7 12 22	2.65a	2.01 *2.09 1.73 1.86 1.95 1.93	1.75 (1.76) *1.77 1.66 1.71 1.74 1.58	2.5kg	8.1	14	8.5	16

Remarks AGS Particle Density - a=assumed, m=measured
* = at natural moisture content
Tests performed in accordance with BS 1377: 1990

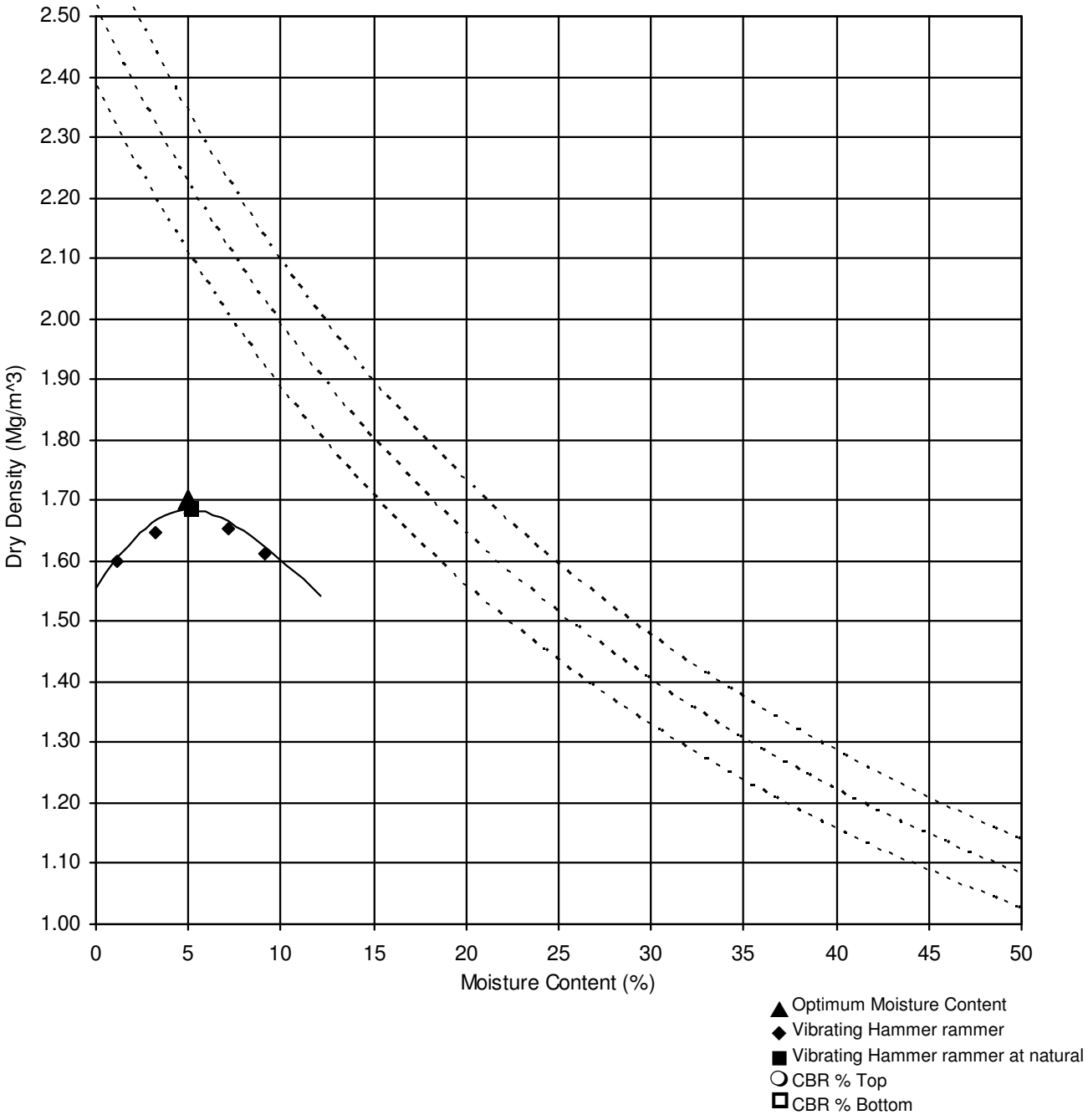
geotechnics

LABORATORY RESULTS - Compaction

Project: NORTH LOG YARD

Project No: PN092178

Hole	TP01
Sample Depth	0.50m
Sample Type	B
Sample Ref	N19916



Optimum Moisture Content	5.0
Maximum Dry Density	1.70 Mg/m^3

Gravel retained on

37.5mm sieve	0 %
20mm sieve	14 %

Particle Density 2.65 (Assumed)

Preparation Vibrating Hammer

Description MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel.

Remarks Test performed in accordance with BS 1377: Part 4: 1990

02/02/2010

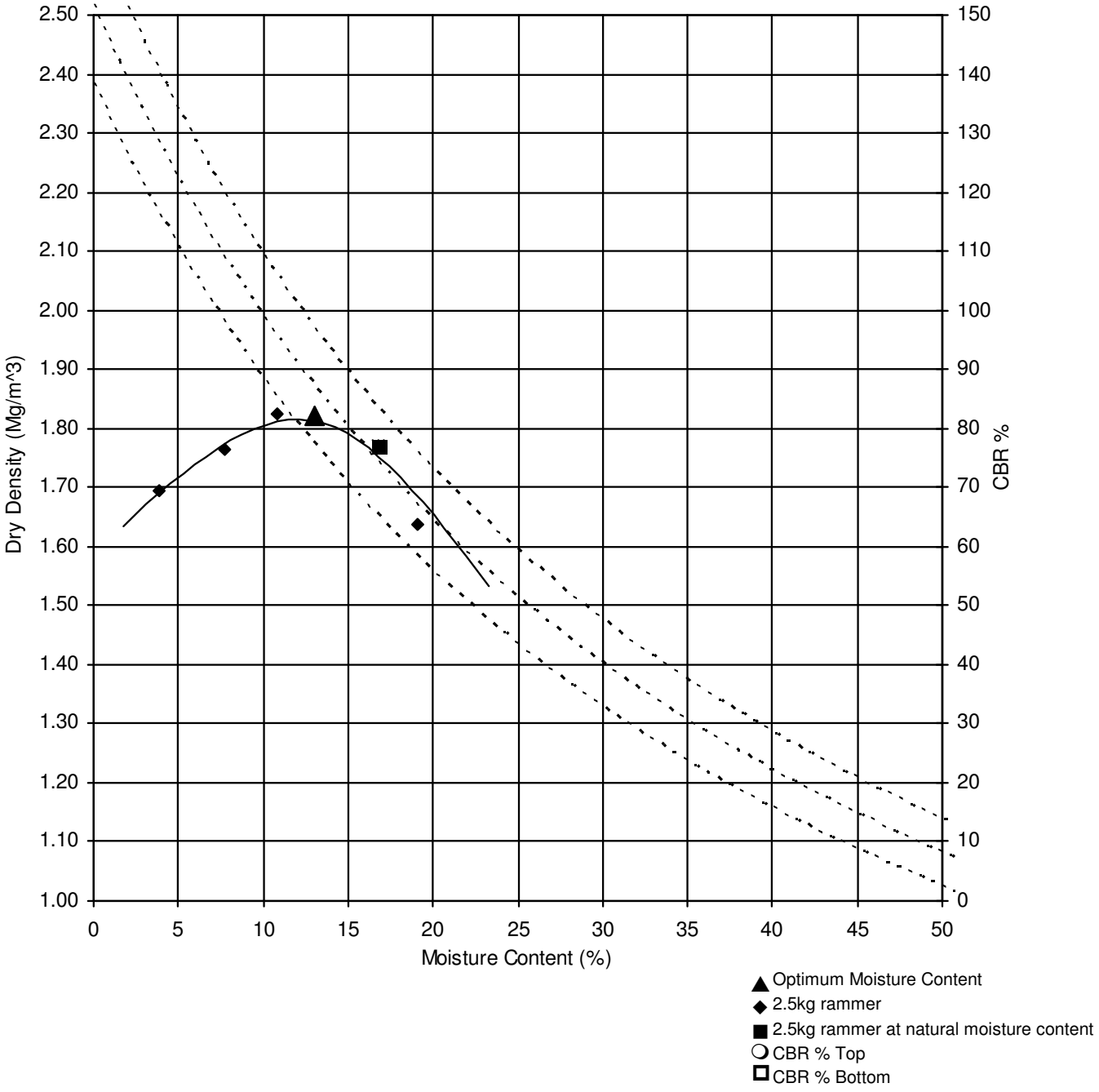
geotechnics

LABORATORY RESULTS - Compaction

Project: NORTH LOG YARD

Project No: PN092178

Hole	TP01
Sample Depth	1.50m
Sample Type	B
Sample Ref	N19917



Optimum Moisture Content	13
Maximum Dry Density	1.82 Mg/m^3

Gravel retained on

37.5mm sieve	9 %
20mm sieve	4 %

Particle Density 2.65 (Assumed)

Preparation 2.5kg

Description MADE GROUND: Stiff grey mottled yellowish brown slightly sandy gravelly silt.

Remarks Test performed in accordance with BS 1377: Part 4: 1990

02/02/2010

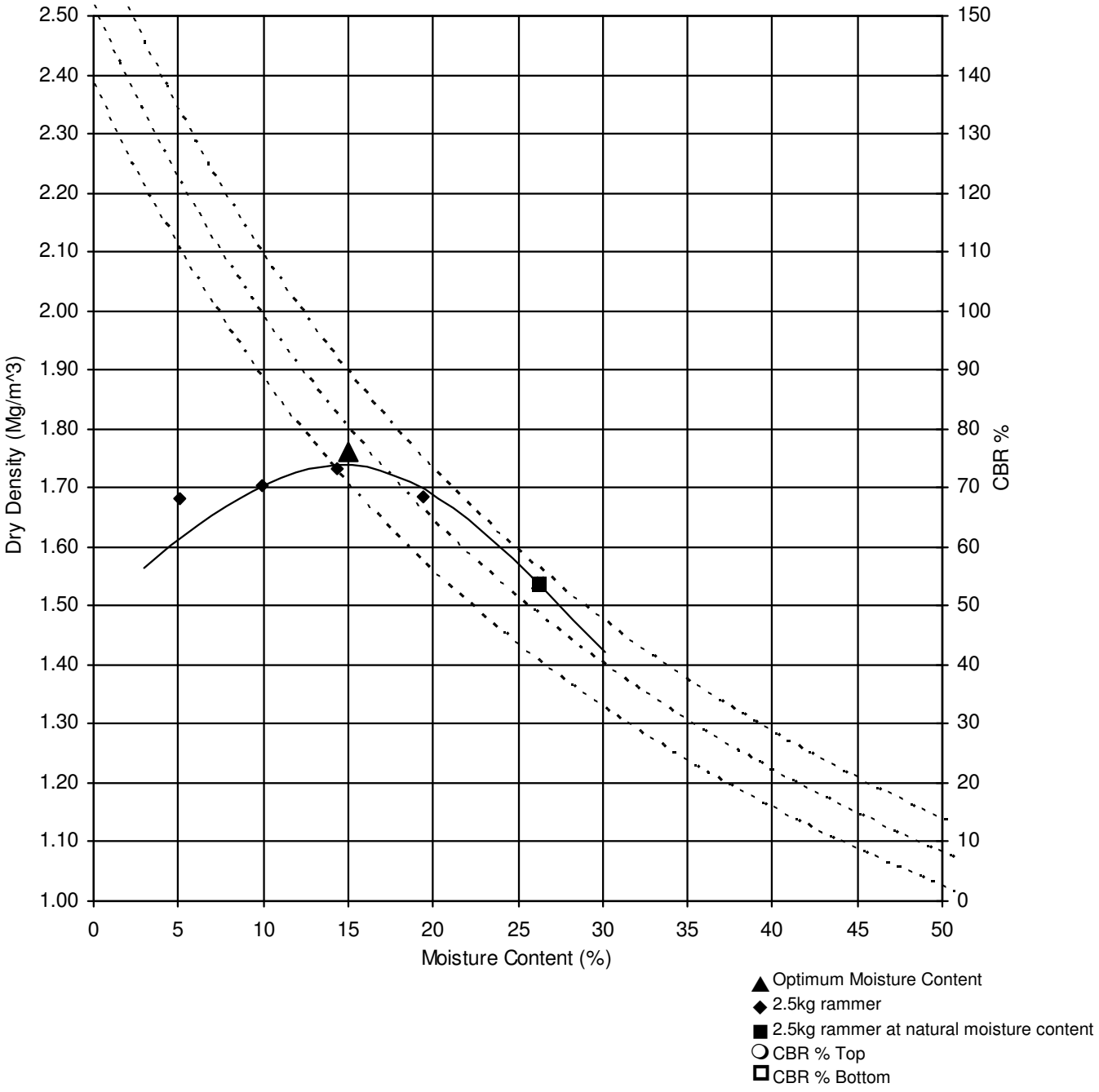
geotechnics

LABORATORY RESULTS - Compaction

Project: NORTH LOG YARD

Project No: PN092178

Hole	TP01
Sample Depth	3.00m
Sample Type	B
Sample Ref	N19918



Optimum Moisture Content	15
Maximum Dry Density	1.76 Mg/m^3

Gravel retained on

37.5mm sieve	0 %
20mm sieve	1 %

Particle Density 2.65 (Assumed)

Preparation 2.5kg

Description Firm grey mottled yellowish brown slightly sandy slightly gravelly CLAY.

Remarks Test performed in accordance with BS 1377: Part 4: 1990

02/02/2010

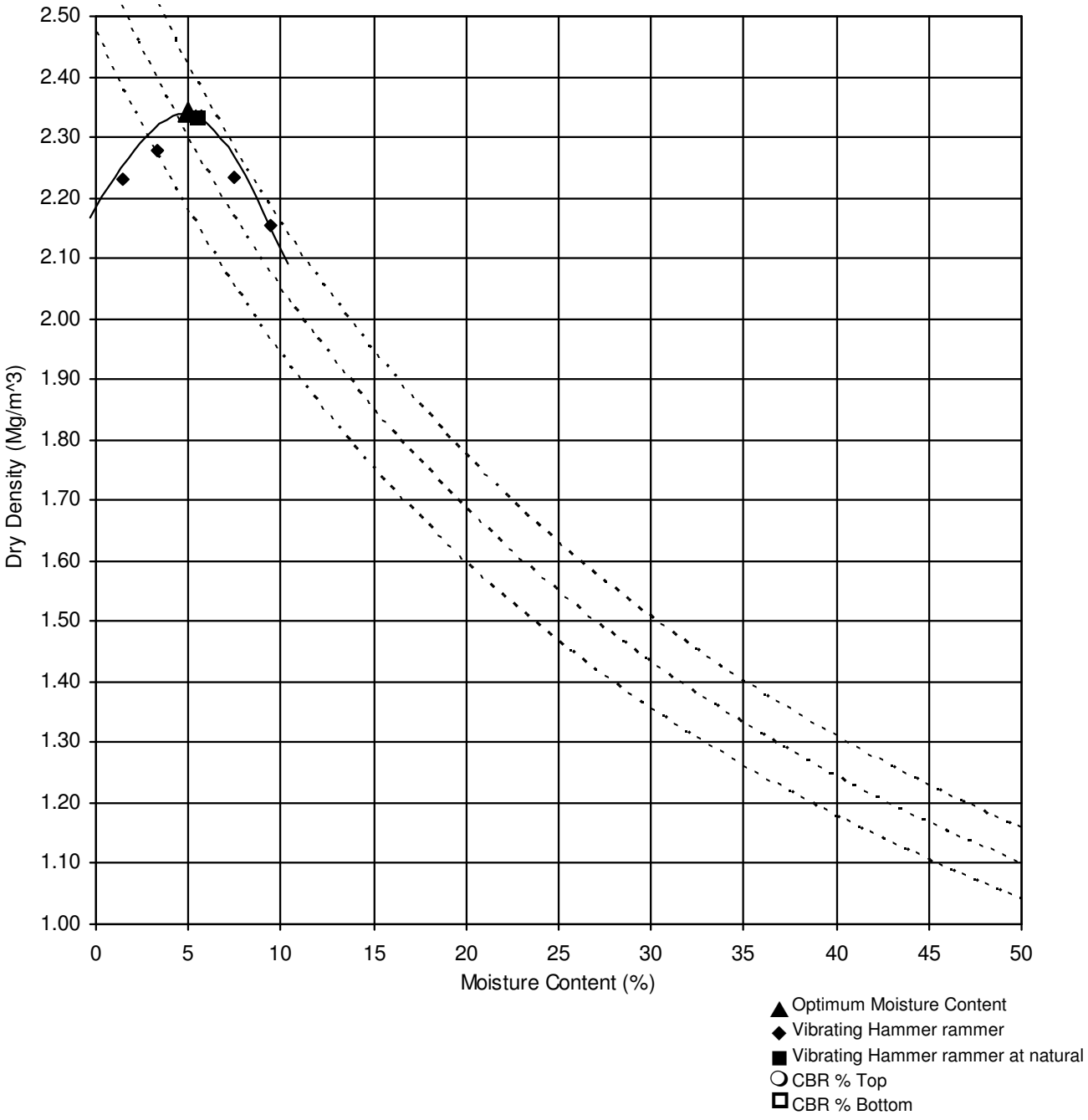
geotechnics

LABORATORY RESULTS - Compaction

Project: NORTH LOG YARD

Project No: PN092178

Hole	TP02
Sample Depth	0.40m
Sample Type	B
Sample Ref	N19919



Optimum Moisture Content	5.0
Maximum Dry Density	2.34 Mg/m^3

Gravel retained on

37.5mm sieve	0 %
20mm sieve	19 %

Particle Density 2.75 (Assumed)

Preparation Vibrating Hammer

Description MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel.

Remarks Test performed in accordance with BS 1377: Part 4: 1990

02/02/2010

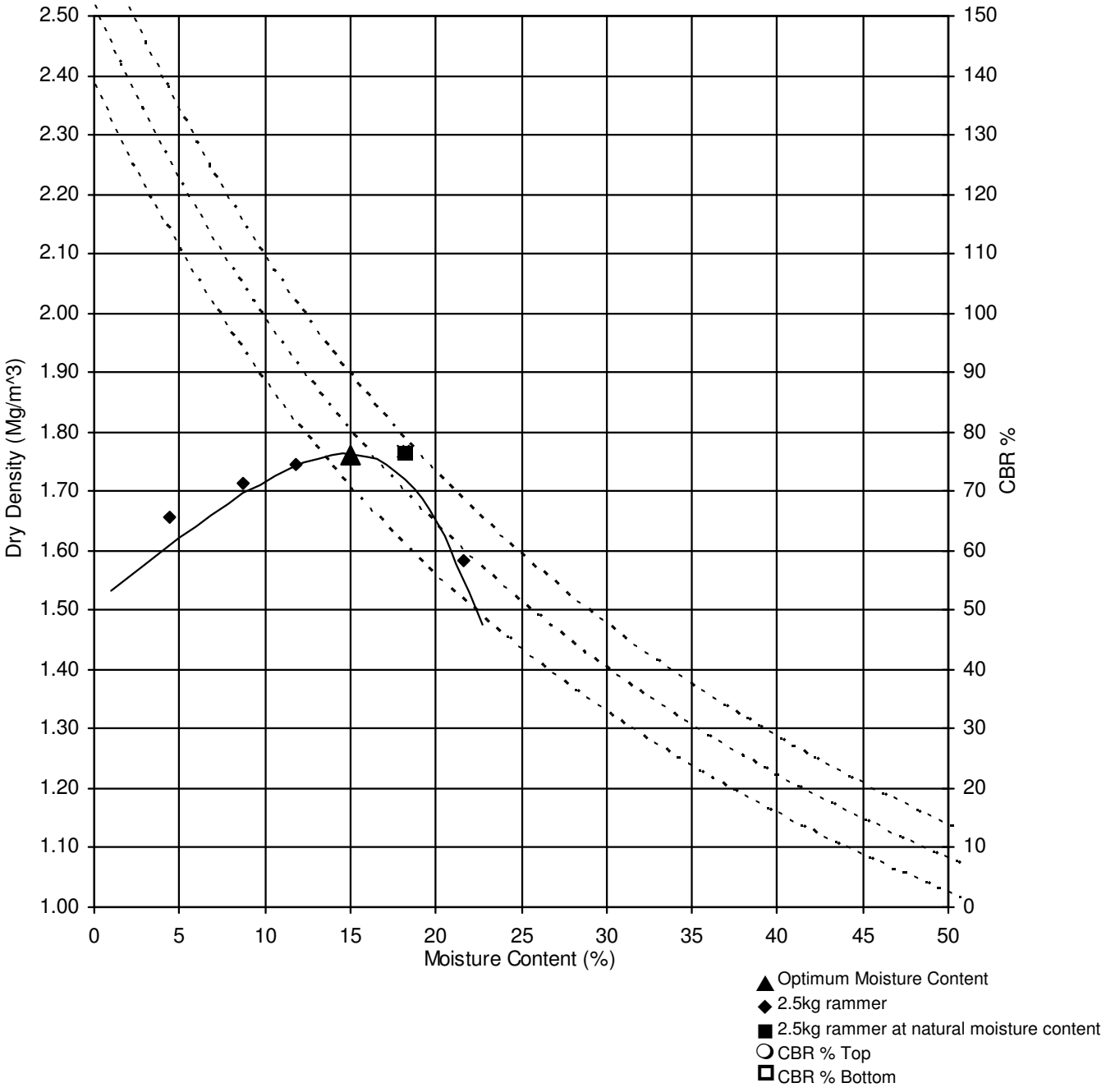
geotechnics

LABORATORY RESULTS - Compaction

Project: NORTH LOG YARD

Project No: PN092178

Hole	TP02
Sample Depth	1.50m
Sample Type	B
Sample Ref	N19921



Optimum Moisture Content	15
Maximum Dry Density	1.76 Mg/m^3

Gravel retained on

37.5mm sieve	1 %
20mm sieve	13 %

Particle Density 2.65 (Assumed)

Preparation 2.5kg

Description MADE GROUND: Firm to stiff grey mottled yellowish brown slightly sandy slightly gravelly clay.

Remarks Test performed in accordance with BS 1377: Part 4: 1990

02/02/2010

geotechnics

LABORATORY RESULTS - CBR Force Penetration

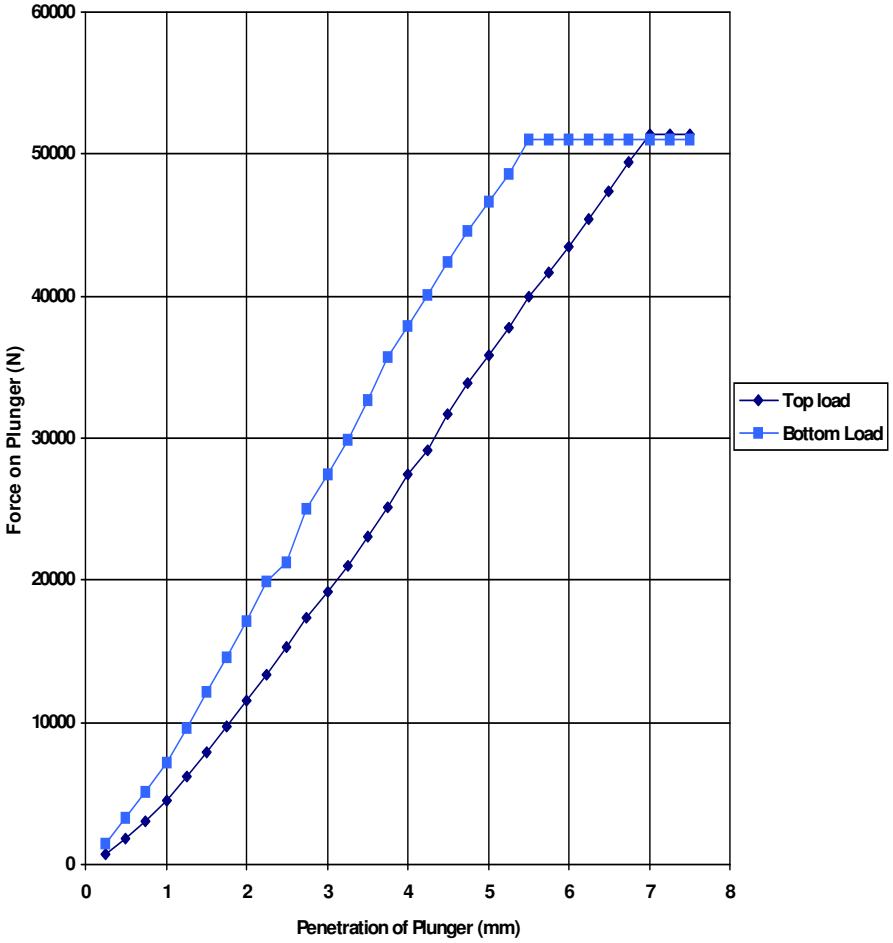
Project: NORTH LOG YARD

Project No: PN092178

Hole	TP01
Sample Depth	0.50m
Sample Type	B
Sample Ref	N19916

Sample Description

MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel.



Penetration	Top (N)	Bottom (N)
0.25mm	737	1479
0.50mm	1802	3227
0.75mm	3090	5060
1.00mm	4517	7197
1.25mm	6210	9555
1.50mm	7850	12120
1.75mm	9705	14529
2.00mm	11523	17140
2.25mm	13376	19920
2.50mm	15260	21246
2.75mm	17324	25077
3.00mm	19246	27435
3.25mm	20970	29900
3.50mm	23129	32630
3.75mm	25189	35760

Penetration	Top (N)	Bottom (N)
4.00mm	27439	37928
4.25mm	29160	40032
4.50mm	31729	42377
4.75mm	33826	44528
5.00mm	35821	46594
5.25mm	37834	48523
5.50mm	39922	50999
5.75mm	41625	50999
6.00mm	43476	50999
6.25mm	45383	50999
6.50mm	47418	50999
6.75mm	49444	50999
7.00mm	51335	50999
7.25mm	51335	50999
7.50mm	51335	50999

Test Details

Test Type	Vibro	
Method	BS1377 Part 4 1990 : Clause 7.0	
Surcharge	13.60	kg
Passing 20mm sieve	14.1	%
Bulk Density	1.78	Mg/m^3
Dry Density	1.69	Mg/m^3
Hand Calculation	Yes	

CBR	Top	Bottom
Value	200	233
w%	5.1	5.1

Remarks

02/02/2010

geotechnics

LABORATORY RESULTS - CBR Force Penetration

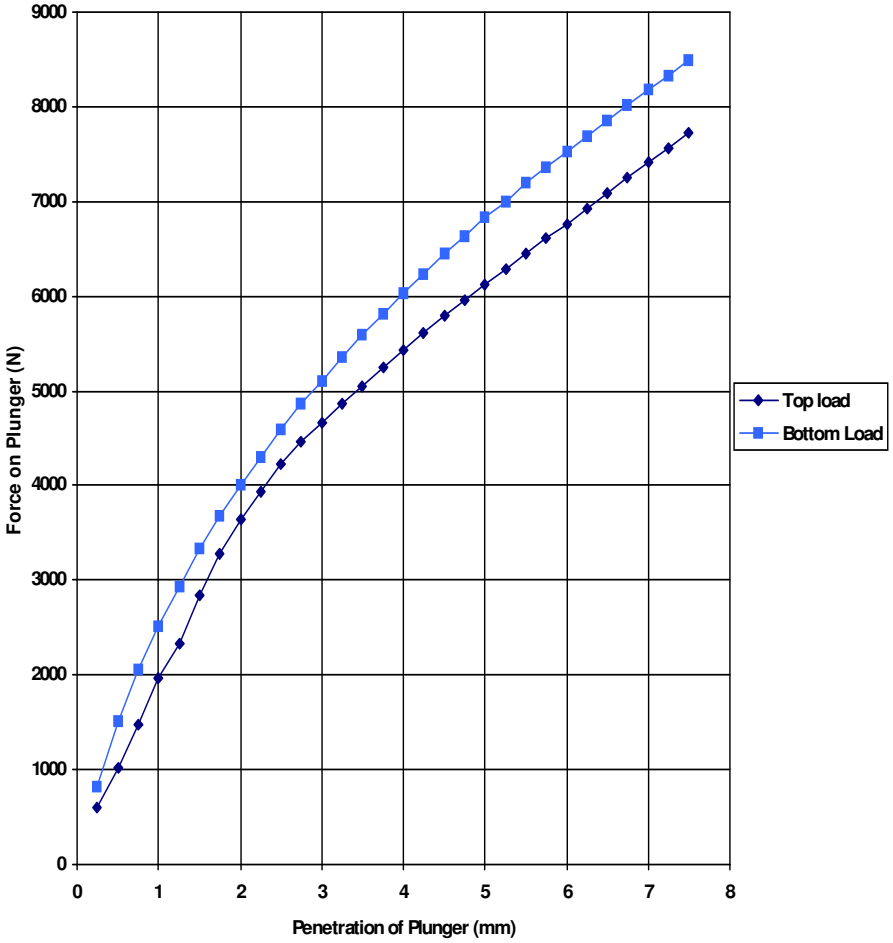
Project: NORTH LOG YARD

Project No: PN092178

Hole	TP01
Sample Depth	1.50m
Sample Type	B
Sample Ref	N19917

Sample Description

MADE GROUND: Stiff grey mottled yellowish brown slightly sandy gravelly silt.



