



**IAN FARMER
ASSOCIATES**

Geotechnical & Environmental Specialists

ROYAL MAIL GROUP LTD

**ROYAL MAIL SITE
CAVERSHAM ROAD, READING**

FINAL FACTUAL GROUND INVESTIGATION REPORT

Contract: 20958

Date: October 2012

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FINAL FACTUAL GROUND INVESTIGATION REPORT

Carried out at

ROYAL MAIL SITE

CAVERSHAM ROAD, READING

Prepared for

ROYAL MAIL GROUP LTD

Royal Mail Centre

80 Caversham Road

Reading

RG1 1AA

Contract No: 20958

Date: October 2012

EXECUTIVE SUMMARY

On the instructions of Ove Arup and Partners Limited (Arup) on behalf of Royal Mail Group, a ground investigation was undertaken to investigate potential contamination of the underlying soils and groundwater, and to establish the groundwater levels. The proposed development details are not known at the time of writing.

The site is situated at the previously vacated Royal Mail sorting office site on Caversham Road, immediately north of the railway tracks of Reading Station, and may be located by Landranger Grid Reference SU713739. Published geology and historical information indicates the site to be underlain by alluvium of the Langley Silt Member over River Terrace Deposits, with the solid geology indicated to be the Upper Chalk. Made Ground is anticipated at the site to a thickness of up to 2m.

Site work consisted of the sinking of three cable percussive boreholes and thirteen window sample boreholes. Gas and groundwater monitoring standpipes were installed in selected boreholes and then subsequently monitored and sampled during a return visit.

Samples were recovered from the exploratory holes and dispatched to the laboratory for geoenvironmental analysis.

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1.0 INTRODUCTION

- 1.1 On the instructions of Ove Arup and Partners Limited (Arup) on behalf of Royal Mail Group, a ground investigation was undertaken to investigate potential contamination of the underlying soils and groundwater, and to establish the groundwater levels.
- 1.2 The proposed development details are not known at the time of writing.
- 1.3 This report has been prepared for the sole use of the Client for the purpose described and no extended duty of care to any third party is implied or offered, except as provided for in our agreement with the Client. Third parties using any information contained within this report do so at their own risk.
- 1.4 The comments given in this report and the opinions expressed herein are based on the information received, the conditions encountered during site works, and on the results of tests made in the field and laboratory. However, there may be conditions prevailing at the site which have not been disclosed by the investigation and which have not been taken into account in the report.
- 1.5 The comments on groundwater conditions are based on observations made at the time the site work was carried out. It should be noted that groundwater levels vary owing to seasonal or other effects.

2.0 SITE SETTING

2.1 Site Location

2.1.1 The site is situated at the recently vacated Royal Mail site on Caversham Road, immediately north of the railway tracks of Reading Station, and may be located by Landranger Grid Reference SU713739.

2.1.2 A site location plan is included in Appendix 1, Figure A1.1.

2.2 Site Description

2.2.1 The site is roughly triangular in shape covering an area of 2.68 hectares, and comprises the recently vacated Royal Mail site, now being used temporarily by Network Rail as offices, storage, a construction compound, and car parking.

2.2.2 A large former sorting office building covers the majority of the site, filling most of the central and north-west part of the site. The remainder of the site consisted of parking and hardstanding, with several smaller office buildings.

2.2.3 The site was bounded to the north by a retail park, to the west by Caversham Road, to the south by the railway line, and to the east by the multi-storey station car park building.

2.2.4 The site was relatively flat and lay at an approximate altitude of 38m AOD.

2.2.5 An exploratory hole location plan is given in Appendix 1, Figure A1.2.

2.3 Geological Setting

2.3.1 Details of the geology underlying the site have been obtained from the relevant geological map of the area, ref. 5.2, and from information provided by Arup.

2.3.2 The information indicates the site to be covered by superficial alluvium of the Langley Silt Member, described as 'clayey and sandy silt'. Historical information has also indicated the presence of River Terrace Deposits beneath the Langley Silt.

2.3.3 The superficial deposits are underlain by the Upper Chalk (now named the Seaford Chalk Formation and Newhaven Chalk Formation).

2.3.4 Although not indicated as present on the site from the geological maps, Arup have indicated that up to around 2m of Made Ground may exist on the site, said to possibly contain brick, stone chippings, ash and clinker.

3.0 SITE WORK

- 3.1 The site work was carried out between the 12th and 18th September, and on the 22nd and 29th September 2012. The locations of exploratory holes have been positioned as instructed by Arup, and the site work carried out on the basis of the practices set out in BS 10175:2011, ref. 5.3, BS 5930:1999 ref. 5.4 and BS EN 1997-2:2007, ref 5.5. All site work was supervised by an Engineering Geologist from IFA at all times, with that same engineer logging all the exploratory holes.
- 3.2 Three boreholes, designated CP12-01 to CP12-03, were sunk by light cable percussion method, and nine boreholes plus three re-drills, designated WS12-01 to WS12-09, were sunk by drive-in window sampler technique at the positions shown on the exploratory hole location plan, Appendix 1, Figure A1.2. The depths of boreholes, descriptions of strata encountered and comments on groundwater conditions are given in the borehole records, Appendix 2.
- 3.3 Two of the boreholes, WS12-08 and WS12-09 were commenced through the floor slab by concrete coring. One further hole, designated WS12-10, was concrete cored but abandoned before being advanced due to the core barrel seizing on a reinforcing bar and the time restraints of Saturday working.
- 3.4 'Clean' drilling methods were adopted through the Made Ground and Alluvium. The boreholes were cased through this material and a bentonite plug installed at the base of the casing before continuing into the River Terrace Deposits in a reduced diameter.
- 3.5 Representative disturbed and 'undisturbed' samples were taken, ref.5.7, at the depths shown on the borehole records and dispatched to the laboratory. Standard (split-barrel and cone) penetration tests (SPT), ref.5.6, were carried out in selected boreholes in the various strata to assess the relative density or consistency. The values of penetration resistance are given in the borehole records.
- 3.6 Samples recovered during the window sampling and trial pitting works were screened for volatile organic compounds (VOC's) using a photo ionisation detector (PID). The results of these tests are included in the borehole and trial pit records.
- 3.7 Samples for environmental purposes were collected in appropriate containers and retained in cool boxes.
- 3.8 Groundwater and gas monitoring installations, in the form of slotted standpipes, protected by a stopcock cover, were installed in the three cable percussive boreholes and seven of the window sample boreholes, as detailed in the borehole records.
- 3.9 The coordinates and ground levels at the exploratory hole locations, reported on the records, were surveyed in by MSURV, based on the drawing provided by the Client.
- 3.10 Upon completion of the siteworks, the boreholes instrumented with standpipes were monitored on one occasion as specified by Arup for groundwater and gas levels. The gas levels monitored were oxygen, carbon dioxide, methane, carbon monoxide and hydrogen sulphide. The flow rate of each borehole was also monitored. The results are given in Appendix 4.
- 3.11 Following the purging of three well volumes of water, groundwater samples were recovered from each of the borehole instruments and dispatched for testing, the results of which are presented in Appendix 3.

4.0 LABORATORY TESTS

4.1 Geoenvironmental Testing

- 4.1.1 The suite of chemical analyses has been scheduled by Arup.
- 4.1.2 The testing was carried out at a UKAS accredited laboratory, and to MCERTS accreditation where applicable.
- 4.1.3 The following tests were carried out on the soil samples:
- 45 No. Metals suites (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn, Sb, Be, V, B)
 - 45 No. Total cyanide
 - 45 No. pH
 - 45 No. Phenol
 - 45 No. Total organic carbons (TOC)
 - 45 No. Total petroleum hydrocarbons (TPH) – CWG bandings
 - 45 No. BTEX suites
 - 45 No. Polycyclic aromatic hydrocarbons (PAH) – USEPA 16
 - 34 No. Polychlorinated biphenyls (PCB)
 - 16 No. VOC Suites
 - 16 No. SVOC Suites
 - 28 No. Asbestos screens
 - 3 No. Asbestos quantification
- 4.1.4 The following tests were carried out on the water samples:
- 6 No. Metals suites (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn, Sb, Be, V)
 - 6 No. Total cyanide
 - 6 No. pH
 - 6 No. Ammoniacal nitrogen
 - 6 No. Chloride
 - 6 No. Phenol
 - 6 No. Total petroleum hydrocarbons (TPH) – CWG bandings
 - 6 No. BTEX suites
 - 6 No. Polycyclic aromatic hydrocarbons (PAH) – USEPA 16
 - 6 No. Biochemical oxygen demand (BOD)
 - 6 No. Chemical oxygen demand (BOD)
 - 3 No. VOC Suites
 - 3 No. SVOC Suites
- 4.1.5 The following tests were carried out on the leachate samples:
- 8 No. Leachability Waste Acceptance Criteria (WAC)
- 4.1.6 The results are shown in Appendix 3, Test Reports 12-69052, 12-69053, 12-69610 and 12-69619.

5.0 REFERENCES

- 5.1 BS EN 1997-1:2004, '*Eurocode 7 – Geotechnical Design – Part 1: General Rules*', British Standards Institute, 2004
- 5.2 BGS Sheet No. 268, '*Reading*', solid and drift edition, 1:50000 scale. British Geological Survey, 2000.
- 5.3 BS 10175: 2011 '*Investigation of potentially contaminated sites. Code of practice*', British Standards Institute, 2011
- 5.4 BS 5930:1999+A2:2010 '*Code of practice for site investigations*', British Standards Institute, 2010
- 5.5 BS EN 1997, Part 2:2007, '*Eurocode 7 – Geotechnical Design – Part 2, Ground Investigation and Design*' British Standards Institute, 2007
- 5.6 BS EN ISO 22476 – 3:2005, '*Geotechnical Investigation and Testing – Field Testing - Part 3: Standard Penetration Test*', British Standards Institute, 2005
- 5.7 BS EN ISO 22475-1:2006, '*Geotechnical Investigation and Testing – Sampling Methods and Groundwater Measurements*' Part 1: *Technical Principles for Execution*', British Standards Institute, 2006
- 5.8 BS EN ISO 14688 Part 1:2002 and Part 2:2004, '*Geotechnical Investigation and Testing – Identification and Classification of Soil*', British Standards Institute, 2004
- 5.9 BS 1377:1990, Part 9, '*Methods of Test for Soils for Civil Engineering Purposes*' British Standards Institute, 1990
- 5.10 MCERTS '*Performance Standard for Laboratories Undertaking Chemical Testing of Soil*' v3, Environment Agency, 2006.
- 5.11 BRE Special Digest 1, '*Concrete in Aggressive Ground*', Building Research Establishment, 2005.

For and on behalf of Ian Farmer Associates (1998) Limited



A.C Owen
MEng(Hons) MRes FGS
Principal Environmental Geologist

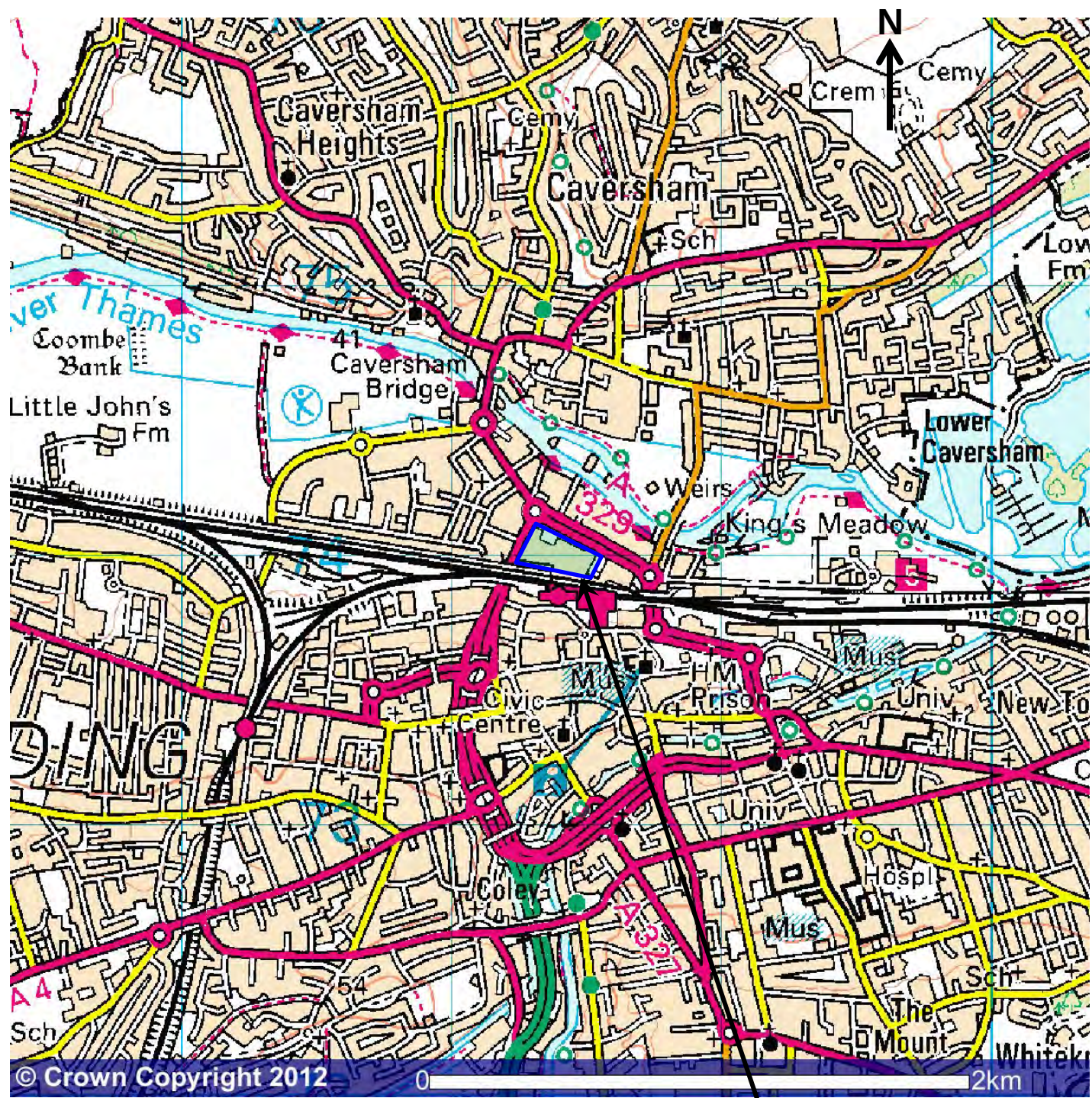


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Principal Engineering Geologist

APPENDIX 1

DRAWINGS

20958
Royal Mail Site, Caversham Road, Reading



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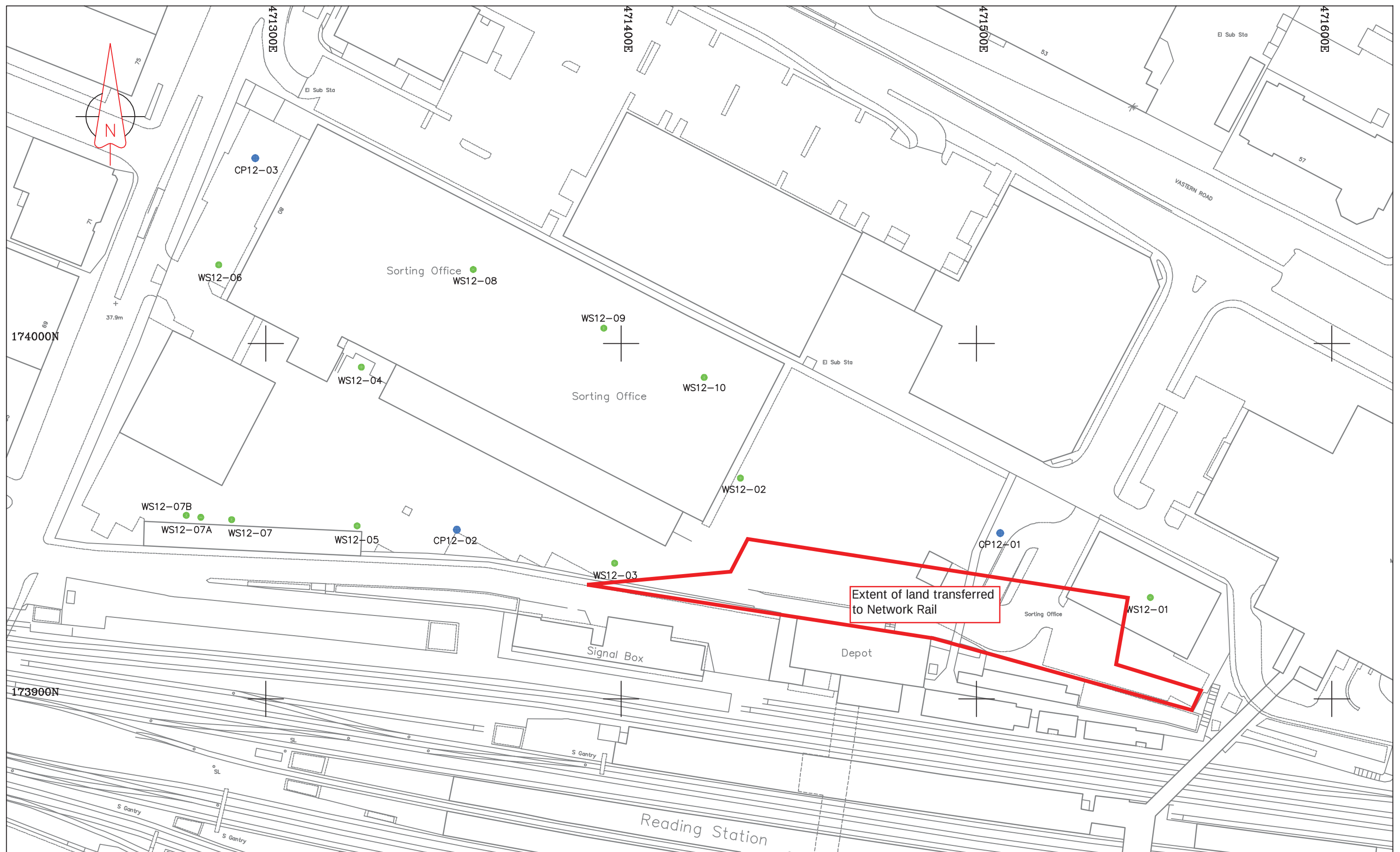
Site

Site Location Plan

Scale: NTS

Figure A1.1





Rainsborough Barns
Charlton
Banbury, Oxon
OX17 3DT

client	Ian Farmer Associates		
project	Caversham Road, Reading BH Locations		
drawing no.	1215/630/1	Drawn JG	Date 22/09/12
		Scale 1:1000	A3

APPENDIX 2

SITE WORK

APPENDIX 2

GENERAL NOTES ON SITE WORKS

A2.1 SITE WORK

A2.1.1 General

Site work is carried out in general accordance with the guidelines given in BS EN 1997, 5.5 and BS 5930, ref 5.4, and BS 10175, ref.5.3.

A2.1.2 Light Cable Percussion Boring

The light cable percussion rig is generally employed for boring through soils and weak rocks, ref 5.4. It consists of a powered winch and tripod frame, with running wheels that are permanently attached so that the rig may be towed behind a suitable vehicle. The rig is towed into position and set up using its own winching system.

The locations of services are checked to make sure the borehole is not situated unacceptably near any services. Regardless of the proximity of services, a CAT scan is undertaken at the borehole location and an inspection pit dug to 1.20m by hand.

Boreholes are advanced in soil by the percussive action of the cable tool. The force of the cylindrical tool as it is dropped a short distance cuts a plug of cohesive soil that is removed by the tool.

In non-cohesive soils, the borehole is advanced by a 'shell', otherwise known as a 'bailer' or 'sand pump', which incorporates a clack valve. Material is transferred into the shell and retained by the clack valve. The water level in a borehole is maintained above that in the surrounding granular soil to allow for temporary reductions in the head of water as the shell is withdrawn from the borehole. Water should flow from the borehole into the surrounding soil at all times to prevent 'piping' and loosening the soil at the base of the hole. The casing is always advanced with the borehole in granular soil so that material is drawn from the base rather than the borehole sides.

Obstructions to boring are overcome by fitting a serrated chiselling ring to the base of the percussion tool. For large obstructions, a heavy chisel with a hardened cutting edge may have to be used.

Disturbed samples are taken in polythene bags, jars or tubs that are sealed against air or water loss.

A2.1.3 Drive-in Window Sampler

The drive-in window sampler, ref 5.7, consists generally of a track mounted window sampler and a series of cylindrical sample tubes, generally varying in diameter from 98mm to 35mm. A cutting shoe is fitted to the bottom of each tube, while a window, representing about a quarter of the circumference, is cut along the length of the tube. Soil samples are extracted through the window of the tube.

The borehole is extended by using progressively smaller diameter tubes.

Alternatively, samples may be collected in plastic liners, known as *windowless sampling*.

A2.2 IN-SITU TESTS

A2.2.1 Standard Penetration Test

The Standard Penetration Test is carried out in accordance with the proposals recommended by BS EN ISO 22476-3 ref 5.6.

The standard penetration test, **SPT**, covers the determination of the resistance of soils to the penetration of a split barrel sampler. A 50mm diameter split barrel sampler is driven 450mm into the soil using a 63.5kg hammer with a 760mm drop. The penetration resistance is expressed as the number of blows required to obtain 300mm penetration below an initial seating drive of 150mm through any disturbed ground at the bottom of the borehole. The number of blows to achieve the standard penetration of 300mm is reported as the 'N' value.

The 'N' value reported on the borehole logs is as measured but may be corrected for the energy ratio (E_r) of the specific test equipment to give a normalised N_{60} value.

E_r for the drilling apparatus used for this ground investigation is referenced within the exploratory hole records.

The test is generally carried out in fine soils, however, it may also be carried out in coarse granular soils, weak rocks and glacial tills using the same procedure as for the SPT but with a 50mm diameter, 60° apex solid cone replacing the split spoon sampler, **CPT**.

When attempting the standard penetration test in very dense material or weathered rocks it may be necessary to terminate the test before completion to prevent damage to the equipment. In these circumstances it is important to distinguish how the blow count relates to the penetration of the sampler. This may be achieved in the following manner:

- Where the seating drive has been completed, the test drive is terminated if 50 blows are reached before the full penetration of 300mm is achieved. The penetration for 50 blows is recorded and an approximate N value obtained by linear extrapolation of the number of blows for the partial test drive.
- If the seating drive of 150mm is not achieved within the first 25 blows, the penetration after 25 blows is recorded and the test drive then commenced.
- For tests in soft rocks, the test drive should be terminated after 100 blows where the penetration of 300mm has not been achieved.

The N-value obtained from the Standard Penetration Test may be used to assess the relative density of sands and gravels with the general descriptions as follows:

Term	SPT N-Value : Blows/300mm Penetration
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Over 50

A2.3 SAMPLES / TESTS

- B represents large bulk disturbed samples
- D represents small disturbed sample
- E represents environmental sample, consisting of amber jar, vial and plastic tub
- W represents water sample
- ▽ represents water strike
- ▼ represents level to which water rose

A2.4 DESCRIPTION OF SOILS

A2.4.1 General

The procedures and principles given in BS EN ISO 14688 Parts 1 and 2, ref 5.8, supplemented by section 6 of BS 5930, ref. 5.4 have been used in the soil descriptions contained within this report.

