

Project: Westminster Kingsway College
Location: London

Client: Kier Group
Engineer: Marius Carr
Logged by: MCC

BOREHOLE NO. WS1

Drilling Method: Window Sampler
Date of Boring: Start Date: 10/01/2007
Finish Date: 10/01/2007

Ground Level: -
Coords: -



IN SITU TESTS/SAMPLING

STRATA

Depth (m)	Sample Ref.	Test Type	SPT Results	Shear Strength	Level (mAOD)	Thickness (m)	Depth (m)	Installation Details	Legend	Description of Strata	Water (m)
0.50	J 1					0.10	0.10			Grass and TOPSOIL.	
						0.60				MADE GROUND. Loose brown clayey sand and gravel. Gravel is predominantly brick. (PID=0ppm)	Dry
						0.70				CONCRETE.	
1.00	J 2					0.20	0.90			MADE GROUND. Firm brown slightly sandy gravelly clay. Gravel is predominantly brick, slate and flint. (PID=0ppm)	
						0.50				MADE GROUND. Brick.	
						0.10	1.40			Firm to stiff brown CLAY. (PID=0ppm)	
2.00	J 3						1.50				
						2.50					
3.00	J 4										
4.00	J 5						4.00			End of Borehole at 4.00 m	

Borehole Diameter (mm):

Well Diameter (mm):

Chiselling Remarks:

Remarks: 1. Hole backfilled with arisings

- Water Strike
- Water Standing
- S Standard Penetration Test
- Spl Spoon Method
- C Standard Penetration Test - Solid Cone Method
- N=17 SPT 'N' Value with number of blows per 25mm in brackets
- SS=25 65 blows to achieve 25mm
- D Small Disturbed Sample
- U Undisturbed Samples
- B Bulk Sample
- J Jar Sample
- W Water Sample

Shear Strength recorded in cohesive deposits using Picon Hand Shear Vane

Well Installation Legend:

- Bentonite backfill
- Filter Gravel
- Arisings



Checked

Report No. 721543

Project: Westminster Kingsway College
Location: London

Client: Kier Group
Engineer: Marius Carr
Logged by: MCC

BOREHOLE NO. WS2

Drilling Method: Window Sampler

Date of Boring: Start Date: 10/01/2007

Finish Date: 10/01/2007

Ground Level: -

Coords: -



IN SITU TESTS/SAMPLING

STRATA

Depth (m)	Sample Ref	Test Type	SPT Results	Shear Strength	Level (m AOD)	Thickness (m)	Depth (m)	Installation Details	Legend	Description of Strata	Water (m)
0.50	J 1					0.10	0.10			Grass and TOPSOIL.	
1.00	J 2						1.3			MADE GROUND. Soft brown sandy gravelly clay, with brick, mortar and black organic bands. Gravel is predominantly medium to coarse subangular flint. (PID=0ppm)	Dry
1.50	J 3					3.00					
2.00	J 4						2.2				
2.50	J 5										
3.00	J 6						3.10			Firm to stiff brown CLAY. (PID=0ppm)	
3.50	J 7					0.00					
4.00	J 8						4.00			End of Borehole at 4.00 m	

Borehole Diameter (mm):

Well Diameter (mm):

Chiselling Remarks:

Remarks: 1. Hole backfilled with arisings

Water: Strike
Water: Standing
S: Standard Penetration Test
S: Split Spoon Method
C: Standard Penetration Test -
S: Solid Core Method
N=17 SPT "N" Value with number of blows
per 75mm in brackets
SS=25 SS blows to achieve 25mm
D: Small Disturbed Sample
U: Undisturbed Samples
B: Bulk Sample
J: Jar Sample
W: Water Sample

Shear Strength recorded in cones & deposits using Picon Hand Shear Vane

Well Installation Legend:

■ Bentonite backfill

○ Filter Gravel

XXX Arisings

Sloped
Pipe

Plan
Casing

Perforated
Tip

Checked

Report No. 721543

Project: Westminster Kingsway College
Location: London

Client: Kier Group
Engineer: Marius Carr
Logged by: MCC

BOREHOLE NO. WS3

Drilling Method: Window Sampler
Date of Boring: Start Date: 10/01/2007
Finish Date: 10/01/2007

Ground Level: -
Coords: -



IN SITU TESTS/SAMPLING

STRATA

Depth (m)	Sample Ref.	Test Type	SPT Results	Shear Strength	Level (mAOD)	Thickness (m)	Depth (m)	Installation Details	Legend	Description of Strata	Water (m)
0.50	J 1					0.05 0.15 0.60	0.05 0.20 0.80			CONCRETE paving slabs. MADE GROUND. Loose orange gravelly sand. Gravel is fine to sub-angular flint. (PID=0ppm) MADE GROUND. Soft sandy brown gravelly clay and brick. Gravel is predominantly medium subangular flint. (PID=0ppm) End of Borehole at 0.80 m	Dry

Borehole Diameter (mm):

Well Diameter (mm):

Chiselling Remarks:

Remarks: 1. Hole backfilled with arisings

- W Water Strike
- W Water Standing
- S Standard Penetration Test - Split Spoon Method
- C Standard Penetration Test - Solid Cone Method
- N=17 SPT "N" Value with number of blows per 75mm in brackets
- 65/25 55 blows to achieve 25mm
- D Small Disturbed Sample
- U Undisturbed Samples
- B Bulk Sample
- J Jar Sample
- W Water Sample

Shear Strength recorded in cohesive deposits using Picon Hand Shear Vane

Well Installation Legend:

Bentonite backfill

Filter Gravel

Arisings

Sloped Pipe

Plain Casing

Piezometer Tip

Checked

Report No. 1721543

Project: Westminster Kingsway College
Location: London

Client: Kier Group
Engineer: Marius Carr
Logged by: MCC

BOREHOLE NO. WS3A

Drilling Method: Window Sampler

Date of Boring: Start Date: 10/01/2007

Finish Date: 10/01/2007

Ground Level: -

Coords: -



IN SITU TESTS/SAMPLING

STRATA

Depth (m)	Sample Ref.	Test Type	SPT Results	Shear Strength	Level (m AOD)	Thickness (m)	Depth (m)	Installation Details	Legend	Description of Strata	Water (m)
0.50	J 1					0.05 0.15	0.05 0.20			CONCRETE paving slabs.	
1.00	J 2					1.40	1.40			MADE GROUND. Loose orange gravelly sand. Gravel is fine to sub-angular flint.	Dry
							1.60			MADE GROUND. Soft sandy brown gravelly clay and brick. Gravel is predominantly medium subangular flint.	
										End of Borehole at 1.60 m	

Borehole Diameter (mm):

Well Diameter (mm):

Chiselling Remarks:

Remarks: 1. Hole refused at 0.8m bgl.
2. Hole backfilled with arisings

Water Strike
Water Standing
S Standard Penetration Test -
S Split Spoon Method
C Standard Penetration Test -
Sonic Core Method
N=17 SPT 'N' Value with number of blows
per 75mm in brackets
55-25 55 blows to achieve 25mm
D Small Disturbed Sample
U Undisturbed Sample
B Bulk Sample
J Jar Sample
W Water Sample

Shear Strength recorded in cohesive deposits using Picon Hand Shear Vane

Well Installation Legend:

Bentonite backfill

Filter Gravel

Arisings

Storage Pipe
Plan Casing
Pneumatic Tip

Checked

Report No. 721543

Project: Westminster Kingsway College
Location: London

Client: Kier Group
Engineer: Marius Carr
Logged by: MCC

BOREHOLE NO. WS4

Drilling Method: Window Sampler

Date of Boring: Start Date: 10/01/2007

Finish Date: 10/01/2007

Ground Level: -

Coords: -

MLM

ENVIRONMENTAL

IN SITU TESTS/SAMPLING

STRATA

Depth (m)	Sample Ref.	Test Type	SPT Results	Shear Strength	Level (mAOD)	Thickness (m)	Depth (m)	Installation Details	Legend	Description of Strata	Water (m)
0.50	J 1					0.10 0.30	0.10 0.40			TARMACADAM. MADE GROUND. Soft brown gravelly clay with brick. Gravel is predominantly medium subangular flint. (PID=0ppm) Firm brown mottled grey clay. (PID=0ppm)	Dry
1.00	J 2						1.1				
1.50	J 3						1.5				
2.50	J 4					3.60	2.5				
3.50	J 5						3.5				
							4.00			End of Borehole at 4.00 m	

Borehole Diameter (mm):

Well Diameter (mm):

Chiselling Remarks:

Remarks: 1. Hole refused at 1.6m bgl.
2. Hole backfilled with arisings

Water Strike
▼ Water Standing
S Standard Penetration Test -
Spt Spoon Method
C Standard Penetration Test -
Solid Cone Method
N=17 SPT 'N' Value with number of blows
per 75mm in brackets
55-25 55 blows to achieve 25mm
D Small Disturbed Sample
U Undisturbed Samples
B Bulk Sample
J Jar Sample
W Water Sample

Shear Strength recorded in cohesive
deposits using Picon Hard Shear Vane

Well Installation Legend:

■ Bentonite backfill

□ Filter Gravel

⊗ Arisings

Slot
Pipe

Plain
Casing

Piezometer
Tip

Checked

Report No. 721543

Project: Westminster Kingsway College
Location: London

Client: Kier Group
Engineer: Marius Carr
Logged by: MCC

BOREHOLE NO. WS5

Drilling Method: Window Sampler

Date of Boring: Start Date: 10/01/2007

Finish Date: 10/01/2007

Ground Level: -

Coords: -



IN SITU TESTS/SAMPLING

STRATA

Depth (m)	Sample Ref	Test Type	SPT Results	Shear Strength	Level (mAOD)	Thickness (m)	Depth (m)	Installation Details	Legend	Description of Strata	Water (m)
0.50	J 1					0.12	0.12			CONCRETE.	
1.00	J 2									MADE GROUND. Loose dark brown sandy silt with bricks, concrete, rubble and pockets of ash. (PID=0ppm)	Dry
1.50	J 3					2.78					
2.00	J 4										
2.50	J 5										
3.50	J 6					1.10				Firm to stiff brown CLAY. (PID=0ppm)	
							4.00			End of Borehole at 4.00 m	