Penetration	Top (N)	Bottom (N)
0.25mm	604	814
0.50mm	1028	1515
0.75mm	1481	2053
1.00mm	1964	2517
1.25mm	2340	2932
1.50mm	2848	3335
1.75mm	3288	3683
2.00mm	3650	4015
2.25mm	3943	4306
2.50mm	4218	4593
2.75mm	4458	4861
3.00mm	4666	5106
3.25mm	4860	5348
3.50mm	5054	5587
3.75mm	5245	5816

Penetration	Top (N)	Bottom (N)
4.00mm	5429	6030
4.25mm	5604	6234
4.50mm	5786	6441
4.75mm	5952	6635
5.00mm	6115	6830
5.25mm	6280	7005
5.50mm	6454	7191
5.75mm	6607	7356
6.00mm	6756	7520
6.25mm	6918	7686
6.50mm	7092	7857
6.75mm	7255	8016
7.00mm	7411	8181
7.25mm	7564	8334
7.50mm	7720	8487

Test Details

Test Type	2.5kg	
Method	BS1377 Part 4 1990 : Clause 7.0	
Surcharge	13.60	kg
Passing 20mm sieve	13.9	%
Bulk Density	2.03	Mg/m^3
Dry Density	1.80	Mg/m^3
Hand Calculation	No	

CBR	Top	Bottom
Value	32	35
w%	13	14

Remarks

02/02/2010

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LABORATORY RESULTS - CBR Force Penetration

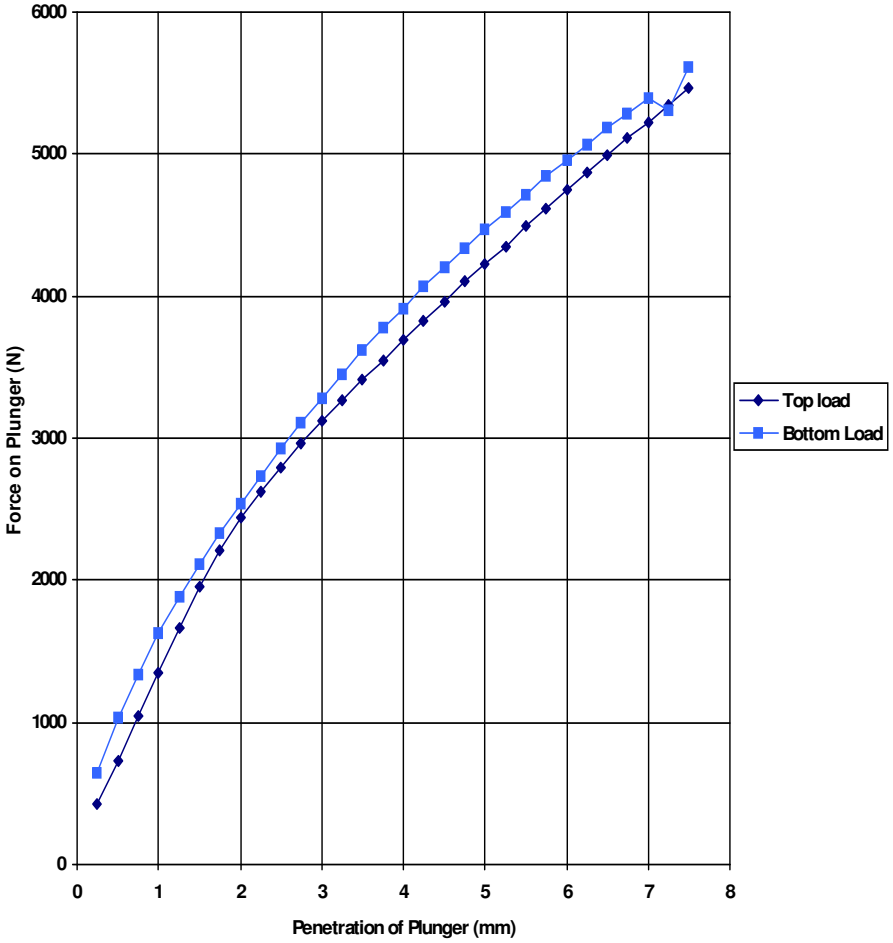
Project: NORTH LOG YARD

Project No: PN092178

Hole	TP01
Sample Depth	3.00m
Sample Type	B
Sample Ref	N19918

Sample Description

Firm grey mottled yellowish brown slightly sandy slightly gravelly CLAY.



Penetration	Top (N)	Bottom (N)
0.25mm	431	642
0.50mm	733	1034
0.75mm	1048	1341
1.00mm	1354	1622
1.25mm	1666	1877
1.50mm	1956	2119
1.75mm	2208	2333
2.00mm	2441	2535
2.25mm	2619	2729
2.50mm	2792	2928
2.75mm	2966	3107
3.00mm	3123	3284
3.25mm	3263	3447
3.50mm	3410	3615
3.75mm	3552	3779

Penetration	Top (N)	Bottom (N)
4.00mm	3691	3915
4.25mm	3823	4063
4.50mm	3963	4198
4.75mm	4100	4332
5.00mm	4226	4465
5.25mm	4353	4597
5.50mm	4489	4716
5.75mm	4617	4850
6.00mm	4743	4955
6.25mm	4865	5070
6.50mm	4991	5181
6.75mm	5109	5287
7.00mm	5224	5393
7.25mm	5344	5303
7.50mm	5466	5616

Test Details

Test Type	2.5kg	
Method	BS1377 Part 4 1990 : Clause 7.0	
Surcharge	13.60	**kg**
Passing 20mm sieve	1.5	**%**
Bulk Density	2.03	**Mg/m^3**
Dry Density	1.76	**Mg/m^3**
Hand Calculation	No	

CBR	Top	Bottom
Value	**21**	**22**
w%	**15**	**16**

Remarks

02/02/2010

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LABORATORY RESULTS - CBR Force Penetration

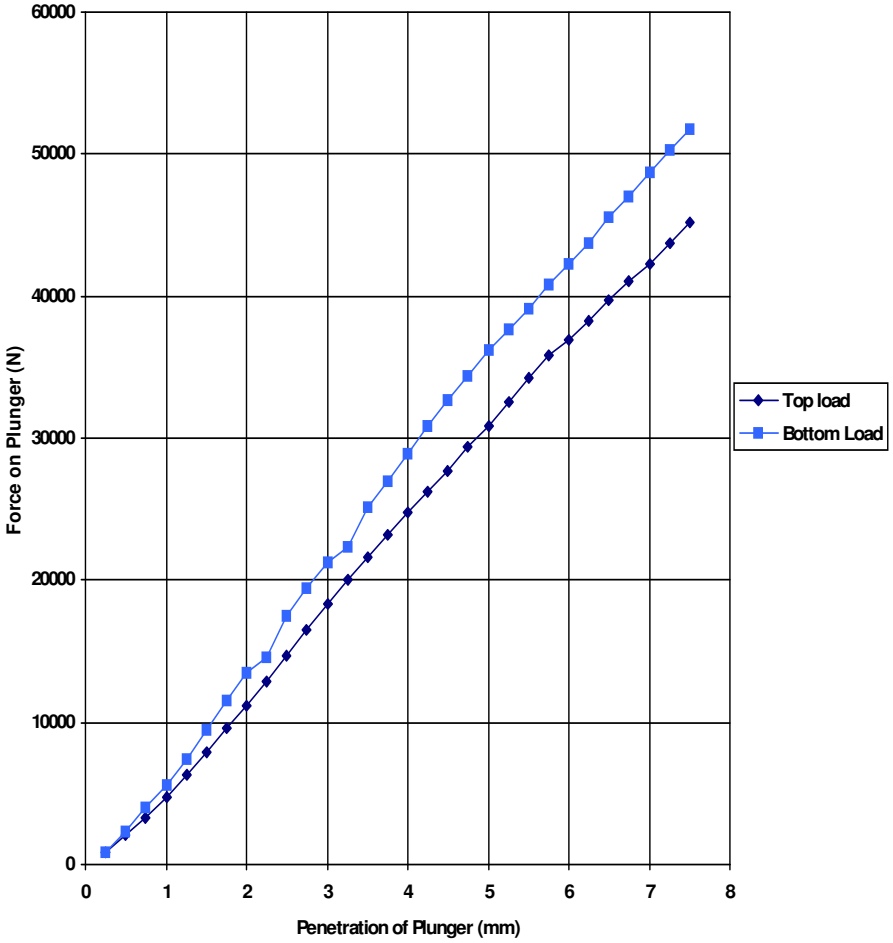
Project: NORTH LOG YARD

Project No: PN092178

Hole	TP02
Sample Depth	0.40m
Sample Type	B
Sample Ref	N19919

Sample Description

MADE GROUND: Grey slightly silty sandy fine to coarse angular gravel.



Penetration	Top (N)	Bottom (N)
0.25mm	904	856
0.50mm	2039	2256
0.75mm	3320	3981
1.00mm	4779	5640
1.25mm	6330	7460
1.50mm	7842	9518
1.75mm	9617	11592
2.00mm	11156	13450
2.25mm	12932	14535
2.50mm	14669	17478
2.75mm	16542	19442
3.00mm	18294	21302
3.25mm	20079	22370
3.50mm	21629	25174
3.75mm	23155	26984

Penetration	Top (N)	Bottom (N)
4.00mm	24730	28860
4.25mm	26211	30802
4.50mm	27662	32620
4.75mm	29409	34414
5.00mm	30909	36146
5.25mm	32570	37668
5.50mm	34215	39128
5.75mm	35841	40779
6.00mm	36978	42216
6.25mm	38307	43776
6.50mm	39684	45489
6.75mm	40992	47064
7.00mm	42308	48694
7.25mm	43708	50294
7.50mm	45186	51770

Test Details

Test Type	Vibro	
Method	BS1377 Part 4 1990 : Clause 7.0	
Surcharge	13.60	**kg**
Passing 20mm sieve	2.9	**%**
Bulk Density	2.47	**Mg/m^3**
Dry Density	2.34	**Mg/m^3**
Hand Calculation	No	

CBR	Top	Bottom
Value	155	181
w%	5.4	5.4

Remarks

02/02/2010

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LABORATORY RESULTS - CBR Force Penetration

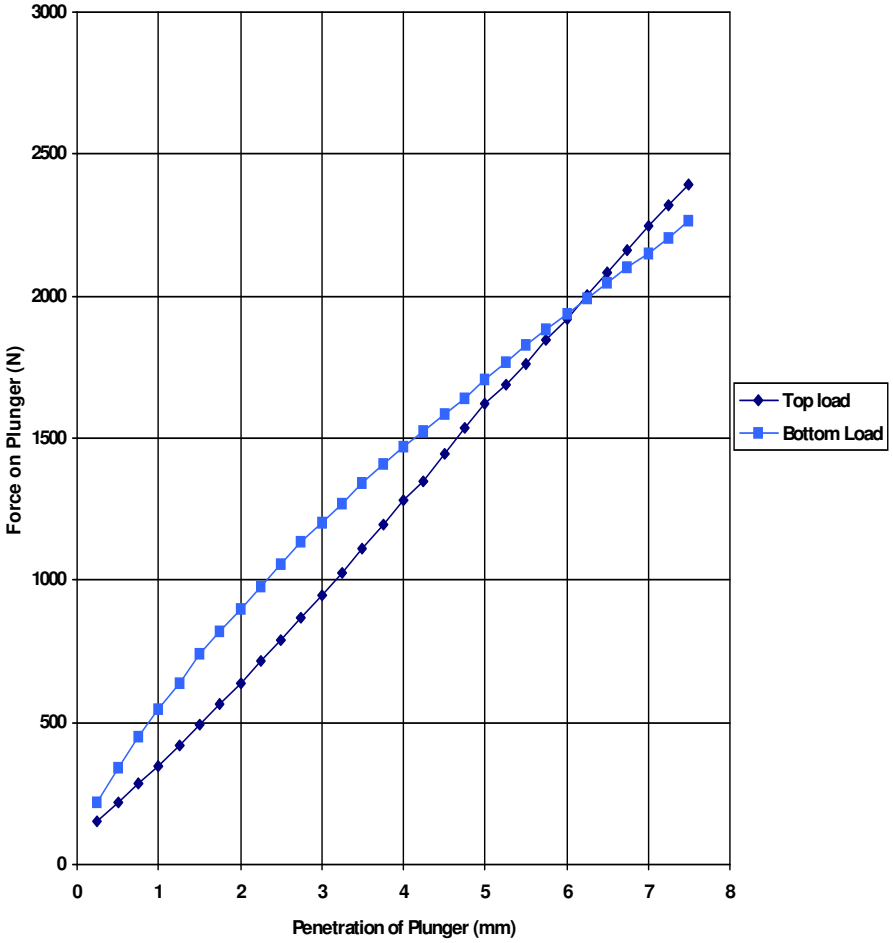
Project: NORTH LOG YARD

Project No: PN092178

Hole	TP02
Sample Depth	1.50m
Sample Type	B
Sample Ref	N19921

Sample Description

MADE GROUND: Firm to stiff grey mottled yellowish brown slightly sandy slightly gravelly clay.



Penetration	Top (N)	Bottom (N)
0.25mm	150	221
0.50mm	219	339
0.75mm	283	448
1.00mm	349	549
1.25mm	422	640
1.50mm	492	741
1.75mm	564	822
2.00mm	637	899
2.25mm	715	979
2.50mm	789	1057
2.75mm	866	1135
3.00mm	950	1205
3.25mm	1025	1271
3.50mm	1114	1342
3.75mm	1194	1409

Penetration	Top (N)	Bottom (N)
4.00mm	1284	1470
4.25mm	1350	1525
4.50mm	1448	1584
4.75mm	1535	1640
5.00mm	1620	1708
5.25mm	1688	1770
5.50mm	1764	1829
5.75mm	1848	1885
6.00mm	1917	1937
6.25mm	2002	1991
6.50mm	2085	2045
6.75mm	2162	2099
7.00mm	2244	2150
7.25mm	2320	2206
7.50mm	2392	2265

Test Details

Test Type	2.5kg	
Method	BS1377 Part 4 1990 : Clause 7.0	
Surcharge	13.60	kg
Passing 20mm sieve	4.9	%
Bulk Density	2.01	Mg/m^3
Dry Density	1.75	Mg/m^3
Hand Calculation	No	

CBR	Top	Bottom
Value	8.1	8.5
w%	14	16

Remarks

02/02/2010

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LABORATORY RESULTS - *Test Remarks*

Project NORTH LOG YARD **Project No:** PN092178

Sample				Laboratory Remark
Hole	Depth (Specimen Depth) m	Type	Sample Ref	
TP01	0.50 (0.50)	B	N19916	CBR Test - TOP CBR, Load Cell has reached its maximum load capacity at 7.00mm BOTTOM CBR, Load Cell has reached its maximum load capacity at 5.50mm

Remarks

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APPENDIX 4

Laboratory Test Results - Contamination

ALcontrol Laboratories

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: mkt@alcontrol.com
Website: www.alcontrol.com

Geotechnics Ltd
The Geotechnical Centre, Unit 1
Borders Industrial Estate, River Lane
Saltney
Chester
Cheshire
CH4 8RJ

Attention: Colin Dodd

CERTIFICATE OF ANALYSIS

Date:	03 February 2010		
Customer:	H_GEOTECHLT_CHE-9		
Sample Delivery Group (SDG):	100104-29	**Report No.:**	71715
Your Reference:	PN092178		
Location:	North Log Yard		

We received 4 samples on Monday January 04, 2010 and 4 of these samples were scheduled for analysis which was completed on Wednesday February 03, 2010. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Asbestos testing - we are not accredited for screening soil samples for asbestos fibres. We are only accredited to identify asbestos fibres in bulk material (ACM).

Approved By:

Chris Crutchley

Operations Director - Land UK & Ireland

mCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME

UKAS TESTING

1291

GROUP

Validated

ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Received Sample Overview

Lab Sample No(s)	Customer Reference	Depth (m)	Sampled Date
798236	TP01	0.50 - 0.50	21/12/2009 00:00:00
798244	TP01	2.00 - 2.00	21/12/2009 00:00:00
798256	TP02	0.70 - 0.70	21/12/2009 00:00:00
798270	TP02	1.50 - 1.50	21/12/2009 00:00:00

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

SOLID

Results Legend

X Test

No Determination Possible

N

		Lab Sample No(s)	798236			798244			798256			798270			Total
		Sample ID	TP01			TP01			TP02			TP02			
		Depth (m)	0.50 - 0.50			2.00 - 2.00			0.70 - 0.70			1.50 - 1.50			
		Container	1kg TUB	250g Amber Jar	60g VOC	1kg TUB	250g Amber Jar	60g VOC	1kg TUB	250g Amber Jar	60g VOC	1kg TUB	250g Amber Jar	60g VOC	
Ammonium	All		X			X			X			X			04
Ammonium Soil by Titration	All		X			X			X			X			04
Anions by Kone (w)	All		X			X			X			X			04
BOD Unfiltered	All		X			X			X			X			04
CEN Readings	All		X			X			X			X			04
COD Unfiltered	All		X			X			X			X			04
Cyanide Comp/Free/Total/Thiocyanate	All		X			X			X			X			04
Dissolved Metals by ICP-MS	All		X			X			X			X			04
EPH CWG (Aliphatic) Aqueous GC (W)	All		X			X			X			X			04
EPH CWG (Aliphatic) GC (S)	All			X			X			X			X		04
EPH CWG (Aromatic) Aqueous GC (W)	All		X			X			X			X			04
EPH CWG (Aromatic) GC (S)	All			X			X			X			X		04
Formaldehyde	All		X			X			X			X			04
GRO BTEX MTBE GC (S)	All				X			X			X			X	04
GRO BTEX MTBE GC (W)	All		X			X			X			X			04
Mercury Dissolved	All		X			X			X			X			04
Metals by iCap-OES (Soil)	Arsenic			X			X			X			X		04
	Cadmium			X			X			X			X		04
	Chromium			X			X			X			X		04
	Copper			X			X			X			X		04
	Lead			X			X			X			X		04
	Mercury			X			X			X			X		04
	Nickel			X			X			X			X		04

Validated

ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

		798236			798244			798256			798270			Total
		TP01			TP01			TP02			TP02			
		0.50 - 0.50			2.00 - 2.00			0.70 - 0.70			1.50 - 1.50			
		1kg TUB	250g Amber Jar	60g VOC	1kg TUB	250g Amber Jar	60g VOC	1kg TUB	250g Amber Jar	60g VOC	1kg TUB	250g Amber Jar	60g VOC	
Metals by iCap-OES (Soil)	Selenium		X			X			X			X		0 4
	Vanadium		X			X			X			X		0 4
	Zinc		X			X			X			X		0 4
Metals by iCap-OES Dissolved (W)	All	X			X			X			X			0 4
pH	All	X			X			X			X			0 4
pH Value	All	X			X			X			X			0 4
Sample description	All		X			X			X			X		0 4
Semi Volatile Organic Compounds	All		X			X			X			X		0 4
SVOC MS (W) - Aqueous	All	X			X			X			X			0 4
Total Organic Carbon	All		X			X			X			X		0 4
TPH CWG (W)	All	X			X			X			X			0 4
TPH CWG GC (S)	All		X			X			X			X		0 4
VOC MS (S)	All			X			X			X			X	0 4
VOC MS (W)	All	X			X			X			X			0 4
Water Soluble Sulphate 2:1	All		X			X			X			X		0 4

Validated

ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Sample Descriptions

Grain Sizes:
<0.063mm very fine,
0.063mm - 0.1mm fine,
0.1mm - 2mm medium,
2mm - 10mm coarse,
>10mm very coarse

Lab Sample No(s)	Sample ID	Depth (m)	Colour	Description	Grain size	Inclusions
798236	TP01	0.50 - 0.50	Brown	Sand	0.1 - 2 mm	Stones
798244	TP01	2.00 - 2.00	Brown	Sandy Clay	0.1 - 2 mm	Stones
798256	TP02	0.70 - 0.70	Brown	Sandy Clay	0.1 - 2 mm	Stones
798270	TP02	1.50 - 1.50	Brown	Sandy Clay	0.1 - 2 mm	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Test Completion dates

SDG reference: 100104-29

Lab Sample No(s)	798236	798244	798256	798270
Sample ID	TP01	TP01	TP02	TP02
Depth	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50
Type	SOLID	SOLID	SOLID	SOLID
Ammonium	21/01/2010	21/01/2010	21/01/2010	21/01/2010
Ammonium Soil by Titration	20/01/2010	20/01/2010	20/01/2010	20/01/2010
Anions by Kone (w)	21/01/2010	21/01/2010	21/01/2010	21/01/2010
BOD Unfiltered	27/01/2010	01/02/2010	01/02/2010	27/01/2010
CEN Readings	21/01/2010	21/01/2010	21/01/2010	21/01/2010
COD Unfiltered	21/01/2010	21/01/2010	21/01/2010	21/01/2010
Cyanide Comp/Free/Total/Thiocyanate	21/01/2010	21/01/2010	21/01/2010	21/01/2010
Dissolved Metals by ICP-MS	22/01/2010	22/01/2010	22/01/2010	22/01/2010
EPH CWG (Aliphatic) Aqueous GC (W)	26/01/2010	26/01/2010	26/01/2010	26/01/2010
EPH CWG (Aliphatic) GC (S)	21/01/2010	21/01/2010	22/01/2010	22/01/2010
EPH CWG (Aromatic) Aqueous GC (W)	26/01/2010	26/01/2010	26/01/2010	26/01/2010
EPH CWG (Aromatic) GC (S)	21/01/2010	21/01/2010	22/01/2010	22/01/2010
Formaldehyde	22/01/2010	22/01/2010	22/01/2010	22/01/2010
GRO BTEX MTBE GC (S)	20/01/2010	20/01/2010	20/01/2010	20/01/2010
GRO BTEX MTBE GC (W)	21/01/2010	21/01/2010	21/01/2010	21/01/2010
Mercury Dissolved	21/01/2010	21/01/2010	21/01/2010	21/01/2010
Metals by iCap-OES (Soil)	25/01/2010	20/01/2010	25/01/2010	25/01/2010
Metals by iCap-OES Dissolved (W)	21/01/2010	21/01/2010	21/01/2010	21/01/2010
Moisture Meter	19/01/2010	19/01/2010	19/01/2010	19/01/2010
pH	20/01/2010	20/01/2010	20/01/2010	20/01/2010
pH Value	21/01/2010	21/01/2010	21/01/2010	21/01/2010
Sample description	19/01/2010	19/01/2010	19/01/2010	19/01/2010
Semi Volatile Organic Compounds	21/01/2010	21/01/2010	21/01/2010	21/01/2010
SVOC MS (W) - Aqueous	22/01/2010	22/01/2010	22/01/2010	22/01/2010
Total Organic Carbon	20/01/2010	20/01/2010	20/01/2010	20/01/2010
TPH CWG (W)	26/01/2010	26/01/2010	26/01/2010	26/01/2010
TPH CWG GC (S)	21/01/2010	21/01/2010	22/01/2010	22/01/2010
VOC MS (S)	21/01/2010	20/01/2010	21/01/2010	21/01/2010
VOC MS (W)	25/01/2010	25/01/2010	25/01/2010	25/01/2010
Water Soluble Sulphate 2:1	21/01/2010	21/01/2010	21/01/2010	21/01/2010

Validated

ALcontrol Laboratories Analytical Services

SDG	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Results Legend

ISO17025 accredited.
M *m*CERTS accredited.
***** subcontracted test.
****** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 %. The results of the individual compounds within the sample are not corrected for this recovery.

Component	LOD/Units	Method	Sample Identity	TP01	TP01	TP02	TP02
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	21/12/2009	21/12/2009	21/12/2009	21/12/2009
			Date Received	04/01/2010	04/01/2010	04/01/2010	04/01/2010
			SDG Ref	100104-29	100104-29	100104-29	100104-29
			Lab Sample No.(s)	798236	798244	798256	798270
Moisture	%	PM114		5.37	19.9	9.25	16.9
Moisture Content Ratio (%)	%	PM114		5.67	24.8	10.2	20.3
Dry Matter Content Ratio (%)	%	PM114		94.6	80.1	90.8	83.2
Ammoniacal Nitrogen as N	<15 mg/kg	TM024		<15	<15	<15	<15
Formaldehyde	<1 mg/kg	TM038		<1	<1	<1	<1
Water Soluble Sulphate as SO4	<0.003 g/l	TM098		0.012 M	0.0754 M	0.0136 M	0.0725 M
Fraction Organic Carbon on Solid	<0.002 -	TM132		<0.002 #	0.103 #	<0.002 #	0.0971 #
pH value of soil	1 pH Units	TM133		9 M	7.88 M	9.18 M	8.11 M
Total Cyanide	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		1.35 M	16.3 M	3.86 M	14.2 M
Cadmium	<0.02 mg/kg	TM181		<0.02 M	<0.02 M	<0.02 M	<0.02 M
Chromium	<0.9 mg/kg	TM181		34.1 M	32.6 M	8.79 M	41.1 M
Copper	<1.4 mg/kg	TM181		28.8 M	60.8 M	3.81 M	35 M
Lead	<0.7 mg/kg	TM181		<0.7 M	47.8 M	12.1 M	67 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<0.14 M	<0.14 M	<0.14 M
Nickel	<0.2 mg/kg	TM181		32.3 M	31.4 M	6.73 M	38.7 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	<1 #
Vanadium	<0.2 mg/kg	TM181		105 #	32.3 #	15.4 #	28 #
Zinc	<1.9 mg/kg	TM181		38.7 M	176 M	8.87 M	106 M

SDG	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

EPH CWG (Aliphatic) GC (S)

Results Legend

ISO17025 accredited.
M *m*CERTS accredited.
***** subcontracted test.
****** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 %. The results of the individual compounds within the sample are not corrected for this recovery.

Component	LOD/Units	Method	Sample Identity	TP01	TP01	TP02	TP02		
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	21/12/2009	21/12/2009	21/12/2009	21/12/2009		
			Date Received	04/01/2010	04/01/2010	04/01/2010	04/01/2010		
			SDG Ref	100104-29	100104-29	100104-29	100104-29		
			Lab Sample No.(s)	798236	798244	798256	798270		
Aliphatics >C12-C16	<100 µg/kg	TM173		2310	110000	<100	20200		
Aliphatics >C16-C21	<100 µg/kg	TM173		3330	14400	<100	23900		
Aliphatics >C21-C35	<100 µg/kg	TM173		1220	38200	<100	30400		
Aliphatics >C35-C44	<100 µg/kg	TM173		<100	9960	<100	3100		
Total Aliphatics >C12-C44	<100 µg/kg	TM173		6950	173000	146	77500		
Total Aliphatics & Aromatics >C12-C44	<100 µg/kg	TM173		8030	277000	2300	233000		
Aliphatics >C16-C35	<100 µg/kg	TM173		4550	52700	<100	54300		
Aliphatics >C35-C40	<100 µg/kg	TM173		<100	6980	<100	2480		
Aliphatics >C40-C44	<100 µg/kg	TM173		<100	2980	<100	616		
Total Aliphatics >C12-C35	<100 µg/kg	TM173		6860	163000	113	74400		
Total Aliphatics >C12-C40	<100 µg/kg	TM173		6890	170000	126	76900		

SDG	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

EPH CWG (Aromatic) GC (S)

Results Legend

\# ISO17025 accredited.
M *m*CERTS accredited.
* subcontracted test.
** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 %. The results of the individual compounds within the sample are not corrected for this recovery.

Component	LOD/Units	Method	Sample Identity	TP01	TP01	TP02	TP02		
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	21/12/2009	21/12/2009	21/12/2009	21/12/2009		
			Date Received	04/01/2010	04/01/2010	04/01/2010	04/01/2010		
			SDG Ref	100104-29	100104-29	100104-29	100104-29		
			Lab Sample No.(s)	798236	798244	798256	798270		
Aromatics >EC12-EC16	<100 µg/kg	TM173		219	12100	<100	18600		
Aromatics >EC16-EC21	<100 µg/kg	TM173		401	16600	<100	30400		
Aromatics >EC21-EC35	<100 µg/kg	TM173		168	60800	1810	90200		
Aromatics >EC35-EC44	<100 µg/kg	TM173		298	15000	328	16500		
Total Aromatics >EC12-EC44	<100 µg/kg	TM173		1090	105000	2150	156000		
Aromatics >EC35-EC40	<100 µg/kg	TM173		235	9860	271	11500		
Aromatics >EC40-EC44	<100 µg/kg	TM173		<100	5160	<100	4920		
Total Aromatics >EC12-EC35	<100 µg/kg	TM173		788	89500	1820	139000		
Total Aromatics >EC12-EC40	<100 µg/kg	TM173		1020	99400	2100	151000		
Total Aromatics >EC12-EC44 UK SPEC	<100 µg/kg	TM173		1090	105000	2150	156000		

SDG	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

GRO BTEX MTBE GC (S)

Results Legend

ISO17025 accredited.
M *m*CERTS accredited.
***** subcontracted test.
****** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 %. The results of the individual compounds within the sample are not corrected for this recovery.