SPT Calibration Report

Hammer Energy Measurement Report

Type of Hammer SPT Hammer
 Client MARTIN REEVES
 Test No EQU655
 Test Depth (m) 7.00
 Date of Test 02 April 2012
 Valid until 02 April 2013
 Hammer ID EQU185

Mass of the hammer $m = 63.5\text{kg}$
 Falling height $h = 0.76\text{m}$
 $E_{\text{theor}} = m \times g \times h = 473\text{J}$

Characteristics of the instrumented rod

Diameter $d_r = 0.052\text{ m}$
 Length of the instrumented rod 0.558 m
 Area $A = 11.61\text{ cm}^2$
 Modulus $E_a = 206843\text{ MPa}$

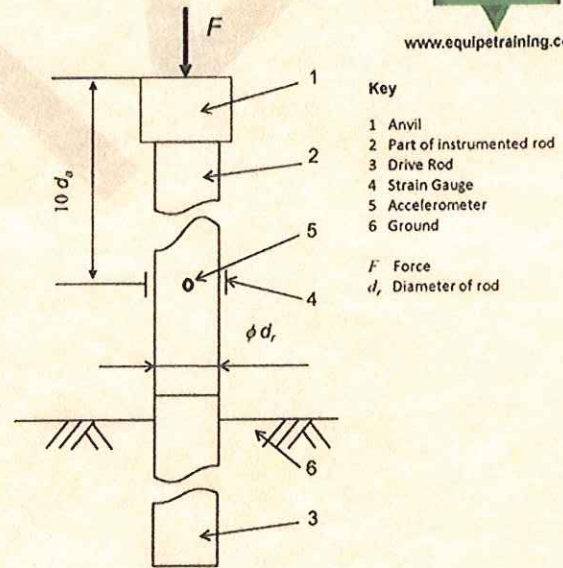
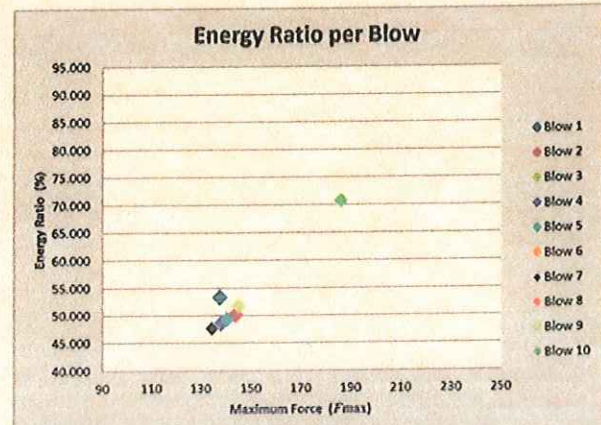
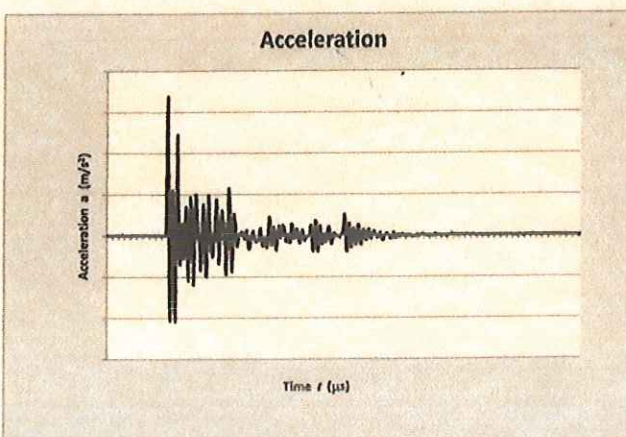
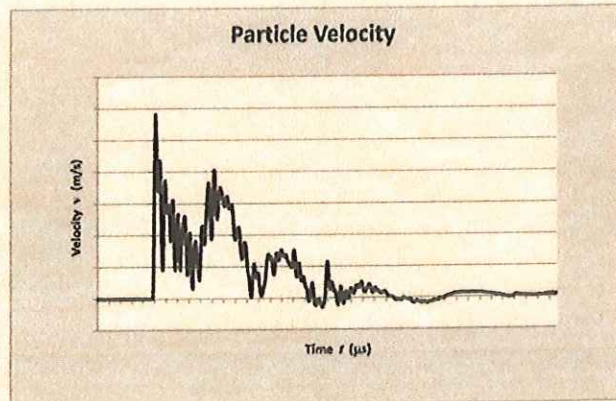
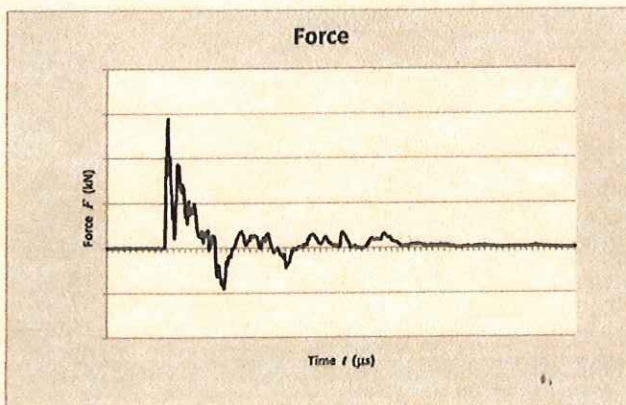


Fig. B.1 and B.2 BS EN ISO 22476-3 : 2005



Observations:

1. Blow 5 no use in calculation of energy ratio

$E_{\text{meas}} = 0.248\text{ kN-m}$

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

$$\text{Energy Ratio} = \frac{E_{\text{meas}}}{E_{\text{theor}}} = 52.34\%$$

Equipe SPT Analyzer Operators:

KS

Prepared by: *H. Spies*

Checked by: *[Signature]*

Date

03/04/2012



**IAN FARMER
ASSOCIATES**

Site

Royal Mail Site, Caversham Road, Reading

**Borehole
Number**

CP12-01

Boring Method

Cable Percussion

Casing Diameter

200mm cased to 3.00m
150mm cased to 6.20m

Ground Level (mOD)

38.15

Client

Royal Mail Group

Job Number

20958

Location

471506.7 E 173946.7 N

Dates

18/09/2012

Engineer

Ove Arup and Partners Ltd

Sheet

1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.20	E1 PID = 1690ppm				38.08 37.98	(0.07) 0.07	MADE GROUND: Block paving			
						(0.09) 0.16	MADE GROUND: Brown, fine to coarse sand.			
0.80	E2 PID = 2926ppm				37.65	(0.34) 0.50	MADE GROUND: Pinkish brown, silty, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular, fragments of hardcore, some slag and flint.			
1.50	E3 PID = 436ppm					(2.00)	MADE GROUND: Black, very silty, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular fragments of brick, slag, flint and some chalk with black ash.			
							Below 1.50m: Hydrocarbon odour, and oil liquid on material but not running liquid.			
2.50	E4 PID = 41ppm				35.65	2.50	Soft, grey green, SILT/CLAY some intermix black silt. Slight hydrocarbon odour. (Alluvium)		▼1	
						(0.70)				
3.20-3.75 3.30 3.30-3.80 3.20-3.65	D1 E6 PID = 0.3ppm B1 SPT N=12	3.00	2.50	Water strike(1) at 3.20m, rose to 2.50m in 20 mins. 2,2/2,3,3,4	34.95	3.20	Medium dense, brown, fine to coarse SAND and GRAVEL with occasional horizons of sandy gravel. Gravel is fine to coarse, subangular to subrounded flint. (River Terrace Deposits)		▽1	
4.50-4.95 4.50-4.95 4.50-5.00	SPT N=19 D2 B2	4.50	2.00	1,2/4,5,5,5		(3.00)				
5.30	E7 PID = 0.5ppm									
6.20-6.65 6.20-6.65	SPT N=17 D3	6.20		1,3/3,4,5,5	31.95	6.20	Complete at 6.20m			

Remarks

Bentonite seal installed between casing strings from 3.00m up to 1.00m.
Excavating from 0.00m to 1.20m.

Scale (approx)

1:50

Logged By

JP

Figure No.

20958.CP12-01

 IAN FARMER ASSOCIATES						Site Royal Mail Site, Caversham Road, Reading			Borehole Number CP12-02		
Boring Method Cable Percussion		Casing Diameter 200mm cased to 2.10m 150mm cased to 7.00m		Ground Level (mOD) 38.04		Client Royal Mail Group			Job Number 20958		
		Location 471353.7 E 173947.6 N		Dates 17/09/2012		Engineer Ove Arup and Partners Ltd			Sheet 1/1		
Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr	
0.35	E1 PID = 606ppm			Water strike(1) at 3.00m, rose to 2.70m in 20 mins.	37.97 37.88 37.74	(0.07) 0.07 (0.09)	MADE GROUND: Blockwork				
							MADE GROUND: Brown, fine to coarse sand.				
0.80	E2 PID = 1300ppm						MADE GROUND: Concrete (dry mix) Recovered as brown, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular fragments of hardcore and flint.				
1.80	E3 PID = 18ppm					37.34	(0.14) 0.30	MADE GROUND: Pink, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular fragments of hardcore and occasional flint.			
2.00	B1						(0.30) 1.00				
2.00	E4 PID = 1.8ppm						(0.10) 1.10				
2.10-2.50	B2					37.04 36.94	(0.90)	MADE GROUND: Dark grey, very silty, fine to coarse sand and gravel with frequent pockets of greenish brown clay. Gravel is fine to coarse, angular to subangular fragments of slag, brick and chalk with some cobbles of brick and chalk.			
2.50-5.00	E5 PID = 5ppm						(0.30) 1.00				
							(0.10) 1.10				
3.30-3.75	D1					36.04 35.94	2.00 (0.10)	MADE GROUND: Brown, fine to coarse sand and gravel. Gravel is fine to coarse, subangular to subrounded fragments.			
3.50-4.00	B3					2.10 (0.90)					
						(0.90)					
4.50	E6 PID = 1ppm				35.04	3.00	MADE GROUND: Greenish grey, sandy, gravelly silty clay. Gravel is fine to coarse, angular to subangular fragments of chalk and flint.				
4.50-5.00	B4						Soft, greenish brown, sandy SILT/CLAY with some amorphous black peat. (Alluvium)				
							Medium dense, greenish brown, very silty, fine to coarse SAND and GRAVEL. Gravel is fine to coarse, subangular to subrounded flint. (River Terrace Deposits)				
6.00-6.45	D2					(4.00)	Brown, fine to coarse SAND and GRAVEL. Gravel is fine to coarse, subangular to subrounded flint.				
6.50	E7 PID = 5ppm										
7.10	E8 PID = 1.9ppm				31.04	7.00 (0.50)	Recovered as structureless CHALK. Composed of slightly sandy, silty, fine to coarse, angular to subangular gravel. Clasts are very weak, low density white. Some fine to coarse gravel.				
					30.54	7.50	Complete at 7.50m				
Remarks Bentonite seal installed between casing strings from 2.10m up to 0.50m. Excavating from 0.00m to 1.20m.								Scale (approx) 1:50	Logged By JP		
								Figure No. 20958.CP12-02			



Boring Method Cable Percussion	Casing Diameter 200mm cased to 2.50m 150mm cased to 6.00m	Ground Level (mOD) 37.69	Client Royal Mail Group	Job Number 20958
	Location 471297 E 174052.1 N	Dates 18/09/2012	Engineer Ove Arup and Partners Ltd	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.40	E1 PID: Peek = <9999ppm	3.00	2.50	Steady = 2500ppm	37.62	(0.07)	MADE GROUND: Blockwork			
					37.53	0.07				
					37.34	(0.09)	MADE GROUND: Brown, fine to coarse sand			
						0.16				
					37.09	(0.19)	MADE GROUND: Brown, concrete dig mix, recovered as sand and gravel.			
0.80	E2 PID = 1800ppm				36.99	0.35				
						(0.25)	MADE GROUND: Pink, silty, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular hardcore.			
						0.60				
						(0.10)				
						0.70				
					36.19	(0.80)	MADE GROUND: Light, green grey, siltstone. Recovered as angular to subangular gravel.			
1.80	E3 PID = 600ppm	3.00	2.50	Water strike(1) at 3.00m. 3,3/3,3,3,4	35.89	(0.30)				
1.80-2.50	B1					1.80	Soft, dark grey SILT. (Alluvium)			
							Soft, green mottled brown SILT. (Alluvium)			
						(1.20)	Very soft, light brown, sandy SILT with occasional horizons of very silty, fine sand. (Alluvium)			
2.80	E4 PID = 74ppm									
3.00-3.45	D1				34.69	3.00	Medium dense, brown, sandy GRAVEL with occasional horizons of sandy gravel. Gravel is fine to coarse, subangular to subrounded flint. (River Terrace Deposits)		V1	
3.00-3.50	B2									
3.00-3.45	SPT N=13									
3.10	E5 PID = 1.4ppm									
4.50-4.95	SPT N=24	4.50	1.50	2,3/4,6,7,7		(3.00)				
4.50-4.95	D2									
5.00-5.50	B3	6.00	1.50	3,4/4,4,5,7						
5.10	E6 PID = 1.3ppm									
6.00-6.45	SPT N=20				31.69	6.00	Between 5.80m and 6.00m: Subrounded gravelly chalk			
6.00-6.45	D4						Complete at 6.00m			

Remarks

Bentonite seal installed between casing string from 2.50m up to 0.50m
Excavating from 0.00m to 1.20m.

**Scale
(approx)**
1:50

**Logged
By**
JP

Figure No.
20958.CP12-03



IAN FARMER

ASSOCIATES

Site

Royal Mail Site, Caversham Road, Reading

Borehole Number

CP12-01

Installation Type

Single Installation

Dimensions

Internal Diameter of Tube [A] = 50 mm

Client

Royal Mail Group

Job Number

20958

Location

471506.7 E 173946.7 N

Ground Level (mOD)

38.15

Engineer

Ove Arup and Partners Ltd

Sheet

1/1

Legend

Water

Instr (A)

Level (mOD)

Depth (m)

Description

Groundwater Strikes During Drilling

Date

Time

Depth Struck (m)

Casing Depth (m)

Inflow Rate

Readings

5 min

10 min

15 min

20 min

Depth Sealed (m)

Groundwater Observations During Drilling

Date

Start of Shift

Time

Depth Hole (m)

Casing Depth (m)

Water Depth (m)

Water Level (mOD)

End of Shift

Time

Depth Hole (m)

Casing Depth (m)

Water Depth (m)

Water Level (mOD)

Instrument Groundwater Observations

Inst. [A] Type : Slotted Standpipe

Date

Instrument [A]

Time

Depth (m)

Level (mOD)

Remarks

Concrete

37.95

0.20

Bentonite Seal

34.95

3.20

Slotted Standpipe

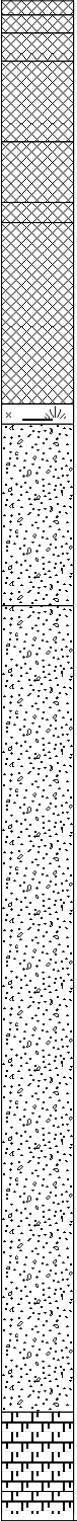
31.95

6.20

Remarks

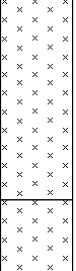
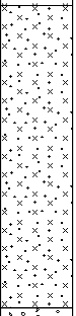
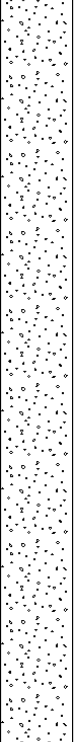
Plain pipe installed from 0.00m to 3.20m sealed with bentonite. Slotted pipe with geosock installed from 3.20m to 6.20m with a gravel surround. Gas valve fitted to the top of the pipework, with a cover installed flush with ground level.

 IAN FARMER ASSOCIATES				Site Royal Mail Site, Caversham Road, Reading		Borehole Number CP12-02
Installation Type Single Installation		Dimensions Internal Diameter of Tube [A] = 50 mm			Client Royal Mail Group	Job Number 20958
		Location 471353.7 E 173947.6 N	Ground Level (mOD) 38.04	Engineer Ove Arup and Partners Ltd		Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling									
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)
											5 min	10 min	15 min	20 min	
			37.74	0.30	Concrete			3.00			3.00	2.70	2.70	2.70	
					Bentonite Seal	Groundwater Observations During Drilling									
						Date	Start of Shift				End of Shift				
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)
			34.04	4.00	Slotted Standpipe	Instrument Groundwater Observations									
						Inst. [A] Type : Slotted Standpipe									
						Date	Instrument [A]			Remarks					
							Time	Depth (m)	Level (mOD)						
			31.04	7.00	Bentonite Seal										
			30.54	7.50											

Remarks
 Plain pipe installed from 0.00m to 4.00m sealed with bentonite. Slotted pipe with geosock installed from 4.00m to 7.00m with a gravel surround. Bentonite seal installed from 7.00m to 7.50m. Gas valve fitted to the top of the pipework, with a cover installed flush with ground level.

 IAN FARMER ASSOCIATES						Site Royal Mail Site, Caversham Road, Reading				Borehole Number CP12-03	
Installation Type Single Installation			Dimensions Internal Diameter of Tube [A] = 50 mm			Client Royal Mail Group				Job Number 20958	
Location 471297 E 174052.1 N			Ground Level (mOD) 37.69			Engineer Ove Arup and Partners Ltd				Sheet 1/1	

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling																						
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)													
											5 min	10 min	15 min	20 min														
			37.19	0.50	Concrete			3.00																				
			34.69	3.00	Bentonite Seal	Groundwater Observations During Drilling																						
			31.69	6.00	Slotted Standpipe	Instrument Groundwater Observations																						
Inst. [A] Type : Slotted Standpipe																												
			31.69	6.00	Slotted Standpipe	<table border="1"> <thead> <tr> <th rowspan="2">Date</th> <th colspan="3">Instrument [A]</th> <th rowspan="2">Remarks</th> </tr> <tr> <th>Time</th> <th>Depth (m)</th> <th>Level (mOD)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>										Date	Instrument [A]			Remarks	Time	Depth (m)	Level (mOD)					
					Date	Instrument [A]			Remarks																			
Time	Depth (m)	Level (mOD)																										

Remarks
 Plain pipe installed from 0.00m to 3.00m sealed with bentonite. Slotted pipe with geosock installed from 3.00m to 6.00m with a gravel surround. Gas valve fitted to the top of the pipework, with a cover installed flush with ground level.



**IAN FARMER
ASSOCIATES**

Site Royal Mail Site, Caversham Road, Reading	Number WS12-01
Client Royal Mail Group	Job Number 20958
Engineer Ove Arup and Partners Ltd	Sheet 1/1

Excavation Method Drive-in Window Sampler	Dimensions Pit to 1.20m 97mm to 2.00m 87mm to 3.00m	Ground Level (mOD) 38.33
	Location 471548.9 E 173928.5 N	Dates 13/09/2012- 14/09/2012

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.25	E1 PID = 280ppm			38.23	(0.10)	MADE GROUND: Tarmac			
				38.03	0.10				
				37.93	(0.20)	MADE GROUND: Reinforced concrete with 8mm diameter rebars			
0.70	E2 PID = 350ppm				0.30				
					(0.10)	MADE GROUND: Pink, silty, fine to coarse sand and fine to coarse, angular to subangular gravel of hardcore and some flint			
					0.40				
1.20-2.00	L1 80% recovered				(0.90)	MADE GROUND: Black, very silty, fine to coarse sand and fine to coarse, angular to subangular gravel of slag, concrete, ash and brick, with occasional brick cobbles and boulders			
1.70	E3 PID = 31ppm			37.03	1.30	MADE GROUND: Brown, slightly sandy, silty clay, with occasional pockets of black silt and occasional fine to medium, gravel sized fragments of flint At 1.40m: Chalk cobble			
2.00-3.00	L2 85% recovered				(1.00)				
2.40	E4 PID = 60ppm			36.03	2.30	Soft, greenish grey mottled brown SILT/CLAY (Alluvium)			
3.00-4.00	L3 95% recovered				(1.50)				
3.50	E5 PID = 4ppm								
3.80	A1 PID = 1300ppm			34.53	3.80	Brown, silty, fine to coarse SAND and fine to coarse, subangular to subrounded GRAVEL of flint. (River Terrace Deposits)			
3.80	V1			34.33	(0.20)				
					4.00	Complete at 4.00m			

Remarks Excavating from 0.00m to 1.20m.	Scale (approx) 1:40	Logged By JP
	Figure No. 20958.WS12-01	



**IAN FARMER
ASSOCIATES**

Site Royal Mail Site, Caversham Road, Reading	Number WS12-02
Client Royal Mail Group	Job Number 20958
Engineer Ove Arup and Partners Ltd	Sheet 1/1

Excavation Method Drive-in Window Sampler	Dimensions Pit to 1.20m 97mm to 2.00m 87mm to 3.00m	Ground Level (mOD) 38.08
	Location 471433.5 E 173962.1 N	Dates 13/09/2012

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.20	E1 PID = 0.0ppm			38.01 37.93	(0.07) 0.07 (0.08) 0.15 (0.45)	MADE GROUND: Blockwork MADE GROUND: Brown, fine to coarse sand			
0.80-1.50	E2 PID = 0.0ppm			37.48	0.60 (1.40)	MADE GROUND: Pinkish brown, fine to coarse sand and fine to coarse, angular to subangular gravel of hardcore MADE GROUND: Greenish grey, clayey, fine to coarse sand and fine to coarse, angular to subangular gravel which includes gravel sized fragments of red brick, concrete and hardcore. Occasional lenses of soft, grey clay, with dark organic patches At 0.60m: Plastic membrane At 1.00m: Concrete boulder			
2.20	E3 PID = 0.0ppm			36.08	2.00 (1.00)	Brown, fine to coarse, SAND and fine to coarse, subangular to subrounded GRAVEL of flint (River Terrace Deposits)			
				35.08	3.00	Complete at 3.00m			

Remarks Borehole collapsed back to 2.30m	Scale (approx) 1:40	Logged By JP
	Figure No. 20958.WS12-02	



**IAN FARMER
ASSOCIATES**

Site
Royal Mail Site, Caversham Road, Reading

Number
WS12-03

Excavation Method Drive-in Window Sampler	Dimensions PT to 1.20m 97mm to 2.00m 87mm to 2.50m	Ground Level (mOD) 37.91	Client Royal Mail Group	Job Number 20958
	Location 471398.1 E 173938.2 N	Dates 13/09/2012	Engineer Ove Arup and Partners Ltd	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.20	E1 PID = 0.0ppm			37.83 37.75 37.61	(0.08) 0.08 (0.08) 0.16 (0.14) 0.30 (0.50)	MADE GROUND: Blockwork MADE GROUND: Brown, fine to coarse sand. MADE GROUND: Brown, sand and gravel of flint and hardcore.			
0.90	E2 PID = 0.0ppm			37.11 36.96	0.80 (0.15) 0.95 (1.00)	MADE GROUND: Pink, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular fragments fo hardcore. MADE GROUND: Greenish brown, gravelly clay. Gravel si fine to coarse, angular to subangular fragments of chalk.			
2.00	E3 PID = 0.0ppm		Water strike(1) at 1.85m.	35.96	1.95 (0.55) 2.50	MADE GROUND: Greyish green, very clayey gravel. Gravel is fine to coarse, angular to subangular fragments of chalk. Locally gravelly clay. Brown, gravelly, fine to coarse SAND. Gravel is fine to coarse, subangular to subrounded flint. (River Terrace Deposits)		Σ1	
				35.41	2.50	Complete at 2.50m			

Remarks Borehole collapsing back to 1.95m Excavating from 0.00m to 1.20m.	Scale (approx) 1:40	Logged By JP
	Figure No. 20958.WS12-03	



**IAN FARMER
ASSOCIATES**

Site
Royal Mail Site, Caversham Road, Reading

Number
WS12-04

Excavation Method Drive-in Window Sampler	Dimensions PIT to 1.20m 97mm to 1.45m	Ground Level (mOD) 37.76	Client Royal Mail Group	Job Number 20958
	Location 471326.9 E 173993.3 N	Dates 12/09/2012	Engineer Ove Arup and Partners Ltd	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.50	E1 PID = 500ppm			37.68	(0.08)	MADE GROUND: Blockwork			
					0.08				
					(0.37)	MADE GROUND: Concrete			
				37.31	0.45				
					(0.25)	MADE GROUND: Light brown, silty, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular hardcore.			
0.80	E2 PID = 515ppm			37.06	0.70				
					(0.75)	MADE GROUND: Dark greyish brown, very silty, sandy, gravel with pockets of soft grey brown clay. Gravel is fine to coarse, angular to subangular. Between 1.10m and 1.45m: Occasional rotted wood and concrete. fragments of brick and flint.			
				36.31	1.45				
						Complete at 1.45m			

Remarks Refusal at 1.45m. Tried to break through with CPT rods but unsuccessful. Borehole was dry Excavating from 0.00m to 1.20m.	Scale (approx)	Logged By
	1:40	JP
	Figure No. 20958.WS12-04	



**IAN FARMER
ASSOCIATES**

Site

Royal Mail Site, Caversham Road, Reading

**Number
WS12-05**

Excavation Method

Drive-in Window Sampler

Dimensions

PIT to 1.20m
97mm to 2.00m
87mm to 3.00m

Ground Level (mOD)

38.02

Client

Royal Mail Group

**Job
Number
20958**

Location

471325.7 E 173948.7 N

Dates

13/09/2012

Engineer

Ove Arup and Partners Ltd

**Sheet
1/1**

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.20	E1 PID = 1850ppm			37.94 37.86	(0.08) 0.08	MADE GROUND: Blockwork			
						MADE GROUND: Light brown, fine to coarse sand.			
				37.62 37.52	(0.08) 0.16				
0.70	E2 PID = 314ppm				(0.24) 0.40	MADE GROUND: Light brown, fine to coarse sand and gravel. Gravel is fine to coarse, subangular to subrounded flint. (Very compact - dry mix?)			
					(0.10) 0.50				
1.50	E3 PID = 0.0ppm				(1.50)	MADE GROUND: Pinkish light brown, fine to coarse sand. Gravel is fine to coarse, angular to subangular hardcore. At 0.85m: Concrete boulder occasional red brick cobbles.			
			Water strike(1) at 1.90m, rose to 1.80m in 10 mins.	36.02	2.00	MADE GROUND: Dark greyish black, silty sand and gravel. Gravel is fine to coarse, angular to subangular fragments of brick, slag, concrete and			
2.30	E4 PID = 4ppm				(0.65)	Soft, dark greenish grey, sandy, slightly gravelly SILT/CLAY. Gravel is fine to coarse, subangular to subrounded flint. Traces of black peat. (Alluvium)			
2.70	E5 PID = 4ppm			35.37	2.65				
				35.02	(0.35)	Light brown, fine to coarse SAND and GRAVEL. Gravel is fine to coarse, angular to subrounded flint. (River Terrace Deposits)			
					3.00				
						Complete at 3.00m			

Remarks

Borehole collapsing back to 2.30m
Excavating from 0.00m to 1.20m.