Borehole Diameter (mm):

Well Diameter (mm):

Chiselling Remarks:

Remarks: 1. Hole backfilled with arisings

Checked:

Report No. 721543

- Water Strike
- Water Standing
- S Standard Penetration Test - Split Spoon Method
- C Standard Penetration Test - Solid Cone Method
- N=17 SPT 'N' Value with number of blows per 75mm in brackets
- SS25 55 blows to achieve 25mm
- D Small Disturbed Sample
- U Undisturbed Samples
- B Bulk Sample
- J Jar Sample
- W Water Sample

Shear Strength recorded in cohesive deposits using Picon Hard Shear Vane

Well Installation Legend:

Bentonite backfill

Filter Gravel

Arisings

Sloped Pipe

Plan Casing

Piezometer Tip

Project: Westminster Kingsway College
Location: London

Client: Kier Group
Engineer: Marius Carr
Logged by: MCC

BOREHOLE NO. WS6

Drilling Method: Window Sampler

Date of Boring: Start Date: 10/01/2007

Finish Date: 10/01/2007

Ground Level: -

Coords: -



IN SITU TESTS/SAMPLING

STRATA

Depth (m)	Sample Ref.	Test Type	SPT Results	Shear Strength	Level (mAOD)	Thickness (m)	Depth (m)	Installation Details	Legend	Description of Strata	Water (m)
0.50	J 1					0.20	0.20			Reinforced CONCRETE.	
1.00	J 2					2.00				MADE GROUND. Firm brown sandy gravelly clay with brick fragments, concrete and ash pockets. (PID=0ppm)	Dry
1.50	J 3										
2.00	J 4						2.20			End of Borehole at 2.30 m	

Borehole Diameter (mm):

Well Diameter (mm):

Chiselling Remarks:

Remarks: 1. Hole refused at 2.2m bgl.
2. Hole backfilled with arisings

- Water Strike
- Water Standing
- Standard Penetration Test - Split Spoon Method
- Standard Penetration Test - Solid Cone Method
- N=17 SPT 'N' Value with number of blows per 75mm in brackets
- 55/25 55 blows to achieve 25mm
- D Small Disturbed Sample
- U Undisturbed Samples
- B Bulk Sample
- J Jet Sample
- W Water Sample

Shear Strength recorded in cohesive deposits using Picon Hard Shear Vane

Well Installation Legend:

Bentonite backfill

Filter Gravel

Arisings



Checked

Report No. 721543

Appendix C

Results of Gas and Groundwater Monitoring

MONITORING RESULTS DURING SITE INVESTIGATION



ENVIRONMENTAL

Project: Westminster Kingsway College
Location: Kings Cross, London
Project No. 721543
Operator: MCC

Instruments Used:
Geotechnical Instruments GA2000
Dip Meter
Interface probe

Date: 10-Jan-07
Barometric Pressure **Start:** 1007
(mb): **Finish:** 1017

Position Number	Methane (% Vol)	Carbon Dioxide (% Vol)	Oxygen (% Vol)	Water Level (m bgl)	Free product (mm)
WS1	0.0	0.1	20.1	Dry	0
WS2	0.0	0.2	19.9	Dry	0
WS3	0.0	0.1	19.8	Dry	0
WS4	0.0	0.2	20.2	Dry	0
WS5	0.0	0.2	19.8	Dry	0
WS6	0.0	0.1	19.9	Dry	0
BH1	0.0	1.6	19.2	2.82	0
BH6	0.0	0.8	19.7	8.41	0
BH7	0.0	0.1	20.2	6.28	0

GAS/GROUND WATER MONITORING RESULTS



ENVIRONMENTAL

Project: Westminster Kingsway College
Location: Kings Cross, London
Project No. 721543
Operator: MCC

Instruments Used:
Geotechnical Instruments GA2000
Dip Meter
Interface probe

Date: 15-Jan-07
Barometric Pressure **Start:** 1004
(mb): **Finish:** 1005

Position Number	Methane (% Vol)	Carbon Dioxide (% Vol)	Oxygen (% Vol)	Flow rate l hr-1	Water Level (m bgl)
BH1A	0.0	0.0	19.3	0.0	1.20
BH2A	0.0	0.0	19.2	0.0	Dry

GAS/GROUND WATER MONITORING RESULTS



ENVIRONMENTAL

Project: Westminster Kingsway College
Location: Kings Cross, London
Project No. 721543
Operator: MCC