Component	LOD/Units	Method	Sample Identity	TP01	TP01	TP02	TP02
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	21/12/2009	21/12/2009	21/12/2009	21/12/2009
			Date Received	04/01/2010	04/01/2010	04/01/2010	04/01/2010
			SDG Ref	100104-29	100104-29	100104-29	100104-29
			Lab Sample No.(s)	798236	798244	798256	798270
GRO C5-C12	<44 µg/kg	TM089		<44 #	<44 #	<44 #	<44 #
MTBE	<5 µg/kg	TM089		<5 #	<5 #	<5 #	<5 #
Benzene	<10 µg/kg	TM089		<10 M	<10 M	<10 M	<10 M
Toluene	<2 µg/kg	TM089		<2 M	<2 M	<2 M	<2 M
Ethyl Benzene	<3 µg/kg	TM089		<3 M	<3 M	<3 M	<3 M
m & p Xylene	<6 µg/kg	TM089		<6 M	<6 M	<6 M	<6 M
o Xylene	<3 µg/kg	TM089		<3 M	<3 M	<3 M	<3 M
Sum m&p and o Xylene	<10 µg/kg	TM089		<10 M	<10 M	<10 M	<10 M
Sum of BTEX	<10 µg/kg	TM089		<10 M	<10 M	<10 M	<10 M
Aliphatics C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/kg	TM089		<10	<10	<10	<10
Total Aliphatics C5-C12	<10 µg/kg	TM089		<10	<10	<10	<10
Aromatics C6-C7	<10 µg/kg	TM089		<10	<10	<10	<10
Aromatics >C7-C8	<10 µg/kg	TM089		<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/kg	TM089		<10	<10	<10	<10
Total Aromatics C6-C12	<10 µg/kg	TM089		<10	<10	<10	<10
Surrogate Recovery %**	%	TM089		124	62	129	40

SDG	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Semi Volatile Organic Compounds

Results Legend

ISO17025 accredited.
M *m*CERTS accredited.
***** subcontracted test.
****** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 %. The results of the individual compounds within the sample are not corrected for this recovery.

Component	LOD/Units	Method	Sample Identity	TP01	TP01	TP02	TP02		
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	21/12/2009	21/12/2009	21/12/2009	21/12/2009		
			Date Received	04/01/2010	04/01/2010	04/01/2010	04/01/2010		
			SDG Ref	100104-29	100104-29	100104-29	100104-29		
			Lab Sample No.(s)	798236	798244	798256	798270		
Phenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Pentachlorophenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
N-nitosodi-n-propylamine (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Nitrobenzene (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Isophorone (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Hexachloroethane (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Hexachlorocyclopentadiene (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Hexachlorobutadiene (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Hexachlorobenzene (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Din-Octyl phthalate	<100 µg/kg	TM157		<100	<100	<100	<100		
Dimethyl phthalate	<100 µg/kg	TM157		<100	<100	<100	<100		
Diethyl phthalate	<100 µg/kg	TM157		<100	<100	<100	<100		
Di-n-butyl phthalate (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Dibenzofuran (S)	<100 µg/kg	TM157		<100	135	<100	158		
Carbazole (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<100	<100	<100		
Bis(2-ethylhexyl) phthalate (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Bis(2-chloroethoxy)methane	<100 µg/kg	TM157		<100	<100	<100	<100		
Bis(2-chloroethyl)ether (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
Azobenzene (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
4-Nitrophenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
4-Nitroaniline	<100 µg/kg	TM157		<100	<100	<100	<100		
4-Methylphenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<100	<100	<100		
4-Chloroaniline	<100 µg/kg	TM157		<100	<100	<100	<100		
4-Chloro-3-methylphenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<100	<100	<100		
3-Nitroaniline	<100 µg/kg	TM157		<100	<100	<100	<100		
2-Nitrophenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
2-Nitroaniline (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
2-Methylphenol	<100 µg/kg	TM157		<100	<100	<100	<100		
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<100		
2-Chlorophenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<100	<100	<100		
2,4-Dinitrotoluene (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
2,4-Dimethylphenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
2,4-Dichlorophenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
2,4,6-Trichlorophenol (S)	<100 µg/kg	TM157		<100	<100	<100	<100		
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<100	<100	<100		

SDG	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Semi Volatile Organic Compounds

Results Legend

ISO17025 accredited.
M *m*CERTS accredited.
***** subcontracted test.
****** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 %. The results of the individual compounds within the sample are not corrected for this recovery.

Component	LOD/Units	Method	Sample Identity	TP01	TP01	TP02	TP02
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	21/12/2009	21/12/2009	21/12/2009	21/12/2009
			Date Received	04/01/2010	04/01/2010	04/01/2010	04/01/2010
			SDG Ref	100104-29	100104-29	100104-29	100104-29
			Lab Sample No.(s)	798236	798244	798256	798270
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<100
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<100
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<100
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<100	<100	<100
2-Methylnaphthalene	<100 µg/kg	TM157		<100	379	<100	487
Acenaphthylene	<100 µg/kg	TM157		<100	<100	<100	<100
Acenaphthene	<100 µg/kg	TM157		<100	<100	<100	<100
Anthracene	<100 µg/kg	TM157		<100	<100	<100	<100
Benzo(a)anthracene	<100 µg/kg	TM157		<100	247	<100	<100
Benzo(b)fluoranthene	<100 µg/kg	TM157		<100	196	<100	<100
Benzo(k)fluoranthene	<100 µg/kg	TM157		<100	252	<100	<100
Benzo(a)pyrene	<100 µg/kg	TM157		<100	354	<100	<100
Benzo(ghi)perylene	<100 µg/kg	TM157		<100	150	<100	<100
Chrysene	<100 µg/kg	TM157		<100	327	<100	<100
Fluoranthene	<100 µg/kg	TM157		<100	609	<100	169
Fluorene	<100 µg/kg	TM157		<100	<100	<100	<100
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		<100	138	<100	<100
Phenanthrene	<100 µg/kg	TM157		<100	425	<100	325
Pyrene	<100 µg/kg	TM157		<100	536	<100	172
Naphthalene (S)	<100 µg/kg	TM157		<100	245	<100	312
Dibenzo(a,h)anthracene (S)	<100 µg/kg	TM157		<100	<100	<100	<100

ALcontrol Laboratories Analytical Services

SDG	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

TPH CWG GC (S)

Results Legend

ISO17025 accredited.
M *m*CERTS accredited.
***** subcontracted test.
****** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 %. The results of the individual compounds within the sample are not corrected for this recovery.

Component	LOD/Units	Method	Sample Identity	TP01	TP01	TP02	TP02		
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	21/12/2009	21/12/2009	21/12/2009	21/12/2009		
			Date Received	04/01/2010	04/01/2010	04/01/2010	04/01/2010		
			SDG Ref	100104-29	100104-29	100104-29	100104-29		
			Lab Sample No.(s)	798236	798244	798256	798270		
Total Aliphatics >C5-C44	<100 µg/kg	TM173		6950	173000	146	77500		
Total Aromatics >C6-C44	<100 µg/kg	TM173		1090	105000	2150	156000		
TPH (Aliphatics + Aromatics) >C5-C44	<100 µg/kg	TM173		8030	277000	2300	233000		

SDG	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

VOC MS (S)

Results Legend

\# ISO17025 accredited.
M *m*CERTS accredited.
* subcontracted test.
** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 %. The results of the individual compounds within the sample are not corrected for this recovery.

Component	LOD/Units	Method	Sample Identity	TP01	TP01	TP02	TP02		
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	21/12/2009	21/12/2009	21/12/2009	21/12/2009		
			Date Received	04/01/2010	04/01/2010	04/01/2010	04/01/2010		
			SDG Ref	100104-29	100104-29	100104-29	100104-29		
			Lab Sample No.(s)	798236	798244	798256	798270		
Dibromofluoromethane**	%	TM116		112	98.1	124	96.2		
Toluene-d8**	%	TM116		102	79.6	103	77.4		
4-Bromofluorobenzene**	%	TM116		104	52.4	105	48.8		
Dichlorodifluoromethane	<13 µg/kg	TM116		<13 M	<13 M	<13 M	<13 M		
Chloromethane	<12 µg/kg	TM116		<12 #	<12 #	<12 #	<12 #		
Vinyl Chloride	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
Bromomethane	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
Chloroethane	<12 µg/kg	TM116		<12 M	<12 M	<12 M	<12 M		
Trichlorofluorormethane	<7 µg/kg	TM116		<7 M	<7 M	<7 M	<7 M		
1.1-Dichloroethene	<9 µg/kg	TM116		<9 #	<9 #	<9 #	<9 #		
Carbon Disulphide	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
Dichloromethane	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
Methyl Tertiary Butyl Ether	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
trans-1-2-Dichloroethene	<12 µg/kg	TM116		<12 M	<12 M	<12 M	<12 M		
1.1-Dichloroethane	<8 µg/kg	TM116		<8 M	<8 M	<8 M	<8 M		
cis-1-2-Dichloroethene	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
2.2-Dichloropropane	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
Bromochloromethane	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
Chloroform	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
1.1.1-Trichloroethane	<12 µg/kg	TM116		<12 M	<12 M	<12 M	<12 M		
1.1-Dichloropropene	<13 µg/kg	TM116		<13 M	<13 M	<13 M	<13 M		
Carbontetrachloride	<11 µg/kg	TM116		<11 M	<11 M	<11 M	<11 M		
1.2-Dichloroethane	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
Benzene	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
Trichloroethene	<9 µg/kg	TM116		<9 #	<9 #	<9 #	<9 #		
1.2-Dichloropropane	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
Dibromomethane	<12 µg/kg	TM116		<12 M	<12 M	<12 M	<12 M		
Bromodichloromethane	<11 µg/kg	TM116		<11 M	<11 M	<11 M	<11 M		
cis-1-3-Dichloropropene	<25 µg/kg	TM116		<25 M	<25 M	<25 M	<25 M		
Toluene	<6 µg/kg	TM116		<6 M	<6 M	<6 M	<6 M		
trans-1-3-Dichloropropene	<27 µg/kg	TM116		<27	<27	<27	<27		
1.1.2-Trichloroethane	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
1.3-Dichloropropane	<7 µg/kg	TM116		<7 M	<7 M	<7 M	<7 M		
Tetrachloroethene	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
Dibromochloromethane	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
1.2-Dibromoethane	<14 µg/kg	TM116		<14 M	<14 M	<14 M	<14 M		
Chorobenzene	<7 µg/kg	TM116		<7 M	<7 M	<7 M	<7 M		
1.1.1.2-Tetrachloroethane	<11 µg/kg	TM116		<11 M	<11 M	<11 M	<11 M		
Ethylbenzene	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		

SDG	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Reference:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

VOC MS (S)

Results Legend

\# ISO17025 accredited.
M *m*CERTS accredited.
* subcontracted test.
** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 %. The results of the individual compounds within the sample are not corrected for this recovery.

Component	LOD/Units	Method	Sample Identity	TP01	TP01	TP02	TP02
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.70 - 0.70	1.50 - 1.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	21/12/2009	21/12/2009	21/12/2009	21/12/2009
			Date Received	04/01/2010	04/01/2010	04/01/2010	04/01/2010
			SDG Ref	100104-29	100104-29	100104-29	100104-29
			Lab Sample No.(s)	798236	798244	798256	798270
p/m-Xylene	<13 µg/kg	TM116		<13 #	<13 #	<13 #	<13 #
o-Xylene	<11 µg/kg	TM116		<11 M	<11 M	<11 M	<11 M
Styrene	<11 µg/kg	TM116		<11 M	<11 M	<11 M	<11 M
Bromoform	<12 µg/kg	TM116		<12 M	<12 M	<12 M	<12 M
Isopropylbenzene	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M
1.1.2.2-Tetrachloroethane	<15 µg/kg	TM116		<15 #	<15 #	<15 #	<15 #
1.2.3-Trichloropropane	<13 µg/kg	TM116		<13 M	<13 M	<13 M	<13 M
Bromobenzene	<14 µg/kg	TM116		<14 M	<14 M	<14 M	<14 M
Propylbenzene	<6 µg/kg	TM116		<6 M	<6 M	<6 M	<6 M
2-Chlorotoluene	<14 µg/kg	TM116		<14 #	<14 #	<14 #	<14 #
1.3.5-Trimethylbenzene	<8 µg/kg	TM116		<8 M	<8 M	<8 M	<8 M
4-Chlorotoluene	<9 µg/kg	TM116		<9 #	<9 #	<9 #	<9 #
tert-Butylbenzene	<12 µg/kg	TM116		<12 #	<12 #	<12 #	<12 #
1.2.4-Trimethylbenzene	<10 µg/kg	TM116		<10 #	<10 #	<10 #	<10 #
sec-Butylbenzene	<8 µg/kg	TM116		<8 #	<8 #	<8 #	<8 #
4-Isopropyltoluene	<8 µg/kg	TM116		<8 #	<8 #	<8 #	<8 #
1.3-Dichlorobenzene	<8 µg/kg	TM116		<8 #	<8 #	<8 #	<8 #
1.4-Dichlorobenzene	<11 µg/kg	TM116		<11 M	<11 M	<11 M	<11 M
n-Butylbenzene	<7 µg/kg	TM116		<7 #	<7 #	<7 #	<7 #
1.2-Dichlorobenzene	<8 µg/kg	TM116		<8 M	<8 M	<8 M	<8 M
1.2-Dibromo-3-chloropropane	<11 µg/kg	TM116		<11 M	<11 M	<11 M	<11 M
Tert-amyl methyl ether	<7 µg/kg	TM116		<7 #	<7 #	<7 #	<7 #
1.2.4-Trichlorobenzene	<9 µg/kg	TM116		<9 #	<9 #	<9 #	<9 #
Hexachlorobutadiene	<15 µg/kg	TM116		<15 #	<15 #	<15 #	<15 #
Naphthalene	<7 µg/kg	TM116		<7 #	<7 #	<7 #	<7 #
1.2.3-Trichlorobenzene	<12 µg/kg	TM116		<12 #	<12 #	<12 #	<12 #

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.185	**Moisture Content Ratio (%)**	5.67
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	94.6
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798236			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	0.50 - 0.50			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.00	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Arsenic	0.0026	0.0052	-	-	-
Barium	-	-	-	-	-
Cadmium	<0.0001	<0.0002	-	-	-
Chromium	0.00352	0.00704	-	-	-
Copper	0.00652	0.013	-	-	-
Mercury Dissolved (CVAF)	<0.00001	<0.00002	-	-	-
Molybdenum	-	-	-	-	-
Nickel	0.00101	0.00202	-	-	-
Lead	0.00293	0.00586	-	-	-
Antimony	-	-	-	-	-
Selenium	0.00119	0.00238	-	-	-
Zinc	0.00693	0.0139	-	-	-
Chloride	-	-	-	-	-
Fluoride	-	-	-	-	-
Sulphate (soluble)	18.9	37.8	-	-	-
Total Dissolved Solids	-	-	-	-	-
Total Monohydric Phenols (W)	-	-	-	-	-
Dissolved Organic Carbon	-	-	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.54
Conductivity (µS/cm)	176.00
Temperature (ºC)	19.10
Volume Leachant (Litres)	0.340
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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

Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.185	**Moisture Content Ratio (%)**	5.67
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	94.6
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798236			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	0.50 - 0.50			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.00	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
1,1,1,2-Tetrachloroethane	<0.0013	<0.0026	-	-	-
1,1,1-Trichloroethane	<0.0013	<0.0026	-	-	-
1,1,2,2-Tetrachloroethane	<0.0052	<0.0104	-	-	-
1,1,2-Trichloroethane	<0.0022	<0.0044	-	-	-
1,1-Dichloroethane	<0.0012	<0.0024	-	-	-
1,1-Dichloroethene	<0.0012	<0.0024	-	-	-
1,1-Dichloropropene	<0.0013	<0.0026	-	-	-
1,2,3-Trichlorobenzene	<0.0031	<0.0062	-	-	-
1,2,3-Trichloropropane	<0.0078	<0.0156	-	-	-
1,2,4-Trichlorobenzene	<0.0023	<0.0046	-	-	-
1,2,4-Trimethylbenzene	<0.0017	<0.0034	-	-	-
1,2-Dibromo-3-Chloropropane	<0.0098	<0.0196	-	-	-
1,2-Dibromoethane	<0.0023	<0.0046	-	-	-
1,2-Dichlorobenzene	<0.0037	<0.0074	-	-	-
1,2-Dichloroethane	<0.0033	<0.0066	-	-	-
1,2-Dichloropropane	<0.003	<0.006	-	-	-
1,3,5-Trichlorobenzene	<0.01	<0.02	-	-	-
1,3,5-Trimethylbenzene	<0.0018	<0.0036	-	-	-
1,3-Dichlorobenzene	<0.0022	<0.0044	-	-	-
1,3-Dichloropropane	<0.0022	<0.0044	-	-	-
1,4-Dichlorobenzene	<0.0027	<0.0054	-	-	-
2,2-Dichloropropane	<0.0038	<0.0076	-	-	-
2,4,5-Trichlorophenol	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.54
Conductivity (µS/cm)	176.00
Temperature (°C)	19.10
Volume Leachant (Litres)	0.340
Volume of Eluate VE1 (Litres)	

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.185	**Moisture Content Ratio (%)**	5.67
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	94.6
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798236			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	0.50 - 0.50			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.00	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
2,4,6-Trichlorophenol	<0.001	<0.002	-	-	-
2,4-Dichlorophenol	<0.001	<0.002	-	-	-
2,4-Dimethylphenol	<0.001	<0.002	-	-	-
2,4-Dinitrotoluene	<0.001	<0.002	-	-	-
2,6-Dinitrotoluene	<0.001	<0.002	-	-	-
2-Chloronaphthalene	<0.001	<0.002	-	-	-
2-Chlorophenol	<0.001	<0.002	-	-	-
2-Chlorotoluene	<0.0019	<0.0038	-	-	-
2-Methylnaphthalene	<0.001	<0.002	-	-	-
2-Methylphenol	<0.001	<0.002	-	-	-
2-Nitroaniline	<0.001	<0.002	-	-	-
2-Nitrophenol	<0.001	<0.002	-	-	-
3-Nitroaniline	<0.001	<0.002	-	-	-
4-Bromophenylphenylether	<0.001	<0.002	-	-	-
4-Chloro-3-methylphenol	<0.001	<0.002	-	-	-
4-Chloroaniline	<0.001	<0.002	-	-	-
4-Chlorophenylphenylether	<0.001	<0.002	-	-	-
4-Chlorotoluene	<0.0019	<0.0038	-	-	-
4-Isopropyltoluene	<0.0026	<0.0052	-	-	-
4-Methylphenol	<0.001	<0.002	-	-	-
4-Nitroaniline	<0.001	<0.002	-	-	-
4-Nitrophenol	<0.001	<0.002	-	-	-
Acenaphthene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.54
Conductivity (µS/cm)	176.00
Temperature (°C)	19.10
Volume Leachant (Litres)	0.340
Volume of Eluate VE1 (Litres)	

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.185	**Moisture Content Ratio (%)**	5.67
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	94.6
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798236			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	0.50 - 0.50			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.00	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Acenaphthylene	<0.001	<0.002	-	-	-
Aliphatics >C10-C12	<0.01	<0.02	-	-	-
Aliphatics >C12-C16	<0.01	<0.02	-	-	-
Aliphatics >C16-C21	<0.01	<0.02	-	-	-
Aliphatics >C21-C35	<0.01	<0.02	-	-	-
Aliphatics >C6-C8	<0.01	<0.02	-	-	-
Aliphatics >C8-C10	<0.01	<0.02	-	-	-
Ammoniacal Nitrogen as N	<0.2	<0.4	-	-	-
Anthracene	<0.001	<0.002	-	-	-
Aromatics >C7-C8	<0.01	<0.02	-	-	-
Aromatics >EC10-EC12	<0.01	<0.02	-	-	-
Aromatics >EC12-EC16	<0.01	<0.02	-	-	-
Aromatics >EC16-EC21	<0.01	<0.02	-	-	-
Aromatics >EC21-EC35	<0.01	<0.02	-	-	-
Aromatics >EC8 -EC10	<0.01	<0.02	-	-	-
Aromatics C6-C7	<0.01	<0.02	-	-	-
Azobenzene	<0.001	<0.002	-	-	-
Benzene	<0.0013	<0.0026	-	-	-
Benzene by GC	<0.007	<0.014	-	-	-
Benzo(a)anthracene	<0.001	<0.002	-	-	-
Benzo(a)pyrene	<0.001	<0.002	-	-	-
Benzo(b)fluoranthene	<0.001	<0.002	-	-	-
Benzo(ghi)perylene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.54
Conductivity (µS/cm)	176.00
Temperature (°C)	19.10
Volume Leachant (Litres)	0.340
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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

Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.185	**Moisture Content Ratio (%)**	5.67
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	94.6
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798236			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	0.50 - 0.50			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.00	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Benzo(k)fluoranthene	<0.001	<0.002	-	-	-
Bis(2-chloroethoxy)methane	<0.001	<0.002	-	-	-
Bis(2-chloroethyl)ether	<0.001	<0.002	-	-	-
Bis(2-ethylhexyl) phthalate	<0.002	<0.004	-	-	-
BOD	1.21	2.42	-	-	-
Bromobenzene	<0.002	<0.004	-	-	-
Bromochloromethane	<0.0019	<0.0038	-	-	-
Bromodichloromethane	<0.0009	<0.0018	-	-	-
Bromoform	<0.003	<0.006	-	-	-
Bromomethane	<0.002	<0.004	-	-	-
Butylbenzyl phthalate	<0.001	<0.002	-	-	-
Carbazole	<0.001	<0.002	-	-	-
Carbon Disulphide	<0.0013	<0.0026	-	-	-
Carbontetrachloride	<0.0014	<0.0028	-	-	-
Chlorobenzene	<0.0035	<0.007	-	-	-
Chloroethane	<0.0025	<0.005	-	-	-
Chloroform	<0.0018	<0.0036	-	-	-
Chloromethane	<0.0017	<0.0034	-	-	-
Chrysene	<0.001	<0.002	-	-	-
Cis-1,2-Dichloroethene	<0.0023	<0.0046	-	-	-
Cis-1,3-Dichloropropene	<0.0019	<0.0038	-	-	-
COD	22.3	44.6	-	-	-
Dibenzo(a,h)anthracene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.54
Conductivity (µS/cm)	176.00
Temperature (°C)	19.10
Volume Leachant (Litres)	0.340
Volume of Eluate VE1 (Litres)	

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REF-CEN12457-3

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Mass Sample taken (kg)	0.185	**Moisture Content Ratio (%)**	5.67
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	94.6
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798236			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	0.50 - 0.50			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.00	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Dibenzofuran	<0.001	<0.002	-	-	-
Dibromochloromethane	<0.0017	<0.0034	-	-	-
Dibromomethane	<0.0027	<0.0054	-	-	-
Dichlorodifluoromethane	<0.0013	<0.0026	-	-	-
Dichloromethane	<0.0037	<0.0074	-	-	-
Diethyl phthalate	<0.001	<0.002	-	-	-
Dimethyl phthalate	<0.001	<0.002	-	-	-
Di-n-butyl phthalate	<0.001	<0.002	-	-	-
Di-n-Octyl phthalate	<0.005	<0.01	-	-	-
Ethylbenzene	<0.0025	<0.005	-	-	-
Ethylbenzene by GC	<0.005	<0.01	-	-	-
Fluoranthene	<0.001	<0.002	-	-	-
Fluorene	<0.001	<0.002	-	-	-
Formaldehyde	-	-	-	-	-
GRO TOT (C5-C12)	<0.042	<0.084	-	-	-
Hardness Total	74.3	149	-	-	-
Hexachlorobenzene	<0.001	<0.002	-	-	-
Hexachlorobutadiene	<0.0025	<0.005	-	-	-
Hexachlorocyclopentadiene	<0.001	<0.002	-	-	-
Hexachloroethane	<0.001	<0.002	-	-	-
Indeno (1,2,3-cd) Pyrene	<0.001	<0.002	-	-	-
Isophorone	<0.001	<0.002	-	-	-
Isopropylbenzene	<0.0014	<0.0028	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.54
Conductivity (µS/cm)	176.00
Temperature (°C)	19.10
Volume Leachant (Litres)	0.340
Volume of Eluate VE1 (Litres)	

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

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Mass Sample taken (kg)	0.185	**Moisture Content Ratio (%)**	5.67
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	94.6
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798236			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	0.50 - 0.50			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.00	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
m & p Xylene by GC	<0.008	<0.016	-	-	-
Naphthalene	<0.0035	<0.007	-	-	-
n-Butylbenzene	<0.002	<0.004	-	-	-
Nitrobenzene	<0.001	<0.002	-	-	-
N-nitrosodi-n-propylamine	<0.001	<0.002	-	-	-
o Xylene by GC	<0.003	<0.006	-	-	-
o-Xylene	<0.0017	<0.0034	-	-	-
p/m-Xylene	<0.0025	<0.005	-	-	-
Pentachlorophenol	<0.001	<0.002	-	-	-
pH	-	-	-	-	-
Phenanthrene	<0.001	<0.002	-	-	-
Phenol	<0.001	<0.002	-	-	-
Propylbenzene	<0.0026	<0.0052	-	-	-
Pyrene	<0.001	<0.002	-	-	-
Sec-Butylbenzene	<0.0017	<0.0034	-	-	-
Styrene	<0.0012	<0.0024	-	-	-
Sum m&p and o Xylene by GC	<0.01	<0.02	-	-	-
Sum of BTEX by GC	<0.01	<0.02	-	-	-
Surrogate Recovery	-	-	-	-	-
Tert-amyl methyl ether	<0.001	<0.002	-	-	-
Tert-butyl methyl ether	<0.0016	<0.0032	-	-	-
Tert-Butylbenzene	<0.002	<0.004	-	-	-
Tetrachloroethene	<0.0015	<0.003	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.54
Conductivity (µS/cm)	176.00
Temperature (°C)	19.10
Volume Leachant (Litres)	0.340
Volume of Eluate VE1 (Litres)	

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CEN 2:1 ONE STAGE BATCH TEST

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Mass Sample taken (kg)	0.185	**Moisture Content Ratio (%)**	5.67
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	94.6
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798236			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	0.50 - 0.50			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.00	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Toluene	<0.0014	<0.0028	-	-	-
Toluene by GC	<0.004	<0.008	-	-	-
Total Aliphatics & Aromatics >C12-C35	<0.01	<0.02	-	-	-
Total Aliphatics >C12-C35	<0.01	<0.02	-	-	-
Total Aliphatics >C5-C35 Aqueous	<0.01	<0.02	-	-	-
Total Aliphatics C5-C12	<0.01	<0.02	-	-	-
Total Aromatics >C6-C35 Aqueous	<0.01	<0.02	-	-	-
Total Aromatics >EC12-EC35	<0.01	<0.02	-	-	-
Total Aromatics C6-C12	<0.01	<0.02	-	-	-
Total Cyanide (W)	<0.05	<0.1	-	-	-
TPH (Total Aliphatics + Total Aromatics) >C5-C	<0.01	<0.02	-	-	-
Trans-1,2-Dichloroethene	<0.0019	<0.0038	-	-	-
Trans-1,3-Dichloropropene	<0.0035	<0.007	-	-	-
Trichloroethene	<0.0025	<0.005	-	-	-
Trichlorofluoromethane	<0.0013	<0.0026	-	-	-
Vinyl Chloride	<0.0012	<0.0024	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.54
Conductivity (µS/cm)	176.00
Temperature (°C)	19.10
Volume Leachant (Litres)	0.340
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.218	**Moisture Content Ratio (%)**	24.8
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	80.1
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798244			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	2.00 - 2.00			

Solid Waste Analysis

Total Organic Carbon (%)	10.3	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	7.88	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Arsenic	0.00168	0.00336	-	-	-
Barium	-	-	-	-	-
Cadmium	<0.0001	<0.0002	-	-	-
Chromium	0.00706	0.0141	-	-	-
Copper	0.00784	0.0157	-	-	-
Mercury Dissolved (CVAF)	<0.00001	<0.00002	-	-	-
Molybdenum	-	-	-	-	-
Nickel	0.00405	0.0081	-	-	-
Lead	0.000673	0.00135	-	-	-
Antimony	-	-	-	-	-
Selenium	0.000769	0.00154	-	-	-
Zinc	0.00237	0.00474	-	-	-
Chloride	-	-	-	-	-
Fluoride	-	-	-	-	-
Sulphate (soluble)	113	226	-	-	-
Total Dissolved Solids	-	-	-	-	-
Total Monohydric Phenols (W)	-	-	-	-	-
Dissolved Organic Carbon	-	-	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.03
Conductivity (µS/cm)	517.00
Temperature (°C)	19.40
Volume Leachant (Litres)	0.307
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Mass Sample taken (kg)	0.218	**Moisture Content Ratio (%)**	24.8
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	80.1
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798244			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	2.00 - 2.00			

Solid Waste Analysis

Total Organic Carbon (%)	10.3	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	7.88	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
1,1,1,2-Tetrachloroethane	<0.0013	<0.0026	-	-	-
1,1,1-Trichloroethane	<0.0013	<0.0026	-	-	-
1,1,2,2-Tetrachloroethane	<0.0052	<0.0104	-	-	-
1,1,2-Trichloroethane	<0.0022	<0.0044	-	-	-
1,1-Dichloroethane	<0.0012	<0.0024	-	-	-
1,1-Dichloroethene	<0.0012	<0.0024	-	-	-
1,1-Dichloropropene	<0.0013	<0.0026	-	-	-
1,2,3-Trichlorobenzene	<0.0031	<0.0062	-	-	-
1,2,3-Trichloropropane	<0.0078	<0.0156	-	-	-
1,2,4-Trichlorobenzene	<0.0023	<0.0046	-	-	-
1,2,4-Trimethylbenzene	<0.0017	<0.0034	-	-	-
1,2-Dibromo-3-Chloropropane	<0.0098	<0.0196	-	-	-
1,2-Dibromoethane	<0.0023	<0.0046	-	-	-
1,2-Dichlorobenzene	<0.0037	<0.0074	-	-	-
1,2-Dichloroethane	<0.0033	<0.0066	-	-	-
1,2-Dichloropropane	<0.003	<0.006	-	-	-
1,3,5-Trichlorobenzene	<0.01	<0.02	-	-	-
1,3,5-Trimethylbenzene	<0.0018	<0.0036	-	-	-
1,3-Dichlorobenzene	<0.0022	<0.0044	-	-	-
1,3-Dichloropropane	<0.0022	<0.0044	-	-	-
1,4-Dichlorobenzene	<0.0027	<0.0054	-	-	-
2,2-Dichloropropane	<0.0038	<0.0076	-	-	-
2,4,5-Trichlorophenol	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.03
Conductivity (µS/cm)	517.00
Temperature (°C)	19.40
Volume Leachant (Litres)	0.307
Volume of Eluate VE1 (Litres)	