Scale (approx)

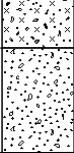
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Logged By

JP

Figure No.

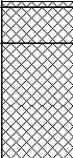
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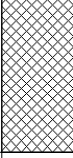
IAN FARMER ASSOCIATES					Site Royal Mail Site, Caversham Road, Reading			Number WS12-06	
Excavation Method Drive-in Window Sampler		Dimensions PIT to 1.20m 97mm to 2.00m 87mm to 3.00m		Ground Level (mOD) 37.75		Client Royal Mail Group		Job Number 20958	
		Location 471286.7 E 174022.1 N		Dates 12/09/2012		Engineer Ove Arup and Partners Ltd		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.50	E1 PID = 34.5ppm		Water strike(1) at 1.30m.	37.67 37.59	(0.08) 0.08	MADE GROUND: Blockwork			
					(0.08) 0.16	MADE GROUND: Light brown, fine to coarse sand.			
				37.35	(0.24) 0.40	MADE GROUND: Concrete			
0.80	E2 PID = 74.5ppm			37.05	(0.30) 0.70	MADE GROUND: Light brown, fine to coarse sand and gravel. Gravel is fine to medium, subangular flint and hardcore.			
1.30	E3 PID = 120ppm				(1.05)	Very soft to soft, greenish grey SILT/CLAY with occasional fine, gravel sized white shells and occasional dark organic stains. (Alluvium)			▽1
				36.00	1.75	Very soft, orange brown, sandy, gravelly SILT. (Alluvium)			
2.10	E4 PID = 20ppm			35.40	(0.60) 2.35	Brown, fine to coarse SAND and GRAVEL. Gravel is fine to coarse, subangular to subrounded flint. (River Terrace Deposits)			
2.40	E5 PID = 35ppm			34.85 34.75	(0.55) 2.90 (0.10) 3.00	Brown, fine to medium SAND. (River Terrace Deposits)			
						Complete at 3.00m			
Remarks Water standing at 1.30m at end of hole. Wet between 2.00m and 3.00m Borehole collapsing back to 2.20m Excavating from 0.00m to 1.20m.							Scale (approx)	Logged By	
							1:40	JP	
							Figure No. 20958.WS12-06		

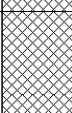
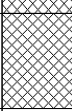
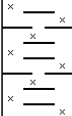
					Site Royal Mail Site, Caversham Road, Reading		Number WS12-07		
Excavation Method Drive-in Window Sampler		Dimensions PIT to 0.70m		Ground Level (mOD) 37.96		Client Royal Mail Group		Job Number 20958	
		Location 471290.4 E 173950.4 N		Dates 12/09/2012		Engineer Ove Arup and Partners Ltd		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.20	E1 PID = 173ppm			37.89	(0.07)	MADE GROUND: Blockwork			
				37.83	0.07	MADE GROUND: Light brown, fine to medium sand			
0.50	E2 PID = 93ppm			37.56	(0.06)	MADE GROUND: Light pinkish brown, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular fragments of hardcore.			
				37.26	(0.13)	MADE GROUND: Black, very silty, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular fragments of slag, brick and concrete.			
					(0.27)				
					(0.40)				
					(0.30)				
					0.70				
						Complete at 0.70m			
Remarks Backfilled with arisings upon completion. Unable to break through concrete at 0.70m to progress pit. Excavating from 0.00m to 0.70m.									
								Scale (approx) 1:40	Logged By JP
								Figure No. 20958.WS12-07	

					Site Royal Mail Site, Caversham Road, Reading		Number WS12-07A		
Excavation Method Drive-in Window Sampler		Dimensions PIT to 0.80m		Ground Level (mOD) 38.02		Client Royal Mail Group		Job Number 20958	
		Location 471281.7 E 173951.1 N		Dates 14/09/2012		Engineer Ove Arup and Partners Ltd		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.20	E1 PID = 3.6ppm			37.95 37.86	(0.07) 0.07	MADE GROUND: Blockwork			
					(0.09) 0.16	MADE GROUND: Brown, fine to coarse, sand.			
0.60	E2 PID = 3.1ppm			37.57 37.22	(0.29) 0.45 (0.35) 0.80	MADE GROUND: Light brown, fine to coarse sand with pockets of pink sandy gravel. Gravel is fine to coarse, angular to subangular fragments of hardcore and plastic membrane.			
						MADE GROUND: Black, very silty, fine to coarse ashy sand and gravel. Gravel is fine to coarse, angular to subangular fragments of slag, brick and flint with occasional boulders of brick.			
						Complete at 0.80m			
Remarks Borehole was dry Back filled with arisings upon completion. Unable to progress through concrete at 0.80m. Excavating from 0.00m to 0.80m.								Scale (approx) 1:40	
								Logged By JP	
								Figure No. 20958.WS12-07A	

 IAN FARMER ASSOCIATES					Site Royal Mail Site, Caversham Road, Reading		Number WS12-07B		
Excavation Method Drive-in Window Sampler		Dimensions PIT to 0.55m		Ground Level (mOD) 37.97		Client Royal Mail Group		Job Number 20958	
		Location 471277.6 E 173951.7 N		Dates 14/09/2012		Engineer Ove Arup and Partners Ltd		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.20	E1 PID = 0.0ppm			37.90	(0.07)	MADE GROUND: Blockwork	   		
				37.83	0.07	MADE GROUND: Brown, fine to coarse gravel.			
				37.72	(0.07)	MADE GROUND: Plastic membrane.			
					(0.14)				
				37.42	(0.11)	MADE GROUND: Dark grey, silty sand and gravel. Gravel is fine to coarse, angular to subangular hardcore, flint and occasional brick.			
	0.25								
					(0.30)				
					0.55	Complete at 0.55m			
Remarks Borehole was dry At 0.55m intersected 2 brown plastic pipes running approx north/south, each 80mm diameter Back filled with arisings upon completion.								Scale (approx) 1:40	Logged By JP
								Figure No. 20958.WS12-07B	

 IAN FARMER ASSOCIATES					Site Royal Mail Site, Caversham Road, Reading		Number WS12-08		
Excavation Method Drive-in Window Sampler		Dimensions PIT to 0.85m		Ground Level (mOD) 38.25		Client Royal Mail Group		Job Number 20958	
		Location 471358.3 E 174020.8 N		Dates 15/09/2012		Engineer Ove Arup and Partners Ltd		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.25	E1 PID = 1359ppm			38.22	(0.03)	MADE GROUND: Lino floor covering			
				38.03	(0.19)	MADE GROUND: reinforced concrete, 5mm rebar and plastic membrane.			
					(0.63)	MADE GROUND: Brown, silty sand and gravel . Gravel is fine to coarse, angular to subangular fragments of brick, hardcore and flint.			
0.80	E2 PID = 1238ppm			37.40	0.85	Between 0.40m and 0.80m: Grey brown Complete at 0.85m			
Remarks Borehole was dry Back filled with arisings upon completion. Unable to progrss pit below 0.85m, very compact material. Excavating from 0.00m to 0.85m.						Scale (approx) 1:40		Logged By JP	
						Figure No. 20958.WS12-08			

 IAN FARMER ASSOCIATES						Site Royal Mail Site, Caversham Road, Reading		Number WS12-08A	
Excavation Method Drive-in Window Sampler		Dimensions		Ground Level (mOD)		Client Royal Mail Group		Job Number 20958	
		Location		Dates 22/09/2012		Engineer Ove Arup and Partners Ltd		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.60	E1 PID = 15.6ppm				(0.20) 0.20 (0.83) 1.03	MADE GROUND: Reinforced concrete with some 8mm rebar (plastic membrane at 0.20m. MADE GROUND: Cobbles of coarse gravel of subrounded to rounded flint, some concrete with some fine material of brown silty, fine to coarse sand and gravel of fine to coarse, angular to subrounded flint and concrete. Clayey sand and gravel north side of pit.		 	
						Complete at 1.03m			
Remarks Unable to progress - loose material cascading into pit faster than able to extract.								Scale (approx) 1:40	Logged By JP
								Figure No. 20958.WS12-08A	

 IAN FARMER ASSOCIATES					Site Royal Mail Site, Caversham Road, Reading		Number WS12-09		
Excavation Method Drive-in Window Sampler		Dimensions PIT to 1.20m		Ground Level (mOD) 38.24		Client Royal Mail Group		Job Number 20958	
		Location 471395.1 E 174004.3 N		Dates 15/09/2012-29/09/2012		Engineer Ove Arup and Partners Ltd		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.25	E1 PID = 4300ppm			38.21	(0.03)	MADE GROUND: Lino floor covering.			
				38.02	(0.19)	MADE GROUND: Reinforce concrete, 8mm rebar and plastic membrane at base.			
0.80	E2 PID = 2800ppm			37.64	(0.22)	MADE GROUND: Brown, very silty, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular fragments of concrete, brick, hardcore and subrounded flint.			
				37.24	(0.40)	MADE GROUND: Greenish brown, silty, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular fragments of brick, hardcore and flint with frequent cobbles of brick and concrete.			
1.80	E3 PID = 410ppm			36.64	(0.60)	MADE GROUND: Grey brown, silty, fine to coarse sand and gravel. Gravel is fine to coarse, angular to subangular concrete, brick, flint and some cobbles of concrete and brick. At 1.40m: Coarse gravel sized pocket of green black clay with no strong odour			
2.20	E4 PID = 83ppm			36.14	2.10	MADE GROUND: Soft to firm, light greyish green, gravelly clay. Gravel is fine to coarse, angular to subangular fragments of brick, chalk and grey siltstone with occasional dark organic packets.			
3.50	E5 PID = 90ppm				(1.40)	Soft, damp, light greyish green mottled grey, silt clay with occasional fine rootlets. (Alluvium)			
				34.74	3.50	Brown, fine to coarse SAND and GRAVEL. Gravel is fine to coarse, angular to subangular flint (River Terrace Deposits)			
				34.24	4.00	Complete at 4.00m			
Remarks Backfilled with arisings upon completion. Unable to retrieve concrete cobbles at 1.00m - pit abandoned on 15/09/2012 Concrete coring for 1.5hours Pit resumed after digging out reinstatement from 1.00m on 29/09/2012							Scale (approx) 1:40	Logged By JP	
							Figure No. 20958.WS12-09		



Royal Mail Site, Caversham Road, Reading

WS12-10

Drive-in Window Sampler

Location

471423.3 E 173990.5 N

38.22

Dates

29/09/2012

Royal Mail Group

Ove Arup and Partners Ltd

Number
00050

20958

1/1

Depth
(m)

Sample / Tests

Water
Depth
(m)

Field Records

Level
(mOD)Depth
(m)
(Thickness)

Description

Legend

Water	
-------	--

38.19
38.12

www.elsevier.com/locate/jmb

(0.03)
0.03

(0.03)
0.03

(0.07)

0.10

MADE GROUND: Lino floor covering

MADE GROUND: Reinforced concrete

Terminated at 0.10m

Remarks	Core barrel jammed on reinforcing bars within concrete at 0.10m. Core barrel was eventually extracted after 3.5 hours. Hole was terminated and reinstated at 0.10m due to time constraints.
---------	---

Scale (approx)

1:40

Logged
By

JP

Figure No.

20958.WS12-10



Royal Mail Site, Caversham Road, Reading

WS12-01

Internal Diameter of Tube [A] = 35 mm

Royal Mail Group

Job Number
20958

471548.9 E 173928.5 N

38.33

Ove Arup and Partners Ltd

Sheet
1/1

Remarks
Plain pipe installed from 0.00m to 0.75m sealed with bentonite. Slotted pipe with geosock installed from 0.75m to 2.30m with a gravel surround. Bentonite seal installed from 2.30m to 4.00m. Gas valve fitted to the top of the pipework, with a cover installed flush with ground level.



**IAN FARMER
ASSOCIATES**

Site

Royal Mail Site, Caversham Road, Reading

**Borehole
Number**

WS12-02

Installation Type
Single Installation

Dimensions

Internal Diameter of Tube [A] = 50 mm

Client

Royal Mail Group

**Job
Number**
20958

Location

471433.5 E 173962.1 N

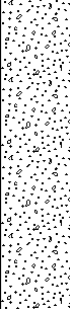
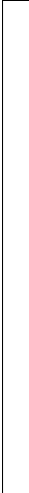
Ground Level (mOD)

38.08

Engineer

Ove Arup and Partners Ltd

Sheet
1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling											
   			37.83	0.25	Concrete	Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)		
											5 min	10 min	15 min	20 min			
						Groundwater Observations During Drilling											
						Date	Start of Shift					End of Shift					
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	
						Instrument Groundwater Observations											
						Inst. [A] Type : Slotted Standpipe											
						Date	Instrument [A]			Remarks							
Time	Depth (m)	Level (mOD)															
			36.08	2.00	Bentonite Seal												
			35.08	3.00													

Remarks

Plain pipe installed from 0.00m to 0.75m sealed with bentonite. Slotted pipe with geosock installed from 0.75m to 2.00m with a gravel surround. Bentonite seal installed from 2.00m to 3.00m. Gas valve fitted to the top of the pipework, with a cover installed flush with ground level.



IAN FARMER ASSOCIATES

Site

Royal Mail Site, Caversham Road, Reading

Borehole Number

WS12-03

Installation Type

Single Installation

Dimensions

Internal Diameter of Tube [A] = 50 mm

Client

Royal Mail Group

Job Number

20958

Location

471398.1 E 173938.2 N

Ground Level (mOD)

37.91

Engineer

Ove Arup and Partners Ltd

Sheet

1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling										
			37.66	0.25	Concrete	Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)	
								1.85			5 min	10 min	15 min	20 min		
			37.11	0.80	Bentonite Seal	Groundwater Observations During Drilling										
						Date	Start of Shift					End of Shift				
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)
			36.01	1.90	Slotted Standpipe	Instrument Groundwater Observations										
						Inst. [A] Type : Slotted Standpipe										
						Date	Instrument [A]			Remarks						
							Time	Depth (m)	Level (mOD)							
			35.41	2.50	Bentonite Seal											

Remarks

Plain pipe installed from 0.00m to 0.80m sealed with bentonite. Slotted pipe with geosock installed from 0.80m to 1.90m with a gravel surround. Bentonite seal installed from 1.90m to 2.50m. Gas valve fitted to the top of the pipework, with a cover installed flush with ground level.



**IAN FARMER
ASSOCIATES**

Site

Royal Mail Site, Caversham Road, Reading

**Borehole
Number**

WS12-04

Installation Type
Single Installation

Dimensions
Internal Diameter of Tube [A] = 50 mm

Client
Royal Mail Group

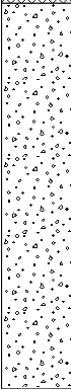
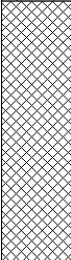
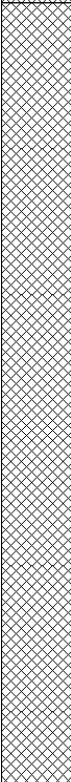
**Job
Number**
20958

Location
471326.9 E 173993.3 N

Ground Level (mOD)
37.76

Engineer
Ove Arup and Partners Ltd

Sheet
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Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling									
			37.51	0.25	Concrete	Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)
											5 min	10 min	15 min	20 min	
					Bentonite Seal	Groundwater Observations During Drilling									
						Date	Start of Shift					End of Shift			
						Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)
			37.26	0.50											
						Instrument Groundwater Observations									
						Inst. [A] Type : Slotted Standpipe									
					Slotted Standpipe	Date	Instrument [A]			Remarks					
						Time	Depth (m)	Level (mOD)							
			36.31	1.45											



Royal Mail Site, Caversham Road, Reading

WS12-05

Internal Diameter of Tube [A] = 50 mm

Royal Mail Group

471325.7 E 173948.7 N

38.02

Ove Arup and Partners Ltd

1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling												
			37.77	0.25	Concrete	Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)			
											5 min	10 min	15 min	20 min				
								1.90				1.80						
						Groundwater Observations During Drilling												
						Date	Start of Shift					End of Shift						
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)		
						Instrument Groundwater Observations												
						Inst. [A] Type : Slotted Standpipe												
						Date	Instrument [A]			Remarks								
Time	Depth (m)	Level (mOD)																
			37.52	0.50	Bentonite Seal													
						Groundwater Observations During Drilling												
						Date	Start of Shift					End of Shift						
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)		
						Instrument Groundwater Observations												
						Inst. [A] Type : Slotted Standpipe												
						Date	Instrument [A]			Remarks								
							Time	Depth (m)	Level (mOD)									
			36.02	2.00	Bentonite Seal													
						Groundwater Observations During Drilling												
						Date	Start of Shift					End of Shift						
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)		
						Instrument Groundwater Observations												
						Inst. [A] Type : Slotted Standpipe												
						Date	Instrument [A]			Remarks								
							Time	Depth (m)	Level (mOD)									
			35.02	3.00	Bentonite Seal													
						Groundwater Observations During Drilling												
						Date	Start of Shift					End of Shift						
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)		
						Instrument Groundwater Observations												
						Inst. [A] Type : Slotted Standpipe												
						Date	Instrument [A]			Remarks								
							Time	Depth (m)	Level (mOD)									

Plain pipe installed from 0.00m to 0.50m sealed with bentonite. Slotted pipe with geosock installed from 0.50m to 2.00m with a gravel surround. Bentonite seal installed from 2.00m to 3.00m. Gas valve fitted to the top of the pipework, with a cover installed flush with ground level.



**IAN FARMER
ASSOCIATES**

Site

Royal Mail Site, Caversham Road, Reading

**Borehole
Number**

WS12-06

Installation Type
Single Installation

Dimensions

Internal Diameter of Tube [A] = 50 mm

Client

Royal Mail Group

**Job
Number**
20958

Location

471286.7 E 174022.1 N

Ground Level (mOD)

37.75

Engineer

Ove Arup and Partners Ltd

Sheet
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Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling										
			37.50	0.25	Concrete	Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)	
					5 min	10 min	15 min	20 min								
			37.25	0.50	Bentonite Seal			1.30								
					Slotted Standpipe	Groundwater Observations During Drilling										
			36.75	1.00		Date	Start of Shift					End of Shift				
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)
	∇_1				Bentonite Seal	Instrument Groundwater Observations										
						Inst. [A] Type : Slotted Standpipe										
						Date	Instrument [A]			Remarks						
							Time	Depth (m)	Level (mOD)							
			35.55	2.20	General Backfill											
			34.75	3.00												

Remarks

Plain pipe installed from 0.00m to 0.50m sealed with bentonite. Slotted pipe with geosock installed from 0.50m to 1.00m with a gravel surround. Bentonite seal installed from 1.00m to 2.20m. Backfilled with arisings from 2.20m to 3.00m. Gas valve fitted to the top of the pipework, with a cover installed flush with ground level.



Royal Mail Site, Caversham Road, Reading

WS12-09

Internal Diameter of Tube [A] = 50 mm

Royal Mail Group

**Job
Number**
20958

471395.1 E 174004.3 N

38 24

Ove Arup and Partners Ltd

Sheet
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[illegible]

Plain pipe installed from 0.00m to 1.20m sealed with bentonite. Slotted pipe with geosock installed from 1.20m to 3.20m with a gravel surround. Bentonite seal installed from 3.20m to 4.00m. Gas valve fitted to the top of the pipework, with a cover installed flush with ground level.

Site : Royal Mail Site, Caversham Road, Reading

Client : Royal Mail Group

Engineer: Ove Arup and Partners Ltd

Job Number
20958

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[illegible]

APPENDIX 3
CHEMICAL TESTS

APPENDIX 3

GENERAL NOTES ON CHEMICAL TESTS

A3.1 ACCREDITATION

- A3.1.1 Testing has been carried out to either UKAS or MCERTS accreditation, as specified in the results tables.
- A3.1.2 The unique reference for each sample is as stated on the relevant engineering log. Each sample is logged on a chain of custody, and can be traced from exploratory hole to laboratory. The date of soil samples taken is as per the date shown on the engineering log.
- A3.1.3 Subcontracted results are presented directly on headed paper from the subcontracting laboratory.



2139

Certificate of Analysis



Date: 02/10/2012

Certificate Number: 12-69052

Client: Ian Farmer Associates
Unit 1 Fairfield Court
Seven Stars Industrial Estate
Wheler Road
Coventry
West Midlands
CV3 4LJ

Our Reference: 12-69052

Client Reference: 20958

Contract Title: Caversham Road, Reading

Description: 10 leachate samples
29 soil samples
2 water samples

Date Received: 20 September 2012

Date Started: 21 September 2012

Date Completed: 02 October 2012

Test Procedures: Identified by prefix DETSn (details on request), Asbestos Analysis (DETS 082).

Notes: Observations and interpretations are outside the scope of UKAS accreditation

Approved By:



Rob Brown, Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Information in Support of the Analytical Results

Analysis

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

Organic soil analysis was carried out on an 'as received' sample.