Instruments Used:
Geotechnical Instruments GA2000
Dip Meter
Interface probe

Date: 22-Jan-07
Barometric Pressure **Start:** 1017
(mb): **Finish:** 1017

Position Number	Methane (% Vol)	Carbon Dioxide (% Vol)	Oxygen (% Vol)	Flow rate l hr-1	Water Level (m bgl)
BH1A	0.0	0.0	19.8	0.0	0.90
BH2A	0.0	0.0	19.9	0.0	Dry

GAS/GROUND WATER MONITORING RESULTS



ENVIRONMENTAL

Project: Westminster Kingsway College
Location: Kings Cross, London
Project No. 721543
Operator: RB

Instruments Used:
Geotechnical Instruments GA2000
Dip Meter
Interface probe

Date: 6-Feb-07
Barometric Pressure **Start:** 1006
(mb): **Finish:** 1006

Position Number	Methane (% Vol)	Carbon Dioxide (% Vol)	Oxygen (% Vol)	Flow rate l hr-1	Water Level (m bgl)
BH1A	0.0	0.0	17.6	0.0	0.95
BH2A	0.1	0.1	18.5	0.0	Dry

GAS/GROUND WATER MONITORING RESULTS



ENVIRONMENTAL

Project: Westminster Kingsway College
Location: Kings Cross, London
Project No. 721543
Operator: RB

Instruments Used:

Geotechnical Instruments GA2000

Dip Meter

Interface probe

Date: 15-Feb-07

Barometric Pressure **Start:** 1020

(mb): **Finish:** 1020

Position Number	Methane (% Vol)	Carbon Dioxide (% Vol)	Oxygen (% Vol)	Flow rate l hr-1	Water Level (m bgl)
BH1A	0.0	0.0	17.6	0.0	0.70
BH2A	0.0	0.1	19.2	0.0	Dry

GAS/GROUND WATER MONITORING RESULTS



ENVIRONMENTAL

Project: Westminster Kingsway College
Location: Kings Cross, London
Project No. 721543
Operator: RB

Instruments Used:

Geotechnical Instruments GA2000

Dip Meter

Interface probe

Date: 21-Feb-07

Barometric Pressure **Start:** 1017
(mb): **Finish:** 1017

Position Number	Methane (% Vol)	Carbon Dioxide (% Vol)	Oxygen (% Vol)	Flow rate l hr-1	Water Level (m bgl)
BH1A	0.0	0.0	18.0	0.0	0.82
BH2A	0.0	0.0	18.8	0.0	Dry

GAS/GROUND WATER MONITORING RESULTS



ENVIRONMENTAL

Project: Westminster Kingsway College
Location: Kings Cross, London
Project No. 721543
Operator: RB

Instruments Used:

Geotechnical Instruments GA2000

Dip Meter

Interface probe

Date: 27-Feb-07

Barometric Pressure **Start:** 1002

(mb): **Finish:** 1002

Position Number	Methane (% Vol)	Carbon Dioxide (% Vol)	Oxygen (% Vol)	Flow rate l hr-1	Water Level (m bgl)
BH1A	0.0	0.0	19.1	0.0	0.82
BH2A	0.0	0.0	19.2	0.0	Dry

Appendix D

Results of Chemical Analysis – Soils

Chemtest

Willie Snath Road Newmarket CB8 7SQ
Tel: 01638 606070 Fax: 01638
Email: admin@chemtest.co.uk

MLM Environmental Ltd
7200 Cambridge Research Park
Cambridge

CB5 9TL
FAO James Warth
25 January 2007

Dear James Warth

Test Report Number **52102**
Your Project Reference **Westminster Kingsway College (WK College)**

Please find enclosed the results of analysis for the samples received 17 January 2007.

All soil samples will be retained for a period of one month and all water samples will be retained for 14 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to customerservices@chemtest.co.uk. Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact Dianne Sellers in Customer Services.

Yours sincerely

Darrell Hall - Laboratory Manager
Authorised Signatory

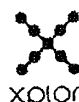


Notes to accompany report

- The sign < means 'less than'
- Tests marked 'U' hold UKAS accreditation
- Tests marked 'M' hold MCertS (and UKAS) accreditation
- Tests marked 'N' do not currently hold UKAS accreditation
- Tests marked 'S' were subcontracted to an approved laboratory
- n/e means 'not evaluated'
- i/s means 'insufficient sample'
- Comments or interpretations are beyond the scope of UKAS accreditation
- The results relate only to the items tested

Test

52102 Cover Sheet



A DIVISION OF XPLORE LIMITED
Registered in England & Wales
Registration Number 3008780
Reg Office 7 Laureate Paddocks
Newmarket Suffolk CB8 0AP