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Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798244			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	2.00 - 2.00			

Solid Waste Analysis

Total Organic Carbon (%)	10.3	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	7.88	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
2,4,6-Trichlorophenol	<0.001	<0.002	-	-	-
2,4-Dichlorophenol	<0.001	<0.002	-	-	-
2,4-Dimethylphenol	<0.001	<0.002	-	-	-
2,4-Dinitrotoluene	<0.001	<0.002	-	-	-
2,6-Dinitrotoluene	<0.001	<0.002	-	-	-
2-Chloronaphthalene	<0.001	<0.002	-	-	-
2-Chlorophenol	<0.001	<0.002	-	-	-
2-Chlorotoluene	<0.0019	<0.0038	-	-	-
2-Methylnaphthalene	<0.001	<0.002	-	-	-
2-Methylphenol	<0.001	<0.002	-	-	-
2-Nitroaniline	<0.001	<0.002	-	-	-
2-Nitrophenol	<0.001	<0.002	-	-	-
3-Nitroaniline	<0.001	<0.002	-	-	-
4-Bromophenylphenylether	<0.001	<0.002	-	-	-
4-Chloro-3-methylphenol	<0.001	<0.002	-	-	-
4-Chloroaniline	<0.001	<0.002	-	-	-
4-Chlorophenylphenylether	<0.001	<0.002	-	-	-
4-Chlorotoluene	<0.0019	<0.0038	-	-	-
4-Isopropyltoluene	<0.0026	<0.0052	-	-	-
4-Methylphenol	<0.001	<0.002	-	-	-
4-Nitroaniline	<0.001	<0.002	-	-	-
4-Nitrophenol	<0.001	<0.002	-	-	-
Acenaphthene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.03
Conductivity (µS/cm)	517.00
Temperature (°C)	19.40
Volume Leachant (Litres)	0.307
Volume of Eluate VE1 (Litres)	

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.218	**Moisture Content Ratio (%)**	24.8
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	80.1
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798244			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	2.00 - 2.00			

Solid Waste Analysis

Total Organic Carbon (%)	10.3	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	7.88	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Acenaphthylene	<0.001	<0.002	-	-	-
Aliphatics >C10-C12	<0.01	<0.02	-	-	-
Aliphatics >C12-C16	<0.01	<0.02	-	-	-
Aliphatics >C16-C21	<0.01	<0.02	-	-	-
Aliphatics >C21-C35	<0.01	<0.02	-	-	-
Aliphatics >C6-C8	<0.01	<0.02	-	-	-
Aliphatics >C8-C10	<0.01	<0.02	-	-	-
Ammoniacal Nitrogen as N	<0.2	<0.4	-	-	-
Anthracene	<0.001	<0.002	-	-	-
Aromatics >C7-C8	<0.01	<0.02	-	-	-
Aromatics >EC10-EC12	<0.01	<0.02	-	-	-
Aromatics >EC12-EC16	<0.01	<0.02	-	-	-
Aromatics >EC16-EC21	<0.01	<0.02	-	-	-
Aromatics >EC21-EC35	<0.01	<0.02	-	-	-
Aromatics >EC8 -EC10	<0.01	<0.02	-	-	-
Aromatics C6-C7	<0.01	<0.02	-	-	-
Azobenzene	<0.001	<0.002	-	-	-
Benzene	<0.0013	<0.0026	-	-	-
Benzene by GC	<0.007	<0.014	-	-	-
Benzo(a)anthracene	<0.001	<0.002	-	-	-
Benzo(a)pyrene	<0.001	<0.002	-	-	-
Benzo(b)fluoranthene	<0.001	<0.002	-	-	-
Benzo(ghi)perylene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.03
Conductivity (µS/cm)	517.00
Temperature (°C)	19.40
Volume Leachant (Litres)	0.307
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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

Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.218	**Moisture Content Ratio (%)**	24.8
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	80.1
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798244			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	2.00 - 2.00			

Solid Waste Analysis

Total Organic Carbon (%)	10.3	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	7.88	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Benzo(k)fluoranthene	<0.001	<0.002	-	-	-
Bis(2-chloroethoxy)methane	<0.001	<0.002	-	-	-
Bis(2-chloroethyl)ether	<0.001	<0.002	-	-	-
Bis(2-ethylhexyl) phthalate	<0.002	<0.004	-	-	-
BOD	<1	<2	-	-	-
Bromobenzene	<0.002	<0.004	-	-	-
Bromochloromethane	<0.0019	<0.0038	-	-	-
Bromodichloromethane	<0.0009	<0.0018	-	-	-
Bromoform	<0.003	<0.006	-	-	-
Bromomethane	<0.002	<0.004	-	-	-
Butylbenzyl phthalate	<0.001	<0.002	-	-	-
Carbazole	<0.001	<0.002	-	-	-
Carbon Disulphide	<0.0013	<0.0026	-	-	-
Carbontetrachloride	<0.0014	<0.0028	-	-	-
Chlorobenzene	<0.0035	<0.007	-	-	-
Chloroethane	<0.0025	<0.005	-	-	-
Chloroform	<0.0018	<0.0036	-	-	-
Chloromethane	<0.0017	<0.0034	-	-	-
Chrysene	<0.001	<0.002	-	-	-
Cis-1,2-Dichloroethene	<0.0023	<0.0046	-	-	-
Cis-1,3-Dichloropropene	<0.0019	<0.0038	-	-	-
COD	29.6	59.2	-	-	-
Dibenzo(a,h)anthracene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.03
Conductivity (µS/cm)	517.00
Temperature (°C)	19.40
Volume Leachant (Litres)	0.307
Volume of Eluate VE1 (Litres)	

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.218	**Moisture Content Ratio (%)**	24.8
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	80.1
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798244			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	2.00 - 2.00			

Solid Waste Analysis

Total Organic Carbon (%)	10.3	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	7.88	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Dibenzofuran	<0.001	<0.002	-	-	-
Dibromochloromethane	<0.0017	<0.0034	-	-	-
Dibromomethane	<0.0027	<0.0054	-	-	-
Dichlorodifluoromethane	<0.0013	<0.0026	-	-	-
Dichloromethane	<0.0037	<0.0074	-	-	-
Diethyl phthalate	<0.001	<0.002	-	-	-
Dimethyl phthalate	<0.001	<0.002	-	-	-
Di-n-butyl phthalate	<0.001	<0.002	-	-	-
Di-n-Octyl phthalate	<0.005	<0.01	-	-	-
Ethylbenzene	<0.0025	<0.005	-	-	-
Ethylbenzene by GC	<0.005	<0.01	-	-	-
Fluoranthene	<0.001	<0.002	-	-	-
Fluorene	<0.001	<0.002	-	-	-
Formaldehyde	<0.5	<1	-	-	-
GRO TOT (C5-C12)	<0.042	<0.084	-	-	-
Hardness Total	299	598	-	-	-
Hexachlorobenzene	<0.001	<0.002	-	-	-
Hexachlorobutadiene	<0.0025	<0.005	-	-	-
Hexachlorocyclopentadiene	<0.001	<0.002	-	-	-
Hexachloroethane	<0.001	<0.002	-	-	-
Indeno (1,2,3-cd) Pyrene	<0.001	<0.002	-	-	-
Isophorone	<0.001	<0.002	-	-	-
Isopropylbenzene	<0.0014	<0.0028	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.03
Conductivity (µS/cm)	517.00
Temperature (°C)	19.40
Volume Leachant (Litres)	0.307
Volume of Eluate VE1 (Litres)	

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.218	**Moisture Content Ratio (%)**	24.8
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	80.1
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798244			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	2.00 - 2.00			

Solid Waste Analysis

Total Organic Carbon (%)	10.3	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	7.88	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
m & p Xylene by GC	<0.008	<0.016	-	-	-
Naphthalene	<0.0035	<0.007	-	-	-
n-Butylbenzene	<0.002	<0.004	-	-	-
Nitrobenzene	<0.001	<0.002	-	-	-
N-nitrosodi-n-propylamine	<0.001	<0.002	-	-	-
o Xylene by GC	<0.003	<0.006	-	-	-
o-Xylene	<0.0017	<0.0034	-	-	-
p/m-Xylene	<0.0025	<0.005	-	-	-
Pentachlorophenol	<0.001	<0.002	-	-	-
pH	-	-	-	-	-
Phenanthrene	<0.001	<0.002	-	-	-
Phenol	<0.001	<0.002	-	-	-
Propylbenzene	<0.0026	<0.0052	-	-	-
Pyrene	<0.001	<0.002	-	-	-
Sec-Butylbenzene	<0.0017	<0.0034	-	-	-
Styrene	<0.0012	<0.0024	-	-	-
Sum m&p and o Xylene by GC	<0.01	<0.02	-	-	-
Sum of BTEX by GC	<0.01	<0.02	-	-	-
Surrogate Recovery	-	-	-	-	-
Tert-amyl methyl ether	<0.001	<0.002	-	-	-
Tert-butyl methyl ether	<0.0016	<0.0032	-	-	-
Tert-Butylbenzene	<0.002	<0.004	-	-	-
Tetrachloroethene	<0.0015	<0.003	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.03
Conductivity (µS/cm)	517.00
Temperature (°C)	19.40
Volume Leachant (Litres)	0.307
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.218	**Moisture Content Ratio (%)**	24.8
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	80.1
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798244			
Sampled Date	21-Dec-2009			
Sample Identity	TP01			
Depth (m)	2.00 - 2.00			

Solid Waste Analysis

Total Organic Carbon (%)	10.3	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	7.88	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Toluene	<0.0014	<0.0028	-	-	-
Toluene by GC	<0.004	<0.008	-	-	-
Total Aliphatics & Aromatics >C12-C35	<0.01	<0.02	-	-	-
Total Aliphatics >C12-C35	<0.01	<0.02	-	-	-
Total Aliphatics >C5-C35 Aqueous	<0.01	<0.02	-	-	-
Total Aliphatics C5-C12	<0.01	<0.02	-	-	-
Total Aromatics >C6-C35 Aqueous	<0.01	<0.02	-	-	-
Total Aromatics >EC12-EC35	<0.01	<0.02	-	-	-
Total Aromatics C6-C12	<0.01	<0.02	-	-	-
Total Cyanide (W)	<0.05	<0.1	-	-	-
TPH (Total Aliphatics + Total Aromatics) >C5-C	<0.01	<0.02	-	-	-
Trans-1,2-Dichloroethene	<0.0019	<0.0038	-	-	-
Trans-1,3-Dichloropropene	<0.0035	<0.007	-	-	-
Trichloroethene	<0.0025	<0.005	-	-	-
Trichlorofluoromethane	<0.0013	<0.0026	-	-	-
Vinyl Chloride	<0.0012	<0.0024	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.03
Conductivity (µS/cm)	517.00
Temperature (°C)	19.40
Volume Leachant (Litres)	0.307
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.193	**Moisture Content Ratio (%)**	10.2
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	90.8
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798256			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	0.70 - 0.70			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.18	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Arsenic	0.000498	0.000996	-	-	-
Barium	-	-	-	-	-
Cadmium	<0.0001	<0.0002	-	-	-
Chromium	0.00378	0.00756	-	-	-
Copper	0.002	0.004	-	-	-
Mercury Dissolved (CVAF)	<0.00001	<0.00002	-	-	-
Molybdenum	-	-	-	-	-
Nickel	0.000852	0.0017	-	-	-
Lead	0.000187	0.000374	-	-	-
Antimony	-	-	-	-	-
Selenium	0.00289	0.00578	-	-	-
Zinc	0.000533	0.00107	-	-	-
Chloride	-	-	-	-	-
Fluoride	-	-	-	-	-
Sulphate (soluble)	19.6	39.2	-	-	-
Total Dissolved Solids	-	-	-	-	-
Total Monohydric Phenols (W)	-	-	-	-	-
Dissolved Organic Carbon	-	-	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.39
Conductivity (µS/cm)	212.00
Temperature (°C)	19.20
Volume Leachant (Litres)	0.332
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.193	**Moisture Content Ratio (%)**	10.2
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	90.8
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798256			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	0.70 - 0.70			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.18	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
1,1,1,2-Tetrachloroethane	<0.0013	<0.0026	-	-	-
1,1,1-Trichloroethane	<0.0013	<0.0026	-	-	-
1,1,2,2-Tetrachloroethane	<0.0052	<0.0104	-	-	-
1,1,2-Trichloroethane	<0.0022	<0.0044	-	-	-
1,1-Dichloroethane	<0.0012	<0.0024	-	-	-
1,1-Dichloroethene	<0.0012	<0.0024	-	-	-
1,1-Dichloropropene	<0.0013	<0.0026	-	-	-
1,2,3-Trichlorobenzene	<0.0031	<0.0062	-	-	-
1,2,3-Trichloropropane	<0.0078	<0.0156	-	-	-
1,2,4-Trichlorobenzene	<0.0023	<0.0046	-	-	-
1,2,4-Trimethylbenzene	<0.0017	<0.0034	-	-	-
1,2-Dibromo-3-Chloropropane	<0.0098	<0.0196	-	-	-
1,2-Dibromoethane	<0.0023	<0.0046	-	-	-
1,2-Dichlorobenzene	<0.0037	<0.0074	-	-	-
1,2-Dichloroethane	<0.0033	<0.0066	-	-	-
1,2-Dichloropropane	<0.003	<0.006	-	-	-
1,3,5-Trichlorobenzene	<0.01	<0.02	-	-	-
1,3,5-Trimethylbenzene	<0.0018	<0.0036	-	-	-
1,3-Dichlorobenzene	<0.0022	<0.0044	-	-	-
1,3-Dichloropropane	<0.0022	<0.0044	-	-	-
1,4-Dichlorobenzene	<0.0027	<0.0054	-	-	-
2,2-Dichloropropane	<0.0038	<0.0076	-	-	-
2,4,5-Trichlorophenol	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.39
Conductivity (µS/cm)	212.00
Temperature (°C)	19.20
Volume Leachant (Litres)	0.332
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.193	**Moisture Content Ratio (%)**	10.2
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	90.8
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798256			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	0.70 - 0.70			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.18	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
2,4,6-Trichlorophenol	<0.001	<0.002	-	-	-
2,4-Dichlorophenol	<0.001	<0.002	-	-	-
2,4-Dimethylphenol	<0.001	<0.002	-	-	-
2,4-Dinitrotoluene	<0.001	<0.002	-	-	-
2,6-Dinitrotoluene	<0.001	<0.002	-	-	-
2-Chloronaphthalene	<0.001	<0.002	-	-	-
2-Chlorophenol	<0.001	<0.002	-	-	-
2-Chlorotoluene	<0.0019	<0.0038	-	-	-
2-Methylnaphthalene	<0.001	<0.002	-	-	-
2-Methylphenol	<0.001	<0.002	-	-	-
2-Nitroaniline	<0.001	<0.002	-	-	-
2-Nitrophenol	<0.001	<0.002	-	-	-
3-Nitroaniline	<0.001	<0.002	-	-	-
4-Bromophenylphenylether	<0.001	<0.002	-	-	-
4-Chloro-3-methylphenol	<0.001	<0.002	-	-	-
4-Chloroaniline	<0.001	<0.002	-	-	-
4-Chlorophenylphenylether	<0.001	<0.002	-	-	-
4-Chlorotoluene	<0.0019	<0.0038	-	-	-
4-Isopropyltoluene	<0.0026	<0.0052	-	-	-
4-Methylphenol	<0.001	<0.002	-	-	-
4-Nitroaniline	<0.001	<0.002	-	-	-
4-Nitrophenol	<0.001	<0.002	-	-	-
Acenaphthene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.39
Conductivity (µS/cm)	212.00
Temperature (°C)	19.20
Volume Leachant (Litres)	0.332
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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

Mcerts Certification does not apply to leachates

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.193	**Moisture Content Ratio (%)**	10.2
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	90.8
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798256			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	0.70 - 0.70			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.18	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Acenaphthylene	<0.001	<0.002	-	-	-
Aliphatics >C10-C12	<0.01	<0.02	-	-	-
Aliphatics >C12-C16	<0.01	<0.02	-	-	-
Aliphatics >C16-C21	<0.01	<0.02	-	-	-
Aliphatics >C21-C35	<0.01	<0.02	-	-	-
Aliphatics >C6-C8	<0.01	<0.02	-	-	-
Aliphatics >C8-C10	<0.01	<0.02	-	-	-
Ammoniacal Nitrogen as N	<0.2	<0.4	-	-	-
Anthracene	<0.001	<0.002	-	-	-
Aromatics >C7-C8	<0.01	<0.02	-	-	-
Aromatics >EC10-EC12	<0.01	<0.02	-	-	-
Aromatics >EC12-EC16	<0.01	<0.02	-	-	-
Aromatics >EC16-EC21	<0.01	<0.02	-	-	-
Aromatics >EC21-EC35	<0.01	<0.02	-	-	-
Aromatics >EC8 -EC10	<0.01	<0.02	-	-	-
Aromatics C6-C7	<0.01	<0.02	-	-	-
Azobenzene	<0.001	<0.002	-	-	-
Benzene	<0.0013	<0.0026	-	-	-
Benzene by GC	<0.007	<0.014	-	-	-
Benzo(a)anthracene	<0.001	<0.002	-	-	-
Benzo(a)pyrene	<0.001	<0.002	-	-	-
Benzo(b)fluoranthene	<0.001	<0.002	-	-	-
Benzo(ghi)perylene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.39
Conductivity (µS/cm)	212.00
Temperature (°C)	19.20
Volume Leachant (Litres)	0.332
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Mcerts Certification does not apply to leachates

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.193	**Moisture Content Ratio (%)**	10.2
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	90.8
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798256			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	0.70 - 0.70			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.18	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Benzo(k)fluoranthene	<0.001	<0.002	-	-	-
Bis(2-chloroethoxy)methane	<0.001	<0.002	-	-	-
Bis(2-chloroethyl)ether	<0.001	<0.002	-	-	-
Bis(2-ethylhexyl) phthalate	<0.002	<0.004	-	-	-
BOD	1.13	2.26	-	-	-
Bromobenzene	<0.002	<0.004	-	-	-
Bromochloromethane	<0.0019	<0.0038	-	-	-
Bromodichloromethane	<0.0009	<0.0018	-	-	-
Bromoform	<0.003	<0.006	-	-	-
Bromomethane	<0.002	<0.004	-	-	-
Butylbenzyl phthalate	<0.001	<0.002	-	-	-
Carbazole	<0.001	<0.002	-	-	-
Carbon Disulphide	<0.0013	<0.0026	-	-	-
Carbontetrachloride	<0.0014	<0.0028	-	-	-
Chlorobenzene	<0.0035	<0.007	-	-	-
Chloroethane	<0.0025	<0.005	-	-	-
Chloroform	<0.0018	<0.0036	-	-	-
Chloromethane	<0.0017	<0.0034	-	-	-
Chrysene	<0.001	<0.002	-	-	-
Cis-1,2-Dichloroethene	<0.0023	<0.0046	-	-	-
Cis-1,3-Dichloropropene	<0.0019	<0.0038	-	-	-
COD	<7	<14	-	-	-
Dibenzo(a,h)anthracene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.39
Conductivity (µS/cm)	212.00
Temperature (°C)	19.20
Volume Leachant (Litres)	0.332
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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

Mcerts Certification does not apply to leachates

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.193	**Moisture Content Ratio (%)**	10.2
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	90.8
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798256			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	0.70 - 0.70			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.18	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Dibenzofuran	<0.001	<0.002	-	-	-
Dibromochloromethane	<0.0017	<0.0034	-	-	-
Dibromomethane	<0.0027	<0.0054	-	-	-
Dichlorodifluoromethane	<0.0013	<0.0026	-	-	-
Dichloromethane	<0.0037	<0.0074	-	-	-
Diethyl phthalate	<0.001	<0.002	-	-	-
Dimethyl phthalate	<0.001	<0.002	-	-	-
Di-n-butyl phthalate	<0.001	<0.002	-	-	-
Di-n-Octyl phthalate	<0.005	<0.01	-	-	-
Ethylbenzene	<0.0025	<0.005	-	-	-
Ethylbenzene by GC	<0.005	<0.01	-	-	-
Fluoranthene	<0.001	<0.002	-	-	-
Fluorene	<0.001	<0.002	-	-	-
Formaldehyde	<0.5	<1	-	-	-
GRO TOT (C5-C12)	<0.042	<0.084	-	-	-
Hardness Total	84.9	170	-	-	-
Hexachlorobenzene	<0.001	<0.002	-	-	-
Hexachlorobutadiene	<0.0025	<0.005	-	-	-
Hexachlorocyclopentadiene	<0.001	<0.002	-	-	-
Hexachloroethane	<0.001	<0.002	-	-	-
Indeno (1,2,3-cd) Pyrene	<0.001	<0.002	-	-	-
Isophorone	<0.001	<0.002	-	-	-
Isopropylbenzene	<0.0014	<0.0028	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.39
Conductivity (µS/cm)	212.00
Temperature (°C)	19.20
Volume Leachant (Litres)	0.332
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.193	**Moisture Content Ratio (%)**	10.2
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	90.8
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798256			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	0.70 - 0.70			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.18	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
m & p Xylene by GC	<0.008	<0.016	-	-	-
Naphthalene	<0.0035	<0.007	-	-	-
n-Butylbenzene	<0.002	<0.004	-	-	-
Nitrobenzene	<0.001	<0.002	-	-	-
N-nitrosodi-n-propylamine	<0.001	<0.002	-	-	-
o Xylene by GC	<0.003	<0.006	-	-	-
o-Xylene	<0.0017	<0.0034	-	-	-
p/m-Xylene	<0.0025	<0.005	-	-	-
Pentachlorophenol	<0.001	<0.002	-	-	-
pH	-	-	-	-	-
Phenanthrene	<0.001	<0.002	-	-	-
Phenol	<0.001	<0.002	-	-	-
Propylbenzene	<0.0026	<0.0052	-	-	-
Pyrene	<0.001	<0.002	-	-	-
Sec-Butylbenzene	<0.0017	<0.0034	-	-	-
Styrene	<0.0012	<0.0024	-	-	-
Sum m&p and o Xylene by GC	<0.01	<0.02	-	-	-
Sum of BTEX by GC	<0.01	<0.02	-	-	-
Surrogate Recovery	-	-	-	-	-
Tert-amyl methyl ether	<0.001	<0.002	-	-	-
Tert-butyl methyl ether	<0.0016	<0.0032	-	-	-
Tert-Butylbenzene	<0.002	<0.004	-	-	-
Tetrachloroethene	<0.0015	<0.003	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.39
Conductivity (µS/cm)	212.00
Temperature (°C)	19.20
Volume Leachant (Litres)	0.332
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.193	**Moisture Content Ratio (%)**	10.2
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	90.8
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798256			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	0.70 - 0.70			

Solid Waste Analysis

Total Organic Carbon (%)	<0.200	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	9.18	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Toluene	<0.0014	<0.0028	-	-	-
Toluene by GC	<0.004	<0.008	-	-	-
Total Aliphatics & Aromatics >C12-C35	<0.01	<0.02	-	-	-
Total Aliphatics >C12-C35	<0.01	<0.02	-	-	-
Total Aliphatics >C5-C35 Aqueous	<0.01	<0.02	-	-	-
Total Aliphatics C5-C12	<0.01	<0.02	-	-	-
Total Aromatics >C6-C35 Aqueous	<0.01	<0.02	-	-	-
Total Aromatics >EC12-EC35	<0.01	<0.02	-	-	-
Total Aromatics C6-C12	<0.01	<0.02	-	-	-
Total Cyanide (W)	<0.05	<0.1	-	-	-
TPH (Total Aliphatics + Total Aromatics) >C5-C	<0.01	<0.02	-	-	-
Trans-1,2-Dichloroethene	<0.0019	<0.0038	-	-	-
Trans-1,3-Dichloropropene	<0.0035	<0.007	-	-	-
Trichloroethene	<0.0025	<0.005	-	-	-
Trichlorofluoromethane	<0.0013	<0.0026	-	-	-
Vinyl Chloride	<0.0012	<0.0024	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.39
Conductivity (µS/cm)	212.00
Temperature (°C)	19.20
Volume Leachant (Litres)	0.332
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.211	**Moisture Content Ratio (%)**	20.3
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	83.2
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798270			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	1.50 - 1.50			

Solid Waste Analysis

Total Organic Carbon (%)	9.71	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	8.11	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Arsenic	0.00144	0.00288	-	-	-
Barium	-	-	-	-	-
Cadmium	<0.0001	<0.0002	-	-	-
Chromium	0.00594	0.0119	-	-	-
Copper	0.00581	0.0116	-	-	-
Mercury Dissolved (CVAF)	<0.00001	<0.00002	-	-	-
Molybdenum	-	-	-	-	-
Nickel	0.00238	0.00476	-	-	-
Lead	0.000287	0.000574	-	-	-
Antimony	-	-	-	-	-
Selenium	0.00345	0.0069	-	-	-
Zinc	0.000413	0.000826	-	-	-
Chloride	-	-	-	-	-
Fluoride	-	-	-	-	-
Sulphate (soluble)	52.5	105	-	-	-
Total Dissolved Solids	-	-	-	-	-
Total Monohydric Phenols (W)	-	-	-	-	-
Dissolved Organic Carbon	-	-	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.07
Conductivity (µS/cm)	441.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.314
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.211	**Moisture Content Ratio (%)**	20.3
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	83.2
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798270			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	1.50 - 1.50			

Solid Waste Analysis

Total Organic Carbon (%)	9.71	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	8.11	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
1,1,1,2-Tetrachloroethane	<0.0013	<0.0026	-	-	-
1,1,1-Trichloroethane	<0.0013	<0.0026	-	-	-
1,1,2,2-Tetrachloroethane	<0.0052	<0.0104	-	-	-
1,1,2-Trichloroethane	<0.0022	<0.0044	-	-	-
1,1-Dichloroethane	<0.0012	<0.0024	-	-	-
1,1-Dichloroethene	<0.0012	<0.0024	-	-	-
1,1-Dichloropropene	<0.0013	<0.0026	-	-	-
1,2,3-Trichlorobenzene	<0.0031	<0.0062	-	-	-
1,2,3-Trichloropropane	<0.0078	<0.0156	-	-	-
1,2,4-Trichlorobenzene	<0.0023	<0.0046	-	-	-
1,2,4-Trimethylbenzene	<0.0017	<0.0034	-	-	-
1,2-Dibromo-3-Chloropropane	<0.0098	<0.0196	-	-	-
1,2-Dibromoethane	<0.0023	<0.0046	-	-	-
1,2-Dichlorobenzene	<0.0037	<0.0074	-	-	-
1,2-Dichloroethane	<0.0033	<0.0066	-	-	-
1,2-Dichloropropane	<0.003	<0.006	-	-	-
1,3,5-Trichlorobenzene	<0.01	<0.02	-	-	-
1,3,5-Trimethylbenzene	<0.0018	<0.0036	-	-	-
1,3-Dichlorobenzene	<0.0022	<0.0044	-	-	-
1,3-Dichloropropane	<0.0022	<0.0044	-	-	-
1,4-Dichlorobenzene	<0.0027	<0.0054	-	-	-
2,2-Dichloropropane	<0.0038	<0.0076	-	-	-
2,4,5-Trichlorophenol	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.07
Conductivity (µS/cm)	441.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.314
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.211	**Moisture Content Ratio (%)**	20.3
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	83.2
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798270			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	1.50 - 1.50			

Solid Waste Analysis

Total Organic Carbon (%)	9.71	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	8.11	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
2,4,6-Trichlorophenol	<0.001	<0.002	-	-	-
2,4-Dichlorophenol	<0.001	<0.002	-	-	-
2,4-Dimethylphenol	<0.001	<0.002	-	-	-
2,4-Dinitrotoluene	<0.001	<0.002	-	-	-
2,6-Dinitrotoluene	<0.001	<0.002	-	-	-
2-Chloronaphthalene	<0.001	<0.002	-	-	-
2-Chlorophenol	<0.001	<0.002	-	-	-
2-Chlorotoluene	<0.0019	<0.0038	-	-	-
2-Methylnaphthalene	<0.001	<0.002	-	-	-
2-Methylphenol	<0.001	<0.002	-	-	-
2-Nitroaniline	<0.001	<0.002	-	-	-
2-Nitrophenol	<0.001	<0.002	-	-	-
3-Nitroaniline	<0.001	<0.002	-	-	-
4-Bromophenylphenylether	<0.001	<0.002	-	-	-
4-Chloro-3-methylphenol	<0.001	<0.002	-	-	-
4-Chloroaniline	<0.001	<0.002	-	-	-
4-Chlorophenylphenylether	<0.001	<0.002	-	-	-
4-Chlorotoluene	<0.0019	<0.0038	-	-	-
4-Isopropyltoluene	<0.0026	<0.0052	-	-	-
4-Methylphenol	<0.001	<0.002	-	-	-
4-Nitroaniline	<0.001	<0.002	-	-	-
4-Nitrophenol	<0.001	<0.002	-	-	-
Acenaphthene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.07
Conductivity (µS/cm)	441.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.314
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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

Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.211	**Moisture Content Ratio (%)**	20.3
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	83.2
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798270			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	1.50 - 1.50			

Solid Waste Analysis

Total Organic Carbon (%)	9.71	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	8.11	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Acenaphthylene	<0.001	<0.002	-	-	-
Aliphatics >C10-C12	<0.01	<0.02	-	-	-
Aliphatics >C12-C16	<0.01	<0.02	-	-	-
Aliphatics >C16-C21	<0.01	<0.02	-	-	-
Aliphatics >C21-C35	<0.01	<0.02	-	-	-
Aliphatics >C6-C8	<0.01	<0.02	-	-	-
Aliphatics >C8-C10	<0.01	<0.02	-	-	-
Ammoniacal Nitrogen as N	0.447	0.894	-	-	-
Anthracene	<0.001	<0.002	-	-	-
Aromatics >C7-C8	<0.01	<0.02	-	-	-
Aromatics >EC10-EC12	<0.01	<0.02	-	-	-
Aromatics >EC12-EC16	<0.01	<0.02	-	-	-
Aromatics >EC16-EC21	<0.01	<0.02	-	-	-
Aromatics >EC21-EC35	<0.01	<0.02	-	-	-
Aromatics >EC8 -EC10	<0.01	<0.02	-	-	-
Aromatics C6-C7	<0.01	<0.02	-	-	-
Azobenzene	<0.001	<0.002	-	-	-
Benzene	<0.0013	<0.0026	-	-	-
Benzene by GC	<0.007	<0.014	-	-	-
Benzo(a)anthracene	<0.001	<0.002	-	-	-
Benzo(a)pyrene	<0.001	<0.002	-	-	-
Benzo(b)fluoranthene	<0.001	<0.002	-	-	-
Benzo(ghi)perylene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.07
Conductivity (µS/cm)	441.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.314
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Mcerts Certification does not apply to leachates

CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.211	**Moisture Content Ratio (%)**	20.3
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	83.2
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798270			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	1.50 - 1.50			

Solid Waste Analysis

Total Organic Carbon (%)	9.71	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	8.11	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Benzo(k)fluoranthene	<0.001	<0.002	-	-	-
Bis(2-chloroethoxy)methane	<0.001	<0.002	-	-	-
Bis(2-chloroethyl)ether	<0.001	<0.002	-	-	-
Bis(2-ethylhexyl) phthalate	<0.002	<0.004	-	-	-
BOD	1.19	2.38	-	-	-
Bromobenzene	<0.002	<0.004	-	-	-
Bromochloromethane	<0.0019	<0.0038	-	-	-
Bromodichloromethane	<0.0009	<0.0018	-	-	-
Bromoform	<0.003	<0.006	-	-	-
Bromomethane	<0.002	<0.004	-	-	-
Butylbenzyl phthalate	<0.001	<0.002	-	-	-
Carbazole	<0.001	<0.002	-	-	-
Carbon Disulphide	<0.0013	<0.0026	-	-	-
Carbontetrachloride	<0.0014	<0.0028	-	-	-
Chlorobenzene	<0.0035	<0.007	-	-	-
Chloroethane	<0.0025	<0.005	-	-	-
Chloroform	<0.0018	<0.0036	-	-	-
Chloromethane	<0.0017	<0.0034	-	-	-
Chrysene	<0.001	<0.002	-	-	-
Cis-1,2-Dichloroethene	<0.0023	<0.0046	-	-	-
Cis-1,3-Dichloropropene	<0.0019	<0.0038	-	-	-
COD	24	48	-	-	-
Dibenzo(a,h)anthracene	<0.001	<0.002	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.07
Conductivity (µS/cm)	441.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.314
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.211	**Moisture Content Ratio (%)**	20.3
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	83.2
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798270			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	1.50 - 1.50			

Solid Waste Analysis

Total Organic Carbon (%)	9.71	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	8.11	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Dibenzofuran	<0.001	<0.002	-	-	-
Dibromochloromethane	<0.0017	<0.0034	-	-	-
Dibromomethane	<0.0027	<0.0054	-	-	-
Dichlorodifluoromethane	<0.0013	<0.0026	-	-	-
Dichloromethane	<0.0037	<0.0074	-	-	-
Diethyl phthalate	<0.001	<0.002	-	-	-
Dimethyl phthalate	<0.001	<0.002	-	-	-
Di-n-butyl phthalate	<0.001	<0.002	-	-	-
Di-n-Octyl phthalate	<0.005	<0.01	-	-	-
Ethylbenzene	<0.0025	<0.005	-	-	-
Ethylbenzene by GC	<0.005	<0.01	-	-	-
Fluoranthene	<0.001	<0.002	-	-	-
Fluorene	<0.001	<0.002	-	-	-
Formaldehyde	<0.5	<1	-	-	-
GRO TOT (C5-C12)	<0.042	<0.084	-	-	-
Hardness Total	208	416	-	-	-
Hexachlorobenzene	<0.001	<0.002	-	-	-
Hexachlorobutadiene	<0.0025	<0.005	-	-	-
Hexachlorocyclopentadiene	<0.001	<0.002	-	-	-
Hexachloroethane	<0.001	<0.002	-	-	-
Indeno (1,2,3-cd) Pyrene	<0.001	<0.002	-	-	-
Isophorone	<0.001	<0.002	-	-	-
Isopropylbenzene	<0.0014	<0.0028	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.07
Conductivity (µS/cm)	441.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.314
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.211	**Moisture Content Ratio (%)**	20.3
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	83.2
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798270			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	1.50 - 1.50			

Solid Waste Analysis

Total Organic Carbon (%)	9.71	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	8.11	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
m & p Xylene by GC	<0.008	<0.016	-	-	-
Naphthalene	<0.0035	<0.007	-	-	-
n-Butylbenzene	<0.002	<0.004	-	-	-
Nitrobenzene	<0.001	<0.002	-	-	-
N-nitrosodi-n-propylamine	<0.001	<0.002	-	-	-
o Xylene by GC	<0.003	<0.006	-	-	-
o-Xylene	<0.0017	<0.0034	-	-	-
p/m-Xylene	<0.0025	<0.005	-	-	-
Pentachlorophenol	<0.001	<0.002	-	-	-
pH	-	-	-	-	-
Phenanthrene	<0.001	<0.002	-	-	-
Phenol	<0.001	<0.002	-	-	-
Propylbenzene	<0.0026	<0.0052	-	-	-
Pyrene	<0.001	<0.002	-	-	-
Sec-Butylbenzene	<0.0017	<0.0034	-	-	-
Styrene	<0.0012	<0.0024	-	-	-
Sum m&p and o Xylene by GC	<0.01	<0.02	-	-	-
Sum of BTEX by GC	<0.01	<0.02	-	-	-
Surrogate Recovery	-	-	-	-	-
Tert-amyl methyl ether	<0.001	<0.002	-	-	-
Tert-butyl methyl ether	<0.0016	<0.0032	-	-	-
Tert-Butylbenzene	<0.002	<0.004	-	-	-
Tetrachloroethene	<0.0015	<0.003	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.07
Conductivity (µS/cm)	441.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.314
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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CEN 2:1 ONE STAGE BATCH TEST

REF-CEN12457-3

Client Reference	PN092178	**Client Location**	North Log Yard
Mass Sample taken (kg)	0.211	**Moisture Content Ratio (%)**	20.3
Mass of dry sample (kg)	0.175	**Dry Matter Content Ratio (%)**	83.2
Particle Size <4mm	>95%		

Case				
SDG	100104-29			
Lab Sample Number(s)	798270			
Sampled Date	21-Dec-2009			
Sample Identity	TP02			
Depth (m)	1.50 - 1.50			

Solid Waste Analysis

Total Organic Carbon (%)	9.71	-	-	-
Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.01	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	8.11	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	**Conc^{n} in 2:1 eluate C_2**	**2:1 conc^{n} leached A_2**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg**		
	mg/l	**mg/kg**			
Toluene	<0.0014	<0.0028	-	-	-
Toluene by GC	<0.004	<0.008	-	-	-
Total Aliphatics & Aromatics >C12-C35	<0.01	<0.02	-	-	-
Total Aliphatics >C12-C35	<0.01	<0.02	-	-	-
Total Aliphatics >C5-C35 Aqueous	<0.01	<0.02	-	-	-
Total Aliphatics C5-C12	<0.01	<0.02	-	-	-
Total Aromatics >C6-C35 Aqueous	<0.01	<0.02	-	-	-
Total Aromatics >EC12-EC35	<0.01	<0.02	-	-	-
Total Aromatics C6-C12	<0.01	<0.02	-	-	-
Total Cyanide (W)	<0.05	<0.1	-	-	-
TPH (Total Aliphatics + Total Aromatics) >C5-C	<0.01	<0.02	-	-	-
Trans-1,2-Dichloroethene	<0.0019	<0.0038	-	-	-
Trans-1,3-Dichloropropene	<0.0035	<0.007	-	-	-
Trichloroethene	<0.0025	<0.005	-	-	-
Trichlorofluoromethane	<0.0013	<0.0026	-	-	-
Vinyl Chloride	<0.0012	<0.0024	-	-	-

Leach Test Information

Date Prepared	19-Jan-2010
pH (pH Units)	8.07
Conductivity (µS/cm)	441.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.314
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

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Table of Results - Appendix

SDG Number : 100104-29 **Client :** Geotechnics Ltd **Client Ref :** PN092178

REPORT KEY

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10-7

NDP	No Determination Possible	#	ISO 17025 Accredited	*	Subcontracted Test	M	MCERTS Accredited
NFD	No Fibres Detected	PFD	Possible Fibres Detected	»	Result previously reported (Incremental reports only)	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control

Method No	Reference	Description	Wet/Dry Sample [1]
PM001		Preparation of Samples for Metals Analysis	Dry
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material	Wet
PM114		Leaching Procedure for CEN Two Stage BatchTest 2:1/8:1 Cumulative	
PM115		Leaching Procedure for CEN One Stage Leach Test 2:1 & 10:1 1 Step	
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids	Wet
TM038	Based on: NASH, T. (1953). Biochem. J., 55:416-421	Determination of Formaldehyde using Dr Lange test kit	Wet
TM045	MEWAM BOD5 2nd Ed.HMSO 1988 / Method 5210B, AWWA/APHA, 20th Ed., 1999; SCA Blue Book 130	Determination of BOD (ATU) Filtered by Oxygen Meter on liquids	
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water	
TM098	Method 4500E, AWWA/APHA, 20th Ed., 1999	Determination of Sulphate using the Kone Analyser	Dry
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser	
TM107	ISO 6060-1989	Determination of Chemical Oxygen Demand using COD Dr Lange Kit	
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS	
TM132	In - house Method	ELTRA CS800 Operators Guide	Dry
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter	Wet
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS	
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the "Skalar SANS+ System" Segmented Flow Analyser	Wet
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone	Wet
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID	Dry
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID	
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS	
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES	Dry
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry	
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers	Dry
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters	
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate	
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES	
TM245	By GC-FID	Determination of GRO by Headspace in waters	

ALcontrol Laboratories Analytical Services

Table of Results - Appendix

SDG Number : 100104-29 **Client :** Geotechnics Ltd **Client Ref :** PN092178

REPORT KEY

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10-7

NDP	No Determination Possible	#	ISO 17025 Accredited	*	Subcontracted Test	M	MCERTS Accredited
NFD	No Fibres Detected	PFD	Possible Fibres Detected	»	Result previously reported (Incremental reports only)	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control

Method No	Reference	Description	Wet/Dry Sample [1]
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter	

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

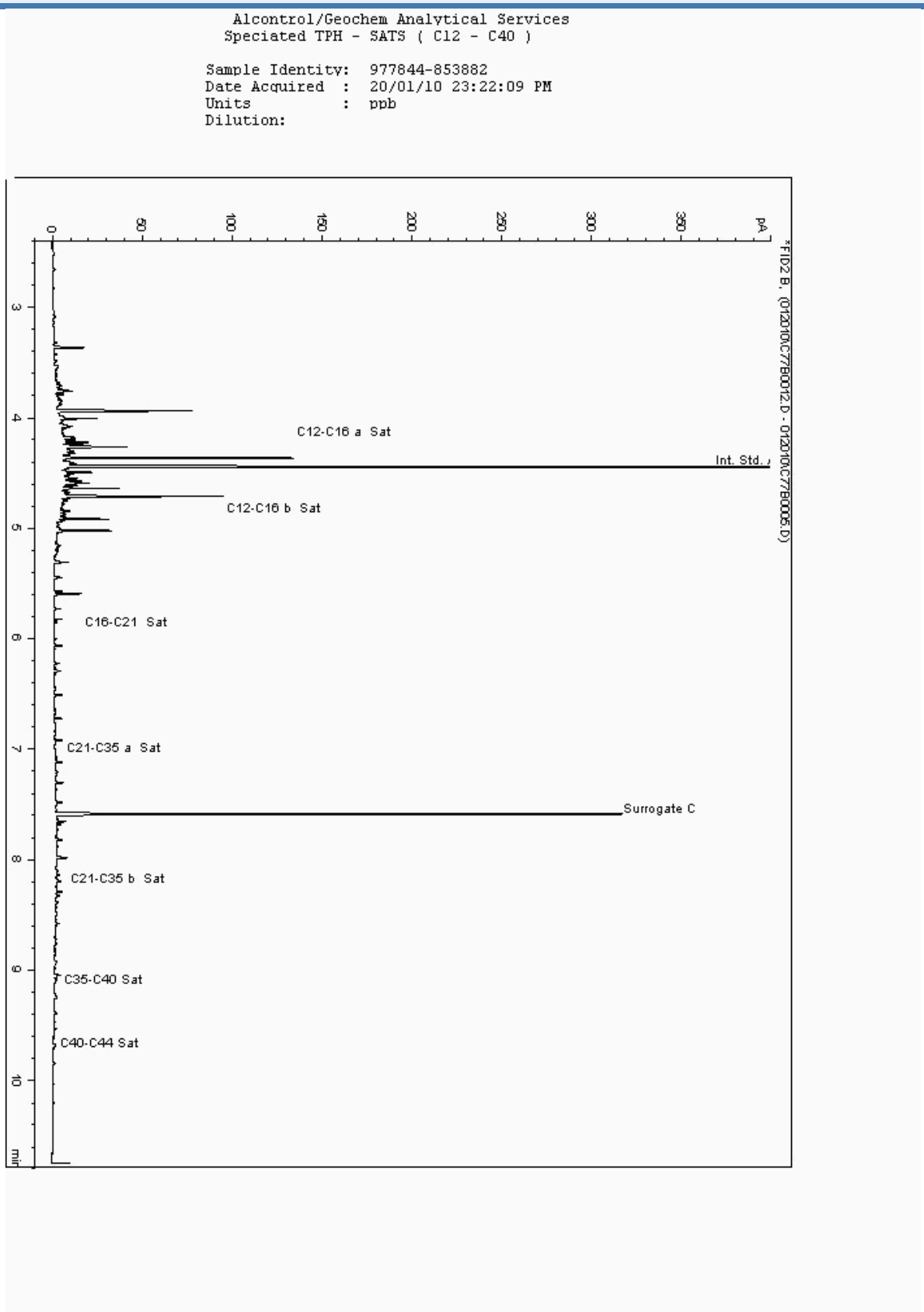
Validated

ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Chromatogram

Analysis:	EPH CWG (Aliphatic) GC (S)	**Sample No**	853882
		Sample ID	TP01
		Depth	2.00 - 2.00



Validated

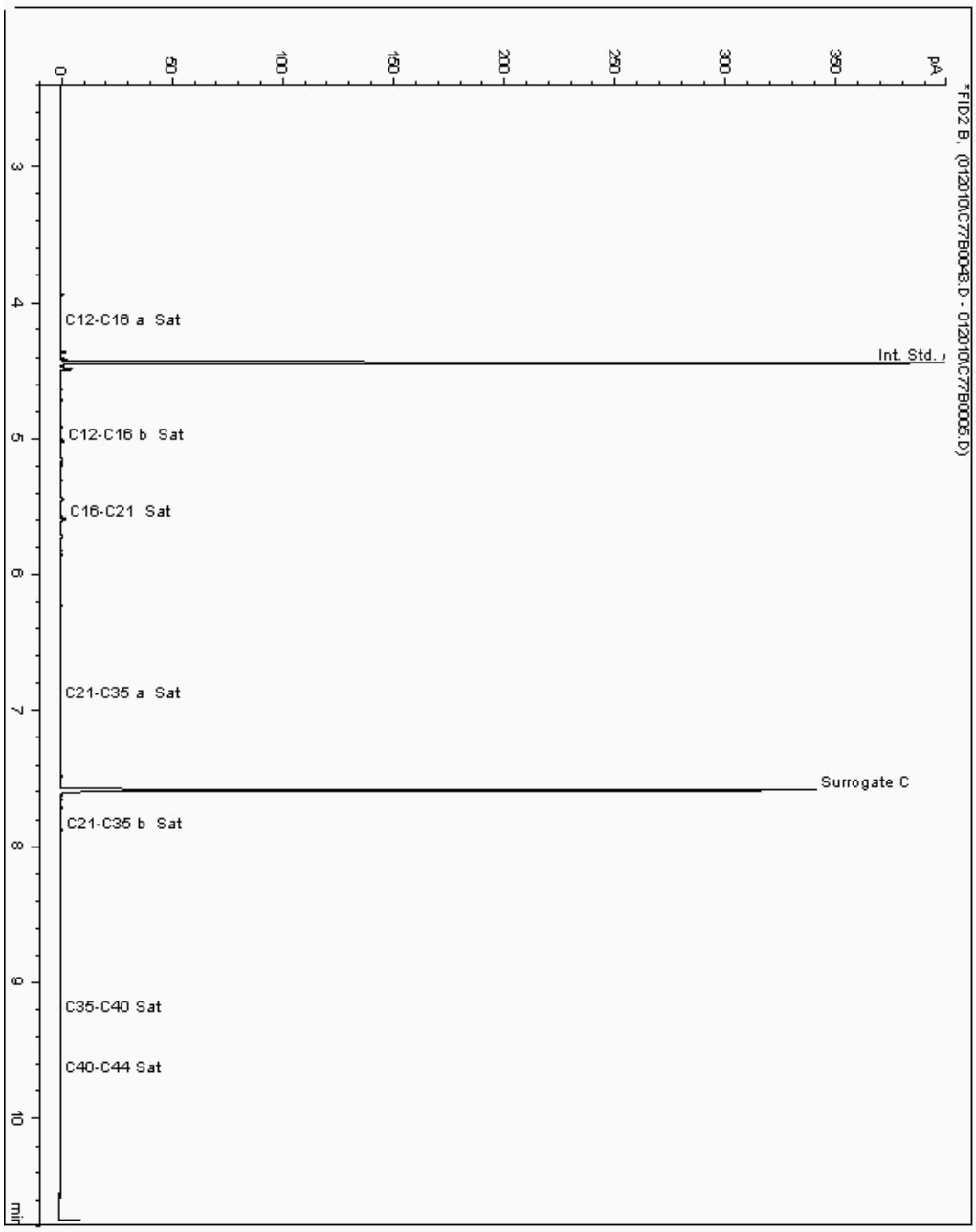
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aliphatic) GC (S)	**Sample No**	855714
		Sample ID	TP01
		Depth	0.50 - 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 977826-855714
Date Acquired : 21/01/10 08:45:42 PM
Units : ppb
Dilution:



Validated

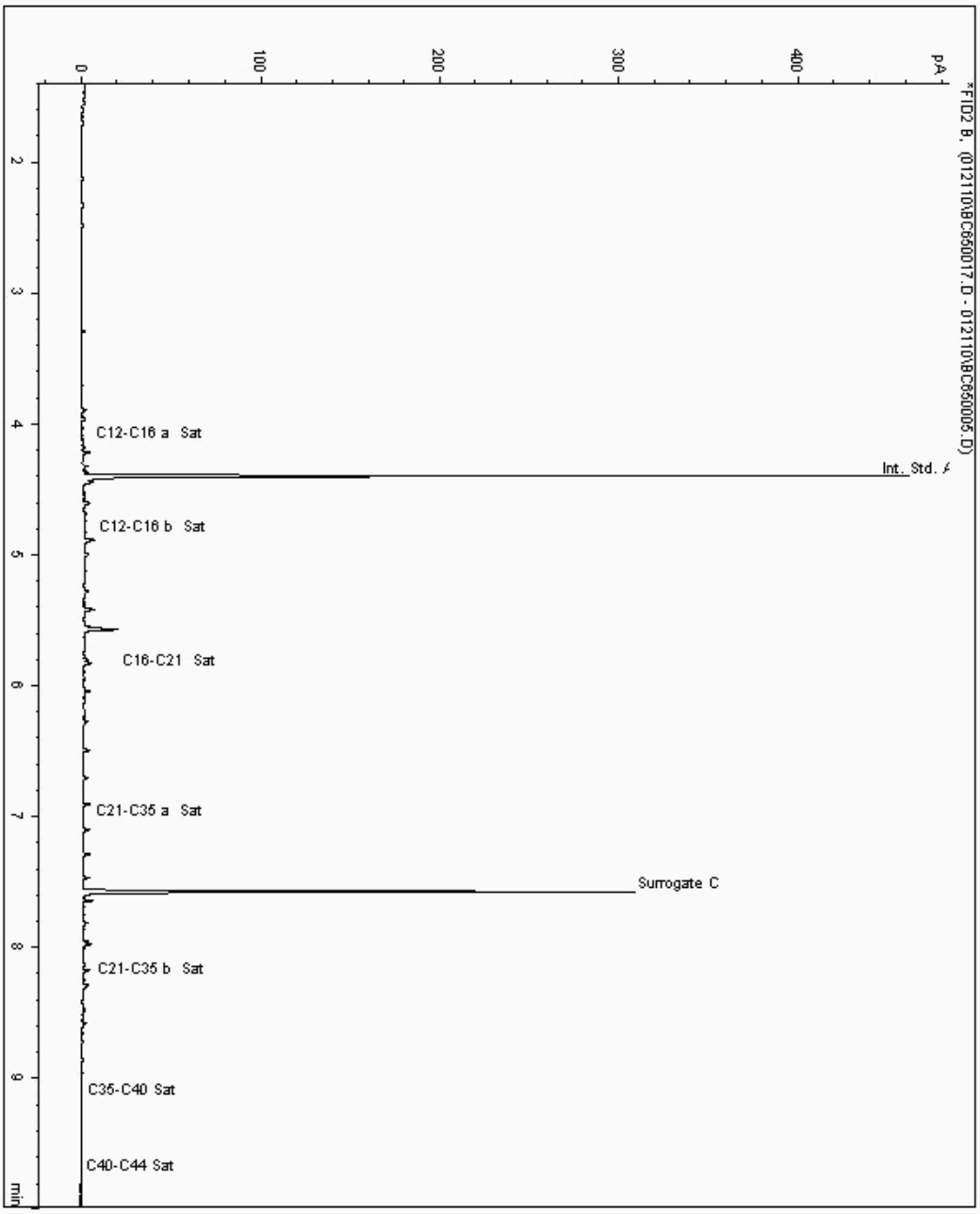
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aliphatic) GC (S)	**Sample No**	855892
		Sample ID	TP02
		Depth	1.50 - 1.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 977887-855892
Date Acquired : 21/01/10 17:29:36 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.045



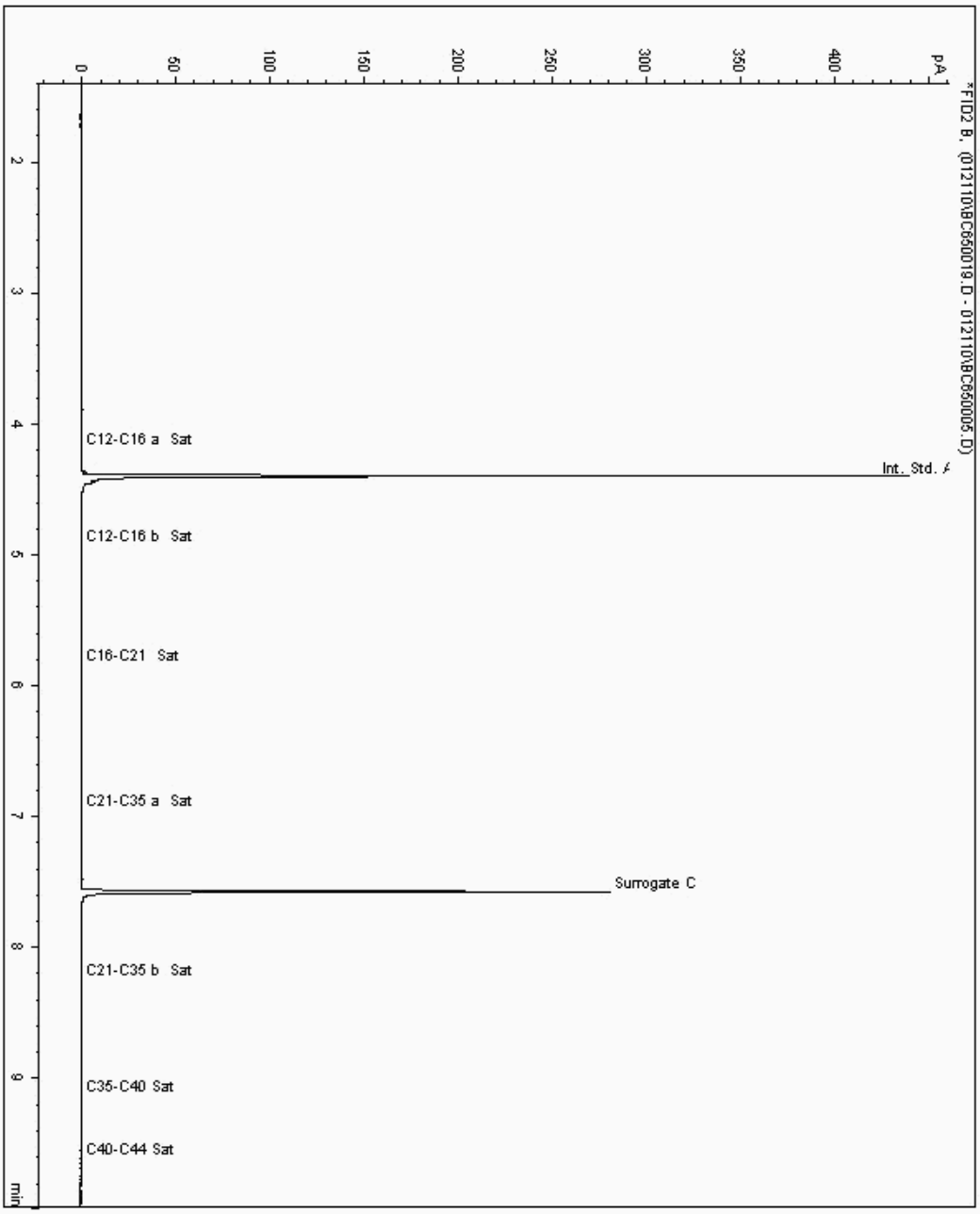
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aliphatic) GC (S)	**Sample No**	855936
		Sample ID	TP02
		Depth	0.70 - 0.70

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 977869-855936
Date Acquired : 21/01/10 18:08:06 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.988



Validated

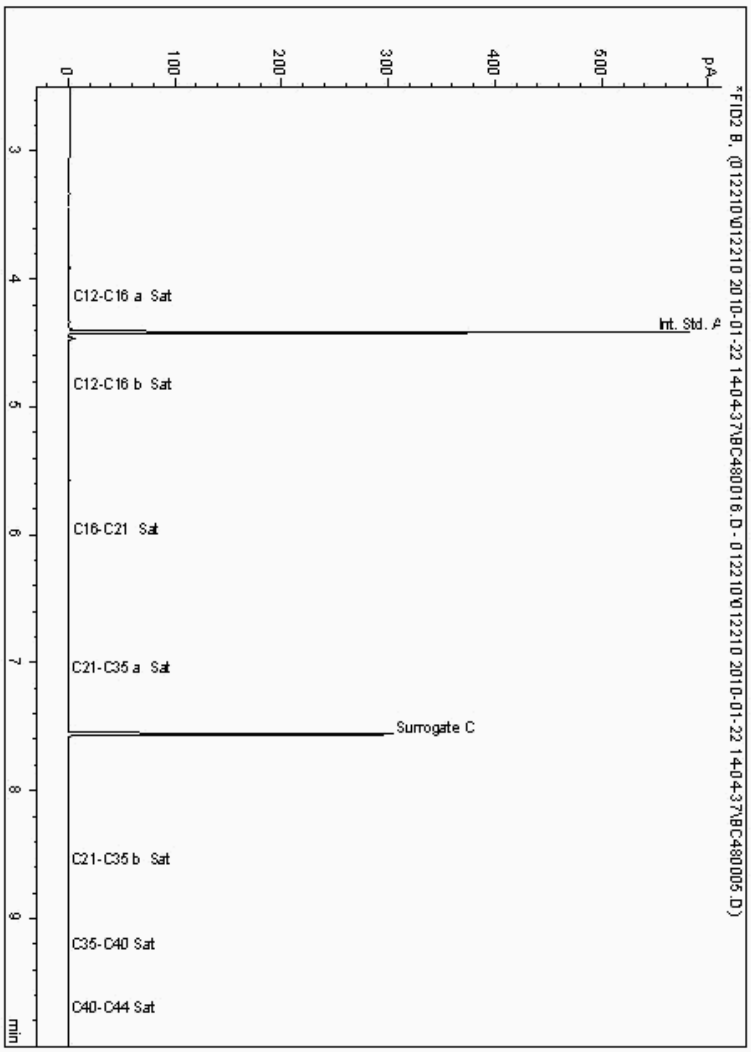
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aliphatic) Aqueous GC (W)	**Sample No**	860342
		Sample ID	TP01
		Depth	2.00 - 2.00