Key

- * Denotes test not included in laboratory scope of accreditation
- # Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo
- \$ Denotes tests completed by an approved subcontractor
- I/S Denotes insufficient sample to carry out test
- U/S Denotes that the sample is not suitable for testing

Disposal

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

Soils - 1 month

Liquids - 2 weeks

Asbestos (test portion) - 6 months

Summary of Chemical Analysis

Matrix Descriptions

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

Sample ID	Other ID	Depth	Sample No	Completed	Matrix Description
WS12-01	2	0.70	446345	02/10/2012	Black dark brown gravelly SAND (made ground includes brick)
WS12-01	3	1.70	446346	02/10/2012	Brown dark grey gravelly sandy CLAY
WS12-01	4	2.40	446347	02/10/2012	Brown grey sandy CLAY
WS12-01	5	3.50	446348	02/10/2012	Brown grey gravelly sandy CLAY
WS12-01	6	3.80	446349	02/10/2012	Brown clayey gravelly SAND
WS12-02	2	0.80-1.50	446350	02/10/2012	Brown clayey gravelly SAND (made ground includes brick)
WS12-02	3	0.80-1.50	446351	02/10/2012	Brown gravelly sandy CLAY
WS12-02	4	2.20	446352	02/10/2012	Brown gravelly SAND
WS12-03	1	0.20	446353	02/10/2012	Brown very gravelly SAND
WS12-03	2	0.90	446354	02/10/2012	Brown white gravelly sandy CLAY
WS12-03	3	2.00	446355	02/10/2012	Brown gravelly SAND
WS12-04	1	0.50	446356	02/10/2012	Brown slightly clayey gravelly SAND
WS12-04	2	0.60	446357	02/10/2012	Dark brown clayey gravelly SAND (made ground includes brick)
WS12-05	1	0.20	446358	02/10/2012	Brown gravelly SAND
WS12-05	3	1.50	446359	02/10/2012	Brown dark grey gravelly sandy SAND
WS12-05	4	2.30	446360	02/10/2012	Brown dark grey gravelly sandy CLAY
WS12-06	1	0.50	446361	02/10/2012	Brown clayey gravelly SAND
WS12-06	2	0.80	446362	02/10/2012	Dark brown clayey gravelly SAND
WS12-06	3	1.30	446363	02/10/2012	Brown clayey gravelly SAND
WS12-06	5	2.40	446364	02/10/2012	Brown orange grey gravelly sandy CLAY
WS12-07	1	0.20	446365	02/10/2012	Light brown gravelly SAND
WS12-07	2	0.70	446366	02/10/2012	Dark brown slightly clayey gravelly SAND (made ground includes brick)
WS12-07A	2	0.60	446368	02/10/2012	Dark brown slightly clayey gravelly SAND (made ground includes brick)
WS12-07B	1	0.20	446369	02/10/2012	Dark brown slightly clayey gravelly SAND
WS12-08	1	0.25	446370	02/10/2012	Brown gravelly SAND
WS12-08	2	0.80	446371	02/10/2012	Brown clayey gravelly SAND
WS12-09	1	0.25	446372	02/10/2012	Brown clayey gravelly SAND
WS12-09	2	0.80	446373	02/10/2012	Brown clayey slightly gravelly SAND (made ground includes brick)

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446345	446346	446347	446348	446349
				Sample ID	WS12-01	WS12-01	WS12-01	WS12-01	WS12-01
				Depth	0.70	1.70	2.40	3.50	3.80
				Sample Ref	2	3	4	5	6
				Sample Type					
				Sampling Date	14/09/2012	14/09/2012	14/09/2012	14/09/2012	14/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Antimony	mg/kg	DETS 042*	1	4.0	1.6	2.4	1.8	1.1	
Arsenic	mg/kg	DETS 042#	0.2	9.3	14	25	18	17	
Beryllium	mg/kg	DETS 042#	0.2	1.4	0.6	1.0	1.0	0.5	
Cadmium	mg/kg	DETS 042#	0.1	1.0	1.4	2.6	2.4	1.6	
Chromium	mg/kg	DETS 042#	0.15	24	28	44	37	15	
Copper	mg/kg	DETS 042#	0.2	84	28	18	18	11	
Lead	mg/kg	DETS 042#	0.3	89	31	15	13	6.4	
Mercury	mg/kg	DETSC 2325#	0.05	15	26	1.0	0.16	0.06	
Nickel	mg/kg	DETS 042#	1	63	20	23	27	16	
Selenium	mg/kg	DETS 042#	0.5	< 0.5	< 0.5	0.8	< 0.5	0.9	
Vanadium	mg/kg	DETS 042#	0.8	31	42	67	60	33	
Zinc	mg/kg	DETS 042#	1	51	39	82	51	27	
Boron (water soluble)	mg/kg	DETS 020#	0.2	2.8	1.1	1.7	1.1	0.9	
Cyanide total	mg/kg	DETSC 2130#	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Total Organic Carbon	%	DETSC 2002#	0.1	3.3	0.4	0.6	0.3	0.2	
pH		DETSC 2008#		10.3	8.2	7.8	7.7	7.9	
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5	4.6	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4	32	< 3.4	< 3.4	< 3.4	< 3.4	
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6	2.2	< 0.6	< 0.6	< 0.6	< 0.6	
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4	15	< 1.4	< 1.4	< 1.4	< 1.4	
Aliphatic C5-C35	mg/kg	DETSC 3072*	10	38	< 10	< 10	< 10	< 10	
Aromatic C5-C35	mg/kg	DETSC 3072*	10	17	< 10	< 10	< 10	< 10	
TPH Ali/Aro	mg/kg	DETSC 3072*	10	55	< 10	< 10	< 10	< 10	
Benzene	mg/kg	DETS 062#	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	
PCB 105	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 114	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 118	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 123	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 126	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446345	446346	446347	446348	446349
				Sample ID	WS12-01	WS12-01	WS12-01	WS12-01	WS12-01
				Depth	0.70	1.70	2.40	3.50	3.80
				Sample Ref	2	3	4	5	6
				Sample Type					
				Sampling Date	14/09/2012	14/09/2012	14/09/2012	14/09/2012	14/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
PCB 156	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 157	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 167	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 169	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 189	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 77	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 81	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	mg/kg	DETSC 3303	0.03	0.06	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg	DETSC 3303#	0.03	0.20	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	mg/kg	DETSC 3303#	0.03	0.12	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	mg/kg	DETSC 3303#	0.03	0.08	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	mg/kg	DETSC 3303#	0.03	0.08	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	mg/kg	DETSC 3303#	0.03	0.06	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chrysene	mg/kg	DETSC 3303	0.03	0.25	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg	DETSC 3303#	0.03	0.40	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	mg/kg	DETSC 3303	0.03	0.04	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3303#	0.03	0.06	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Naphthalene	mg/kg	DETSC 3303#	0.03	0.05	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	mg/kg	DETSC 3303#	0.03	0.30	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pyrene	mg/kg	DETSC 3303#	0.03	0.34	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Total PAH - USEPA 16	mg/kg	DETSC 3303	0.1	2.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446350	446351	446352	446353	446354
				Sample ID	WS12-02	WS12-02	WS12-02	WS12-03	WS12-03
				Depth	0.80-1.50	0.80-1.50	2.20	0.20	0.90
				Sample Ref	2	3	4	1	2
				Sample Type					
				Sampling Date	13/09/2012	13/09/2012	13/09/2012	13/09/2012	13/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Antimony	mg/kg	DETS 042*	1	1.9	1.2	1.4	< 1.0	1.6	
Arsenic	mg/kg	DETS 042#	0.2	9.0	15	28	3.8	33	
Beryllium	mg/kg	DETS 042#	0.2	0.3	0.6	0.5	< 0.2	0.5	
Cadmium	mg/kg	DETS 042#	0.1	1.1	4.3	2.4	0.7	1.3	
Chromium	mg/kg	DETS 042#	0.15	11	20	16	3.6	16	
Copper	mg/kg	DETS 042#	0.2	59	34	9.4	8.7	34	
Lead	mg/kg	DETS 042#	0.3	120	64	8.1	19	18	
Mercury	mg/kg	DETSC 2325#	0.05	1.3	0.43	< 0.05	0.27	0.83	
Nickel	mg/kg	DETS 042#	1	9.3	16	17	4.2	13	
Selenium	mg/kg	DETS 042#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Vanadium	mg/kg	DETS 042#	0.8	20	36	42	5.7	30	
Zinc	mg/kg	DETS 042#	1	97	100	35	130	45	
Boron (water soluble)	mg/kg	DETS 020#	0.2	1.3	1.3	0.8	0.7	0.9	
Cyanide total	mg/kg	DETSC 2130#	0.1	< 0.1	0.2	0.1	0.1	0.3	
Total Organic Carbon	%	DETSC 2002#	0.1	0.6	0.7	< 0.1	0.2	0.3	
pH		DETSC 2008#		9.2	9.3	8.6	10.0	8.9	
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6	< 0.6	6.2	< 0.6	1.2	< 0.6	
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4	< 1.4	5.2	< 1.4	< 1.4	< 1.4	
Aliphatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	< 10	< 10	< 10	
Aromatic C5-C35	mg/kg	DETSC 3072*	10	< 10	11	< 10	< 10	< 10	
TPH Ali/Aro	mg/kg	DETSC 3072*	10	< 10	11	< 10	< 10	< 10	
Benzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	< 0.3	< 0.3	0.3	0.6	1.6	
PCB 105	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 114	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 118	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 123	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 126	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446350	446351	446352	446353	446354
				Sample ID	WS12-02	WS12-02	WS12-02	WS12-03	WS12-03
				Depth	0.80-1.50	0.80-1.50	2.20	0.20	0.90
				Sample Ref	2	3	4	1	2
				Sample Type					
				Sampling Date	13/09/2012	13/09/2012	13/09/2012	13/09/2012	13/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
PCB 156	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 157	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 167	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 169	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 189	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 77	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 81	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	mg/kg	DETSC 3303#	0.03	< 0.03	0.09	< 0.03	0.05	< 0.03	< 0.03
Acenaphthylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	mg/kg	DETSC 3303	0.03	< 0.03	0.19	< 0.03	0.07	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg	DETSC 3303#	0.03	0.10	0.46	< 0.03	0.14	< 0.03	< 0.03
Benzo(a)pyrene	mg/kg	DETSC 3303#	0.03	0.06	0.25	< 0.03	0.09	< 0.03	< 0.03
Benzo(b)fluoranthene	mg/kg	DETSC 3303#	0.03	0.11	0.34	< 0.03	0.13	< 0.03	< 0.03
Benzo(k)fluoranthene	mg/kg	DETSC 3303#	0.03	0.04	0.13	< 0.03	0.05	< 0.03	< 0.03
Benzo(g,h,i)perylene	mg/kg	DETSC 3303#	0.03	0.04	0.10	< 0.03	0.05	< 0.03	< 0.03
Chrysene	mg/kg	DETSC 3303	0.03	0.11	0.46	< 0.03	0.16	< 0.03	< 0.03
Dibenzo(a,h)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg	DETSC 3303#	0.03	0.19	0.15	< 0.03	0.37	< 0.03	< 0.03
Fluorene	mg/kg	DETSC 3303	0.03	< 0.03	0.11	< 0.03	0.05	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3303#	0.03	0.04	0.12	< 0.03	0.05	< 0.03	< 0.03
Naphthalene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	mg/kg	DETSC 3303#	0.03	0.07	0.97	< 0.03	0.38	< 0.03	< 0.03
Pyrene	mg/kg	DETSC 3303#	0.03	0.18	1.1	< 0.03	0.31	< 0.03	< 0.03
Total PAH - USEPA 16	mg/kg	DETSC 3303	0.1	0.95	5.8	< 0.10	1.9	< 0.10	< 0.10

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446355	446356	446357	446358	446359
				Sample ID	WS12-03	WS12-04	WS12-04	WS12-05	WS12-05
				Depth	2.00	0.50	0.60	0.20	1.50
				Sample Ref	3	1	2	1	3
				Sample Type					
				Sampling Date	13/09/2012	12/09/2012	12/09/2012	13/09/2012	13/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Antimony	mg/kg	DETS 042*	1	1.2	< 1.0	1.9	< 1.0	2.8	
Arsenic	mg/kg	DETS 042#	0.2	22	4.1	12	10	17	
Beryllium	mg/kg	DETS 042#	0.2	0.4	< 0.2	0.5	0.3	0.6	
Cadmium	mg/kg	DETS 042#	0.1	1.8	0.6	1.3	1.0	3.4	
Chromium	mg/kg	DETS 042#	0.15	14	4.1	14	9.7	19	
Copper	mg/kg	DETS 042#	0.2	9.0	2.6	50	7.8	95	
Lead	mg/kg	DETS 042#	0.3	6.5	23	88	11	450	
Mercury	mg/kg	DETSC 2325#	0.05	0.06	< 0.05	0.61	< 0.05	0.79	
Nickel	mg/kg	DETS 042#	1	14	2.6	14	8.9	24	
Selenium	mg/kg	DETS 042#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Vanadium	mg/kg	DETS 042#	0.8	34	6.1	29	18	33	
Zinc	mg/kg	DETS 042#	1	96	99	76	29	74	
Boron (water soluble)	mg/kg	DETS 020#	0.2	0.7	0.9	2.8	1.9	1.4	
Cyanide total	mg/kg	DETSC 2130#	0.1	0.7	0.2	0.3	0.5	0.5	
Total Organic Carbon	%	DETSC 2002#	0.1	< 0.1	< 0.1	0.8	0.1	1.2	
pH		DETSC 2008#		8.6	10.5	12.0	11.4	9.4	
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	2.3	< 0.01	< 0.01	
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2	< 1.2	< 1.2	3.7	< 1.2	3.9	
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	23	< 1.5	28	
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4	< 3.4	< 3.4	90	< 3.4	43	
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	1.3	< 0.01	< 0.01	
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5	< 0.5	< 0.5	4.7	< 0.5	6.6	
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6	< 0.6	< 0.6	15	< 0.6	22	
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4	< 1.4	< 1.4	48	< 1.4	32	
Aliphatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	120	< 10	75	
Aromatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	69	< 10	61	
TPH Ali/Aro	mg/kg	DETSC 3072*	10	< 10	< 10	190	< 10	140	
Benzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	0.02	< 0.01	< 0.01	
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	1.6	1.0	1.5	2.3	1.0	
PCB 105	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 114	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 118	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 123	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 126	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446355	446356	446357	446358	446359
				Sample ID	WS12-03	WS12-04	WS12-04	WS12-05	WS12-05
				Depth	2.00	0.50	0.60	0.20	1.50
				Sample Ref	3	1	2	1	3
				Sample Type					
				Sampling Date	13/09/2012	12/09/2012	12/09/2012	13/09/2012	13/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
PCB 156	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 157	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 167	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 169	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 189	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 77	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 81	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.05	< 0.03	< 0.03	< 0.03
Acenaphthylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	0.09	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.26	< 0.03	< 0.03	0.10
Benzo(a)pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.16	< 0.03	< 0.03	0.06
Benzo(b)fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.27	< 0.03	< 0.03	0.12
Benzo(k)fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.10	< 0.03	< 0.03	0.04
Benzo(g,h,i)perylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.09	< 0.03	< 0.03	0.04
Chrysene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	0.31	< 0.03	< 0.03	0.12
Dibenzo(a,h)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.71	< 0.03	< 0.03	0.23
Fluorene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	0.04	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.11	< 0.03	< 0.03	0.05
Naphthalene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.19	< 0.03	< 0.03	< 0.03
Phenanthrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.46	< 0.03	< 0.03	0.14
Pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.66	< 0.03	< 0.03	0.20
Total PAH - USEPA 16	mg/kg	DETSC 3303	0.1	< 0.10	< 0.10	3.5	< 0.10	< 0.10	1.1

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446360	446361	446362	446363	446364
				Sample ID	WS12-05	WS12-06	WS12-06	WS12-06	WS12-06
				Depth	2.30	0.50	0.80	1.30	2.40
				Sample Ref	4	1	2	3	5
				Sample Type					
				Sampling Date	13/09/2012	12/09/2012	12/09/2012	12/09/2012	12/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Antimony	mg/kg	DETS 042*	1	2.4	< 1.0	< 1.0	1.5	1.4	
Arsenic	mg/kg	DETS 042#	0.2	14	4.1	8.7	18	24	
Beryllium	mg/kg	DETS 042#	0.2	0.6	< 0.2	0.3	0.8	0.5	
Cadmium	mg/kg	DETS 042#	0.1	3.3	0.4	1.1	2.0	2.2	
Chromium	mg/kg	DETS 042#	0.15	22	13	14	30	16	
Copper	mg/kg	DETS 042#	0.2	74	4.0	12	12	12	
Lead	mg/kg	DETS 042#	0.3	100	24	22	14	8.2	
Mercury	mg/kg	DETSC 2325#	0.05	0.48	< 0.05	< 0.05	< 0.05	< 0.05	
Nickel	mg/kg	DETS 042#	1	25	5.7	9.6	21	16	
Selenium	mg/kg	DETS 042#	0.5	< 0.5	1.2	< 0.5	< 0.5	< 0.5	
Vanadium	mg/kg	DETS 042#	0.8	32	5.8	60	49	36	
Zinc	mg/kg	DETS 042#	1	61	62	23	51	40	
Boron (water soluble)	mg/kg	DETS 020#	0.2	1.4	1.0	2.3	1.4	0.8	
Cyanide total	mg/kg	DETSC 2130#	0.1	1.4	0.2	0.1	0.2	< 0.1	
Total Organic Carbon	%	DETSC 2002#	0.1	0.7	0.1	0.3	0.5	< 0.1	
pH		DETSC 2008#		9.5	9.4	10.4	8.6	8.7	
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	
Aliphatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	< 10	< 10	< 10	
Aromatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	< 10	< 10	< 10	
TPH Ali/Aro	mg/kg	DETSC 3072*	10	< 10	< 10	< 10	< 10	< 10	
Benzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	1.1	0.9	1.2	1.1	0.6	
PCB 105	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01		
PCB 114	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01		
PCB 118	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01		
PCB 123	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01		
PCB 126	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01		

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446360	446361	446362	446363	446364
				Sample ID	WS12-05	WS12-06	WS12-06	WS12-06	WS12-06
				Depth	2.30	0.50	0.80	1.30	2.40
				Sample Ref	4	1	2	3	5
				Sample Type					
				Sampling Date	13/09/2012	12/09/2012	12/09/2012	12/09/2012	12/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
PCB 156	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01	< 0.01	
PCB 157	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01	< 0.01	
PCB 167	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01	< 0.01	
PCB 169	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01	< 0.01	
PCB 189	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01	< 0.01	
PCB 77	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01	< 0.01	
PCB 81	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01	< 0.01	
Acenaphthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chrysene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Naphthalene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Total PAH - USEPA 16	mg/kg	DETSC 3303	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446365	446366	446368	446369	446370
				Sample ID	WS12-07	WS12-07	WS12-07A	WS12-07B	WS12-08
				Depth	0.20	0.70	0.60	0.20	0.25
				Sample Ref	1	2	2	1	1
				Sample Type					
				Sampling Date	12/09/2012	12/09/2012	14/09/2012	14/09/2012	15/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Antimony	mg/kg	DETS 042*	1	< 1.0	8.5	5.1	< 1.0	< 1.0	
Arsenic	mg/kg	DETS 042#	0.2	3.2	13	17	4.9	4.9	
Beryllium	mg/kg	DETS 042#	0.2	< 0.2	0.5	0.6	< 0.2	< 0.2	
Cadmium	mg/kg	DETS 042#	0.1	0.7	2.0	2.1	0.6	0.6	
Chromium	mg/kg	DETS 042#	0.15	4.0	9.5	10	4.8	6.1	
Copper	mg/kg	DETS 042#	0.2	2.6	81	97	17	14	
Lead	mg/kg	DETS 042#	0.3	26	530	510	69	48	
Mercury	mg/kg	DETSC 2325#	0.05	< 0.05	0.89	1.9	0.33	0.24	
Nickel	mg/kg	DETS 042#	1	1.7	16	19	4.6	5.2	
Selenium	mg/kg	DETS 042#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Vanadium	mg/kg	DETS 042#	0.8	4.3	21	25	8.2	8.4	
Zinc	mg/kg	DETS 042#	1	130	130	130	64	55	
Boron (water soluble)	mg/kg	DETS 020#	0.2	0.5	1.7	1.5	1.1	1.8	
Cyanide total	mg/kg	DETSC 2130#	0.1	0.1	< 0.1	0.2	0.6	< 0.1	
Total Organic Carbon	%	DETSC 2002#	0.1	< 0.1	2.8	3.5	0.5	0.2	
pH		DETSC 2008#		9.1	10.4	9.5	10.2	10.9	
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	2.7	3.5	1.8	
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4	< 3.4	7.2	12	9.0	16	
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6	< 0.6	2.1	4.3	3.4	< 0.6	
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4	< 1.4	9.7	11	7.6	7.9	
Aliphatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	15	13	18	
Aromatic C5-C35	mg/kg	DETSC 3072*	10	< 10	12	15	11	< 10	
TPH Ali/Aro	mg/kg	DETSC 3072*	10	< 10	19	30	24	26	
Benzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	0.8	0.4	< 0.3	0.8	< 0.3	
PCB 105	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 114	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 118	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 123	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
PCB 126	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446365	446366	446368	446369	446370
				Sample ID	WS12-07	WS12-07	WS12-07A	WS12-07B	WS12-08
				Depth	0.20	0.70	0.60	0.20	0.25
				Sample Ref	1	2	2	1	1
				Sample Type					
				Sampling Date	12/09/2012	12/09/2012	14/09/2012	14/09/2012	15/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
PCB 156	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 157	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 167	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 169	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 189	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 77	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 81	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	mg/kg	DETSC 3303	0.03	< 0.03	0.06	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	0.22	0.11	0.14	< 0.03	< 0.03
Benzo(a)pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	0.17	0.07	0.10	< 0.03	< 0.03
Benzo(b)fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	0.29	0.12	0.17	< 0.03	< 0.03
Benzo(k)fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	0.09	0.04	0.06	< 0.03	< 0.03
Benzo(g,h,i)perylene	mg/kg	DETSC 3303#	0.03	< 0.03	0.08	0.04	0.07	< 0.03	< 0.03
Chrysene	mg/kg	DETSC 3303	0.03	< 0.03	0.24	0.12	0.18	< 0.03	< 0.03
Dibenzo(a,h)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	0.42	0.24	0.25	< 0.03	< 0.03
Fluorene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	0.09	0.04	0.08	< 0.03	< 0.03
Naphthalene	mg/kg	DETSC 3303#	0.03	< 0.03	0.05	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	mg/kg	DETSC 3303#	0.03	< 0.03	0.28	0.19	0.09	< 0.03	< 0.03
Pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	0.37	0.20	0.23	< 0.03	< 0.03
Total PAH - USEPA 16	mg/kg	DETSC 3303	0.1	< 0.10	2.4	1.2	1.3	< 0.10	< 0.10

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446371	446372	446373
				Sample ID	WS12-08	WS12-09	WS12-09
				Depth	0.80	0.25	0.80
				Sample Ref	2	1	2
				Sample Type			
				Sampling Date	15/09/2012	15/09/2012	15/09/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Antimony	mg/kg	DETS 042*	1		1.7	< 1.0	1.6
Arsenic	mg/kg	DETS 042#	0.2		6.6	5.3	7.4
Beryllium	mg/kg	DETS 042#	0.2		0.3	< 0.2	0.2
Cadmium	mg/kg	DETS 042#	0.1		0.8	0.5	0.9
Chromium	mg/kg	DETS 042#	0.15		9.4	5.4	8.6
Copper	mg/kg	DETS 042#	0.2		26	11	130
Lead	mg/kg	DETS 042#	0.3		81	44	69
Mercury	mg/kg	DETSC 2325#	0.05		0.42	0.28	0.43
Nickel	mg/kg	DETS 042#	1		11	5.6	9.4
Selenium	mg/kg	DETS 042#	0.5		< 0.5	< 0.5	< 0.5
Vanadium	mg/kg	DETS 042#	0.8		18	10	12
Zinc	mg/kg	DETS 042#	1		42	58	170
Boron (water soluble)	mg/kg	DETS 020#	0.2		2.3	1.8	1.7
Cyanide total	mg/kg	DETSC 2130#	0.1		< 0.1	< 0.1	< 0.1
Total Organic Carbon	%	DETSC 2002#	0.1		0.4	0.6	0.5
pH		DETSC 2008#			11.0	10.4	10.3
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5		< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2		2.9	< 1.2	< 1.2
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5		8.4	< 1.5	12
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4		24	11	120
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9		< 0.9	< 0.9	< 0.9
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5		1.2	< 0.5	< 0.5
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6		6.6	< 0.6	9.7
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4		19	< 1.4	82
Aliphatic C5-C35	mg/kg	DETSC 3072*	10		35	12	130
Aromatic C5-C35	mg/kg	DETSC 3072*	10		26	< 10	92
TPH Ali/Aro	mg/kg	DETSC 3072*	10		61	12	220
Benzene	mg/kg	DETS 062#	0.01		< 0.01	< 0.01	< 0.01
Ethylbenzene	mg/kg	DETS 062#	0.01		< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETS 062#	0.01		< 0.01	< 0.01	< 0.01
Xylene	mg/kg	DETS 062#	0.01		< 0.01	< 0.01	< 0.01
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3		< 0.3	< 0.3	0.4
PCB 105	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01
PCB 114	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01
PCB 118	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01
PCB 123	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01
PCB 126	mg/kg	DETSC 3401*	0.01		< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446371	446372	446373
				Sample ID	WS12-08	WS12-09	WS12-09
				Depth	0.80	0.25	0.80
				Sample Ref	2	1	2
				Sample Type			
				Sampling Date	15/09/2012	15/09/2012	15/09/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
PCB 156	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 157	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 167	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 169	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 189	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 77	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 81	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	mg/kg	DETSC 3303	0.03	0.04	0.04	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg	DETSC 3303#	0.03	0.12	0.09	0.09	0.09
Benzo(a)pyrene	mg/kg	DETSC 3303#	0.03	0.06	0.06	0.06	0.06
Benzo(b)fluoranthene	mg/kg	DETSC 3303#	0.03	0.11	0.09	0.10	0.10
Benzo(k)fluoranthene	mg/kg	DETSC 3303#	0.03	0.04	0.04	< 0.03	< 0.03
Benzo(g,h,i)perylene	mg/kg	DETSC 3303#	0.03	0.04	0.04	0.04	0.04
Chrysene	mg/kg	DETSC 3303	0.03	0.12	0.09	0.10	0.10
Dibenzo(a,h)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg	DETSC 3303#	0.03	0.40	0.24	0.18	0.18
Fluorene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3303#	0.03	0.05	0.04	0.04	0.04
Naphthalene	mg/kg	DETSC 3303#	0.03	< 0.03	0.06	< 0.03	< 0.03
Phenanthrene	mg/kg	DETSC 3303#	0.03	0.51	0.20	0.10	0.10
Pyrene	mg/kg	DETSC 3303#	0.03	0.28	0.18	0.18	0.18
Total PAH - USEPA 16	mg/kg	DETSC 3303	0.1	1.8	1.2	0.89	0.89