Report sample ID range AB68878 to AB68893

Appendix E

Results of Chemical Analysis – Water

MLM Environmental Ltd
7200 Cambridge Research Park
Cambridge

LABORATORY TEST REPORT

Chemtest

Report Date
08 February 2007

CB5 9TL

Results of analysis of 1 sample
received 31 January 2007

FAO James Warth

Westminster Kingsway College, London

Login Batch No

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

52238

AB71759

BH1A

W1

1.20m

WATER

SOP	Determinand	CAS No.	Units	.	
1675	TPH aliphatic >C5-C6		µg l ⁻¹	N	<0.1
	TPH aliphatic >C6-C8		µg l ⁻¹	N	<0.1
	TPH aliphatic >C8-C10		µg l ⁻¹	N	<0.1
	TPH aliphatic >C10-C12		µg l ⁻¹	N	<0.1
	TPH aliphatic >C12-C16		µg l ⁻¹	N	<0.1
	TPH aliphatic >C16-C21		µg l ⁻¹	N	<0.1
	TPH aliphatic >C21-C35		µg l ⁻¹	N	<0.1
	TPH aromatic >C6-C7		µg l ⁻¹	N	<0.1
	TPH aromatic >C7-C8		µg l ⁻¹	N	<0.1
	TPH aromatic >C8-C10		µg l ⁻¹	N	<0.1
	TPH aromatic >C10-C12		µg l ⁻¹	N	<0.1
	TPH aromatic >C12-C16		µg l ⁻¹	N	<0.1
	TPH aromatic >C16-C21		µg l ⁻¹	N	<0.1
	TPH aromatic >C21-C35		µg l ⁻¹	N	<0.1
	Total Petroleum Hydrocarbons		µg l ⁻¹	N	<20
1760	Dichlorodifluoromethane	75718	µg l ⁻¹	U	<1
	Chloromethane	74873	µg l ⁻¹	U	<1
	Vinyl chloride	75014	µg l ⁻¹	U	<1
	Bromomethane	74839	µg l ⁻¹	U	<20
	Chloroethane	75003	µg l ⁻¹	U	<2
	Trichlorofluoromethane	75694	µg l ⁻¹	U	<1
	1,1-Dichloroethene	75354	µg l ⁻¹	U	<1
	Dichloromethane	75092	µg l ⁻¹	U	ne
	trans-1,2-Dichloroethene	156605	µg l ⁻¹	U	<1
	1,1-Dichloroethane	75343	µg l ⁻¹	U	<1
	cis-1,2-Dichloroethene	156592	µg l ⁻¹	U	<1
	Bromochloromethane	74975	µg l ⁻¹	U	<1
	Trichloromethane	67663	µg l ⁻¹	U	<1
	1,1,1-Trichloroethane	71556	µg l ⁻¹	U	<1
	Tetrachloromethane	56235	µg l ⁻¹	U	<1

All tests undertaken between 05-Feb-2007 and 7-Feb-2007

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 1 of 5

Report sample ID range AB71759 to AB71759

MLM Environmental Ltd
7200 Cambridge Research Park
Cambridge

LABORATORY TEST REPORT

Chemtest

CB5 9TL

FAO James Warth

Results of analysis of 1 sample
received 31 January 2007

Report Date
08 February 2007

Westminster Kingsway College, London

52236

AB71759

BH1A

W1

1.20m

WATER

1760	1,1-Dichloropropene	563586	µg l ⁻¹	U	<1
	Benzene	71432	µg l ⁻¹	U	<1
	1,2-Dichloroethane	107062	µg l ⁻¹	U	<2
	Trichloroethene	79016	µg l ⁻¹	U	<1
	1,2-Dichloropropane	78875	µg l ⁻¹	U	<1
	Dibromomethane	74953	µg l ⁻¹	U	<10
	Bromodichloromethane	75274	µg l ⁻¹	U	<5
	cis-1,3-Dichloropropene	10061015	µg l ⁻¹	U	ne
	Toluene	108883	µg l ⁻¹	U	<1
	trans-1,3-Dichloropropene	10061026	µg l ⁻¹	U	ne
	1,1,2-Trichloroethane	79005	µg l ⁻¹	U	<10
	Tetrachloroethene	127184	µg l ⁻¹	U	<1
	1,3-Dichloropropane	142289	µg l ⁻¹	U	<2
	Dibromochloromethane	124481	µg l ⁻¹	U	<10
	1,2-Dibromoethane	106934	µg l ⁻¹	U	<5
	Chlorobenzene	108907	µg l ⁻¹	U	<1
	1,1,1,2-Tetrachloroethane	630206	µg l ⁻¹	U	<2
	Ethylbenzene	100414	µg l ⁻¹	U	<1
	m- & p-Xylene	1330207	µg l ⁻¹	U	<1
	o-Xylene	95476	µg l ⁻¹	U	<1
	Styrene	100425	µg l ⁻¹	U	<1
	Tribromomethane	75252	µg l ⁻¹	U	<10
	Isopropylbenzene	98828	µg l ⁻¹	U	<1
	Bromobenzene	108861	µg l ⁻¹	U	<1
	1,1,1,2,2-Tetrachloroethane	79345	µg l ⁻¹	U	ne
	1,2,3-Trichloropropane	96184	µg l ⁻¹	U	ne
	n-Propylbenzene	103651	µg l ⁻¹	U	<1
	2-Chlorotoluene	95498	µg l ⁻¹	U	<1
	1,3,5-Trimethylbenzene	108678	µg l ⁻¹	U	<1
	4-Chlorotoluene	106434	µg l ⁻¹	U	<1
	tert-Butylbenzene	98066	µg l ⁻¹	U	<1