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 973825-860342
Date Acquired : 22/01/10 18:39:55
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



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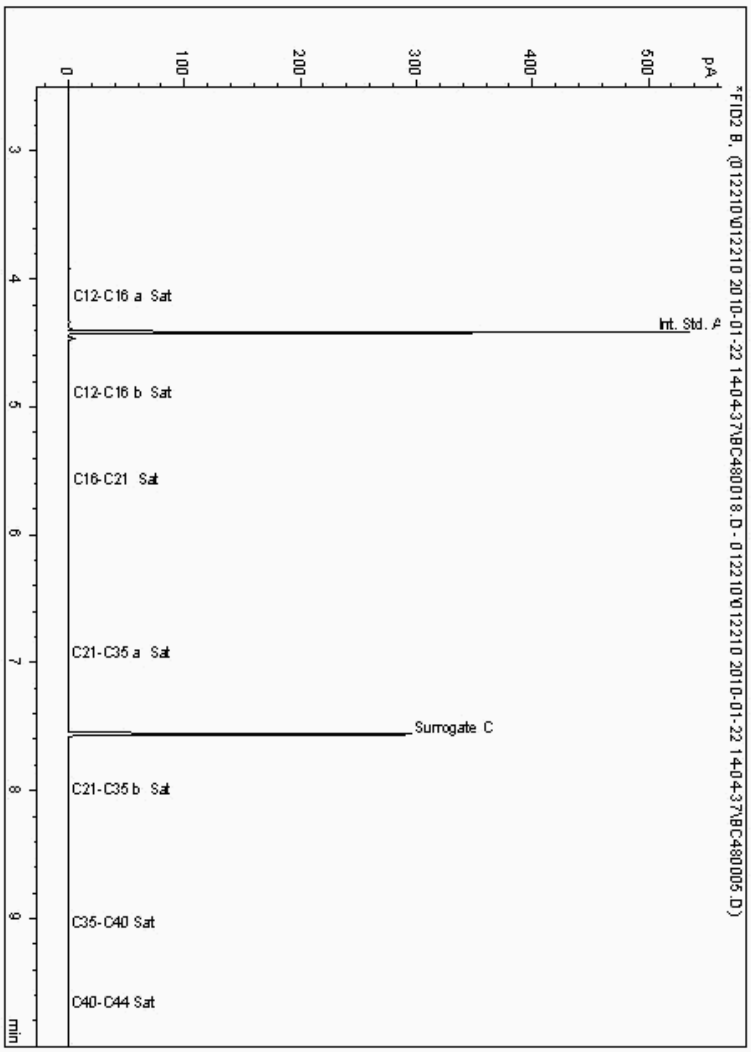
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aliphatic) Aqueous GC (W)	**Sample No**	860348
		Sample ID	TP02
		Depth	1.50 - 1.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 973937-860348
Date Acquired : 22/01/10 19:16:58
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



Validated

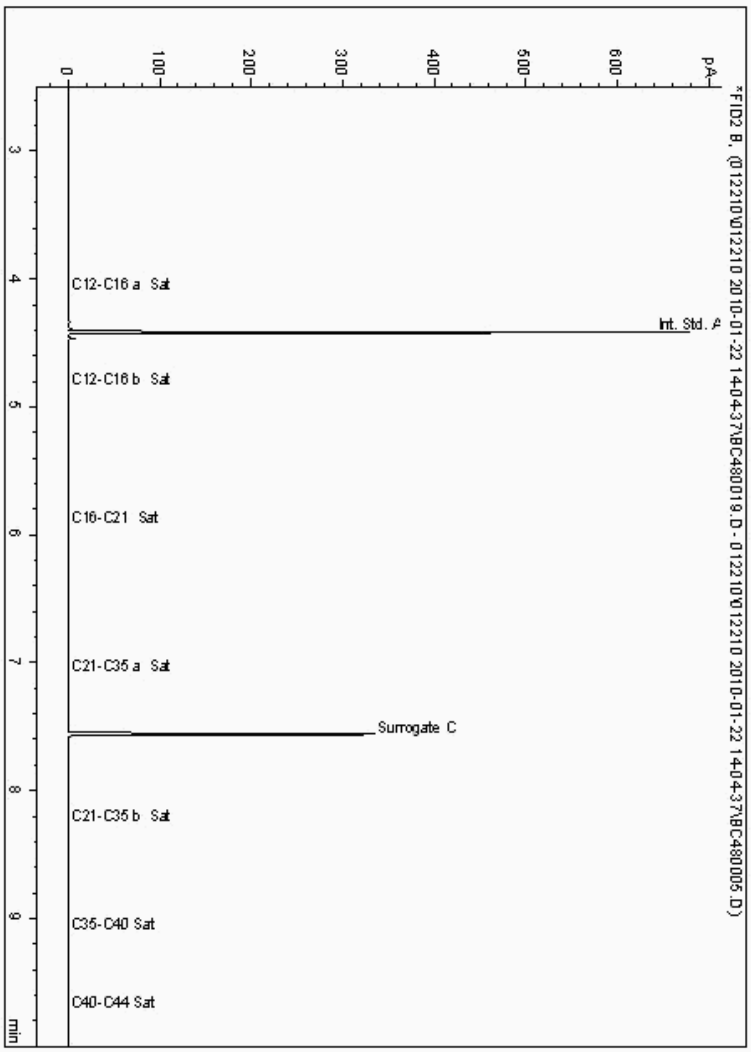
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aliphatic) Aqueous GC (W)	**Sample No**	860354
		Sample ID	TP02
		Depth	0.70 - 0.70

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 973867-860354
Date Acquired : 22/01/10 19:35:26
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



Validated

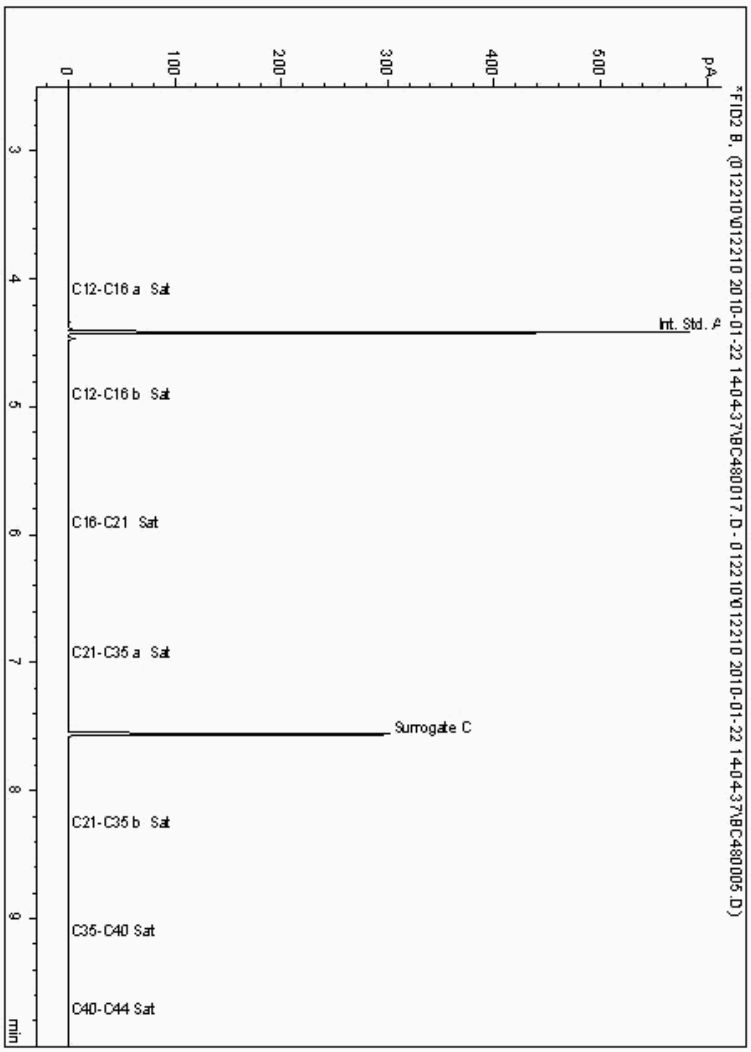
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aliphatic) Aqueous GC (W)	**Sample No**	860359
		Sample ID	TP01
		Depth	0.50 - 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 973765-860359
Date Acquired : 22/01/10 18:58:32
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



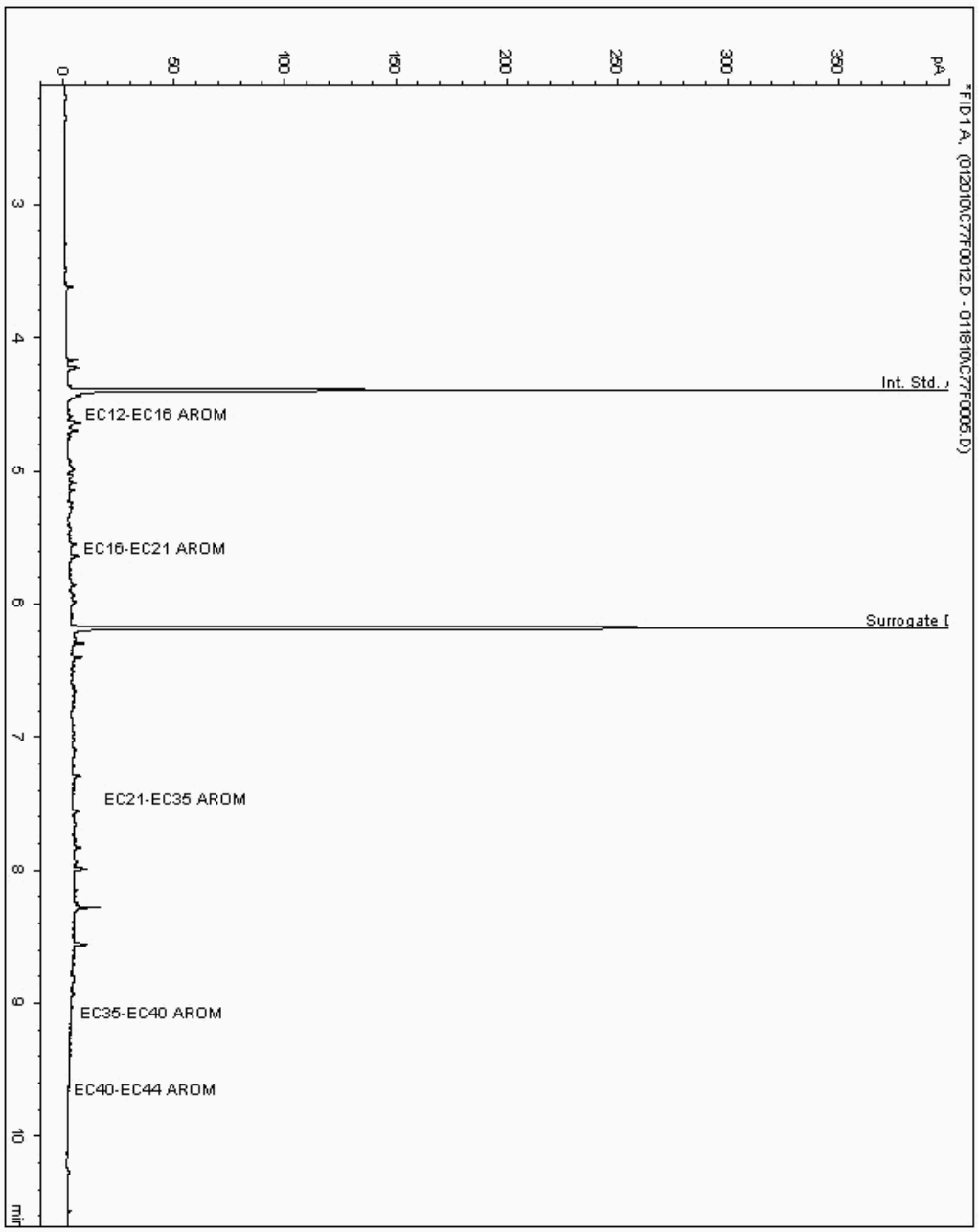
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aromatic) GC (S)	**Sample No**	853882
		Sample ID	TP01
		Depth	2.00 - 2.00

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 977845-853882
Date Acquired : 20/01/10 23:22:09 PM
Units : ppb
Dilution:



Validated

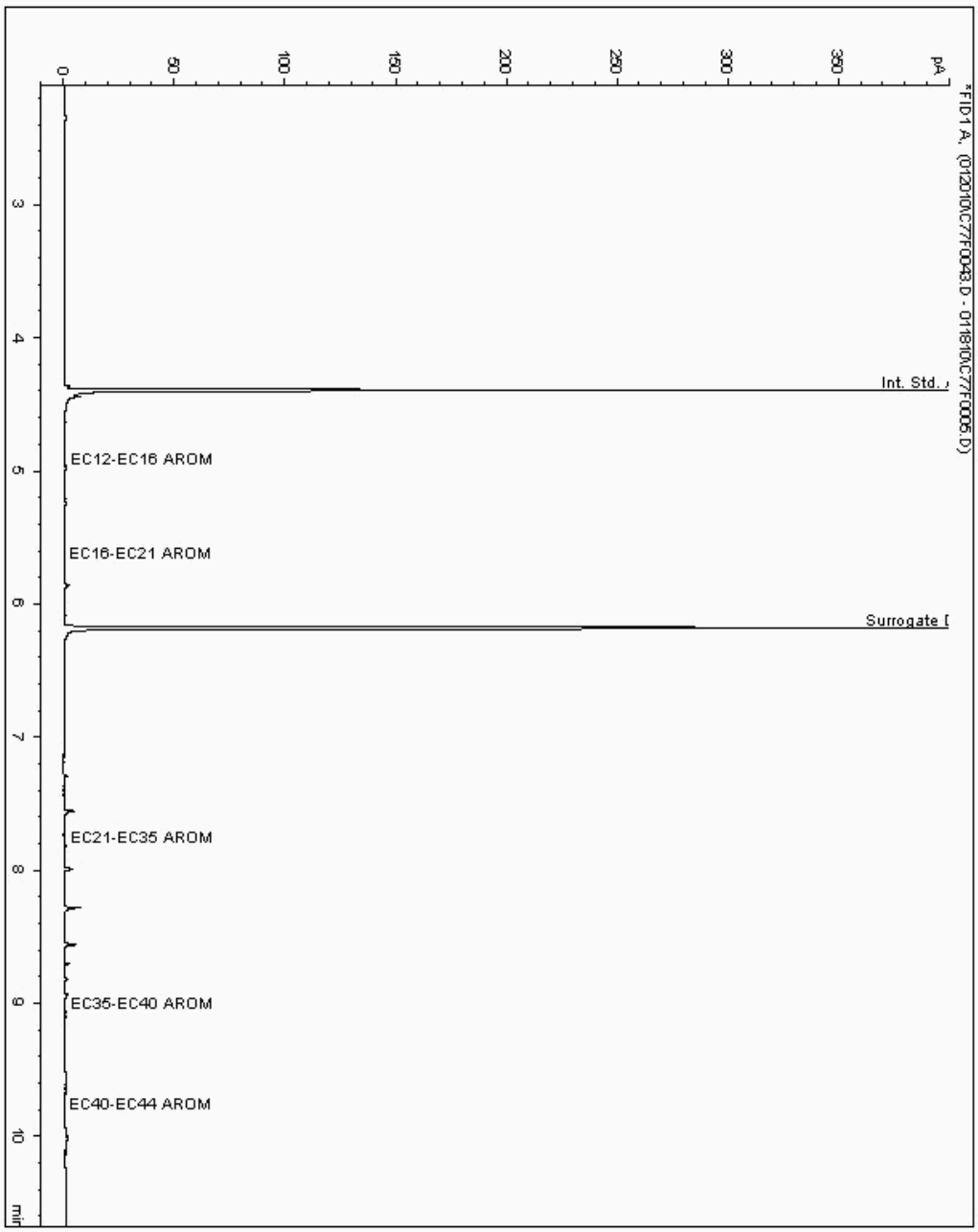
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aromatic) GC (S)	**Sample No**	855714
		Sample ID	TP01
		Depth	0.50 - 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 977827-855714
Date Acquired : 21/01/10 08:45:42 PM
Units : ppb
Dilution:



Validated

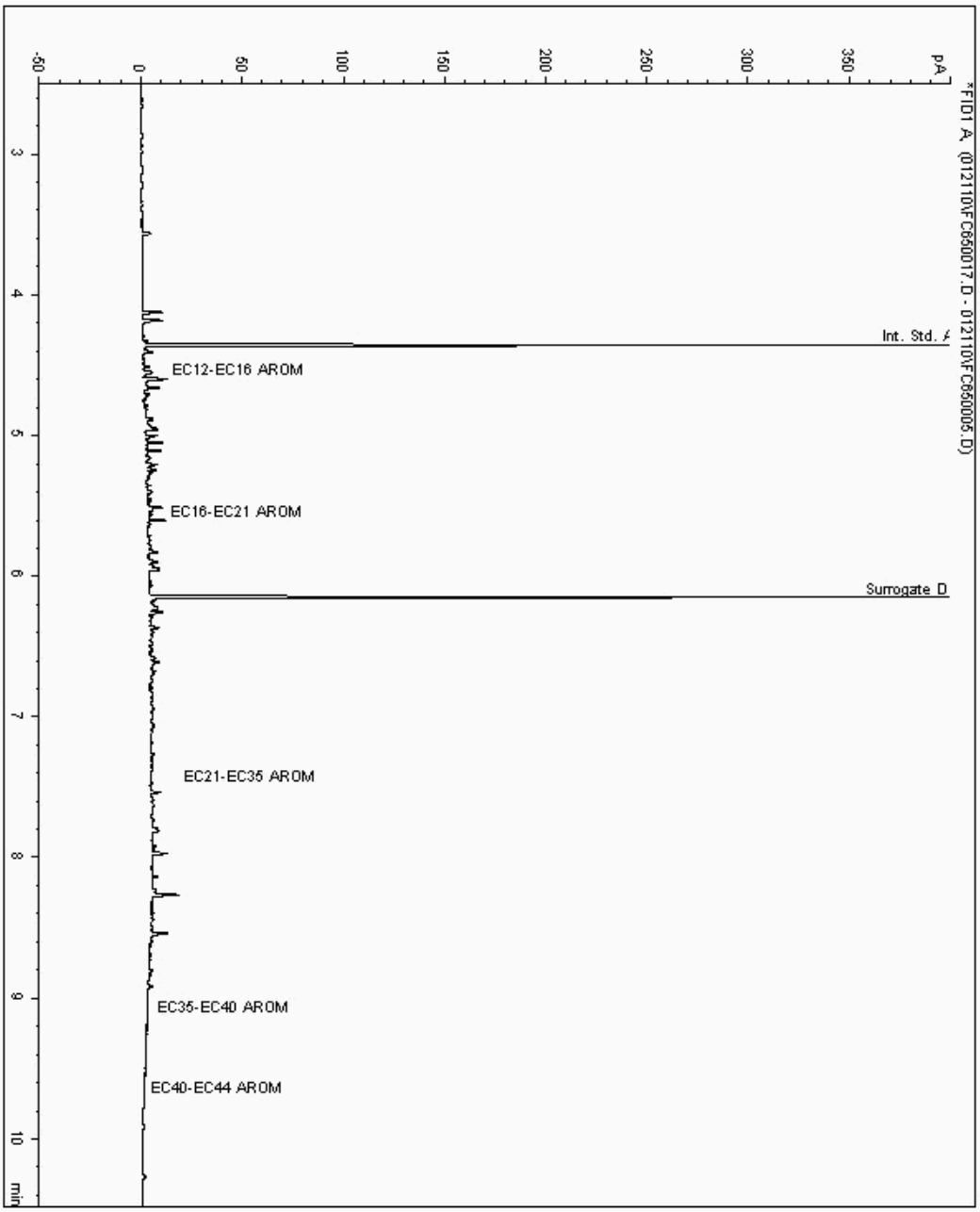
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aromatic) GC (S)	**Sample No**	855892
		Sample ID	TP02
		Depth	1.50 - 1.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 977888-855892
Date Acquired : 21/01/10 17:29:36 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.045



Validated

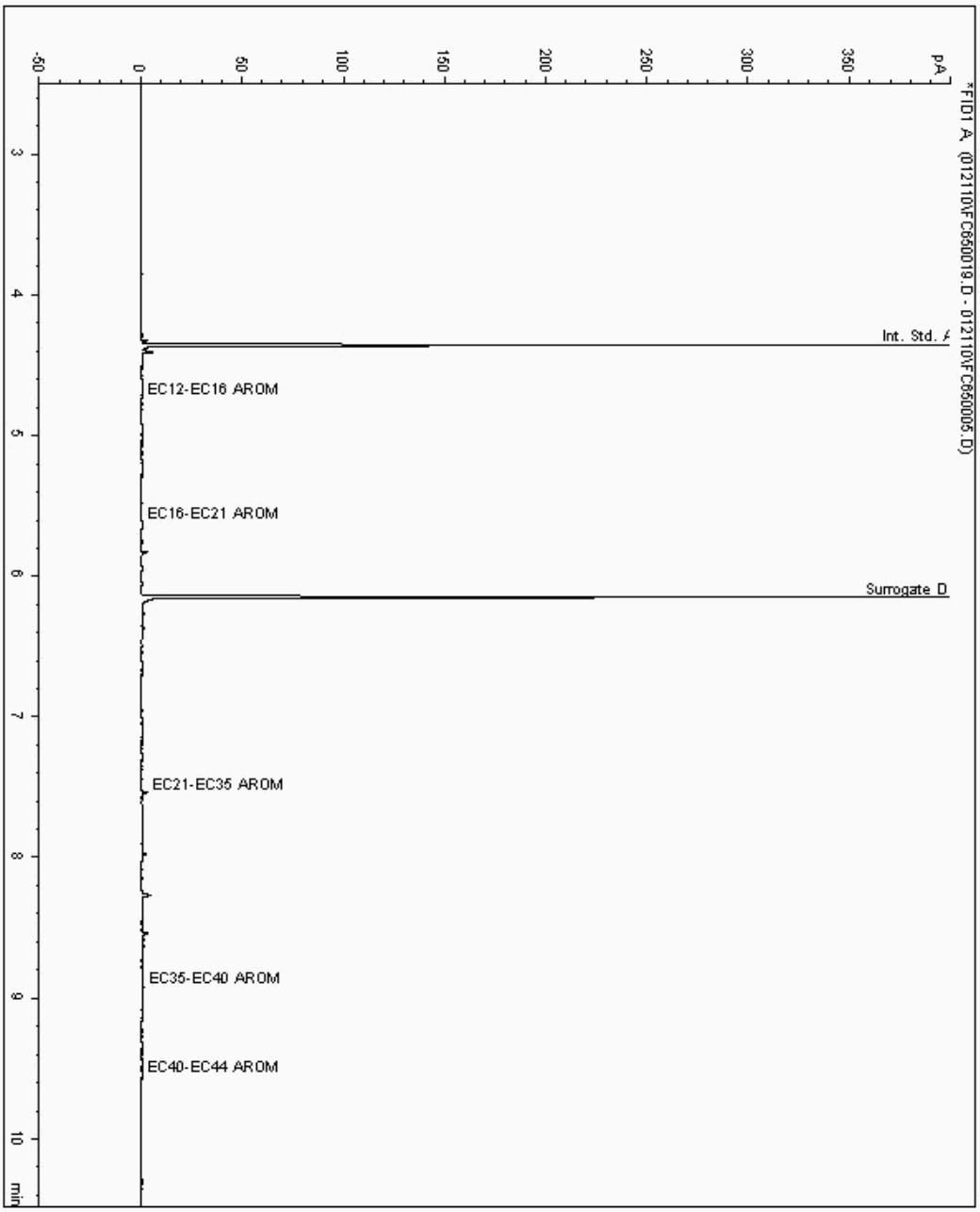
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aromatic) GC (S)	**Sample No**	855936
		Sample ID	TP02
		Depth	0.70 - 0.70

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 977870-855936
Date Acquired : 21/01/10 18:08:06 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.988



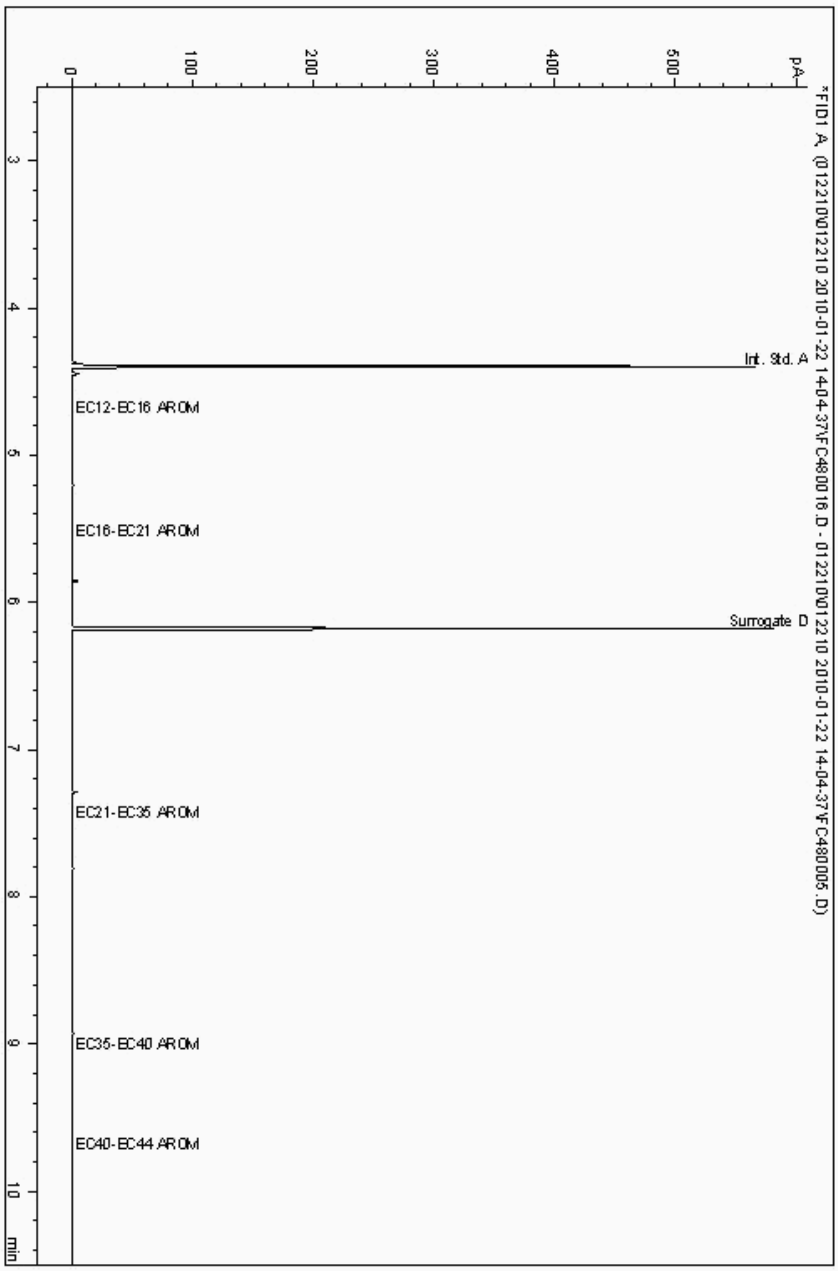
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aromatic) Aqueous GC (W)	**Sample No**	860342
		Sample ID	TP01
		Depth	2.00 - 2.00

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 973826-860342
Date Acquired : 22/01/10 18:39:55
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



Validated

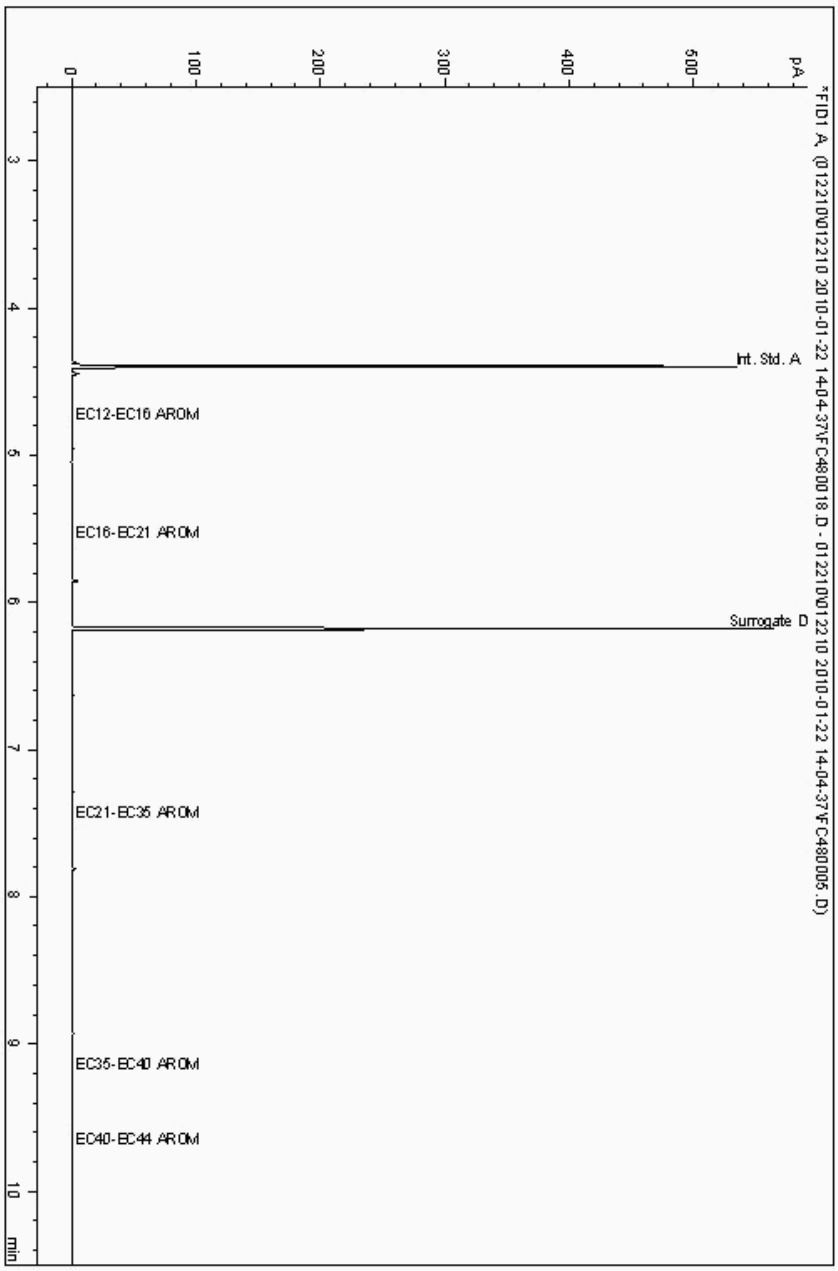
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aromatic) Aqueous GC (W)	**Sample No**	860348
		Sample ID	TP02
		Depth	1.50 - 1.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 973938-860348
Date Acquired : 22/01/10 19:16:58
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