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446345	446349	446350	446351	446357
				Sample ID	WS12-01	WS12-01	WS12-02	WS12-02	WS12-04
				Depth	0.70	3.80	0.80-1.50	0.80-1.50	0.60
				Sample Ref	2	6	2	3	2
				Sample Type					
				Sampling Date	14/09/2012	14/09/2012	13/09/2012	13/09/2012	12/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Total VOC's	mg/kg	DETSC 3431*	0.01		0.06	0.13	0.13	0.10	0.20
1,1 Dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2,2-dichlororopropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromochloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromomethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromodichloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
m+p-Xylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
o-Xylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Styrene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromoform	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Isopropylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-propylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-chlorotoluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-chlorotoluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
sec-butylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446345	446349	446350	446351	446357
				Sample ID	WS12-01	WS12-01	WS12-02	WS12-02	WS12-04
				Depth	0.70	3.80	0.80-1.50	0.80-1.50	0.60
				Sample Ref	2	6	2	3	2
				Sample Type					
				Sampling Date	14/09/2012	14/09/2012	13/09/2012	13/09/2012	12/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
p-isopropyltoluene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.08
1,4-dichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-butylbenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Naphthalene	mg/kg	DETSC 3431*	0.01	0.06	0.13	0.13	0.10	0.12	
1,2,3-trichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Vinyl Chloride	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1-butanol, 2-methyl- (TIC)	mg/kg	DETSC 3431*					1.123	1.268	
1S-.alpha.-pinene (TIC)	mg/kg	DETSC 3431*						2.976	
heptane, 2,2-dimethyl- (TIC)	mg/kg	DETSC 3431*				1.17			
hexane, 3,4-dimethyl- (TIC)	mg/kg	DETSC 3431*							
pentane, 2,3-dimethyl- (TIC)	mg/kg	DETSC 3431*							

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446358	446363	446370	446372
				Sample ID	WS12-05	WS12-06	WS12-08	WS12-09
				Depth	0.20	1.30	0.25	0.25
				Sample Ref	1	3	1	1
				Sample Type				
				Sampling Date	13/09/2012	12/09/2012	15/09/2012	15/09/2012
				Sampling Time				
Test	Units	DETSxx	LOD					
Total VOC's	mg/kg	DETSC 3431*	0.01		0.08	0.13	0.08	0.26
1,1 Dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
2,2-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Bromochloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Trichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Dibromomethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Bromodichloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
m+p-Xylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
o-Xylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Styrene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Bromoform	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Isopropylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Bromobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
n-propylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
2-chlorotoluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
4-chlorotoluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
sec-butylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446358	446363	446370	446372
				Sample ID	WS12-05	WS12-06	WS12-08	WS12-09
				Depth	0.20	1.30	0.25	0.25
				Sample Ref	1	3	1	1
				Sample Type				
				Sampling Date	13/09/2012	12/09/2012	15/09/2012	15/09/2012
				Sampling Time				
Test	Units	DETSxx	LOD					
p-isopropyltoluene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-butylbenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Naphthalene	mg/kg	DETSC 3431*	0.01	0.08	0.13	0.08	0.26	
1,2,3-trichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Vinyl Chloride	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1-butanol, 2-methyl- (TIC)	mg/kg	DETSC 3431*						
1S-.alpha.-pinene (TIC)	mg/kg	DETSC 3431*						
heptane, 2,2-dimethyl- (TIC)	mg/kg	DETSC 3431*						
hexane, 3,4-dimethyl- (TIC)	mg/kg	DETSC 3431*						1.155
pentane, 2,3-dimethyl- (TIC)	mg/kg	DETSC 3431*		1.299		1.304		

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446345	446349	446350	446351	446357
				Sample ID	WS12-01	WS12-01	WS12-02	WS12-02	WS12-04
				Depth	0.70	3.80	0.80-1.50	0.80-1.50	0.60
				Sample Ref	2	6	2	3	2
				Sample Type					
				Sampling Date	14/09/2012	14/09/2012	13/09/2012	13/09/2012	12/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Phenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	0.2	< 0.1	< 0.1
3-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	0.4	< 0.1	< 0.1
4-Nitrophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	0.2	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	0.5	< 0.1	< 0.1
4-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diphenylamine	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pentachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	DETS 071*	0.1	0.3	< 0.1	0.2	3.8	0.5	
Anthracene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	1.0	< 0.1	< 0.1
Di-n-butylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	DETS 071*	0.1	0.4	< 0.1	0.3	6.3	0.7	
Pyrene	mg/kg	DETS 071*	0.1	0.4	< 0.1	0.3	5.6	0.7	
Butylbenzylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	DETS 071*	0.1	0.3	< 0.1	0.2	2.5	0.4	

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446345	446349	446350	446351	446357
				Sample ID	WS12-01	WS12-01	WS12-02	WS12-02	WS12-04
				Depth	0.70	3.80	0.80-1.50	0.80-1.50	0.60
				Sample Ref	2	6	2	3	2
				Sample Type					
				Sampling Date	14/09/2012	14/09/2012	13/09/2012	13/09/2012	12/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Chrysene	mg/kg	DETS 071*	0.1	0.3	< 0.1	0.2	2.1	0.3	
Bis(2-ethylhexyl)phthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Di-n-octylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(b)fluoranthene	mg/kg	DETS 071*	0.1	0.3	< 0.1	0.2	1.9	0.3	
Benzo(k)fluoranthene	mg/kg	DETS 071*	0.1	0.1	< 0.1	< 0.1	0.8	0.1	
Benzo(a)pyrene	mg/kg	DETS 071*	0.1	0.2	< 0.1	0.2	1.6	0.2	
Indeno(123cd)pyrene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	0.6	0.1	
Dibenzo(ah)anthracene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	0.2	< 0.1	
Benzo(ghi)perylene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	0.7	0.1	
1,4-Dinitrobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Dimethylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
1,3-Dinitrobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
1,2-Dinitrobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
2,3,5,6-Tetrachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Azobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Carbazole	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	0.2	< 0.1	

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446358	446363	446370	446372
				Sample ID	WS12-05	WS12-06	WS12-08	WS12-09
				Depth	0.20	1.30	0.25	0.25
				Sample Ref	1	3	1	1
				Sample Type				
				Sampling Date	13/09/2012	12/09/2012	15/09/2012	15/09/2012
				Sampling Time				
Test	Units	DETSxx	LOD					
Phenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitrophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diphenylamine	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pentachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2
Anthracene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-butylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.3
Pyrene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.3
Butylbenzylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446358	446363	446370	446372
				Sample ID	WS12-05	WS12-06	WS12-08	WS12-09
				Depth	0.20	1.30	0.25	0.25
				Sample Ref	1	3	1	1
				Sample Type				
				Sampling Date	13/09/2012	12/09/2012	15/09/2012	15/09/2012
				Sampling Time				
Test	Units	DETSxx	LOD					
Chrysene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Bis(2-ethylhexyl)phthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-octylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Benzo(k)fluoranthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Indeno(123cd)pyrene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Dibenzo(ah)anthracene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2
1,4-Dinitrobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dinitrobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Azobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbazole	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446374	446375
				Sample ID	Field Blank	Trip Blank
				Depth		
				Sample Ref	A	B
				Sample Type		
				Sampling Date	17/09/2012	17/09/2012
				Sampling Time		
Test	Units	DETSxx	LOD			
Antimony, Dissolved	ug/l	DETSC 2306	0.17		1.4	< 0.17
Arsenic, Dissolved	ug/l	DETSC 2306	0.16		2.7	< 0.16
Beryllium, Dissolved	ug/l	DETSC 2306*	0.1		< 0.10	< 0.10
Cadmium, Dissolved	ug/l	DETSC 2306	0.03		0.048	< 0.030
Chromium, Dissolved	ug/l	DETSC 2306	0.25		4.8	< 0.25
Copper, Dissolved	ug/l	DETSC 2306	0.4		20	2.2
Lead, Dissolved	ug/l	DETSC 2306	0.09		1.1	< 0.090
Mercury, Dissolved	ug/l	DETSC 2306	0.01		0.099	< 0.010
Nickel, Dissolved	ug/l	DETSC 2306	0.5		21	< 0.50
Selenium, Dissolved	ug/l	DETSC 2306	0.25		1.3	< 0.25
Vanadium, Dissolved	ug/l	DETSC 2306	0.6		47	< 0.60
Zinc, Dissolved	ug/l	DETSC 2306	1.25		< 1.25	< 1.25
Chloride	mg/l	DETSC 2055*	0.1		0.50	0.49
Total Biochemical Oxygen Demand	mg/l	DETSC 2031	1		< 1.0	< 1.0
Total Chemical Oxygen Demand	mg/l	DETSC 2032	10		< 10.0	< 10.0
Cyanide total	ug/l	DETSC 2130	40		< 40.0	< 40.0
Hardness	mg/l	DETSC 2303*	0.1		369	0.27
Ammoniacal Nitrogen as N	mg/l	DETSC 2207	0.015		0.020	< 0.015
pH		DETSC 2008			8.0	7.0
Aliphatic C5-C6	ug/l	DETSC 3322	0.1		< 0.1	< 0.1
Aliphatic C6-C8	ug/l	DETSC 3322	0.1		< 0.1	< 0.1
Aliphatic C8-C10	ug/l	DETSC 3322	0.1		< 0.1	< 0.1
Aliphatic C10-C12	ug/l	DETSC 3072*	1		< 1.0	< 1.0
Aliphatic C12-C16	ug/l	DETSC 3072*	1		< 1.0	< 1.0
Aliphatic C16-C21	ug/l	DETSC 3072*	1		< 1.0	< 1.0
Aliphatic C21-C35	ug/l	DETSC 3072*	1		< 1.0	< 1.0
Aromatic C5-C7	ug/l	DETSC 3322	0.1		< 0.1	< 0.1
Aromatic C7-C8	ug/l	DETSC 3322	0.1		< 0.1	< 0.1
Aromatic C8-C10	ug/l	DETSC 3322	0.1		< 0.1	< 0.1
Aromatic C10-C12	ug/l	DETSC 3072*	1		< 1.0	< 1.0
Aromatic C12-C16	ug/l	DETSC 3072*	1		< 1.0	< 1.0
Aromatic C16-C21	ug/l	DETSC 3072*	1		< 1.0	< 1.0
Aromatic C21-C35	ug/l	DETSC 3072*	1		< 1.0	< 1.0
Aliphatic C5-C35	ug/l	DETSC 3072*	10		< 10	< 10
Aromatic C5-C35	ug/l	DETSC 3072*	10		< 10	< 10
TPH Ali/Aro	ug/l	DETSC 3072*	10		< 10	< 10
Acenaphthene	ug/l	DETSC 3304	0.03		< 0.03	< 0.03
Acenaphthylene	ug/l	DETSC 3304	0.04		< 0.04	< 0.04
Anthracene	ug/l	DETSC 3304	0.02		< 0.02	< 0.02
Benzo(a)anthracene	ug/l	DETSC 3304	0.04		< 0.04	< 0.04
Benzo(a)pyrene	ug/l	DETSC 3304	0.05		< 0.05	< 0.05
Benzo(b)fluoranthene	ug/l	DETSC 3304	0.02		< 0.02	< 0.02
Benzo(k)fluoranthene	ug/l	DETSC 3304	0.03		< 0.03	< 0.03

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446374	446375
				Sample ID	Field Blank	Trip Blank
				Depth		
				Sample Ref	A	B
				Sample Type		
				Sampling Date	17/09/2012	17/09/2012
				Sampling Time		
Test	Units	DETSxx	LOD			
Benzo(g,h,i)perylene	ug/l	DETSC 3304	0.08	< 0.08	< 0.08	
Chrysene	ug/l	DETSC 3304	0.03	< 0.03	< 0.03	
Dibenzo(a,h)anthracene	ug/l	DETSC 3304	0.06	< 0.06	< 0.06	
Fluoranthene	ug/l	DETSC 3304	0.07	< 0.07	< 0.07	
Fluorene	ug/l	DETSC 3304	0.04	< 0.04	< 0.04	
Indeno(1,2,3-c,d)pyrene	ug/l	DETSC 3304	0.05	< 0.05	< 0.05	
Naphthalene	ug/l	DETSC 3304	0.06	< 0.06	< 0.06	
Phenanthrene	ug/l	DETSC 3304	0.085	< 0.085	< 0.085	
Pyrene	ug/l	DETSC 3304	0.06	< 0.06	< 0.06	
PAH	ug/l	DETSC 3304	0.2	< 0.20	< 0.20	
Benzene	ug/l	DETSC 3322	1	< 1.0	< 1.0	
Ethylbenzene	ug/l	DETSC 3322	1	< 1.0	< 1.0	
Toluene	ug/l	DETSC 3322	1	< 1.0	< 1.0	
Xylene	ug/l	DETSC 3322	1	< 1.0	< 1.0	
Phenol	ug/l	DETS 079*	0.5	< 0.60	< 0.60	
GCMS BroadScan (headspace)		DETSC 3442*		None Detected	None Detected	

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446374	446375
				Sample ID	Field Blank	Trip Blank
				Depth		
				Sample Ref	A	B
				Sample Type		
				Sampling Date	17/09/2012	17/09/2012
				Sampling Time		
Test	Units	DETSxx	LOD			
Total VOC's	ug/l	DETSC 3432*	1		< 1	< 1
1,1 Dichloroethylene	ug/l	DETSC 3432*	1		< 1	< 1
Trans-1,2-dichloroethylene	ug/l	DETSC 3432*	1		< 1	< 1
1,1-dichloroethane	ug/l	DETSC 3432*	1		< 1	< 1
Cis-1,2-dichloroethylene	ug/l	DETSC 3432*	1		< 1	< 1
2,2-dichlororopropane	ug/l	DETSC 3432*	1		< 1	< 1
Bromochloromethane	ug/l	DETSC 3432*	1		< 1	< 1
Chloroform	ug/l	DETSC 3432*	1		< 1	< 1
1,1,1-trichloroethane	ug/l	DETSC 3432*	1		< 1	< 1
1,1-dichloropropene	ug/l	DETSC 3432*	1		< 1	< 1
Carbon tetrachloride	ug/l	DETSC 3432*	1		< 1	< 1
Benzene	ug/l	DETSC 3432*	1		< 1	< 1
1,2-dichloroethane	ug/l	DETSC 3432*	1		< 1	< 1
Trichloroethylene	ug/l	DETSC 3432*	1		< 1	< 1
1,2-dichloropropane	ug/l	DETSC 3432*	1		< 1	< 1
Dibromomethane	ug/l	DETSC 3432*	1		< 1	< 1
Bromodichloromethane	ug/l	DETSC 3432*	1		< 1	< 1
cis-1,3-dichloropropene	ug/l	DETSC 3432*	1		< 1	< 1
Toluene	ug/l	DETSC 3432*	1		< 1	< 1
trans-1,3-dichloropropene	ug/l	DETSC 3432*	1		< 1	< 1
1,1,2-trichloroethane	ug/l	DETSC 3432*	1		< 1	< 1
Tetrachloroethylene	ug/l	DETSC 3432*	1		< 1	< 1
1,3-dichloropropane	ug/l	DETSC 3432*	1		< 1	< 1
Dibromochloromethane	ug/l	DETSC 3432*	1		< 1	< 1
1,2-dibromoethane	ug/l	DETSC 3432*	1		< 1	< 1
Chlorobenzene	ug/l	DETSC 3432*	1		< 1	< 1
1,1,1,2-tetrachloroethane	ug/l	DETSC 3432*	1		< 1	< 1
Ethylbenzene	ug/l	DETSC 3432*	1		< 1	< 1
m+p-Xylene	ug/l	DETSC 3432*	1		< 1	< 1
o-Xylene	ug/l	DETSC 3432*	1		< 1	< 1
Styrene	ug/l	DETSC 3432*	1		< 1	< 1
Bromoform	ug/l	DETSC 3432*	1		< 1	< 1
Isopropylbenzene	ug/l	DETSC 3432*	1		< 1	< 1
Bromobenzene	ug/l	DETSC 3432*	1		< 1	< 1
1,2,3-trichloropropane	ug/l	DETSC 3432*	1		< 1	< 1
n-propylbenzene	ug/l	DETSC 3432*	1		< 1	< 1
2-chlorotoluene	ug/l	DETSC 3432*	1		< 1	< 1
1,3,5-trimethylbenzene	ug/l	DETSC 3432*	1		< 1	< 1
4-chlorotoluene	ug/l	DETSC 3432*	1		< 1	< 1
Tert-butylbenzene	ug/l	DETSC 3432*	1		< 1	< 1
1,2,4-trimethylbenzene	ug/l	DETSC 3432*	1		< 1	< 1
sec-butylbenzene	ug/l	DETSC 3432*	1		< 1	< 1
p-isopropyltoluene	ug/l	DETSC 3432*	1		< 1	< 1

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446374	446375
				Sample ID	Field Blank	Trip Blank
				Depth		
				Sample Ref	A	B
				Sample Type		
				Sampling Date	17/09/2012	17/09/2012
				Sampling Time		
Test	Units	DETSxx	LOD			
1,3-dichlorobenzene	ug/l	DETSC 3432*	1		< 1	< 1
Chloromethane	ug/l	DETSC 3432*	1		< 1	< 1
Trichlorofluoromethane	ug/l	DETSC 3432*	1		< 1	< 1
1,1,2,2-tetrachloroethane	ug/l	DETSC 3432*	1		< 1	< 1
1,4-dichlorobenzene	ug/l	DETSC 3432*	1		< 1	< 1
n-butylbenzene	ug/l	DETSC 3432*	1		< 1	< 1
1,2-dichlorobenzene	ug/l	DETSC 3432*	1		< 1	< 1
1,2-dibromo-3-chloropropane	ug/l	DETSC 3432*	1		< 1	< 1
1,2,4-trichlorobenzene	ug/l	DETSC 3432*	1		< 1	< 1
Hexachlorobutadiene	ug/l	DETSC 3432*	1		< 1	< 1
Naphthalene	ug/l	DETSC 3432*	1		< 1	< 1
1,2,3-trichlorobenzene	ug/l	DETSC 3432*	1		< 1	< 1
Vinyl Chloride	ug/l	DETSC 3432*	1		< 1	< 1

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446374	446375
				Sample ID	Field Blank	Trip Blank
				Depth		
				Sample Ref	A	B
				Sample Type		
				Sampling Date	17/09/2012	17/09/2012
				Sampling Time		
Test	Units	DETSxx	LOD			
Aniline	ug/l	DETS 071*	1	< 1.0	< 1.0	
Phenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
2-Chlorophenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
Bis(2-chloroisopropyl)ether	ug/l	DETS 071*	1	< 1.0	< 1.0	
Benzyl Alcohol	ug/l	DETS 071*	1	< 1.0	< 1.0	
2-Methylphenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
3&4-Methylphenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
2,4-Dimethylphenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
Bis(2-chloroethoxy)methane	ug/l	DETS 071*	1	< 1.0	< 1.0	
2,4-Dichlorophenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
1,2,4-Trichlorobenzene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Naphthalene	ug/l	DETS 071*	1	< 1.0	< 1.0	
4-Chloro-3-methylphenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
2-Methylnaphthalene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Hexachlorocyclopentadiene	ug/l	DETS 071*	1	< 1.0	< 1.0	
2,4,6-Trichlorophenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
2,4,5-Trichlorophenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
2-Chloronaphthalene	ug/l	DETS 071*	1	< 1.0	< 1.0	
2-Nitroaniline	ug/l	DETS 071*	1	< 1.0	< 1.0	
1,4-Dinitrobenzene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Dimethylphthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	
1,3-Dinitrobenzene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Acenaphthylene	ug/l	DETS 071*	1	< 1.0	< 1.0	
2,6-Dinitrotoluene	ug/l	DETS 071*	1	< 1.0	< 1.0	
1,2-Dinitrotoluene	ug/l	DETS 071*	1	< 1.0	< 1.0	
3-Nitroaniline	ug/l	DETS 071*	1	< 1.0	< 1.0	
Acenaphthene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Dibenzofuran	ug/l	DETS 071*	1	< 1.0	< 1.0	
2,4-Dinitrotoluene	ug/l	DETS 071*	1	< 1.0	< 1.0	
4-Nitrophenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
2,3,4,6-Tetrachlorophenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
2,3,5,6-Tetrachlorophenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
Diethylphthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	
Fluorene	ug/l	DETS 071*	1	< 1.0	< 1.0	
4-Chlorophenylphenylether	ug/l	DETS 071*	1	< 1.0	< 1.0	
4-Nitroaniline	ug/l	DETS 071*	1	< 1.0	< 1.0	
Diphenylamine	ug/l	DETS 071*	1	< 1.0	< 1.0	
Azobenzene	ug/l	DETS 071*	1	< 1.0	< 1.0	
4-Bromophenylphenylether	ug/l	DETS 071*	1	< 1.0	< 1.0	
Hexachlorobenzene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Pentachlorophenol	ug/l	DETS 071*	1	< 1.0	< 1.0	
Phenanthrene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Anthracene	ug/l	DETS 071*	1	< 1.0	< 1.0	

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446374	446375
				Sample ID	Field Blank	Trip Blank
				Depth		
				Sample Ref	A	B
				Sample Type		
				Sampling Date	17/09/2012	17/09/2012
				Sampling Time		
Test	Units	DETSxx	LOD			
Carbazole	ug/l	DETS 071*	1	< 1.0	< 1.0	
Di-n-butylphthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	
Butylbenzylphthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	
Bis(2-ethylhexyl)ester	ug/l	DETS 071*	1	< 1.0	< 1.0	
Fluoranthene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Pyrene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Benzo(a)anthracene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Chrysene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Bis(2-ethylhexyl)phthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	
Di-n-octylphthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	
Benzo(b)fluoranthene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Benzo(k)fluoranthene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Benzo(a)pyrene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Indeno(123cd)pyrene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Dibenzo(ah)anthracene	ug/l	DETS 071*	1	< 1.0	< 1.0	
Benzo(ghi)perylene	ug/l	DETS 071*	1	< 1.0	< 1.0	

Summary of Asbestos Analysis

Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

Lab No	Sample Ref	Material Type*	Result	Comment	Analyst
446345	WS12-01 2 0.70	Soil	NAD	None	Jeff Cruddas
446346	WS12-01 3 1.70	Soil	NAD	None	Jeff Cruddas
446350	WS12-02 2 0.80-1.50	Soil	NAD	None	Jeff Cruddas
446351	WS12-02 3 0.80-1.50	Soil	NAD	None	Jeff Cruddas
446353	WS12-03 1 0.20	Soil	NAD	None	Jeff Cruddas
446354	WS12-03 2 0.90	Soil	NAD	None	Jeff Cruddas
446356	WS12-04 1 0.50	Soil	NAD	None	Jeff Cruddas
446357	WS12-04 2 0.60	Soil	Chrysotile	Contains Bundle of Unbound Asbestos Fibres	Jeff Cruddas
446358	WS12-05 1 0.20	Soil	NAD	None	Jeff Cruddas
446359	WS12-05 3 1.50	Soil	NAD	None	Jeff Cruddas
446361	WS12-06 1 0.50	Soil	NAD	None	Jeff Cruddas
446365	WS12-07 1 0.20	Soil	NAD	None	Jeff Cruddas
446366	WS12-07 2 0.70	Soil	Chrysotile	Contains Bundles of Unbound Asbestos Fibres	Jeff Cruddas
446367	WS12-07A 1 0.20	Soil	NAD	None	Jeff Cruddas
446368	WS12-07A 2 0.60	Soil	NAD	None	Jeff Cruddas
446369	WS12-07B 1 0.20	Soil	NAD	None	Jeff Cruddas
446370	WS12-08 1 0.25	Soil	NAD	None	Jeff Cruddas
446371	WS12-08 2 0.80	Soil	NAD	None	Jeff Cruddas
446372	WS12-09 1 0.25	Soil	NAD	None	Jeff Cruddas
446373	WS12-09 2 0.80	Soil	Chrysotile	Contains Bundle of Unbound Asbestos Fibres	Jeff Cruddas

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETS 082 using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.