All tests undertaken between 05-Feb-2007 and 7-Feb-2007

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 2 of 5

Report sample ID range AB71759 to AB71759

MLM Environmental Ltd
7200 Cambridge Research Park
Cambridge

LABORATORY TEST REPORT

Chemtest

Report Date
08 February 2007

CB5 9TL

Results of analysis of 1 sample
received 31 January 2007

FAO James Warth

Westminster Kingsway College, London

52236

AB71759

BH1A

W1

1.20m

WATER

1760	1,2,4-Trimethylbenzene	95636	µg l ⁻¹	U	<1
	sec-Butylbenzene	135988	µg l ⁻¹	U	<1
	1,3-Dichlorobenzene	541731	µg l ⁻¹	U	<1
	4-Isopropyltoluene	99876	µg l ⁻¹	U	<1
	1,4-Dichlorobenzene	106467	µg l ⁻¹	U	<1
	n-Butylbenzene	104518	µg l ⁻¹	U	<1
	1,2-Dichlorobenzene	95501	µg l ⁻¹	U	<1
	1,2-Dibromo-3-chloropropane	96128	µg l ⁻¹	U	<50
	1,2,4-Trichlorobenzene	120821	µg l ⁻¹	U	<1
	Hexachlorobutadiene	87683	µg l ⁻¹	U	<1
	1,2,3-Trichlorobenzene	87616	µg l ⁻¹	U	<2
1790	N-Nitrosodimethylamine	62759	µg l ⁻¹	N	<0.5
	Phenol	108952	µg l ⁻¹	N	<0.5
	bis(2-Chloroethyl)ether	111444	µg l ⁻¹	N	<0.5
	2-Chlorophenol	95578	µg l ⁻¹	N	<0.5
	1,3-Dichlorobenzene	541731	µg l ⁻¹	N	<0.5
	1,4-Dichlorobenzene	106467	µg l ⁻¹	N	<0.5
	1,2-Dichlorobenzene	95501	µg l ⁻¹	N	<0.5
	2-Methylphenol	95487	µg l ⁻¹	N	<0.5
	bis(2-Chloroisopropyl)ether	108601	µg l ⁻¹	N	<0.5
	4-Methylphenol	106445	µg l ⁻¹	N	<0.5
	N-Nitrosodi-n-propylamine	621647	µg l ⁻¹	N	<0.5
	Hexachloroethane	67721	µg l ⁻¹	N	<0.5
	Nitrobenzene	98953	µg l ⁻¹	N	<0.5
	Isophorone	78591	µg l ⁻¹	N	<0.5
	2-Nitrophenol	88755	µg l ⁻¹	N	<0.5
	2,4-Dimethylphenol	105679	µg l ⁻¹	N	<0.5
	bis(2-Chloroethoxy)methane	111911	µg l ⁻¹	N	<0.5
	2,4-Dichlorophenol	120832	µg l ⁻¹	N	<0.5
	1,2,4-Trichlorobenzene	120821	µg l ⁻¹	N	<0.5
	Naphthalene	91203	µg l ⁻¹	N	<0.5