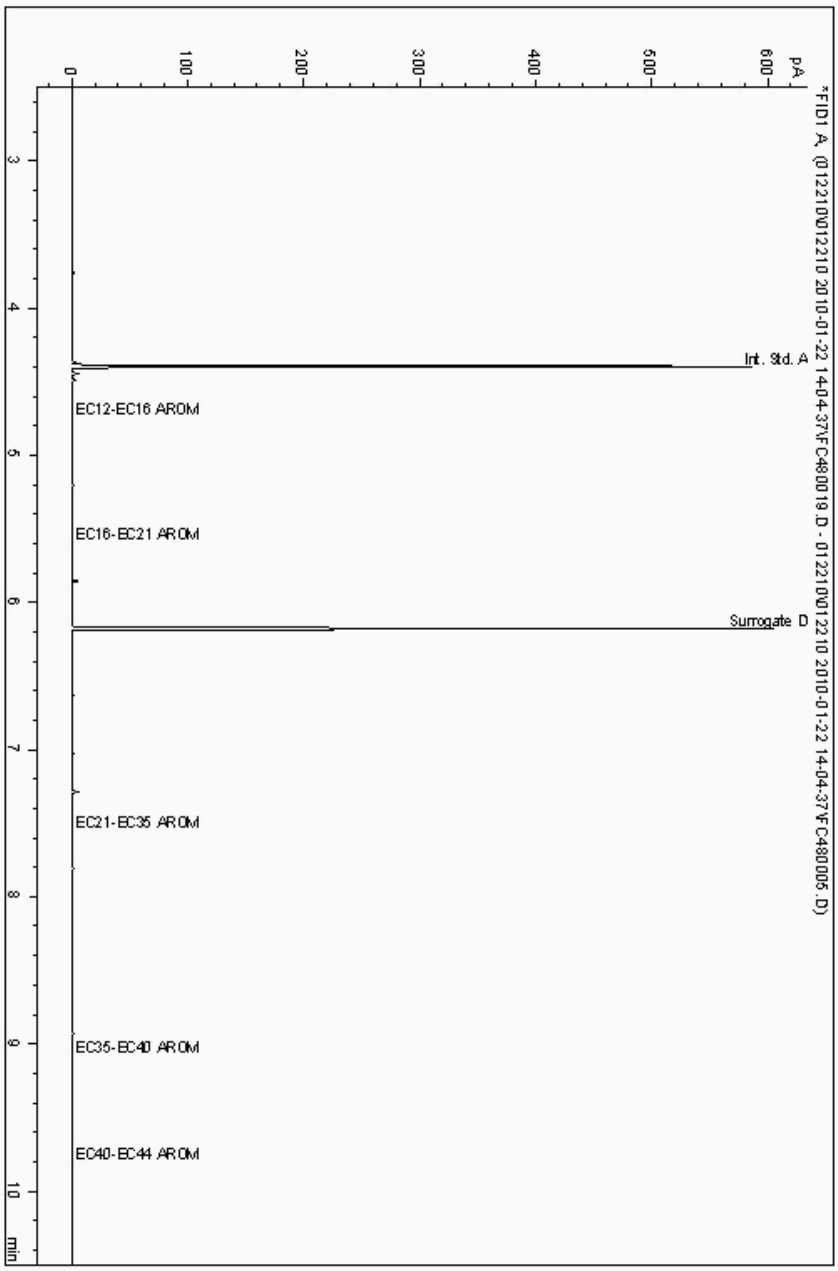
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aromatic) Aqueous GC (W)	**Sample No**	860354
		Sample ID	TP02
		Depth	0.70 - 0.70

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 973868-860354
Date Acquired : 22/01/10 19:35:26
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



Validated

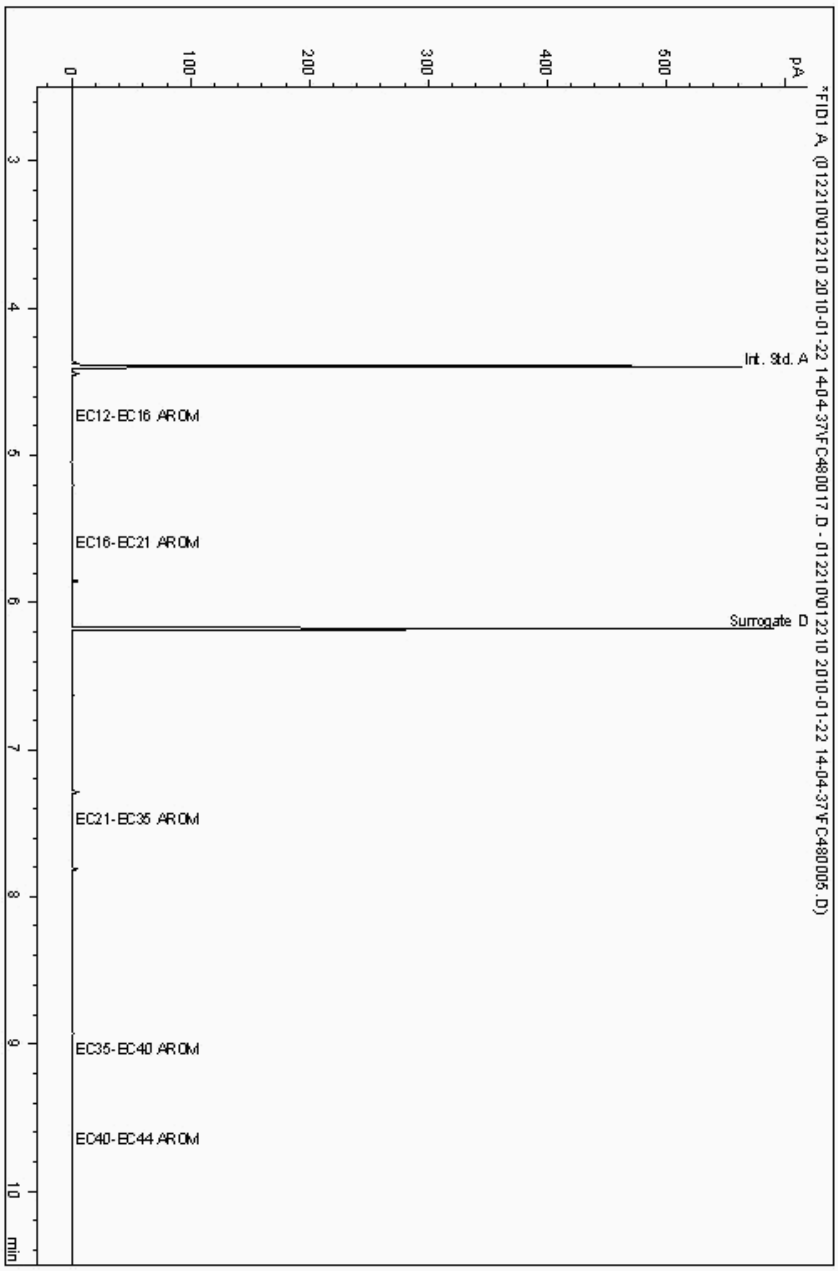
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	EPH CWG (Aromatic) Aqueous GC (W)	**Sample No**	860359
		Sample ID	TP01
		Depth	0.50 - 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 973766-860359
Date Acquired : 22/01/10 18:58:32
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



Validated

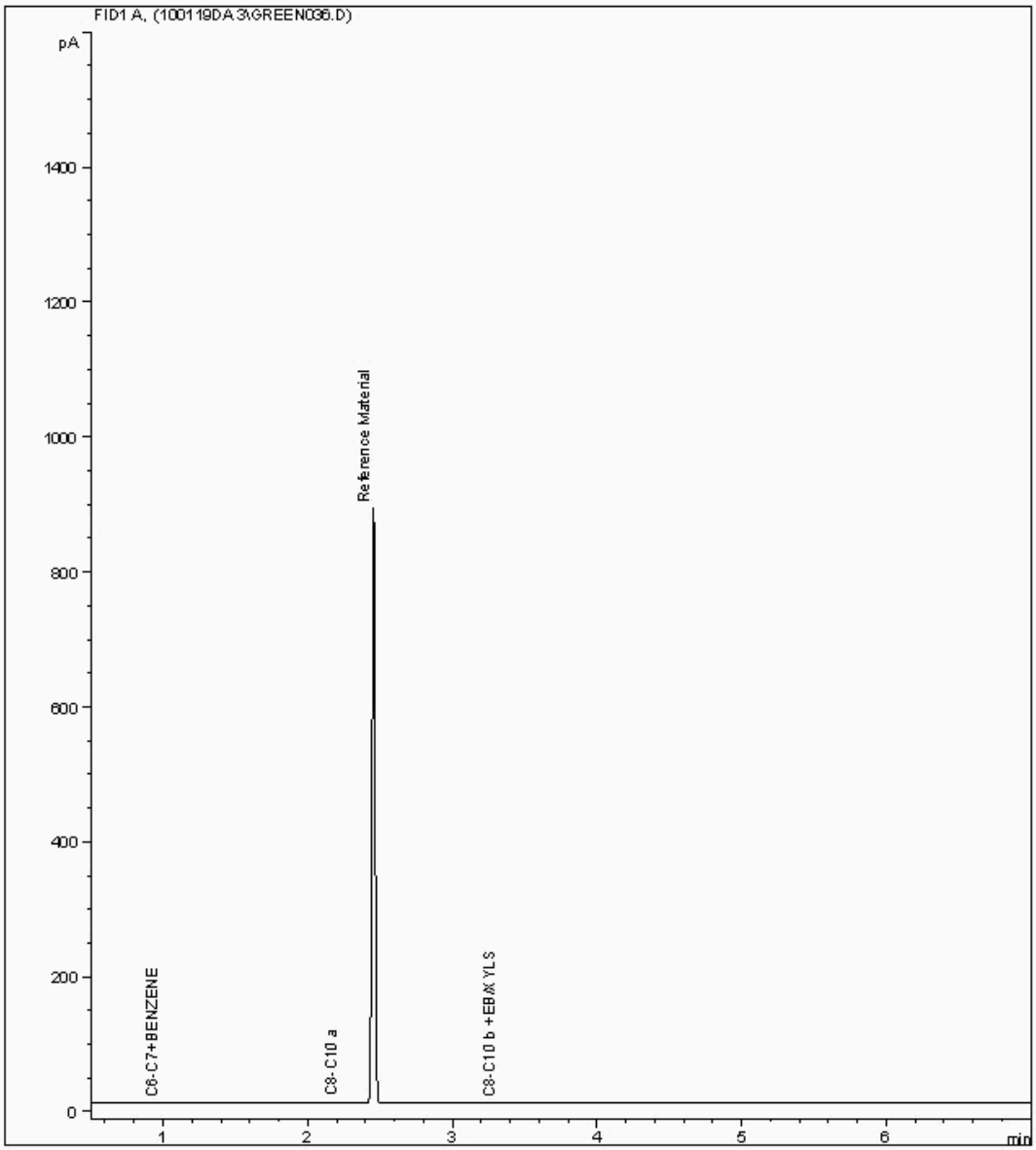
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	GRO BTEX MTBE GC (S)	**Sample No**	798235
		Sample ID	TP01
		Depth	0.50 - 0.50

ALcontrol Geochem Analytical Services
Gasoline Range Organics

Sample Identity : 977828-798235
Date Acquired : 19/01/10 22:09:01
Units : ppb
Dilution : 1



Validated

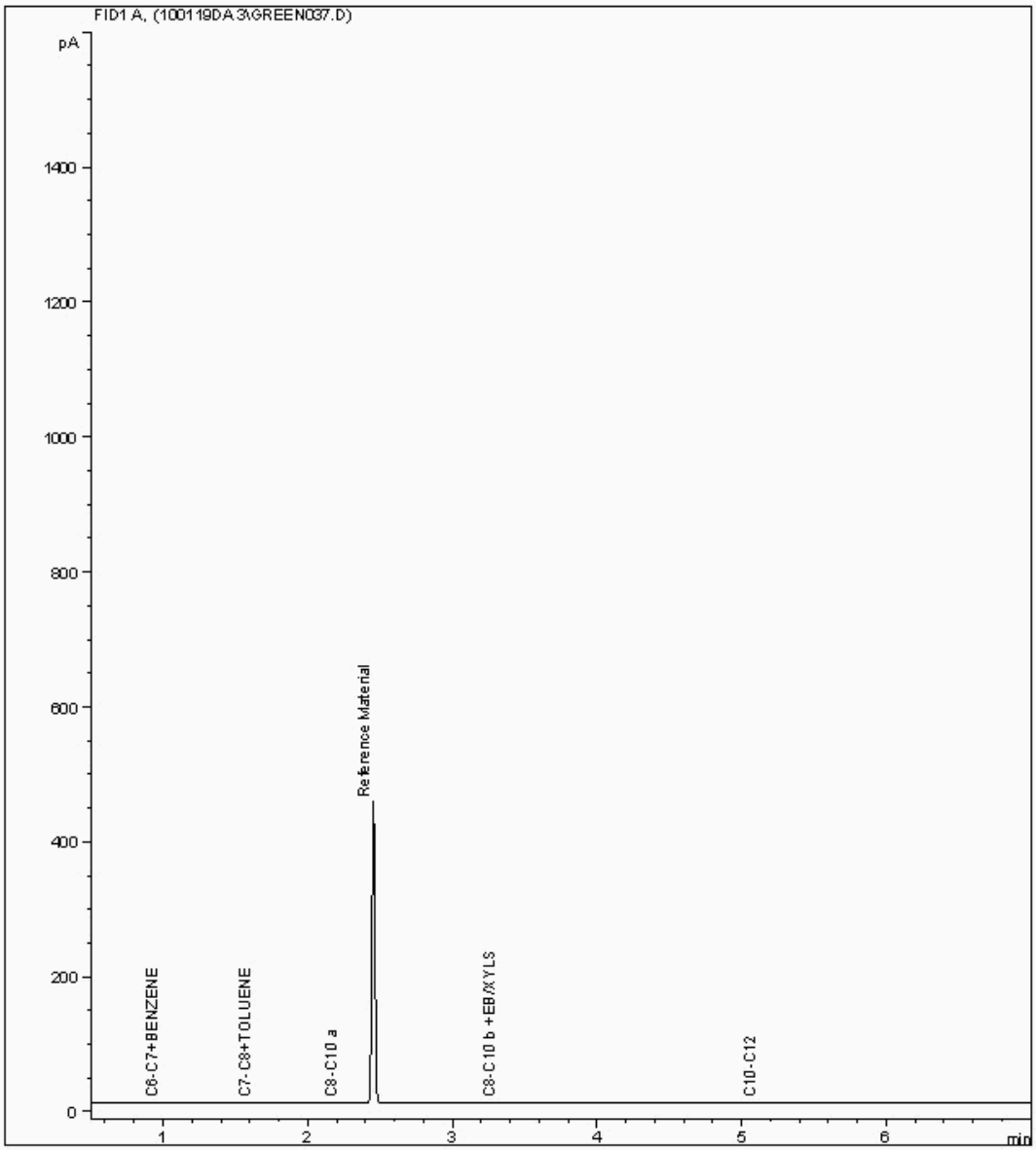
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	GRO BTEX MTBE GC (S)	**Sample No**	798243
		Sample ID	TP01
		Depth	2.00 - 2.00

ALcontrol Geochem Analytical Services
Gasoline Range Organics

Sample Identity : 977846-798243
Date Acquired : 19/01/10 22:23:02
Units : ppb
Dilution : 1



Validated

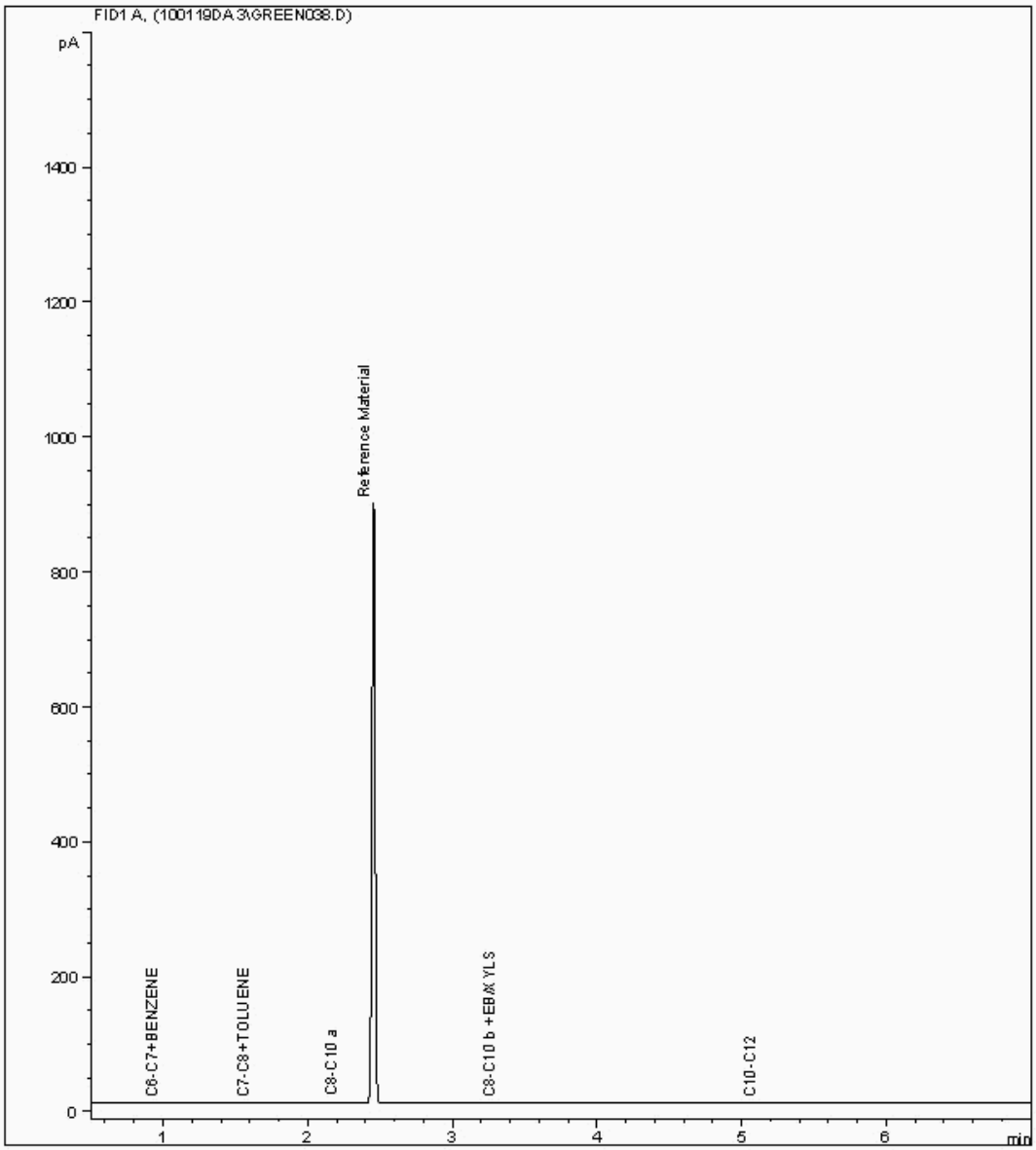
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	GRO BTEX MTBE GC (S)	**Sample No**	798255
		Sample ID	TP02
		Depth	0.70 - 0.70

ALcontrol Geochem Analytical Services
Gasoline Range Organics

Sample Identity : 977871-798255
Date Acquired : 19/01/10 22:37:08
Units : ppb
Dilution : 1



Validated

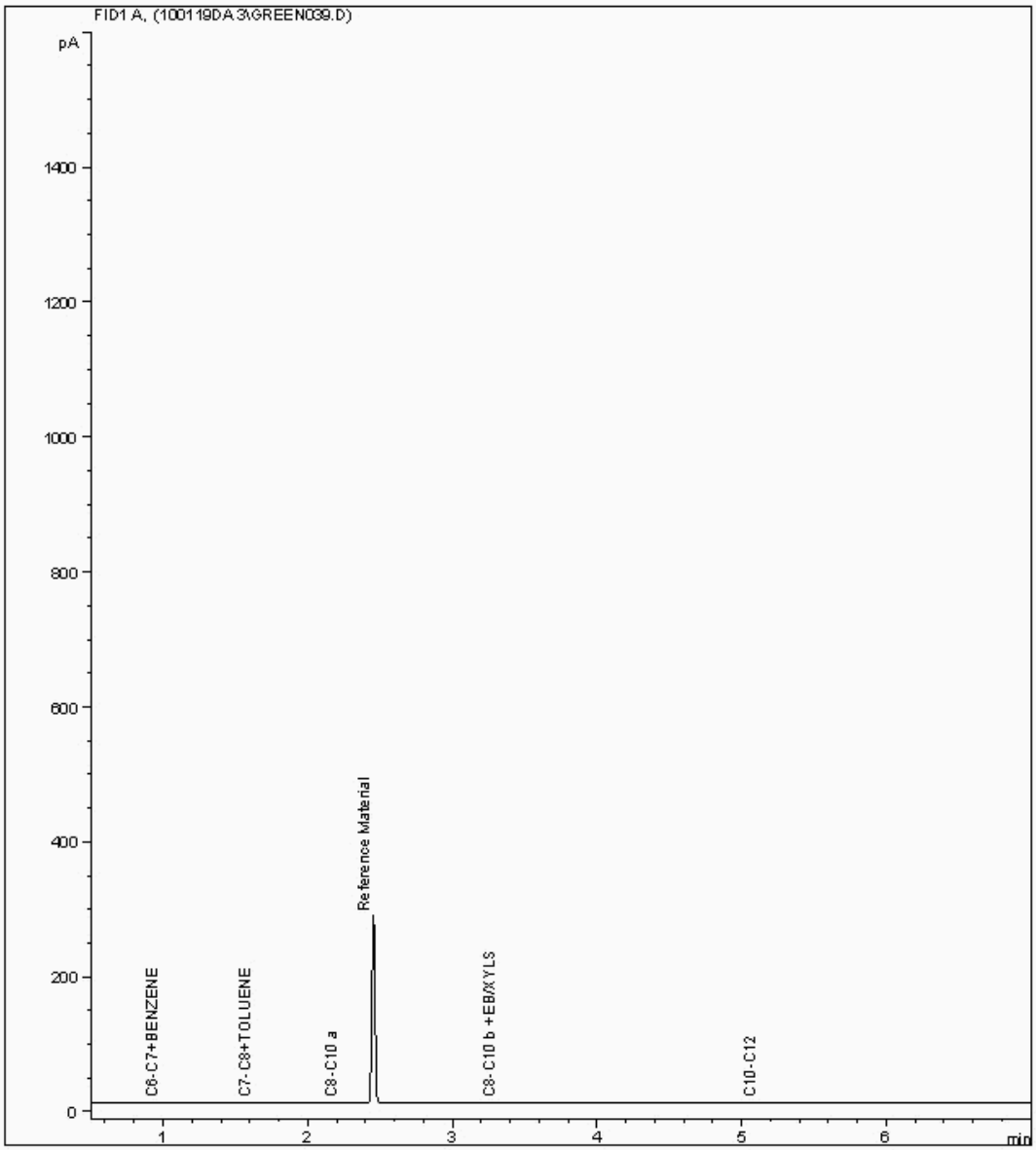
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	GRO BTEX MTBE GC (S)	**Sample No**	798268
		Sample ID	TP02
		Depth	1.50 - 1.50

ALcontrol Geochem Analytical Services
Gasoline Range Organics

Sample Identity : 977889-798268
Date Acquired : 19/01/10 22:51:10
Units : ppb
Dilution : 1



Validated

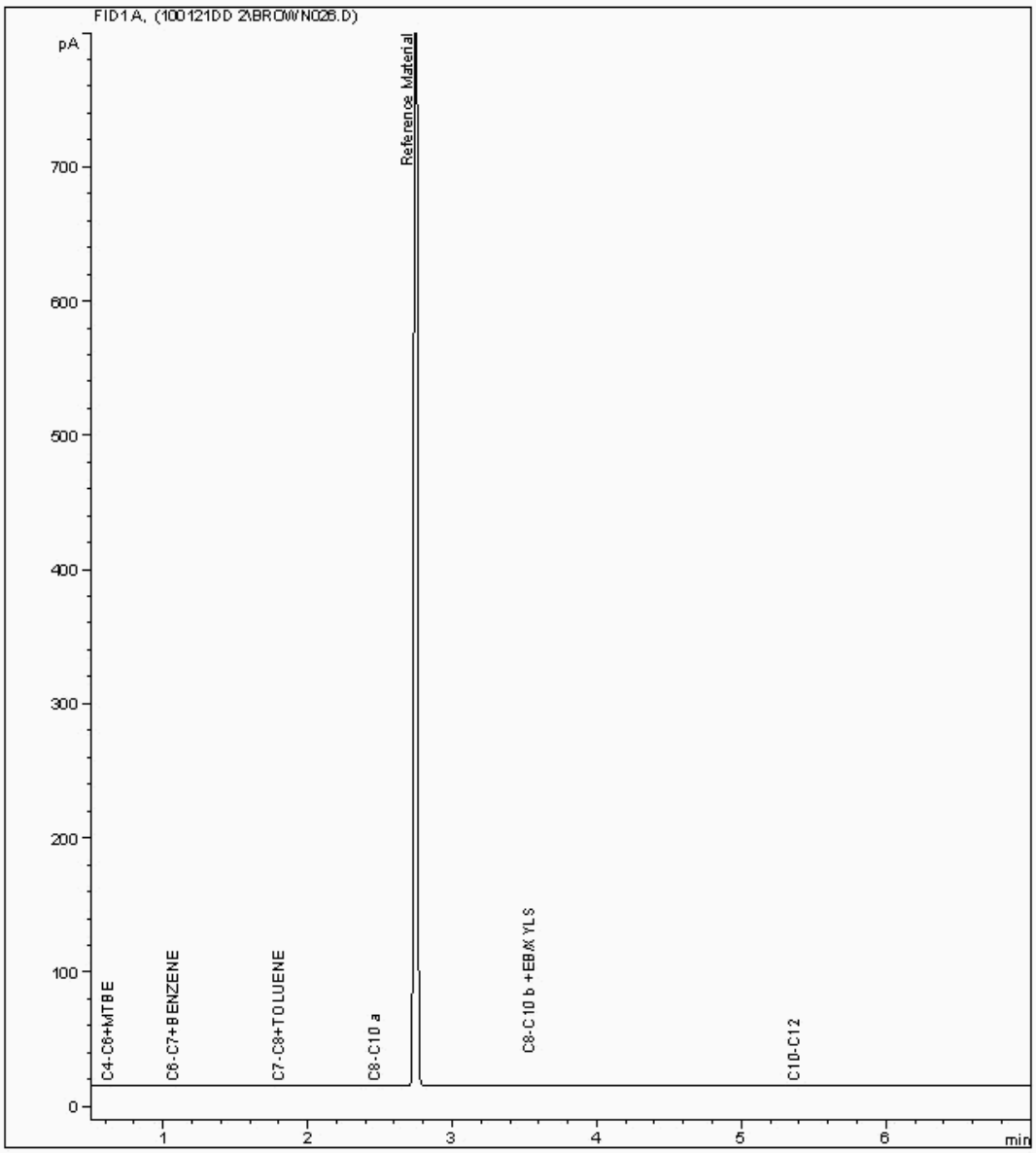
ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	GRO BTEX MTBE GC (W)	**Sample No**	857809
		Sample ID	TP01
		Depth	0.50 - 0.50

ALcontrol Geochem Analytical Services
Gasoline Range Organics

Sample Identity : 973767-857809
Date Acquired : 21/01/10 15:45:34
Units : ppb
Dilution : 1