Summary of Asbestos Analysis Soil Samples

Our Ref: 12-69052

Client Ref: 20958

Contract Title: Caversham Road, Reading

		Lab No.	446357	446366	446373
		Sample Ref	WS12-04	WS12-07	WS12-09
		Depth	0.60	0.70	0.80
		Other Ref	2	2	2
		Sample Type	Soil	Soil	Soil
Test	Units	DETSxx			
Asbestos ID		DETS 082	Chrysotile	Chrysotile	Chrysotile
Total Mass% Asbestos (i+ii)	Mass %		<0.001	<0.001	<0.001
Quantification by Phase Contrast Optical Microscopy (i)	Mass %	DETSC 1102	<0.001	<0.001	<0.001
Gravimetric Quantification (ii)	Mass %	DETSC 1102	na	na	na
Breakdown of Gravimetric Analysis					
Mass of Sample	g		663.76	480.63	814.22
ACMs present*					
Mass of ACM in sample	g				
% ACM by mass	%				
% asbestos in ACM	%				
% asbestos in sample	%				
Potentially Respirable Fibres	Fibres/g	DETSC 1102	not requested	not requested	not requested

* Denotes test or material description outside of UKAS accreditation.

% asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg

denotes deviating sample

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Job Title: Caversham Road, Reading
Client Reference: 20958
Sample ID: WS12-01 / 1.70 / 3 / ES

Job Number: 12-69052
Sample Number: 446377 446346
Date Analysed: 27/09/2012

Test Results On Waste		
Determinand and Method Reference	Units	Result
2002/2084 Total Organic Carbon	%	
2003 Loss On Ignition	%	
3321 BTEX	mg/kg	
3401 PCB's (7 congeners)	mg/kg	
3311 TPH (C10 - C40)	mg/kg	
3301 PAH's	mg/kg	
2008 pH	pH Units	
073 Acid Neutralisation Capacity (pH4)*	mol/kg	
073 Acid Neutralisation Capacity (pH7)*	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
2326 Arsenic as As	<1.0	<1.0	<0.002	<0.01
2302 Barium as Ba*	<1.0	<1.0	<0.02	<0.1
2302 Cadmium as Cd	<2.0	<2.0	<0.004	<0.02
2302 Chromium as Cr	<5.0	<5.0	<0.02	<0.1
2302 Copper as Cu	1	1.1	<0.004	<0.02
2324 Mercury as Hg	<0.05	<0.05	<0.0004	<0.002
2302 Molybdenum as Mo*	<10	<10	<0.02	<0.1
2302 Nickel as Ni	<10	<10	<0.02	<0.1
2302 Lead as Pb	<4.0	<4.0	<0.01	<0.05
2328 Antimony as Sb	<1.0	<1.0	<0.01	<0.05
2302 Selenium as Se	<12	<12	<0.006	<0.03
2302 Zinc as Zn	<1.0	<1.0	<0.002	<0.01
2055 Chloride as Cl	5000	1700	<20	<100
2055 Fluoride as F	280	120	0.56	1.44
2055 Sulphate as SO4	11000	1500	22	<100
2035 Total Dissolved Solids	71000	16000	142	242
2130 Phenol Index	<100	<100	<0.2	<1.0
2033 Dissolved Organic Carbon	2600	<2000	<10	<50
Additional Information				
2008 pH	7.2	7.5		
2009 Conductivity uS/cm	105	23.8		
Temperature*	16	16		

WAC Limit Values		
limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Mass of Sample Kg	0.140
Mass of dry Sample Kg	0.121
Stage 1	
Volume of Leachant L2	0.2220096
Volume of Eluate VE1	0.18
Stage 2	
Volume of Leachant L8	0.965359
Volume of Eluate VE2	0.9

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

*Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions.
Values are correct at time of issue.*

DERWENTSIDE ENVIRONMENTAL TESTING SERVICES LIMITED

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Job Title: Caversham Road, Reading
Client Reference: 20958
Sample ID: WS12-04 / 0.60 / 2 / ES

Job Number: 12-69052
Sample Number: 446379 446357
Date Analysed: 27/09/2012

Test Results On Waste		
Determinand and Method Reference	Units	Result
2002/2084 Total Organic Carbon	%	
2003 Loss On Ignition	%	
3321 BTEX	mg/kg	
3401 PCB's (7 congeners)	mg/kg	
3311 TPH (C10 - C40)	mg/kg	
3301 PAH's	mg/kg	
2008 pH	pH Units	
073 Acid Neutralisation Capacity (pH4)*	mol/kg	
073 Acid Neutralisation Capacity (pH7)*	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
2326 Arsenic as As	0.59	5.1	<0.002	0.04
2302 Barium as Ba*	3.4	42	<0.02	0.36
2302 Cadmium as Cd	<2.0	<2.0	<0.004	<0.02
2302 Chromium as Cr	<5.0	13	<0.02	0.11
2302 Copper as Cu	0.64	43	<0.004	0.37
2324 Mercury as Hg	0.013	0.016	<0.0004	<0.002
2302 Molybdenum as Mo*	<10	10	<0.02	<0.1
2302 Nickel as Ni	<10	2.3	<0.02	<0.1
2302 Lead as Pb	<4.0	0.24	<0.01	<0.05
2328 Antimony as Sb	<1.0	2.8	<0.01	<0.05
2302 Selenium as Se	<12	4.9	<0.006	0.04
2302 Zinc as Zn	<1.0	<1.0	<0.002	<0.01
2055 Chloride as Cl	18000	2300	36	<100
2055 Fluoride as F	<100	130	<0.02	1.11
2055 Sulphate as SO4	38000	12000	76	159
2035 Total Dissolved Solids	180000	76000	360	916
2130 Phenol Index	<100	<100	<0.2	<1.0
2033 Dissolved Organic Carbon	6700	2400	13	<50
Additional Information				
2008 pH	10.4	10.6		
2009 Conductivity uS/cm	259	112		
Temperature*	16	16		

WAC Limit Values		
limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Mass of Sample Kg	0.130
Mass of dry Sample Kg	0.116
Stage 1	
Volume of Leachant L2	0.2187559
Volume of Eluate VE1	0.174
Stage 2	
Volume of Leachant L8	0.9300157
Volume of Eluate VE2	0.83

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

DERWENTSIDE ENVIRONMENTAL TESTING SERVICES LIMITED

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Job Title: Caversham Road, Reading
Client Reference: 20958
Sample ID: WS12-06 / 1.30 / 3 / ES

Job Number: 12-69052
Sample Number: 446381 446363
Date Analysed: 27/09/2012

Test Results On Waste		
Determinand and Method Reference	Units	Result
2002/2084 Total Organic Carbon	%	
2003 Loss On Ignition	%	
3321 BTEX	mg/kg	
3401 PCB's (7 congeners)	mg/kg	
3311 TPH (C10 - C40)	mg/kg	
3301 PAH's	mg/kg	
2008 pH	pH Units	
073 Acid Neutralisation Capacity (pH4)*	mol/kg	
073 Acid Neutralisation Capacity (pH7)*	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
2326 Arsenic as As	2.5	0.78	0.005	0.01
2302 Barium as Ba*	16	6.1	0.03	<0.1
2302 Cadmium as Cd	<2.0	<2.0	<0.004	<0.02
2302 Chromium as Cr	2.2	<5.0	<0.02	<0.1
2302 Copper as Cu	9.6	0.54	0.019	<0.02
2324 Mercury as Hg	0.039	<0.05	<0.0004	<0.002
2302 Molybdenum as Mo*	1.4	<10	<0.02	<0.1
2302 Nickel as Ni	0.56	<10	<0.02	<0.1
2302 Lead as Pb	0.52	<4.0	<0.01	<0.05
2328 Antimony as Sb	1.3	<1.0	<0.01	<0.05
2302 Selenium as Se	1	<12	<0.006	<0.03
2302 Zinc as Zn	<1.0	<1.0	<0.002	<0.01
2055 Chloride as Cl	9000	1700	<20	<100
2055 Fluoride as F	490	150	0.98	1.98
2055 Sulphate as SO4	2500	840	<20	<100
2035 Total Dissolved Solids	91000	33000	182	412
2130 Phenol Index	<100	<100	<0.2	<1.0
2033 Dissolved Organic Carbon	4900	2400	<10	<50
Additional Information				
2008 pH	7.8	8		
2009 Conductivity uS/cm	134	48.4		
Temperature*	16	16		

WAC Limit Values		
limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Mass of Sample Kg	0.140
Mass of dry Sample Kg	0.107
Stage 1	
Volume of Leachant L2	0.1818159
Volume of Eluate VE1	0.152
Stage 2	
Volume of Leachant L8	0.8581757
Volume of Eluate VE2	0.8

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

*Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions.
Values are correct at time of issue.*

DERWENTSIDE ENVIRONMENTAL TESTING SERVICES LIMITED

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Job Title: Caversham Road, Reading
Client Reference: 20958
Sample ID: WS12-07A / 0.60 / 2 / ES

Job Number: 12-69052
Sample Number: 446383 446368
Date Analysed: 27/09/2012

Test Results On Waste		
Determinand and Method Reference	Units	Result
2002/2084 Total Organic Carbon	%	
2003 Loss On Ignition	%	
3321 BTEX	mg/kg	
3401 PCB's (7 congeners)	mg/kg	
3311 TPH (C10 - C40)	mg/kg	
3301 PAH's	mg/kg	
2008 pH	pH Units	
073 Acid Neutralisation Capacity (pH4)*	mol/kg	
073 Acid Neutralisation Capacity (pH7)*	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
2326 Arsenic as As	4	2.4	0.008	0.03
2302 Barium as Ba*	14	4.7	0.03	<0.1
2302 Cadmium as Cd	<2.0	<2.0	<0.004	<0.02
2302 Chromium as Cr	0.68	<5.0	<0.02	<0.1
2302 Copper as Cu	3.4	2	0.007	0.02
2324 Mercury as Hg	0.033	0.048	<0.0004	<0.002
2302 Molybdenum as Mo*	3.3	<10	<0.02	<0.1
2302 Nickel as Ni	0.64	<10	<0.02	<0.1
2302 Lead as Pb	1.9	1.6	<0.01	<0.05
2328 Antimony as Sb	1.8	0.57	<0.01	<0.05
2302 Selenium as Se	0.82	0.26	<0.006	<0.03
2302 Zinc as Zn	<1.0	2.4	<0.002	0.020
2055 Chloride as Cl	36000	4700	72	<100
2055 Fluoride as F	250	130	0.50	1.48
2055 Sulphate as SO4	53000	7700	106	143
2035 Total Dissolved Solids	190000	54000	380	738
2130 Phenol Index	<100	<100	<0.2	<1.0
2033 Dissolved Organic Carbon	2100	<2000	<10	<50
Additional Information				
2008 pH	7.9	9.1		
2009 Conductivity uS/cm	281	78.6		
Temperature*	16	16		

WAC Limit Values		
limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Mass of Sample Kg	0.140
Mass of dry Sample Kg	0.122
Stage 1	
Volume of Leachant L2	0.2259341
Volume of Eluate VE1	0.178
Stage 2	
Volume of Leachant L8	0.9758243
Volume of Eluate VE2	0.91

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

DERWENTSIDE ENVIRONMENTAL TESTING SERVICES LIMITED

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Job Title: Caversham Road, Reading
Client Reference: 20958
Sample ID: WS12-08 / 0.25 / 1 / ES

Job Number: 12-69052
Sample Number: 446385 446370
Date Analysed: 27/09/2012

Test Results On Waste		
Determinand and Method Reference	Units	Result
2002/2084 Total Organic Carbon	%	
2003 Loss On Ignition	%	
3321 BTEX	mg/kg	
3401 PCB's (7 congeners)	mg/kg	
3311 TPH (C10 - C40)	mg/kg	
3301 PAH's	mg/kg	
2008 pH	pH Units	
073 Acid Neutralisation Capacity (pH4)*	mol/kg	
073 Acid Neutralisation Capacity (pH7)*	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
2326 Arsenic as As	2	2.8	0.004	0.03
2302 Barium as Ba*	43	45	0.09	0.45
2302 Cadmium as Cd	<2.0	<2.0	<0.004	<0.02
2302 Chromium as Cr	10	1.3	0.020	<0.1
2302 Copper as Cu	2.1	1.8	0.004	<0.02
2324 Mercury as Hg	0.028	0.018	<0.0004	<0.002
2302 Molybdenum as Mo*	1.6	<10	<0.02	<0.1
2302 Nickel as Ni	<10	<10	<0.02	<0.1
2302 Lead as Pb	0.21	0.31	<0.01	<0.05
2328 Antimony as Sb	1	0.36	<0.01	<0.05
2302 Selenium as Se	0.54	<12	<0.006	<0.03
2302 Zinc as Zn	<1.0	<1.0	<0.002	<0.01
2055 Chloride as Cl	3000	1200	<20	<100
2055 Fluoride as F	<100	<100	<0.02	<0.1
2055 Sulphate as SO4	18000	4500	36	<100
2035 Total Dissolved Solids	88000	48000	176	547
2130 Phenol Index	<100	<100	<0.2	<1.0
2033 Dissolved Organic Carbon	<2000	<2000	<10	<50
Additional Information				
2008 pH	10.1	10.2		
2009 Conductivity uS/cm	129	70.1		
Temperature*	16	16		

WAC Limit Values		
limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Mass of Sample Kg	0.120
Mass of dry Sample Kg	0.115
Stage 1	
Volume of Leachant L2	0.223612
Volume of Eluate VE1	0.192
Stage 2	
Volume of Leachant L8	0.9162988
Volume of Eluate VE2	0.88

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

*Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions.
Values are correct at time of issue.*

DERWENTSIDE ENVIRONMENTAL TESTING SERVICES LIMITED

Sample Comments

DETS cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".

All samples received are listed below. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations.

If no sampled date (soils) or date/time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters), this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Lab No.	Sample ID	Date Sampled	Containers Received	Deviating due to holding time being exceeded for test	Deviating due to inappropriate container for test
446345	WS12-01 0.70 SOIL	14/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446346	WS12-01 1.70 SOIL	14/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446347	WS12-01 2.40 SOIL	14/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446348	WS12-01 3.50 SOIL	14/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446349	WS12-01 3.80 SOIL	14/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446350	WS12-02 0.80-1.50 SOIL	13/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446351	WS12-02 0.80-1.50 SOIL	13/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446352	WS12-02 2.20 SOIL	13/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446353	WS12-03 0.20 SOIL	13/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446354	WS12-03 0.90 SOIL	13/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446355	WS12-03 2.00 SOIL	13/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446356	WS12-04 0.50 SOIL	12/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446357	WS12-04 0.60 SOIL	12/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		

446358	WS12-05 0.20 SOIL	13/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446359	WS12-05 1.50 SOIL	13/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446360	WS12-05 2.30 SOIL	13/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446361	WS12-06 0.50 SOIL	12/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446362	WS12-06 0.80 SOIL	12/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446363	WS12-06 1.30 SOIL	12/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446364	WS12-06 2.40 SOIL	12/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446365	WS12-07 0.20 SOIL	12/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446366	WS12-07 0.70 SOIL	12/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446367	WS12-07A 0.20 SOIL	14/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446368	WS12-07A 0.60 SOIL	14/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446369	WS12-07B 0.20 SOIL	14/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446370	WS12-08 0.25 SOIL	15/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446371	WS12-08 0.80 SOIL	15/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446372	WS12-09 0.25 SOIL	15/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446373	WS12-09 0.80 SOIL	15/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	
446374	Field Blank WATER	17/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	BOD Prep (2 days)
446375	Trip Blank WATER	17/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre	BOD Prep (2 days)
446376	WS12-01 1.70 LEACHATE	14/09/2012	Glass Jar 1 litre (1 litre)	

446377	WS12-01 1.70 LEACHATE	14/09/2012	Glass Jar 1 litre (1 litre)
446378	WS12-04 0.60 LEACHATE	12/09/2012	Glass Jar 1 litre (1 litre)
446379	WS12-04 0.60 LEACHATE	12/09/2012	Glass Jar 1 litre (1 litre)
446380	WS12-06 1.30 LEACHATE	12/09/2012	Glass Jar 1 litre (1 litre)
446381	WS12-06 1.30 LEACHATE	12/09/2012	Glass Jar 1 litre (1 litre)
446382	WS12-07A 0.60 LEACHATE	14/09/2012	Glass Jar 1 litre (1 litre)
446383	WS12-07A 0.60 LEACHATE	14/09/2012	Glass Jar 1 litre (1 litre)
446384	WS12-08 0.25 LEACHATE	15/09/2012	Glass Jar 1 litre (1 litre)
446385	WS12-08 0.25 LEACHATE	15/09/2012	Glass Jar 1 litre (1 litre)

Appendix A - Details of Analysis

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.

No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

<u>Method</u>	<u>Name of Parameter</u>	<u>Units</u>	<u>Limit of Detection</u>	<u>Sample Preparation</u>	<u>Sub-Contracted</u>	<u>UKAS</u>	<u>MCERTS</u>
DETSC 2002	Organic Matter	%	0.01	Air Dried	No	Yes	Yes
DETSC 2003	Loss on Ignition	%	0.01	Air Dried	No	Yes	Yes
DETSC 2004	Total Sulphate	%	0.01	Air Dried	No	Yes	Yes
DETSC 2321	Total Sulphate	%	0.01	Air Dried	No	Yes	Yes
DETSC 2004	Water Soluble Sulphate	mg/l	10.00	Air Dried	No	Yes	Yes
DETSC 2076	Water Soluble Sulphate	mg/l	10.00	Air Dried	No	Yes	Yes
DETSC 2006	Chloride	mg/kg	0.01	Air Dried	No	Yes	Yes
DETSC 2008	pH	pH Units	0.10	Air Dried	No	Yes	Yes
DETS 042	Selenium	mg/kg	0.50	Air Dried	No	Yes	Yes
DETSC 2119	Ammonia	mg/kg	0.02	Air Dried	No	Yes	Yes
DETS 020	Boron (Water Soluble)	mg/kg	0.20	Air Dried	No	Yes	Yes
DETSC 2024	Sulphide	mg/kg	10.00	Air Dried	No	Yes	Yes
DETS 042	Antimony	mg/kg	1.00	Air Dried	No	No	No
DETS 042	Arsenic	mg/kg	0.20	Air Dried	No	Yes	Yes
DETS 042	Barium	mg/kg	1.50	Air Dried	No	Yes	Yes
DETS 042	Beryllium	mg/kg	0.20	Air Dried	No	Yes	Yes
DETS 042	Cadmium	mg/kg	0.10	Air Dried	No	Yes	Yes
DETS 042	Cobalt	mg/kg	0.70	Air Dried	No	Yes	Yes
DETS 042	Copper	mg/kg	0.20	Air Dried	No	Yes	Yes
DETS 042	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETS 042	Iron	mg/kg	1.00	Air Dried	No	Yes	No

Appendix A - Details of Analysis

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.

No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

<u>Method</u>	<u>Name of Parameter</u>	<u>Units</u>	<u>Limit of Detection</u>	<u>Sample Preparation</u>	<u>Sub-Contracted</u>	<u>UKAS</u>	<u>MCERTS</u>
DETS 042	Lead	mg/kg	0.30	Air Dried	No	Yes	Yes
DETS 042	Manganese	mg/kg	20.00	Air Dried	No	Yes	Yes
DETSC 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETS 042	Molybdenum	mg/kg	0.40	Air Dried	No	Yes	Yes
DETS 042	Nickel	mg/kg	0.20	Air Dried	No	Yes	Yes
DETS 042	Thallium	mg/kg	1.00	Air Dried	No	No	No
DETS 042	Vanadium	mg/kg	0.80	Air Dried	No	Yes	Yes
DETS 042	Zinc	mg/kg	1.00	Air Dried	No	Yes	Yes
DETSC 3049	Sulphur (Free)	mg/kg	0.50	As Received	No	Yes	Yes
DETSC 3301	PAH by GC-FID	mg/kg	0.10	As Received	No	Yes	No
DETSC 3311	TPH (C10 - C40)	mg/kg	20.00	As Received	No	Yes	Yes
DETSC 3401	PCB	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2130	Easily Liberatable Cyanide	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Complex Cyanide	mg/kg	0.30	Air Dried	No	Yes	No
DETSC 2130	Total Cyanide	mg/kg	0.40	Air Dried	No	Yes	Yes
DETSC 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes

Appendix A - Details of Analysis

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.

No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

<u>Method</u>	<u>Name of Parameter</u>	<u>Units</u>	<u>Limit of Detection</u>	<u>Sample Preparation</u>	<u>Sub-Contracted</u>	<u>UKAS</u>	<u>MCERTS</u>
DETSC 3431	VOC	mg/kg	0.01	As Received	No	No	No
DETSC 3303	PAH by GCMS (see list below)						
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Anthracene	mg/kg	0.03	As Received	No	Yes	No
DETSC 3303	Chrysene	mg/kg	0.03	As Received	No	Yes	No
DETSC 3303	Fluorene	mg/kg	0.03	As Received	No	Yes	No



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Certificate of Analysis

Date: 30/09/2012

Certificate Number: 12-69053

Client: Ian Farmer Associates
Unit 1 Fairfield Court
Seven Stars Industrial Estate
Wheler Road
Coventry
West Midlands
CV3 4LJ

Our Reference: 12-69053

Client Reference: 20958

Contract Title: Caversham Road, Reading

Description: 4 leachate samples
14 soil samples

Date Received: 20 September 2012

Date Started: 21 September 2012

Date Completed: 30 September 2012

Test Procedures: Identified by prefix DETSn (details on request), Asbestos Analysis (DETS 082).

Notes: Observations and interpretations are outside the scope of UKAS accreditation

Approved By:



Rob Brown, Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Information in Support of the Analytical Results

Analysis

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

Organic soil analysis was carried out on an 'as received' sample.