All tests undertaken between 05-Feb-2007 and 7-Feb-2007

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 3 of 5

Report sample ID range AB71759 to AB71759

MLM Environmental Ltd
7200 Cambridge Research Park
Cambridge

LABORATORY TEST REPORT

Chemtest

Report Date
08 February 2007

CB5 9TL

Results of analysis of 1 sample
received 31 January 2007

FAO James Warth

Westminster Kingsway College, London

52236

AB71759

BH1A

W1

1.20m

WATER

1790	4-Chloroaniline	106478	µg l ⁻¹	N	<0.5
	Hexachlorobutadiene	87683	µg l ⁻¹	N	<0.5
	4-Chloro-3-methylphenol	59507	µg l ⁻¹	N	<0.5
	2-Methylnaphthalene	91576	µg l ⁻¹	N	<0.5
	Hexachlorocyclopentadiene	77474	µg l ⁻¹	N	<0.5
	2,4,6-Trichlorophenol	88062	µg l ⁻¹	N	<0.5
	2,4,5-Trichlorophenol	95954	µg l ⁻¹	N	<0.5
	2-Chloronaphthalene	91587	µg l ⁻¹	N	<0.5
	2-Nitroaniline	88744	µg l ⁻¹	N	<0.5
	Dimethylphthalate	131113	µg l ⁻¹	N	<0.5
	2,6-Dinitrotoluene	606202	µg l ⁻¹	N	<0.5
	Acenaphthylene	208968	µg l ⁻¹	N	<0.5
	3-Nitroaniline	99092	µg l ⁻¹	N	<0.5
	Acenaphthene	83329	µg l ⁻¹	N	<0.5
	Dibenzofuran	132649	µg l ⁻¹	N	<0.5
	2,4-Dinitrotoluene	121142	µg l ⁻¹	N	<0.5
	Diethylphthalate	84662	µg l ⁻¹	N	<0.5
	Fluorene	86737	µg l ⁻¹	N	<0.5
	4-Chlorophenylether	7005723	µg l ⁻¹	N	<0.5
	4-Nitroaniline	100016	µg l ⁻¹	N	<0.5
	2-Methyl-4,6-dinitrophenol	534521	µg l ⁻¹	N	<0.5
	Azobenzene	103333	µg l ⁻¹	N	<0.5
	4-Bromophenylphenylether	101553	µg l ⁻¹	N	<0.5
	Hexachlorobenzene	118741	µg l ⁻¹	N	<0.5
	Pentachlorophenol	87865	µg l ⁻¹	N	<0.5
	Phenanthrene	85018	µg l ⁻¹	N	<0.5
	Anthracene	120127	µg l ⁻¹	N	<0.5
	Carbazole	86748	µg l ⁻¹	N	<0.5
	Di-n-butylphthalate	84742	µg l ⁻¹	N	<0.5
	Fluoranthene	206440	µg l ⁻¹	N	<0.5
	Pyrene	129000	µg l ⁻¹	N	<0.5

All tests undertaken between 05-Feb-2007 and 7-Feb-2007

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 4 of 5

Report sample ID range AB71759 to AB71759

MLM Environmental Ltd
7200 Cambridge Research Park
Cambridge

LABORATORY TEST REPORT

Chemtest

Report Date
08 February 2007

CB5 9TL

Results of analysis of 1 sample
received 31 January 2007

FAO James Warth

Westminster Kingsway College, London

52238

AB71759

BH1A

W1

1.20m

WATER

1790	Butylbenzylphthalate	85687	µg l ⁻¹	N	<0.5
	Benzo[a]anthracene	56553	µg l ⁻¹	N	<0.5
	Chrysene	218019	µg l ⁻¹	N	<0.5
	bis(2-Ethylhexyl)phthalate	117817	µg l ⁻¹	N	<0.5
	Di-n-octylphthalate	117840	µg l ⁻¹	N	<0.5
	Benzo[b]fluoranthene	205992	µg l ⁻¹	N	<0.5
	Benzo[k]fluoranthene	207089	µg l ⁻¹	N	<0.5
	Benzo[a]pyrene	50328	µg l ⁻¹	N	<0.5
	Indeno[1,2,3-cd]pyrene	193395	µg l ⁻¹	N	<0.5
	Dibenzo[a,h]anthracene	53703	µg l ⁻¹	N	<0.5
	Benzo[g,h,i]perylene	191242	µg l ⁻¹	N	<0.5

All tests undertaken between 05-Feb-2007 and 7-Feb-2007

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 5 of 5

Report sample ID range AB71759 to AB71759

Appendix F

Results of Chemical Analysis – Waste Classification

Chemtest

Willie Snaith Road Newmarket CB8 7SQ
Tel: 01638 606070 Fax: 01638
Email admin@chemtest.co.uk

MLM Environmental Ltd
7200 Cambridge Research Park
Cambridge

CB5 9TL
FAO James Warth
30 January 2007

Dear James Warth

Test Report Number 52101
Your Project Reference Westminster Kingsway College (WK College)

Please find enclosed the results of analysis for the samples received 17 January 2007.

All soil samples will be retained for a period of one month and all water samples will be retained for 14 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to customerservices@chemtest.co.uk. Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact Dianne Sellers in Customer Services.

Yours sincerely

Keith Jones
Authorised Signatory



2183

Notes to accompany report:

- The sign < means 'less than'
- Tests marked 'U' hold UKAS accreditation
- Tests marked 'M' hold MCertS (and UKAS) accreditation
- Tests marked 'N' do not currently hold UKAS accreditation
- Tests marked 'S' were subcontracted to an approved laboratory
- n/e means 'not evaluated'
- i/s means 'insufficient sample'
- Comments or interpretations are beyond the scope of UKAS accreditation
- The results relate only to the items tested



LABORATORY TEST REPORT

Chemtest

Results of analysis of 8 samples
received 17 January 2007

Report Date
30 January 2007

CB5 9TL

FAO James Warth

Westminster Kingsway College (WK College)

Login Batch No

Chemtest LIMS ID

Sample ID

Sample No

Depth

Matrix

Determinand

As (arsenic) L/S=2
As (arsenic) L/S=10
Ba (barium) L/S=2
Ba (barium) L/S=10
Cd (cadmium) L/S=2
Cd (cadmium) L/S=10
Cr (chromium) L/S=2
Cr (chromium) L/S=10
Cu (copper) L/S=2
Cu (copper) L/S=10
Hg (mercury) L/S=2
Hg (mercury) L/S=10
Mo (molybdenum) L/S=2
Mo (molybdenum) L/S=10
Ni (nickel) L/S=2
Ni (nickel) L/S=10
Pb (lead) L/S=2
Pb (lead) L/S=10
Sb (antimony) L/S=2
Sb (antimony) L/S=10
Se (selenium) L/S=2
Se (selenium) L/S=10
Zn (zinc) L/S=2
Zn (zinc) L/S=10
Cl (chloride) L/S=2
Cl (chloride) L/S=10
F (fluoride) L/S=2
F (fluoride) L/S=10
SO4 (sulfate) L/S=2