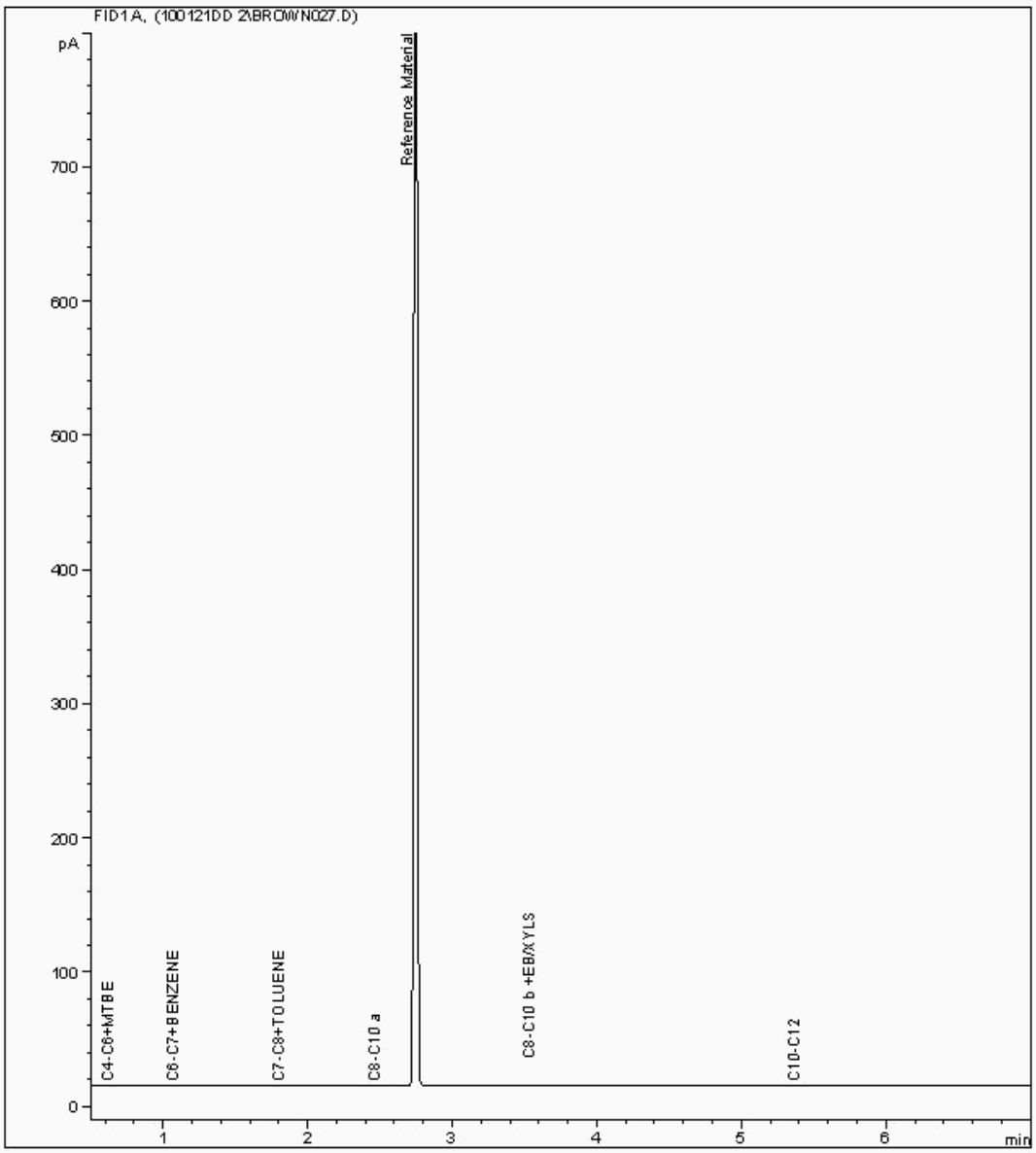
Validated

ALcontrol Laboratories Analytical Services

SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715
Analysis:	GRO BTEX MTBE GC (W)	**Sample No**	857850
		Sample ID	TP01
		Depth	2.00 - 2.00

ALcontrol Geochem Analytical Services
Gasoline Range Organics

Sample Identity : 973827-857850
Date Acquired : 21/01/10 15:59:39
Units : ppb
Dilution : 1



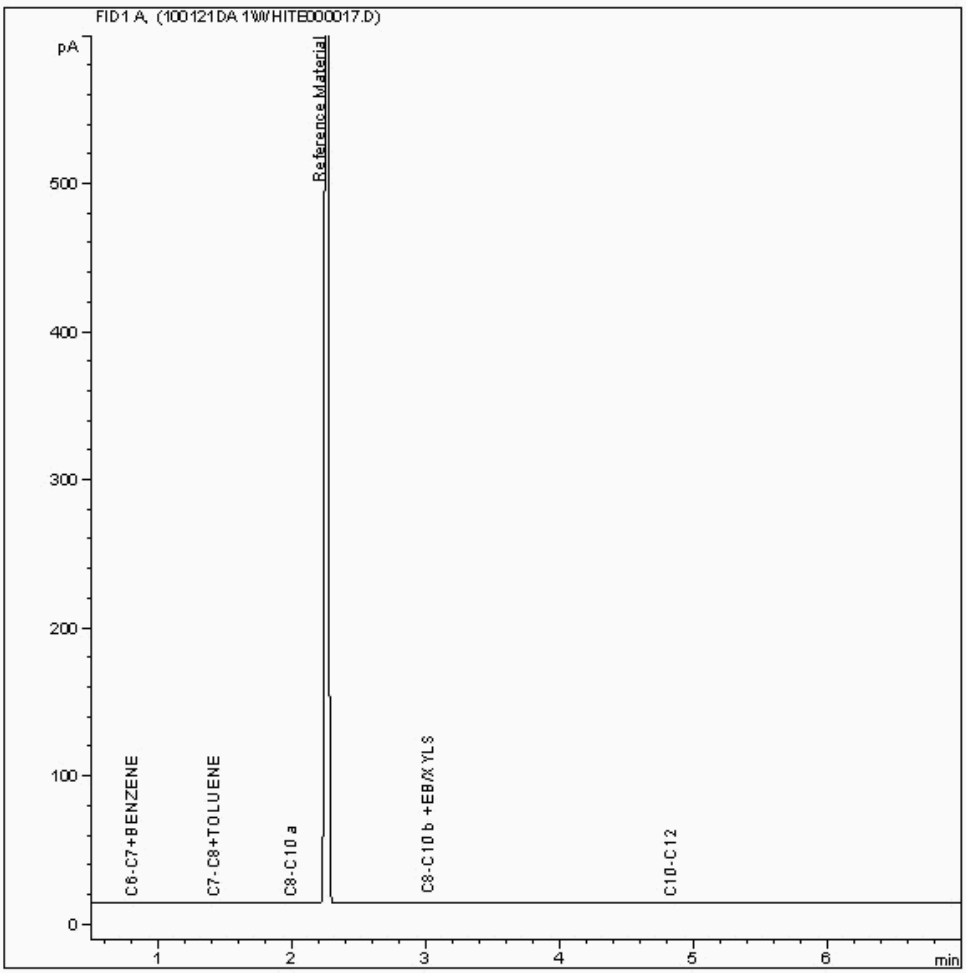
SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	GRO BTEX MTBE GC (W)	**Sample No**	857874
		Sample ID	TP02
		Depth	0.70 - 0.70

ALcontrol Geochem Analytical Services
Gasoline Range Organics

Sample Identity : 973869-857874
Date Acquired : 21/01/10 15:22:46
Units : ppb
Dilution : 1

#	Compound Name	Amount
1	C4-C6+MTBE	28
2	C6-C7+BENZENE	38
3	C7-C8+TOLUENE	24
4	C8-C10 a	4
5	Reference Material	21167
6	C8-C10 b +EB/XYLS	52
7	C10-C12	40



Validated

ALcontrol Laboratories Analytical Services

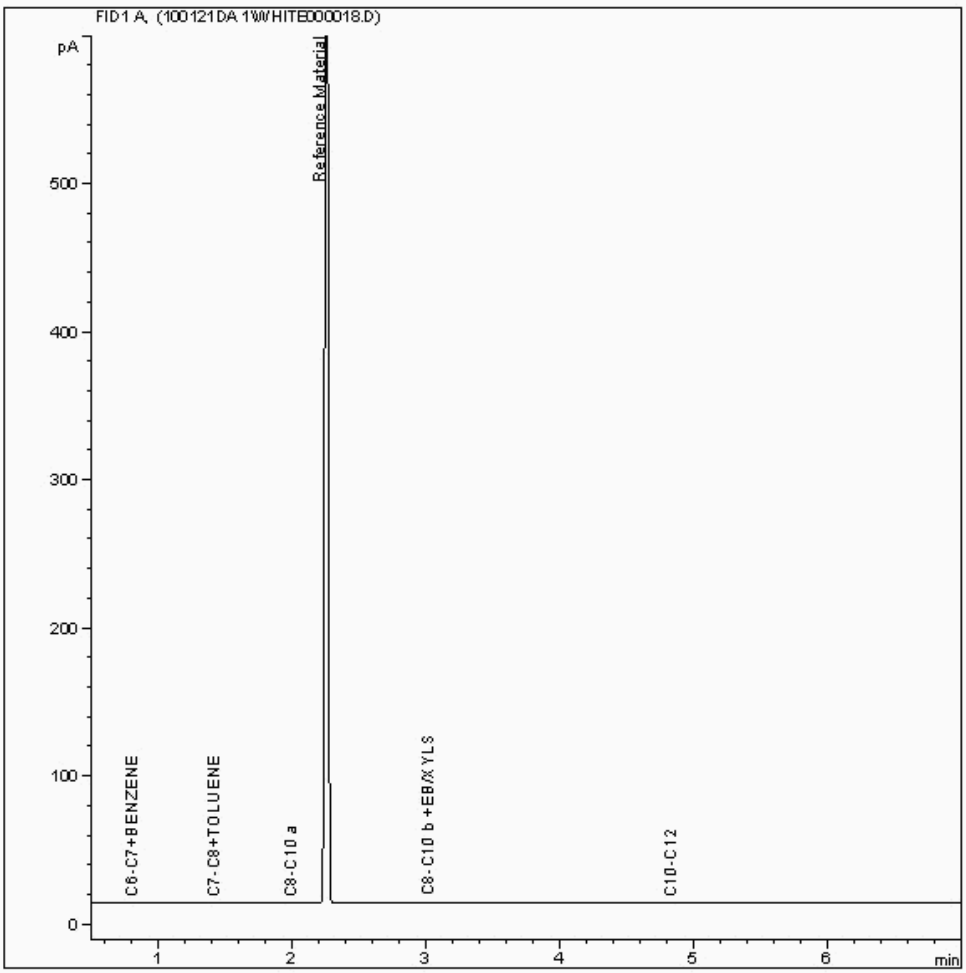
SDG:	100104-29	**Customer:**	Geotechnics Ltd
Job:	H_GEOTECHLT_CHE-9	**Attention:**	Colin Dodd
Client Ref.:	PN092178	**Order No.:**	ON5069
Location:	North Log Yard	**Report No:**	71715

Analysis:	GRO BTEX MTBE GC (W)	**Sample No**	857902
		Sample ID	TP02
		Depth	1.50 - 1.50

ALcontrol Geochem Analytical Services
Gasoline Range Organics

Sample Identity : 973939-857902
Date Acquired : 21/01/10 15:36:21
Units : ppb
Dilution : 1

#	Compound Name	Amount
1	C4-C6+MTBE	40
2	C6-C7+BENZENE	43
3	C7-C8+TOLUENE	31
4	C8-C10 a	4
5	Reference Material	14293
6	C8-C10 b +EB/XYLS	59
7	C10-C12	53



APPENDIX

APPENDIX

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH_4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.
2. Samples will be run in duplicate upon request, but an additional charge may be incurred.
3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.
4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.
5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.
6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.
7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample – similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.
8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.
9. NDP – No determination possible due to insufficient/unsuitable sample.
10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals – total metals must be requested separately.
11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.
12. **Surrogate recoveries** – Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted.
13. **Product analyses** – Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.
14. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).
15. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).
16. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.
17. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not accredited.
18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.
19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.
20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.
21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.
22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials – whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 – C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GS MS
SVOC	DCM	LIQUID/LIQUID SHAKEN SVOC	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM/EA	SOLID PHASE EXTRACTION	GC MS
TRIAZINE HERBS	DCM/EA	SOLID PHASE EXTRACTION	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRA RED (IR)	TCE	LIQUID/LIQUID EXTRACTION	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID EXTRACTION	HPLC
SAPONIFIABLE	TCE	LIQUID/LIQUID EXTRACTION	HPLC
UNSAPONIFIABLE	TCE	LIQUID/LIQUID EXTRACTION	HPLC
GLYCOLS	DCM	LIQUID/LIQUID EXTRACTION	EZ FLASH

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
Solvent Extractable Matter	D&C	DCM	SOXTHERM	GRAVIMETRIC
Cyclohexane Ext. Matter	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
Thin Layer Chromatography	D&C	DCM	SOXTHERM	IATROSCAN
Elemental Sulphur	D&C	DCM	SOXTHERM	HPLC
Phenols by GCMS	WET	DCM	SOXTHERM	GC-MS
Herbicides	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
Pesticides	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (Min oil)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (Cleaned up)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH CWG by GC	D&C	HEXANE:ACETONE	END OVER END	GC-FID
PCB tot / PCB con	D&C	HEXANE:ACETONE	END OVER END	GC-MS
Polyaromatic Hydrocarbons (MS)	WET	HEXANE:ACETONE	Microwave TM218.	GC-MS
C8-C40 (C6-C40)EZ Flash	WET	HEXANE:ACETONE	SHAKER	GC-EZ
Polyaromatic Hydrocarbons Rapid GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
Semi Volatile Organic Compounds	WET	DCM:ACETONE	SONICATE	GC-MS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Visual Estimation Of Fibre Content.

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -

Trace – Where only one or two asbestos fibres were identified.

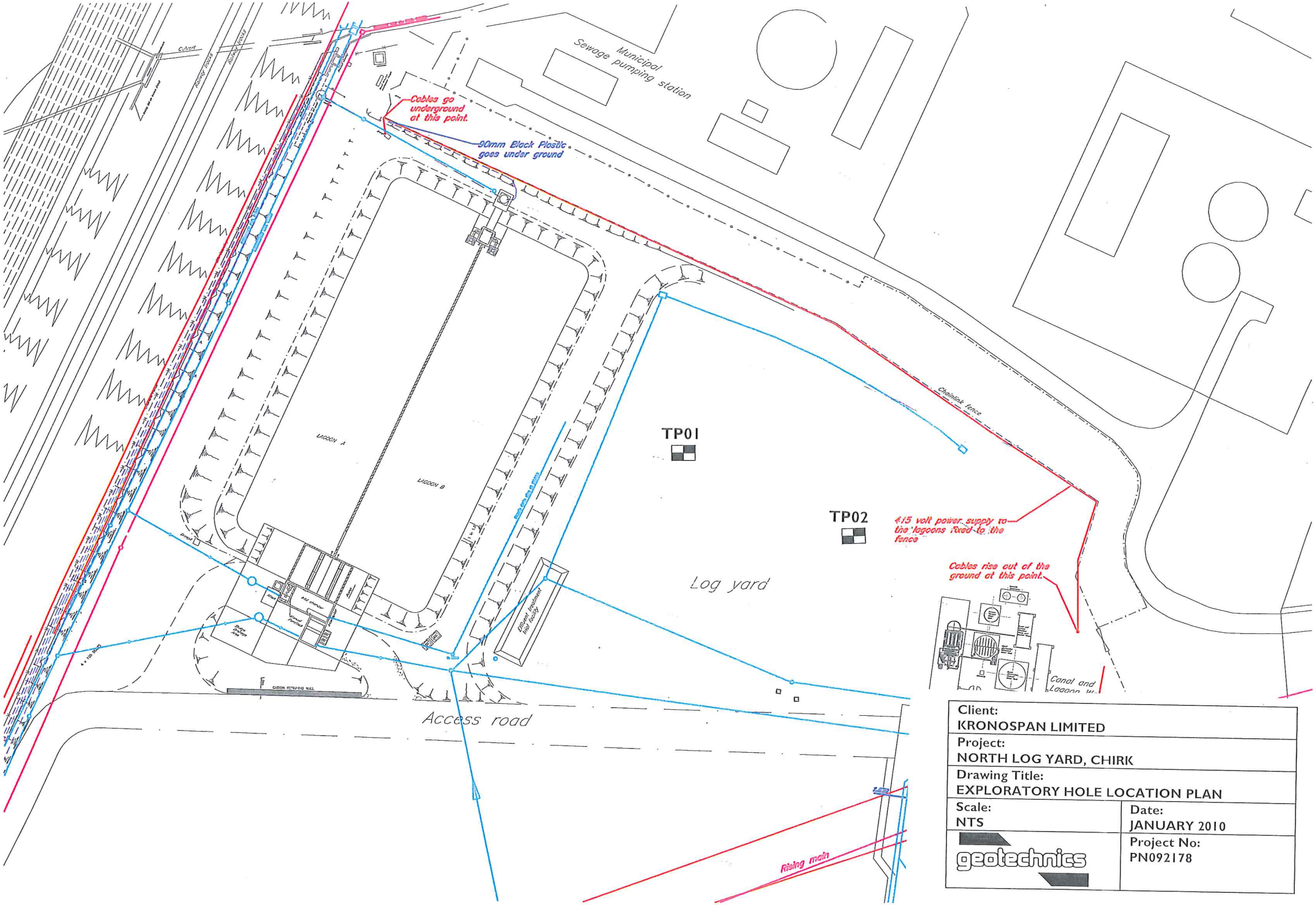
Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

APPENDIX 5

Exploratory Hole Location Plan



Client: KRONOSPAN LIMITED	
Project: NORTH LOG YARD, CHIRK	
Drawing Title: EXPLORATORY HOLE LOCATION PLAN	
Scale: NTS	Date: JANUARY 2010
geotechnics	Project No: PN092178

APPENDIX 6

Investigation Techniques and General Notes

INVESTIGATION TECHNIQUES

INTRODUCTION

The following brief review of Ground Investigation techniques, generally used as part of most Site Investigations in the UK, summarises their methodology, advantages and limitations. Detailed descriptions of the techniques are available and can be provided on request. This review should be read in conjunction with the accompanying General Notes.

TRIAL PITS

The trial pit is amongst the most simple yet effective means of identifying shallow ground conditions on a site. Its advantages include simplicity, speed, potential accuracy and cost-effectiveness. The trial pit is most commonly formed using a backacting excavator which can typically determine ground conditions to some 4 metres below ground level. Hand excavation is often used to locate, expose and detail existing foundations, features or services. In general, it is difficult to extend pits significantly below the water table in predominantly granular soils, where flows can cause instability. Unless otherwise stated, the trial pits will not have been provided with temporary side support during their construction. Under such circumstances ground conditions to some 1.20 metres can be closely inspected, subject to stability assessment, but below this depth, entrance into the pit is not permitted in the absence of shoring and hence observations will have been made from ground surface and samples taken from the excavator bucket.

Trends in strata type, level and thickness can be determined, shear surfaces identified and the behaviour of plant, excavation sides and excavated materials can be related to the construction process. They are particularly valuable in land slip investigations. Some types of insitu test can be undertaken in such pits and large disturbed or block samples obtained.

CABLE PERCUSSION BORING

The light Cable Percussion technique of soft ground boring, typically at a diameter of 150mm, is a well established simple and flexible method of boring vertical holes and generally allows data to be obtained in respect of strata conditions other than rock. A tubular cutter (for cohesive soils) or shell with a flap valve (for granular soils) is repeatedly lifted and dropped using a winch and rope operating from an "A" frame. Soil which enters these tools is regularly removed and either sampled for subsequent examination or test, or laid to one side for backfilling. Steel casing will have been used to prevent collapse of the borehole sides where necessary. A degree of disturbance of soil and mixing of layers is inevitable and the presence of very thin layers of different soils within a particular stratum may not be identified. Changes in strata type can only be detected on recognition of a change in soil samples at surface, after the interface has been passed. For the foregoing reasons, depth measurements should not be considered to be more accurate than 0.10 metre.

In cohesive soils cylindrical samples are retrieved by driving or pushing in 100mm nominal diameter tubes. In soft soils, piston sampling or vane testing may be undertaken. In granular soils and often in cohesive materials, insitu Standard Penetration Tests (SPT's) are performed. The SPT records the number of standard blows required to drive a 50mm diameter open or cone ended probe for 300mm after an initial 150mm penetration. A modified method of recording is used in more dense strata. Small disturbed samples are obtained throughout.

The technique can determine ground conditions to depths in excess of 30 metres under suitable circumstances and usually causes less surface disturbance than trial pitting.

ROTARY DRILLING

Rotary Drilling to produce cores by rotating an annular diamond-impregnated tube or barrel into the ground is the technique most appropriate to the forming of site investigation boreholes through rock or other hard strata. It has the advantage of being able to be used vertically or at an angle. Core diameters of less than 100mm are most common for site investigation purposes. Core is normally retrieved in plastic lining tubes. A flushing fluid such as air, water or foam is used to cool the bit and carry cuttings to the surface.

Examination of cores allows detailed rock description and generally enables angled discontinuity surfaces to be observed. However, vertical holes do not necessarily reveal the presence of vertical or near-vertical fissures or joint discontinuities. The core type and/or techniques used. Where open hole rotary drilling is employed, descriptions of strata result from examination at surface of small particles ejected from the borehole in the flushing medium. In consequence, no indication of fissuring, bedding, consistency or degree of weathering can be obtained. Small scale plant can be used for auger drilling to limited depths where access is constrained.

Depths in excess of 60 metres can be achieved under suitable circumstances using rotary techniques, with minimal surface disturbance.

WINDOW SAMPLING

This technique involves the driving of an open-ended tube into the ground and retrieval of the soil which enters the tube. The term "window sample" arose from the original device which had a "window" or slot cut into the side of the tube through which samples were taken. This has now been superseded by the use of a thin-walled plastic liner within a sampler which has a solid wall. Diameters range from 36 to 86mm. Such samples can be used for qualitative logging, selection of samples for classification and chemical analysis and for obtaining a rudimentary assessment of strength.

Driving devices can be hand-held or machine mounted and the drive tubes are typically in 1m lengths. The hole formed is not cased, however, and hence the success of this technique is limited when soils and groundwater conditions are such that the sides of the hole collapse on withdrawal of the sampler. Obstructions within the ground, the density of the material or its strength can also limit the depth and rate of penetration of this light-weight investigation technique. Nevertheless, it is a valuable tool where access is constrained such as within buildings or on embankments. Depths of up to 8m can be achieved in suitable circumstances but depths of 4m to 6m are more common.

EXPLORATORY HOLE RECORDS

The data obtained by these techniques are generally presented on Trial Pit, Borehole, Drillhole or Window Sample Records. The descriptions of strata result from information gathered from a number of sources which may include published geological data, preliminary field observations and descriptions, insitu test results, laboratory test results and specimen descriptions. A key to the symbols and abbreviations used accompanies the records. The descriptions on the exploratory hole records accommodate but may not necessarily be identical to those on any preliminary records or the laboratory summaries.

The records show ground conditions at the exploratory hole locations. The degree to which they can be used to represent conditions between or beyond such holes, however, is a matter for geological interpretation rather than factual reporting and the associated uncertainties must be recognised.

DYNAMIC PROBING

This technique typically measures the number of blows of a standard weight falling over a standard height to advance a cone-ended rod over sequential standard distances (typically 100mm). Some devices measure the penetration of the probe per standard blow. It is essentially a profiling tool and is best used in conjunction with other investigation techniques where site-specific correlation can be used to delineate the distribution of soft or loose soils or the upper horizon of a dense or strong layer such as rock.

Both machine-driven and hand-driven equipment is available, the selection depending upon access restrictions and the depth of penetration required. It is particularly useful where access for larger equipment is not available, disturbance is to be minimised or where there are cost constraints. No samples are recovered and some techniques leave a sacrificial cone head in the ground. As with other lightweight techniques, progress is limited in strong or dense soils. The results are presented both numerically and graphically. Depths of up to 10m are commonly achieved in suitable circumstances.

The hand-driven DCP probing device has been calibrated by the TRL to provide a profile of CBR values over a range of depths of up to 1.50m.

INSTRUMENTATION

The most common form of instrument used in site investigation is either the standpipe or else the standpipe piezometer which can be installed in investigation holes. They are used to facilitate monitoring of groundwater levels and water sampling over a period of time following site work. Normally a standpipe would be formed using rigid plastic tubing which has been perforated or slotted over much of its length whilst a standpipe piezometer would have a filter tip which would be placed at a selected level and the hole sealed above and sometimes below to isolate the zone of interest. Groundwater levels are determined using an electronic "dipmeter" to measure the depth to the water surface from ground level. Piezometers can also be used to measure permeability. They are simple and inexpensive instruments for long term monitoring but response times can limit their use in tidal areas and access to the ground surface at each instrument is necessary. Remote reading requires more sophisticated hydraulic, electronic or pneumatic equipment.

Settlement can be monitored using surface or buried target plates whilst lateral movement over a range of depths is monitored using slip indicator or inclinometer equipment.

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GENERAL NOTES

1. *The report is prepared for the exclusive use of the Client named in the document and copyright subsists with Geotechnics Limited. Prior written permission must be obtained to reproduce all or part of the report. It is prepared on the understanding that its contents are only disclosed to parties directly involved in the current investigation, preparation and development of the site.*

2. *Further copies may be obtained with the Client's written permission, from Geotechnics Limited with whom the master copy of the document will be retained.*

3. *The report and/or opinion is prepared for the specific purpose stated in the document and in relation to the nature and extent of proposals made available to Geotechnics Limited at that time. Re-consideration will be necessary should those details change. The recommendations should not be used for other schemes on or adjacent to the site without further reference to Geotechnics Limited.*

4. *The assessment of the significance of the factual data, where called for, is provided to assist the Client and his Engineer and/or Advisers in the preparation of their designs.*

5. *The report is based on the ground conditions encountered in the exploratory holes together with the results of field and laboratory testing in the context of the proposed development. The data from any commissioned desk study and site reconnaissance are also drawn upon. There may be special conditions appertaining to the site, however, which are not revealed by the investigation and which may not be taken into account in the report.*

6. *Methods of construction and/or design other than those proposed by the designers or referred to in the report may require consideration during the evolution of the proposals and further assessment of the geotechnical and any geoenvironmental data would be required to provide discussion and evaluations appropriate to these methods.*

7. *The accuracy of results reported depends upon the technique of measurement, investigation and test used and these values should not be regarded necessarily as characteristics of the strata as a whole (see accompanying notes on Investigation Techniques). Where such measurements are critical, the technique of investigation will need to be reviewed and supplementary investigation undertaken in accordance with the advice of the Company where necessary.*

8. *The samples selected for laboratory test are prepared and tested in accordance with the relevant Clauses of BS 1377 Parts 1 to 8, where appropriate, in Geotechnics Limited's UKAS accredited Laboratory, where possible. A list of tests is given.*

9. *Tests requiring the use of another laboratory having UKAS accreditation where possible are identified.*

10. *Any unavoidable variations from specified procedures are identified in the report.*

11. *Specimens are cut vertically, where this is relevant and can be identified, unless otherwise stated.*

12. *All the data required by the test procedures are recorded on individual test sheets but the results in the report are presented in summary form to aid understanding and assimilation for design purposes. Where all details are required, these can be made available.*

13. *Whilst the report may express an opinion on possible configurations of strata between or beyond exploratory holes, or on the possible presence of features based on either visual, verbal, written, cartographical, photographic or published evidence, this is for guidance only and no liability can be accepted for its accuracy.*

14. *Classification of materials as Made Ground is based on the inspection of retrieved samples or exposed excavations. Where it is obvious that foreign matter such as paper, plastic or metal is present, classification is clear. Frequently, however, for fill materials that arise from the adjacent ground or from the backfilling of excavations, their visual characteristics can closely resemble those of undisturbed ground. Other evidence such as site history, exploratory hole location or other tests may need to be drawn upon to provide clarification. For these reasons, classification of soils on the exploratory hole records as either Made Ground or naturally occurring strata, the boundary between them and any interpretation that this gives rise to should be regarded as provisional and subject to re-evaluation in the light of further data.*

15. *The classification of materials as Topsoil is generally based on visual description and should not be interpreted to mean that the material so described complies with the criteria for Topsoil used in BS 3882 (2007). Specific testing would be necessary where such definition is a requirement.*

16. *Ground conditions should be monitored during the construction of the works and the report should be re-evaluated in the light of these data by the supervising geotechnical engineers.*

17. *Any comments on groundwater conditions are based on observations made at the time of the investigation, unless specifically stated otherwise. It should be noted, however, that the observations are subject to the method and speed of boring, drilling or excavation and that groundwater levels will vary due to seasonal or other effects.*

18. *Any bearing capacities for conventional spread foundations which are given in the report and interpreted from the investigation are for bases at a minimum depth of 1m below finished ground level in naturally occurring strata and at broadly similar levels throughout individual structures, unless otherwise stated. The foundations should be designed in accordance with the good practice embodied in BS 8004:1986 - Foundations, supplemented for housing by NHBC Standards. Foundation design is an iterative process and bearing pressures may need adjustment or other measures may need to be taken in the context of final layouts and levels prior to finalisation of proposals.*

19. *Unless specifically stated, the investigation does not take account of the possible effects of mineral extraction or of gases from fill or natural sources within, below or outside the site.*

20. *The costs or economic viability of the proposals referred to in the report, or of the solutions put forward to any problems encountered, will depend on very many factors in addition to geotechnical or geoenvironmental considerations and hence their evaluation is outside the scope of the report.*