Key

- * Denotes test not included in laboratory scope of accreditation
- # Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo
- \$ Denotes tests completed by an approved subcontractor
- I/S Denotes insufficient sample to carry out test
- U/S Denotes that the sample is not suitable for testing

Disposal

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

Soils - 1 month

Liquids - 2 weeks

Asbestos (test portion) - 6 months

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446386	446387	446388	446389	446390
				Sample ID	CP12-01	CP12-01	CP12-01	CP12-01	CP12-01
				Depth	0.20	0.80	1.50	2.50	3.30
				Sample Ref	1	2	3	4	7
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	18/09/2012	18/09/2012	18/09/2012	18/09/2012	18/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Antimony	mg/kg	DETS 042*	1	< 1.0	7.9	4.9	2.2	1.8	
Arsenic	mg/kg	DETS 042#	0.2	4.9	22	12	14	33	
Beryllium	mg/kg	DETS 042#	0.2	< 0.2	0.8	5.0	1.0	0.6	
Cadmium	mg/kg	DETS 042#	0.1	1.2	4.4	3.4	2.2	2.8	
Chromium	mg/kg	DETS 042#	0.15	5.7	14	15	36	17	
Copper	mg/kg	DETS 042#	0.2	15	310	190	29	8.0	
Lead	mg/kg	DETS 042#	0.3	29	380	200	52	9.6	
Mercury	mg/kg	DETSC 2325#	0.05	0.22	4.7	0.92	0.10	< 0.05	
Nickel	mg/kg	DETS 042#	1	4.7	37	53	23	18	
Selenium	mg/kg	DETS 042#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Vanadium	mg/kg	DETS 042#	0.8	19	32	59	54	39	
Zinc	mg/kg	DETS 042#	1	71	320	130	72	44	
Boron (water soluble)	mg/kg	DETS 020#	0.2	0.9	0.9	1.8	2.6	0.7	
Cyanide total	mg/kg	DETSC 2130#	0.1	< 0.1	< 0.1	< 0.1	0.5	< 0.1	
Total Organic Carbon	%	DETSC 2002#	0.1	0.4	7.9	4.2	1.4	< 0.1	
pH		DETSC 2008#		9.8	8.4	8.4	8.1	8.9	
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	3.8	< 0.01	< 0.01	
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	170	< 1.5	< 1.5	
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2	< 1.2	< 1.2	1100	< 1.2	< 1.2	
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	1100	< 1.5	< 1.5	
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4	7.4	9.0	1600	8.3	< 3.4	
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	1.2	< 0.01	< 0.01	
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9	< 0.9	< 0.9	23	< 0.9	< 0.9	
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5	< 0.5	< 0.5	370	< 0.5	< 0.5	
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6	6.4	< 0.6	590	< 0.6	< 0.6	
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4	22	< 1.4	480	< 1.4	< 1.4	
Aliphatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	3900	< 10	< 10	
Aromatic C5-C35	mg/kg	DETSC 3072*	10	28	< 10	1500	< 10	< 10	
TPH Ali/Aro	mg/kg	DETSC 3072*	10	35	10	5300	< 10	< 10	
Benzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	0.04	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	0.04	< 0.01	< 0.01	
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	0.8	1.7	1.9	2.6	2.1	
PCB 105	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01		
PCB 114	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01		
PCB 118	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01		
PCB 123	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01		
PCB 126	mg/kg	DETSC 3401*	0.01			< 0.01	< 0.01		

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446386	446387	446388	446389	446390
				Sample ID	CP12-01	CP12-01	CP12-01	CP12-01	CP12-01
				Depth	0.20	0.80	1.50	2.50	3.30
				Sample Ref	1	2	3	4	7
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	18/09/2012	18/09/2012	18/09/2012	18/09/2012	18/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
PCB 156	mg/kg	DETSC 3401*	0.01				< 0.01	< 0.01	
PCB 157	mg/kg	DETSC 3401*	0.01				< 0.01	< 0.01	
PCB 167	mg/kg	DETSC 3401*	0.01				< 0.01	< 0.01	
PCB 169	mg/kg	DETSC 3401*	0.01				< 0.01	< 0.01	
PCB 189	mg/kg	DETSC 3401*	0.01				< 0.01	< 0.01	
PCB 77	mg/kg	DETSC 3401*	0.01				< 0.01	< 0.01	
PCB 81	mg/kg	DETSC 3401*	0.01				< 0.01	< 0.01	
Acenaphthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	0.16	< 0.03	< 0.03	< 0.03
Anthracene	mg/kg	DETSC 3303	0.03	0.06	0.04	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg	DETSC 3303#	0.03	0.58	0.23	0.16	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	mg/kg	DETSC 3303#	0.03	0.57	0.19	0.15	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	mg/kg	DETSC 3303#	0.03	0.73	0.32	0.25	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	mg/kg	DETSC 3303#	0.03	0.27	0.10	0.08	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	mg/kg	DETSC 3303#	0.03	0.31	0.11	0.06	< 0.03	< 0.03	< 0.03
Chrysene	mg/kg	DETSC 3303	0.03	0.54	0.28	0.12	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	mg/kg	DETSC 3303#	0.03	0.06	0.04	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg	DETSC 3303#	0.03	0.79	0.37	0.31	< 0.03	< 0.03	< 0.03
Fluorene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3303#	0.03	0.35	0.12	0.07	< 0.03	< 0.03	< 0.03
Naphthalene	mg/kg	DETSC 3303#	0.03	< 0.03	0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	mg/kg	DETSC 3303#	0.03	0.24	0.17	0.14	< 0.03	< 0.03	< 0.03
Pyrene	mg/kg	DETSC 3303#	0.03	0.76	0.32	0.47	< 0.03	< 0.03	< 0.03
Total PAH - USEPA 16	mg/kg	DETSC 3303	0.1	5.3	2.4	2.0	< 0.10	< 0.10	< 0.10

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446391	446392	446393	446394	446395
				Sample ID	CP12-02	CP12-02	CP12-02	CP12-02	CP12-02
				Depth	0.80	1.80	2.00	2.50	7.10
				Sample Ref	2	3	4	5	12
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	17/09/2012	17/09/2012	17/09/2012	17/09/2012	17/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
Antimony	mg/kg	DETS 042*	1	3.3	1.1	1.6	1.4	< 1.0	
Arsenic	mg/kg	DETS 042#	0.2	12	11	16	17	7.5	
Beryllium	mg/kg	DETS 042#	0.2	0.4	0.4	0.7	1.4	1.1	
Cadmium	mg/kg	DETS 042#	0.1	1.5	1.1	1.9	1.5	0.8	
Chromium	mg/kg	DETS 042#	0.15	10	11	20	12	3.4	
Copper	mg/kg	DETS 042#	0.2	98	28	75	11	< 0.2	
Lead	mg/kg	DETS 042#	0.3	170	23	34	9.0	2.2	
Mercury	mg/kg	DETSC 2325#	0.05	13	3.3	0.82	0.44	< 0.05	
Nickel	mg/kg	DETS 042#	1	13	10	21	12	3.7	
Selenium	mg/kg	DETS 042#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Vanadium	mg/kg	DETS 042#	0.8	18	21	39	60	48	
Zinc	mg/kg	DETS 042#	1	110	51	59	30	13	
Boron (water soluble)	mg/kg	DETS 020#	0.2	0.2	1.3	2.1	1.0	0.6	
Cyanide total	mg/kg	DETSC 2130#	0.1	0.3	< 0.1	0.1	< 0.1	< 0.1	
Total Organic Carbon	%	DETSC 2002#	0.1	1.2	0.4	1.5	0.1	< 0.1	
pH		DETSC 2008#		9.2	8.9	8.1	9.0	8.7	
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	4.5	2.9	< 1.5	
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4	< 3.4	< 3.4	< 3.4	6.4	< 3.4	
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6	< 0.6	< 0.6	< 0.6	8.7	< 0.6	
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4	< 1.4	< 1.4	< 1.4	9.6	< 1.4	
Aliphatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	< 10	< 10	< 10	
Aromatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	< 10	20	< 10	
TPH Ali/Aro	mg/kg	DETSC 3072*	10	< 10	< 10	< 10	29	< 10	
Benzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	2.0	2.9	3.1	2.0	2.3	
PCB 105	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 114	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 118	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 123	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 126	mg/kg	DETSC 3401*	0.01	< 0.01					

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446391	446392	446393	446394	446395
				Sample ID	CP12-02	CP12-02	CP12-02	CP12-02	CP12-02
				Depth	0.80	1.80	2.00	2.50	7.10
				Sample Ref	2	3	4	5	12
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	17/09/2012	17/09/2012	17/09/2012	17/09/2012	17/09/2012
				Sampling Time					
Test	Units	DETSxx	LOD						
PCB 156	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 157	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 167	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 169	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 189	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 77	mg/kg	DETSC 3401*	0.01	< 0.01					
PCB 81	mg/kg	DETSC 3401*	0.01	< 0.01					
Acenaphthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg	DETSC 3303#	0.03	0.06	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	mg/kg	DETSC 3303#	0.03	0.04	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	mg/kg	DETSC 3303#	0.03	0.07	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chrysene	mg/kg	DETSC 3303	0.03	0.07	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg	DETSC 3303#	0.03	0.13	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Naphthalene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	mg/kg	DETSC 3303#	0.03	0.07	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pyrene	mg/kg	DETSC 3303#	0.03	0.12	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Total PAH - USEPA 16	mg/kg	DETSC 3303	0.1	0.56	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446396	446397	446398	446399
				Sample ID	CP12-03	CP12-03	CP12-03	CP12-03
				Depth	0.40	0.80	2.80	3.10
				Sample Ref	1	2	5	7
				Sample Type	ES	ES	ES	ES
				Sampling Date	18/09/2012	18/09/2012	18/09/2012	18/09/2012
				Sampling Time				
Test	Units	DETSxx	LOD					
Antimony	mg/kg	DETS 042*	1	< 1.0	2.1	1.1	1.3	
Arsenic	mg/kg	DETS 042#	0.2	6.7	16	12	22	
Beryllium	mg/kg	DETS 042#	0.2	1.1	4.0	< 0.2	< 0.2	
Cadmium	mg/kg	DETS 042#	0.1	1.4	2.0	1.3	2.0	
Chromium	mg/kg	DETS 042#	0.15	5.0	28	16	13	
Copper	mg/kg	DETS 042#	0.2	3.1	23	7.8	6.1	
Lead	mg/kg	DETS 042#	0.3	26	55	7.5	6.7	
Mercury	mg/kg	DETSC 2325#	0.05	0.06	0.16	< 0.05	< 0.05	
Nickel	mg/kg	DETS 042#	1	3.3	20	14	15	
Selenium	mg/kg	DETS 042#	0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Vanadium	mg/kg	DETS 042#	0.8	49	64	10	9.5	
Zinc	mg/kg	DETS 042#	1	150	65	28	27	
Boron (water soluble)	mg/kg	DETS 020#	0.2	0.9	2.9	1.1	0.7	
Cyanide total	mg/kg	DETSC 2130#	0.1	< 0.1	0.3	0.3	< 0.1	
Total Organic Carbon	%	DETSC 2002#	0.1	0.1	1.4	0.2	< 0.1	
pH		DETSC 2008#		10.9	8.5	8.7	8.7	
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01	0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	< 1.5	< 1.5	
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5	< 1.5	< 1.5	5.0	< 1.5	
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4	< 3.4	< 3.4	17	< 3.4	
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9	< 0.9	< 0.9	< 0.9	< 0.9	
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5	< 0.5	< 0.5	1.4	< 0.5	
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6	< 0.6	< 0.6	9.4	< 0.6	
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4	< 1.4	< 1.4	14	< 1.4	
Aliphatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	22	< 10	
Aromatic C5-C35	mg/kg	DETSC 3072*	10	< 10	< 10	25	< 10	
TPH Ali/Aro	mg/kg	DETSC 3072*	10	< 10	< 10	47	< 10	
Benzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	3.0	3.6	< 0.3	< 0.3	
PCB 105	mg/kg	DETSC 3401*	0.01	< 0.01			< 0.01	
PCB 114	mg/kg	DETSC 3401*	0.01	< 0.01			< 0.01	
PCB 118	mg/kg	DETSC 3401*	0.01	< 0.01			< 0.01	
PCB 123	mg/kg	DETSC 3401*	0.01	< 0.01			< 0.01	
PCB 126	mg/kg	DETSC 3401*	0.01	< 0.01			< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446396	446397	446398	446399
				Sample ID	CP12-03	CP12-03	CP12-03	CP12-03
				Depth	0.40	0.80	2.80	3.10
				Sample Ref	1	2	5	7
				Sample Type	ES	ES	ES	ES
				Sampling Date	18/09/2012	18/09/2012	18/09/2012	18/09/2012
				Sampling Time				
Test	Units	DETSxx	LOD					
PCB 156	mg/kg	DETSC 3401*	0.01	< 0.01				< 0.01
PCB 157	mg/kg	DETSC 3401*	0.01	< 0.01				< 0.01
PCB 167	mg/kg	DETSC 3401*	0.01	< 0.01				< 0.01
PCB 169	mg/kg	DETSC 3401*	0.01	< 0.01				< 0.01
PCB 189	mg/kg	DETSC 3401*	0.01	< 0.01				< 0.01
PCB 77	mg/kg	DETSC 3401*	0.01	< 0.01				< 0.01
PCB 81	mg/kg	DETSC 3401*	0.01	< 0.01				< 0.01
Acenaphthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chrysene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	mg/kg	DETSC 3303	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Naphthalene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pyrene	mg/kg	DETSC 3303#	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Total PAH - USEPA 16	mg/kg	DETSC 3303	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446387	446388	446389	446396
				Sample ID	CP12-01	CP12-01	CP12-01	CP12-03
				Depth	0.80	1.50	2.50	0.40
				Sample Ref	2	3	4	1
				Sample Type	ES	ES	ES	ES
				Sampling Date	18/09/2012	18/09/2012	18/09/2012	18/09/2012
				Sampling Time				
Test	Units	DETSxx	LOD					
Total VOC's	mg/kg	DETSC 3431*	0.01		0.51	< 0.01	0.03	< 0.01
1,1 Dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
2,2-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Bromochloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Trichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Dibromomethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Bromodichloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETSC 3431*	0.01		< 0.01	0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
m+p-Xylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
o-Xylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Styrene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Bromoform	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Isopropylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Bromobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
n-propylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
2-chlorotoluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
4-chlorotoluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
sec-butylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

					Lab No.	446387	446388	446389	446396
					Sample ID	CP12-01	CP12-01	CP12-01	CP12-03
					Depth	0.80	1.50	2.50	0.40
					Sample Ref	2	3	4	1
					Sample Type	ES	ES	ES	ES
					Sampling Date	18/09/2012	18/09/2012	18/09/2012	18/09/2012
					Sampling Time				
Test	Units	DETSxx	LOD						
p-isopropyltoluene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-butylbenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Naphthalene	mg/kg	DETSC 3431*	0.01	0.49	< 0.01	0.03	< 0.01	< 0.01	< 0.01
1,2,3-trichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Vinyl Chloride	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,22- docosanediol (TIC)	mg/kg	DETSC 3431*				1.013			
1-dodecanol, 3,7, 11-trimethyl- (TIC)	mg/kg	DETSC 3431*				1.128			
6-octen-1-ol, 3,7-dimethyl- (TIC)	mg/kg	DETSC 3431*				0.936			
bicyclo [3.1.1] heptan-3-one, 2,6,6- trimet (TIC)	mg/kg	DETSC 3431*				1.092			

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446387	446388	446389	446396
				Sample ID	CP12-01	CP12-01	CP12-01	CP12-03
				Depth	0.80	1.50	2.50	0.40
				Sample Ref	2	3	4	1
				Sample Type	ES	ES	ES	ES
				Sampling Date	18/09/2012	18/09/2012	18/09/2012	18/09/2012
				Sampling Time				
Test	Units	DETSxx	LOD					
Phenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitrophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diphenylamine	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pentachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	DETS 071*	0.1	0.5	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	mg/kg	DETS 071*	0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-butylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	DETS 071*	0.1	0.6	0.2	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	DETS 071*	0.1	0.5	0.3	< 0.1	< 0.1	< 0.1
Butylbenzylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	DETS 071*	0.1	0.4	0.2	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	446387	446388	446389	446396
				Sample ID	CP12-01	CP12-01	CP12-01	CP12-03
				Depth	0.80	1.50	2.50	0.40
				Sample Ref	2	3	4	1
				Sample Type	ES	ES	ES	ES
				Sampling Date	18/09/2012	18/09/2012	18/09/2012	18/09/2012
				Sampling Time				
Test	Units	DETSxx	LOD					
Chrysene	mg/kg	DETS 071*	0.1		0.4	0.2	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Di-n-octylphthalate	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	DETS 071*	0.1		0.4	0.2	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	DETS 071*	0.1		0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	DETS 071*	0.1		0.3	< 0.1	< 0.1	< 0.1
Indeno(123cd)pyrene	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Dibenzo(ah)anthracene	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dinitrobenzene	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dinitrobenzene	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Azobenzene	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Carbazole	mg/kg	DETS 071*	0.1		< 0.1	< 0.1	< 0.1	< 0.1

Summary of Asbestos Analysis

Soil Samples

Our Ref: 12-69053

Client Ref: 20958

Contract Title: Caversham Road, Reading

Lab No	Sample Ref	Material Type*	Result	Comment	Analyst
446386	CP12-01 1 0.20	Soil	NAD	None	Colin Patrick
446387	CP12-01 2 0.80	Soil	NAD	None	Colin Patrick
446388	CP12-01 3 1.50	Soil	NAD	None	Colin Patrick
446391	CP12-02 2 0.80	Soil	NAD	None	Colin Patrick
446392	CP12-02 3 1.80	Soil	NAD	None	Colin Patrick
446396	CP12-03 1 0.40	Soil	NAD	None	Colin Patrick
446397	CP12-03 2 0.80	Soil	NAD	None	Colin Patrick

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETS 082 using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Job Title: Caversham Road, Reading
Client Reference: 20958
Sample ID: CP12-01 / 1.50 / 3 / ES

Job Number: 12-69053
Sample Number: 446401 446388
Date Analysed: 28/09/2012

Test Results On Waste		
Determinand and Method Reference	Units	Result
2002/2084 Total Organic Carbon	%	
2003 Loss On Ignition	%	
3321 BTEX	mg/kg	
3401 PCB's (7 congeners)	mg/kg	
3311 TPH (C10 - C40)	mg/kg	
3301 PAH's	mg/kg	
2008 pH	pH Units	
073 Acid Neutralisation Capacity (pH4)*	mol/kg	
073 Acid Neutralisation Capacity (pH7)*	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
2326 Arsenic as As	1.4	0.95	0.003	0.01
2302 Barium as Ba*	82	20	0.16	0.28
2302 Cadmium as Cd	<2.0	<2.0	<0.004	<0.02
2302 Chromium as Cr	0.58	0.29	<0.02	<0.1
2302 Copper as Cu	13	4.1	0.026	0.05
2324 Mercury as Hg	0.051	<0.05	<0.0004	<0.002
2302 Molybdenum as Mo*	16	4	0.03	<0.1
2302 Nickel as Ni	3.3	1.1	<0.02	<0.1
2302 Lead as Pb	1.3	1	<0.01	<0.05
2328 Antimony as Sb	9.6	2.7	0.02	<0.05
2302 Selenium as Se	0.8	<12	<0.006	<0.03
2302 Zinc as Zn	11	3.6	0.022	0.045
2055 Chloride as Cl	13000	3300	26	<100
2055 Fluoride as F	290	260	0.58	2.64
2055 Sulphate as SO4	66000	12000	132	188
2035 Total Dissolved Solids	180000	54000	360	698
2130 Phenol Index	<100	<100	<0.2	<1.0
2033 Dissolved Organic Carbon	18000	3600	36	54
Additional Information				
2008 pH	7.5	7.7		
2009 Conductivity uS/cm	265	78.9		
Temperature*	16	16		

WAC Limit Values		
limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Mass of Sample Kg	0.140
Mass of dry Sample Kg	0.111
Stage 1	
Volume of Leachant L2	0.1940394
Volume of Eluate VE1	0.14
Stage 2	
Volume of Leachant L8	0.8907718
Volume of Eluate VE2	0.8

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

*Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions.
Values are correct at time of issue.*

DERWENTSIDE ENVIRONMENTAL TESTING SERVICES LIMITED

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Job Title: Caversham Road, Reading
Client Reference: 20958
Sample ID: CP12-02 / 7.10 / 12 / ES

Job Number: 12-69053
Sample Number: 446403 446395
Date Analysed: 27/09/2012

Test Results On Waste		
Determinand and Method Reference	Units	Result
2002/2084 Total Organic Carbon	%	
2003 Loss On Ignition	%	
3321 BTEX	mg/kg	
3401 PCB's (7 congeners)	mg/kg	
3311 TPH (C10 - C40)	mg/kg	
3301 PAH's	mg/kg	
2008 pH	pH Units	
073 Acid Neutralisation Capacity (pH4)*	mol/kg	
073 Acid Neutralisation Capacity (pH7)*	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
2326 Arsenic as As	<1.0	<1.0	<0.002	<0.01
2302 Barium as Ba*	43	14	0.09	0.18
2302 Cadmium as Cd	<2.0	<2.0	<0.004	<0.02
2302 Chromium as Cr	0.44	<5.0	<0.02	<0.1
2302 Copper as Cu	1.1	0.54	<0.004	<0.02
2324 Mercury as Hg	<0.05	<0.05	<0.0004	<0.002
2302 Molybdenum as Mo*	2	<10	<0.02	<0.1
2302 Nickel as Ni	1.5	<10	<0.02	<0.1
2302 Lead as Pb	<4.0	<4.0	<0.01	<0.05
2328 Antimony as Sb	<1.0	<1.0	<0.01	<0.05
2302 Selenium as Se	<12	<12	<0.006	<0.03
2302 Zinc as Zn	<1.0	<1.0	<0.002	<0.01
2055 Chloride as Cl	10000	2300	20	<100
2055 Fluoride as F	130	<100	0.26	0.17
2055 Sulphate as SO4	36000	7700	72	114
2035 Total Dissolved Solids	130000	44000	260	551
2130 Phenol Index	<100	<100	<0.2	<1.0
2033 Dissolved Organic Carbon	<2000	<2000	<10	<50
Additional Information				
2008 pH	7.8	8.5		
2009 Conductivity uS/cm	190	64.2		
Temperature*	16	16		

WAC Limit Values		
limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Mass of Sample Kg	0.140
Mass of dry Sample Kg	0.107
Stage 1	
Volume of Leachant L2	0.1804851
Volume of Eluate VE1	0.138
Stage 2	
Volume of Leachant L8	0.854627
Volume of Eluate VE2	0.85

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

*Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions.
Values are correct at time of issue.*

DERWENTSIDE ENVIRONMENTAL TESTING SERVICES LIMITED

Sample Comments

DETS cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".

All samples received are listed below. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations.

If no sampled date (soils) or date/time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters), this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Lab No.	Sample ID	Date Sampled	Containers Received	Deviating due to holding time being exceeded for test	Deviating due to inappropriate container for test
446386	CP12-01 0.20 SOIL	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446387	CP12-01 0.80 SOIL	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446388	CP12-01 1.50 SOIL	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446389	CP12-01 2.50 SOIL	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446390	CP12-01 3.30 SOIL	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446391	CP12-02 0.80 SOIL	17/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446392	CP12-02 1.80 SOIL	17/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446393	CP12-02 2.00 SOIL	17/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446394	CP12-02 2.50 SOIL	17/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446395	CP12-02 7.10 SOIL	17/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446396	CP12-03 0.40 SOIL	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446397	CP12-03 0.80 SOIL	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		
446398	CP12-03 2.80 SOIL	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre		

446399	CP12-03 3.10 SOIL	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre
446400	CP12-01 1.50 LEACHATE	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre
446401	CP12-01 1.50 LEACHATE	18/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre
446402	CP12-02 7.10 LEACHATE	17/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre
446403	CP12-02 7.10 LEACHATE	17/09/2012	Glass Jar 250ml or less, Glass Vial, Plastic Tub 1 litre



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Certificate of Analysis

Certificate Number: 12-69610



Date: 11/10/2012

Client: Ian Farmer Associates
Unit 1 Fairfield Court
Seven Stars Industrial Estate
Wheler Road
Coventry
West Midlands
CV3 4LJ

Our Reference: 12-69610

Client Reference: 20958

Contract Title: Caversham Road, Reading

Description: 2 leachate samples
3 soil samples

Date Received: 03 October 2012

Date Started: 03 October 2012

Date Completed: 11 October 2012

Test Procedures: Identified by prefix DETSn (details on request), Asbestos Analysis (DETS 082).

Notes: Observations and interpretations are outside the scope of UKAS accreditation

Approved By: 
Rob Brown, Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Information in Support of the Analytical Results

Analysis

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

Organic soil analysis was carried out on an 'as received' sample.