SOP
CAS No
Units
1450
7440382
mg kg⁻¹
1450 N 7440382
mg kg⁻¹
1450 7440393
mg kg⁻¹
1450 N 7440393
mg kg⁻¹
1450 7440439
mg kg⁻¹
1450 N 7440439
mg kg⁻¹
1450 7440473
mg kg⁻¹
1450 N 7440473
mg kg⁻¹
1450 7440508
mg kg⁻¹
1450 N 7440508
mg kg⁻¹
1450 7439976
mg kg⁻¹
1450 N 7439976
mg kg⁻¹
1450 7439987
mg kg⁻¹
1450 N 7439987
mg kg⁻¹
1450 7440020
mg kg⁻¹
1450 7439921
mg kg⁻¹
1450 N 7439921
mg kg⁻¹
1450 7440360
mg kg⁻¹
1450 N 7440360
mg kg⁻¹
1450 7782492
mg kg⁻¹
1450 N 7782492
mg kg⁻¹
1450 7440666
mg kg⁻¹
1450 N 7440666
mg kg⁻¹
1210 N 16887006
mg kg⁻¹
1210 N 16887006
mg kg⁻¹
1210 N 16984488
mg kg⁻¹
1210 N 16984488
mg kg⁻¹
1210 N 14808798
mg kg⁻¹

52101							
AB68868	AB68869	AB68870	AB68871	AB68872	AB68873	AB68874	AB68875
WS1	WS2	WS2	WS3	WS3A	WS4	WS5	WS6
D2	D1	D4	D1	D2	D1	D1	D1
1.0m	0.5m	2.0m	0.5m	1.0m	0.5m	0.5m	0.5m
LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
<0.05	<0.05	0.1	<0.05	<0.05	<0.05	<0.05	<0.05
0.2	0.1	0.1	0.2	0.1	<0.05	0.1	0.1
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<0.05	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.7
<0.05	0.1	<0.05	<0.05	<0.05	<0.05	0.1	1.1
0.1	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
0.3	0.3	<0.05	0.1	0.1	0.1	0.1	0.1
<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
0.1	<0.05	<0.05	0.1	<0.05	0.1	<0.05	0.1
0.1	<0.05	<0.05	0.1	<0.05	0.3	<0.05	<0.05
<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
<0.05	0.2	<0.05	<0.05	0.1	<0.05	0.2	<0.05
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
0.1	0.1	0.1	<0.01	<0.01	0.1	<0.01	<0.01
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
5.5	8.3	7	5.1	6.4	3.3	33	19
11	11	13	19	14	14	27	11
<1	1.4	<1	1.3	<1	<1	1.5	1.9
2.6	2.7	2.1	3.7	1.4	3.6	2.3	2.5
86	53	100	110	54	28	140	54

All tests undertaken between 25-Jan-2007 and 26-Jan-2007

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 1 of 2

Report sample ID range AB68868 to AB68875

MLM Environmental Ltd
7200 Cambridge Research Park
Cambridge

LABORATORY TEST REPORT

Chemtest

Results of analysis of 8 samples
received 17 January 2007

Report Date
30 January 2007

CB5 9TL

FAO James Warth

Westminster Kingsway College (WK College)

52101							
AB68868	AB68869	AB68870	AB68871	AB68872	AB68873	AB68874	AB68875
WS1	WS2	WS2	WS3	WS3A	WS4	WS5	WS6
D2	D1	D4	D1	D2	D1	D1	D1
1.0m	0.5m	2.0m	0.5m	1.0m	0.5m	0.5m	0.5m
LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE

SO4 (sulfate) L/S=10	1210	N	14808798	mg kg ⁻¹	110	53	62	120	100	530	110	30
Total Dissolved Solids L/S=2	1610	N	TDS	mg kg ⁻¹	490	360	490	430	310	140	490	330
Total Dissolved Solids L/S=10	1610	N	TDS	mg kg ⁻¹	890	960	790	780	730	2000	860	500
Phenol index L/S=2	1920	N		mg kg ⁻¹	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenol index L/S=10	1920	N		mg kg ⁻¹	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dissolved Organic Carbon L/S=2	1610	N	DOC	mg kg ⁻¹	<50	<50	<50	<50	<50	<50	<50	<50
Dissolved Organic Carbon L/S=10	1610	N	DOC	mg kg ⁻¹	67	250	83	79	<50	400	<50	<50

All tests undertaken between 25-Jan-2007 and 26-Jan-2007

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page

Column page 1

Report page 2 of 2

Report sample ID range AB68868 to AB68875