Key

- * Denotes test not included in laboratory scope of accreditation
- # Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo
- \$ Denotes tests completed by an approved subcontractor
- I/S Denotes insufficient sample to carry out test
- U/S Denotes that the sample is not suitable for testing

Disposal

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

Soils - 1 month

Liquids - 2 weeks

Asbestos (test portion) - 6 months

Summary of Chemical Analysis

Matrix Descriptions

Our Ref: 12-69610

Client Ref: 20958

Contract Title: Caversham Road, Reading

Sample ID	Other ID	Depth	Sample No	Completed	Matrix Description
WS12-09		1.80	449868	11/10/2012	brown gravelly sanday CLAY
WS12-09		2.20	449869	11/10/2012	dark brown gravelly sand CLAY
WS12-09		3.50	449870	11/10/2012	brown gravelly sandy CLAY

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69610

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449868	449869	449870
				Sample ID	WS12-09	WS12-09	WS12-09
				Depth	1.80	2.20	3.50
				Sample Ref			
				Sample Type			
				Sampling Date	29/09/2012	29/09/2012	29/09/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Antimony	mg/kg	DETS 042*	1		2.1	1.4	1.4
Arsenic	mg/kg	DETS 042#	0.2		16	12	17
Beryllium	mg/kg	DETS 042#	0.2		0.7	0.5	0.3
Cadmium	mg/kg	DETS 042#	0.1		0.9	0.6	0.6
Chromium	mg/kg	DETS 042#	0.15		27	18	11
Copper	mg/kg	DETS 042#	0.2		18	8.2	7.3
Lead	mg/kg	DETS 042#	0.3		35	8.3	6.1
Mercury	mg/kg	DETSC 2325#	0.05		< 0.05	< 0.05	< 0.05
Nickel	mg/kg	DETS 042#	1		21	16	12
Selenium	mg/kg	DETS 042#	0.5		< 0.5	< 0.5	< 0.5
Vanadium	mg/kg	DETS 042#	0.8		40	25	22
Zinc	mg/kg	DETS 042#	1		63	32	23
Boron (water soluble)	mg/kg	DETS 020#	0.2		2.0	0.9	0.6
Cyanide total	mg/kg	DETSC 2130#	0.1		0.7	< 0.1	0.1
Total Organic Carbon	%	DETSC 2002#	0.1		0.7	0.3	< 0.1
pH		DETSC 2008#			8.0	8.1	8.4
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5		< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2		< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5		< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4		< 3.4	< 3.4	< 3.4
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9		< 0.9	< 0.9	< 0.9
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5		< 0.5	< 0.5	< 0.5
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6		< 0.6	< 0.6	< 0.6
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4		< 1.4	< 1.4	< 1.4
Aliphatic C5-C35	mg/kg	DETSC 3072*	10		< 10	< 10	< 10
Aromatic C5-C35	mg/kg	DETSC 3072*	10		< 10	< 10	< 10
TPH Ali/Aro	mg/kg	DETSC 3072*	10		< 10	< 10	< 10
Acenaphthene	mg/kg	DETSC 3301	0.1		< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	DETSC 3301	0.1		< 0.1	< 0.1	< 0.1
Anthracene	mg/kg	DETSC 3301	0.1		< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	DETSC 3301	0.1		< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	DETSC 3301	0.1		< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	DETSC 3301	0.1		< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	DETSC 3301	0.1		< 0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	mg/kg	DETSC 3301	0.1		< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	DETSC 3301	0.1		< 0.1	< 0.1	< 0.1
Dibenzo(a,h)anthracene	mg/kg	DESTC 3301	0.1		< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69610

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449868	449869	449870
				Sample ID	WS12-09	WS12-09	WS12-09
				Depth	1.80	2.20	3.50
				Sample Ref			
				Sample Type			
				Sampling Date	29/09/2012	29/09/2012	29/09/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Fluoranthene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1	< 0.1	< 0.1
PAH	mg/kg	DETSC 3301	1.6	< 1.6	< 1.6	< 1.6	< 1.6
Benzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Xylene	mg/kg	DETS 062#	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	< 0.3	< 0.3	< 0.3	< 0.3
PCB 105	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 114	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 118	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 123	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 126	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 156	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 157	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 167	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 169	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 189	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 77	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
PCB 81	mg/kg	DETSC 3401*	0.01	< 0.01	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69610

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449868	449869	449870
				Sample ID	WS12-09	WS12-09	WS12-09
				Depth	1.80	2.20	3.50
				Sample Ref			
				Sample Type			
				Sampling Date	29/09/2012	29/09/2012	29/09/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Total VOC's	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,1 Dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,1-dichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
2,2-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Bromochloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Chloroform	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Carbon tetrachloride	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,1-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Benzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,2-dichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Trichloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,2-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Dibromomethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Bromodichloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Tetrachloroethylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,3-dichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Dibromochloromethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,2-dibromoethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Chlorobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Ethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
m+p-Xylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
o-Xylene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Styrene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Bromoform	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Isopropylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Bromobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
n-propylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
2-chlorotoluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
4-chlorotoluene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
Tert-butylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
sec-butylbenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	mg/kg	DETSC 3431*	0.01		< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69610

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449868	449869	449870
				Sample ID	WS12-09	WS12-09	WS12-09
				Depth	1.80	2.20	3.50
				Sample Ref			
				Sample Type			
				Sampling Date	29/09/2012	29/09/2012	29/09/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
p-isopropyltoluene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-butylbenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Naphthalene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichlorobenzene	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Vinyl Chloride	mg/kg	DETSC 3431*	0.01	< 0.01	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69610

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449868	449869	449870
				Sample ID	WS12-09	WS12-09	WS12-09
				Depth	1.80	2.20	3.50
				Sample Ref			
				Sample Type			
				Sampling Date	29/09/2012	29/09/2012	29/09/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Phenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitrophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitroaniline	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diphenylamine	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pentachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-butylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Butylbenzylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-69610

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449868	449869	449870
				Sample ID	WS12-09	WS12-09	WS12-09
				Depth	1.80	2.20	3.50
				Sample Ref			
				Sample Type			
				Sampling Date	29/09/2012	29/09/2012	29/09/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Chrysene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-octylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(123cd)pyrene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzo(ah)anthracene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dinitrobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dinitrobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Azobenzene	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbazole	mg/kg	DETS 071*	0.1	< 0.1	< 0.1	< 0.1	< 0.1

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Job Title: Caversham Road, Reading
Client Reference: 20958
Sample ID: WS12-09 / 1.80

Job Number: 12-69610
Sample Number: 449872 449868
Date Analysed: 11/10/2012

Test Results On Waste		
Determinand and Method Reference	Units	Result
2002/2084 Total Organic Carbon	%	
2003 Loss On Ignition	%	
3321 BTEX	mg/kg	
3401 PCB's (7 congeners)	mg/kg	
3311 TPH (C10 - C40)	mg/kg	
3301 PAH's	mg/kg	
2008 pH	pH Units	
073 Acid Neutralisation Capacity (pH4)*	mol/kg	
073 Acid Neutralisation Capacity (pH7)*	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
2326 Arsenic as As	0.88	0.84	<0.002	<0.01
2302 Barium as Ba*	68	10	0.14	0.18
2302 Cadmium as Cd	<2.0	<2.0	<0.004	<0.02
2302 Chromium as Cr	0.44	<5.0	<0.02	<0.1
2302 Copper as Cu	3.4	1.8	0.007	0.02
2324 Mercury as Hg	<0.05	<0.05	<0.0004	<0.002
2302 Molybdenum as Mo*	1.4	<10	<0.02	<0.1
2302 Nickel as Ni	1.1	0.57	<0.02	<0.1
2302 Lead as Pb	<4.0	<4.0	<0.01	<0.05
2328 Antimony as Sb	<1.0	<1.0	<0.01	<0.05
2302 Selenium as Se	<12	<12	<0.006	<0.03
2302 Zinc as Zn	4.7	3.1	0.009	0.033
2055 Chloride as Cl	7400	2300	<20	<100
2055 Fluoride as F	350	140	0.70	1.68
2055 Sulphate as SO4	56000	15000	112	205
2035 Total Dissolved Solids	130000	29000	260	424
2130 Phenol Index	<100	<100	<0.2	<1.0
2033 Dissolved Organic Carbon	48000	23000	96	263
Additional Information				
2008 pH	6.8	7.1		
2009 Conductivity uS/cm	193	43.3		
Temperature*	17	17		

WAC Limit Values		
limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Mass of Sample Kg	0.140
Mass of dry Sample Kg	0.113
Stage 1	
Volume of Leachant L2	0.1984999
Volume of Eluate VE1	0.15
Stage 2	
Volume of Leachant L8	0.9026664
Volume of Eluate VE2	0.8

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

*Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions.
Values are correct at time of issue.*

DERWENTSIDE ENVIRONMENTAL TESTING SERVICES LIMITED

Summary of Asbestos Analysis

Soil Samples

Our Ref: 12-69610

Client Ref: 20958

Contract Title: Caversham Road, Reading

Lab No	Sample Ref	Material Type*	Result	Comment	Analyst
449868	WS12-09 1.80	Soil	NAD	None	Emrhys Sheldon

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETS 082 using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.

Sample Comments

DETS cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".

All samples received are listed below. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations.

If no sampled date (soils) or date/time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters), this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Lab No.	Sample ID	Date Sampled	Containers Received	Deviating due to holding time being exceeded for test	Deviating due to inappropriate container for test
449868	WS12-09 1.80 SOIL	29/09/2012	Glass Jar 250ml or less (250ml), Glass Vial (40ml), Plastic Tub 1 litre (1kg)		
449869	WS12-09 2.20 SOIL	29/09/2012	Glass Jar 250ml or less (250ml), Glass Vial (40ml), Plastic Tub 1 litre (1kg)		
449870	WS12-09 3.50 SOIL	29/09/2012	Glass Jar 250ml or less (250ml), Glass Vial (40ml), Plastic Tub 1 litre (1kg)		
449871	WS12-09 1.80 LEACHATE	29/09/2012	Glass Jar 1 litre (1 litre)		
449872	WS12-09 1.80 LEACHATE	29/09/2012	Glass Jar 1 litre (1 litre)		

Appendix A - Details of Analysis

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.

No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

<u>Method</u>	<u>Name of Parameter</u>	<u>Units</u>	<u>Limit of Detection</u>	<u>Sample Preparation</u>	<u>Sub-Contracted</u>	<u>UKAS</u>	<u>MCERTS</u>
DETSC 2002	Organic Matter	%	0.01	Air Dried	No	Yes	Yes
DETSC 2003	Loss on Ignition	%	0.01	Air Dried	No	Yes	Yes
DETSC 2004	Total Sulphate	%	0.01	Air Dried	No	Yes	Yes
DETSC 2321	Total Sulphate	%	0.01	Air Dried	No	Yes	Yes
DETSC 2004	Water Soluble Sulphate	mg/l	10.00	Air Dried	No	Yes	Yes
DETSC 2076	Water Soluble Sulphate	mg/l	10.00	Air Dried	No	Yes	Yes
DETSC 2006	Chloride	mg/kg	0.01	Air Dried	No	Yes	Yes
DETSC 2008	pH	pH Units	0.10	Air Dried	No	Yes	Yes
DETS 042	Selenium	mg/kg	0.50	Air Dried	No	Yes	Yes
DETSC 2119	Ammonia	mg/kg	0.02	Air Dried	No	Yes	Yes
DETS 020	Boron (Water Soluble)	mg/kg	0.20	Air Dried	No	Yes	Yes
DETSC 2024	Sulphide	mg/kg	10.00	Air Dried	No	Yes	Yes
DETS 042	Antimony	mg/kg	1.00	Air Dried	No	No	No
DETS 042	Arsenic	mg/kg	0.20	Air Dried	No	Yes	Yes
DETS 042	Barium	mg/kg	1.50	Air Dried	No	Yes	Yes
DETS 042	Beryllium	mg/kg	0.20	Air Dried	No	Yes	Yes
DETS 042	Cadmium	mg/kg	0.10	Air Dried	No	Yes	Yes
DETS 042	Cobalt	mg/kg	0.70	Air Dried	No	Yes	Yes
DETS 042	Copper	mg/kg	0.20	Air Dried	No	Yes	Yes
DETS 042	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETS 042	Iron	mg/kg	1.00	Air Dried	No	Yes	No

Appendix A - Details of Analysis

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.

No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

<u>Method</u>	<u>Name of Parameter</u>	<u>Units</u>	<u>Limit of Detection</u>	<u>Sample Preparation</u>	<u>Sub-Contracted</u>	<u>UKAS</u>	<u>MCERTS</u>
DETS 042	Lead	mg/kg	0.30	Air Dried	No	Yes	Yes
DETS 042	Manganese	mg/kg	20.00	Air Dried	No	Yes	Yes
DETSC 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETS 042	Molybdenum	mg/kg	0.40	Air Dried	No	Yes	Yes
DETS 042	Nickel	mg/kg	0.20	Air Dried	No	Yes	Yes
DETS 042	Thallium	mg/kg	1.00	Air Dried	No	No	No
DETS 042	Vanadium	mg/kg	0.80	Air Dried	No	Yes	Yes
DETS 042	Zinc	mg/kg	1.00	Air Dried	No	Yes	Yes
DETSC 3049	Sulphur (Free)	mg/kg	0.50	As Received	No	Yes	Yes
DETSC 3301	PAH by GC-FID	mg/kg	0.10	As Received	No	Yes	No
DETSC 3311	TPH (C10 - C40)	mg/kg	20.00	As Received	No	Yes	Yes
DETSC 3401	PCB	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2130	Easily Liberatable Cyanide	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Complex Cyanide	mg/kg	0.30	Air Dried	No	Yes	No
DETSC 2130	Total Cyanide	mg/kg	0.40	Air Dried	No	Yes	Yes
DETSC 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes

Appendix A - Details of Analysis

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.

No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

<u>Method</u>	<u>Name of Parameter</u>	<u>Units</u>	<u>Limit of Detection</u>	<u>Sample Preparation</u>	<u>Sub-Contracted</u>	<u>UKAS</u>	<u>MCERTS</u>
DETSC 3431	VOC	mg/kg	0.01	As Received	No	No	No
DETSC 3303	PAH by GCMS (see list below)						
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Anthracene	mg/kg	0.03	As Received	No	Yes	No
DETSC 3303	Chrysene	mg/kg	0.03	As Received	No	Yes	No
DETSC 3303	Fluorene	mg/kg	0.03	As Received	No	Yes	No



2139

Certificate of Analysis

Date: 12/10/2012

Certificate Number: 12-69619

Client: Ian Farmer Associates
Unit 1 Fairfield Court
Seven Stars Industrial Estate
Wheler Road
Coventry
West Midlands
CV3 4LJ

Our Reference: 12-69619

Client Reference: 20958

Contract Title: Caversham Road, Reading

Description: 4 water samples

Date Received: 03 October 2012

Date Started: 03 October 2012

Date Completed: 12 October 2012

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation

Approved By: 
Rob Brown, Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Information in Support of the Analytical Results

Analysis

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

Organic soil analysis was carried out on an 'as received' sample.

Key

- * Denotes test not included in laboratory scope of accreditation
- # Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo
- \$ Denotes tests completed by an approved subcontractor
- I/S Denotes insufficient sample to carry out test
- U/S Denotes that the sample is not suitable for testing

Disposal

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

Soils - 1 month

Liquids - 2 weeks

Asbestos (test portion) - 6 months

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69619

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449906	449907	449908	449909
				Sample ID	CP12-01	CP12-02	CP12-03	Control
				Depth				
				Sample Ref				
				Sample Type				
				Sampling Date	02/10/2012	02/10/2012	02/10/2012	02/10/2012
				Sampling Time	1100	1145	1230	1245
Test	Units	DETSxx	LOD					
Antimony, Dissolved	ug/l	DETSC 2306	0.17		0.42	< 0.17	< 0.17	0.41
Arsenic, Dissolved	ug/l	DETSC 2306	0.16		1.5	0.84	0.81	1.3
Beryllium, Dissolved	ug/l	DETSC 2306*	0.1		< 0.10	< 0.10	< 0.10	< 0.10
Cadmium, Dissolved	ug/l	DETSC 2306	0.03		0.037	< 0.030	< 0.030	0.049
Chromium, Dissolved	ug/l	DETSC 2306	0.25		< 0.25	< 0.25	< 0.25	< 0.25
Copper, Dissolved	ug/l	DETSC 2306	0.4		0.86	0.73	0.64	1.1
Lead, Dissolved	ug/l	DETSC 2306	0.09		0.15	< 0.090	< 0.090	0.12
Mercury, Dissolved	ug/l	DETSC 2306	0.01		< 0.010	0.014	< 0.010	< 0.010
Nickel, Dissolved	ug/l	DETSC 2306	0.5		17	18	3.2	16
Selenium, Dissolved	ug/l	DETSC 2306	0.25		1.3	2.1	0.74	0.93
Vanadium, Dissolved	ug/l	DETSC 2306	0.6		< 0.60	< 0.60	< 0.60	< 0.60
Zinc, Dissolved	ug/l	DETSC 2306	1.25		7.0	6.7	2.2	6.1
Chloride	mg/l	DETSC 2055*	0.1		73	40	37	69
Total Biochemical Oxygen Demand	mg/l	DETSC 2031	1		6.5	< 1.0	< 1.0	1.4
Total Chemical Oxygen Demand	mg/l	DETSC 2032	10		110	42	47	120
Cyanide total	ug/l	DETSC 2130	40		< 40.0	< 40.0	< 40.0	< 40.0
Hardness	mg/l	DETSC 2303*	0.1		396	404	337	382
Ammoniacal Nitrogen as N	mg/l	DETSC 2207	0.015		4.2	0.098	3.9	3.3
pH		DETSC 2008			6.8	6.9	6.9	6.8
Aliphatic C5-C6	ug/l	DETSC 3322	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	ug/l	DETSC 3322	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	ug/l	DETSC 3322	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	ug/l	DETSC 3072*	1		2.4	< 1.0	< 1.0	< 1.0
Aliphatic C12-C16	ug/l	DETSC 3072*	1		9.5	< 1.0	< 1.0	2.0
Aliphatic C16-C21	ug/l	DETSC 3072*	1		8.6	< 1.0	< 1.0	9.4
Aliphatic C21-C35	ug/l	DETSC 3072*	1		7.9	< 1.0	< 1.0	17
Aromatic C5-C7	ug/l	DETSC 3322	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	ug/l	DETSC 3322	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	ug/l	DETSC 3322	0.1		< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	ug/l	DETSC 3072*	1		6.1	< 1.0	< 1.0	2.4
Aromatic C12-C16	ug/l	DETSC 3072*	1		12	< 1.0	< 1.0	2.2
Aromatic C16-C21	ug/l	DETSC 3072*	1		5.3	< 1.0	< 1.0	6.2
Aromatic C21-C35	ug/l	DETSC 3072*	1		< 1.0	< 1.0	< 1.0	3.3
Aliphatic C5-C35	ug/l	DETSC 3072*	10		28	< 10	< 10	28
Aromatic C5-C35	ug/l	DETSC 3072*	10		24	< 10	< 10	14
TPH Ali/Aro	ug/l	DETSC 3072*	10		52	< 10	< 10	42
Acenaphthene	ug/l	DETS 074*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	ug/l	DETS 074*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	ug/l	DETS 074*	0.01		< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	ug/l	DETS 074*	0.01		< 0.01	< 0.01	< 0.01	0.21
Benzo(a)pyrene	ug/l	DETS 074*	0.01		< 0.01	< 0.01	< 0.01	0.07
Benzo(b)fluoranthene	ug/l	DETS 074*	0.01		< 0.01	< 0.01	< 0.01	0.03
Benzo(k)fluoranthene	ug/l	DETS 074*	0.01		< 0.01	< 0.01	< 0.01	0.04

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69619

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449906	449907	449908	449909
				Sample ID	CP12-01	CP12-02	CP12-03	Control
				Depth				
				Sample Ref				
				Sample Type				
				Sampling Date	02/10/2012	02/10/2012	02/10/2012	02/10/2012
				Sampling Time	1100	1145	1230	1245
Test	Units	DETSxx	LOD					
Benzo(g,h,i)perylene	ug/l	DETS 074*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	ug/l	DETS 074*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.10
Dibenzo(a,h)anthracene	ug/l	DETS 074*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	ug/l	DETS 074*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.17
Fluorene	ug/l	DETS 074*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	ug/l	DETS 074*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Naphthalene	ug/l	DETS 074*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	ug/l	DETS 074*	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	ug/l	DETS 074*	0.01	< 0.01	< 0.01	0.02		3.5
PAH	ug/l	DETS 074*	0.2	< 0.20	< 0.20	< 0.20		4.2
Benzene	ug/l	DETSC 3322	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/l	DETSC 3322	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/l	DETSC 3322	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene	ug/l	DETSC 3322	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Phenol	ug/l	DETS 079*	0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
GCMS BroadScan (headspace)		DETSC 3442*		Y	Y	Y		

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69619

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449906	449907	449908
				Sample ID	CP12-01	CP12-02	CP12-03
				Depth			
				Sample Ref			
				Sample Type			
				Sampling Date	02/10/2012	02/10/2012	02/10/2012
				Sampling Time	1100	1145	1230
Test	Units	DETSxx	LOD				
Total VOC's	ug/l	DETSC 3432*	1		< 1	14	9
1,1 Dichloroethylene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Trans-1,2-dichloroethylene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,1-dichloroethane	ug/l	DETSC 3432*	1		< 1	1	< 1
Cis-1,2-dichloroethylene	ug/l	DETSC 3432*	1		< 1	13	9
2,2-dichlororopropane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Bromochloromethane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Chloroform	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,1,1-trichloroethane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,1-dichloropropene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Carbon tetrachloride	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Benzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,2-dichloroethane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Trichloroethylene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,2-dichloropropane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Dibromomethane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Bromodichloromethane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
cis-1,3-dichloropropene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Toluene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
trans-1,3-dichloropropene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,1,2-trichloroethane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Tetrachloroethylene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,3-dichloropropane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Dibromochloromethane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,2-dibromoethane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Chlorobenzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,1,1,2-tetrachloroethane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Ethylbenzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
m+p-Xylene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
o-Xylene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Styrene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Bromoform	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Isopropylbenzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Bromobenzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,2,3-trichloropropane	ug/l	DETSC 3432*	1		< 1	< 1	< 1
n-propylbenzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
2-chlorotoluene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,3,5-trimethylbenzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
4-chlorotoluene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
Tert-butylbenzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
1,2,4-trimethylbenzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
sec-butylbenzene	ug/l	DETSC 3432*	1		< 1	< 1	< 1
p-isopropyltoluene	ug/l	DETSC 3432*	1		< 1	< 1	< 1

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69619

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449906	449907	449908
				Sample ID	CP12-01	CP12-02	CP12-03
				Depth			
				Sample Ref			
				Sample Type			
				Sampling Date	02/10/2012	02/10/2012	02/10/2012
				Sampling Time	1100	1145	1230
Test	Units	DETSxx	LOD				
1,3-dichlorobenzene	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
Chloromethane	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
1,1,2,2-tetrachloroethane	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
1,4-dichlorobenzene	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
n-butylbenzene	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
1,2-dichlorobenzene	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
1,2-dibromo-3-chloropropane	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
1,2,4-trichlorobenzene	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
Naphthalene	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
1,2,3-trichlorobenzene	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1
Vinyl Chloride	ug/l	DETSC 3432*	1	< 1	< 1	< 1	< 1

Summary of Chemical Analysis

Water Samples

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				Sample ID	CP12-01	CP12-02	CP12-03
				Depth			
				Sample Ref			
				Sample Type			
				Sampling Date	02/10/2012	02/10/2012	02/10/2012
				Sampling Time	1100	1145	1230
Test	Units	DETSxx	LOD				
Aniline	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Phenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2-Chlorophenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Bis(2-chloroisopropyl)ether	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Benzyl Alcohol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2-Methylphenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
3&4-Methylphenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Bis(2-chloroethoxy)methane	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Naphthalene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
4-Chloro-3-methylphenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2-Methylnaphthalene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Hexachlorocyclopentadiene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2,4,6-Trichlorophenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2,4,5-Trichlorophenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2-Chloronaphthalene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2-Nitroaniline	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
1,4-Dinitrobenzene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Dimethylphthalate	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
1,3-Dinitrobenzene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Acenaphthylene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2,6-Dinitrotoluene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
1,2-Dinitrotoluene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
3-Nitroaniline	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Acenaphthene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Dibenzofuran	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2,4-Dinitrotoluene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
4-Nitrophenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2,3,4,6-Tetrachlorophenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
2,3,5,6-Tetrachlorophenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Diethylphthalate	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Fluorene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
4-Chlorophenylphenylether	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
4-Nitroaniline	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Diphenylamine	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Azobenzene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
4-Bromophenylphenylether	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Hexachlorobenzene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Pentachlorophenol	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Phenanthrene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0
Anthracene	ug/l	DETS 071*	1		< 1.0	< 1.0	< 1.0

Summary of Chemical Analysis

Water Samples

Our Ref: 12-69619

Client Ref: 20958

Contract Title: Caversham Road, Reading

				Lab No.	449906	449907	449908
				Sample ID	CP12-01	CP12-02	CP12-03
				Depth			
				Sample Ref			
				Sample Type			
				Sampling Date	02/10/2012	02/10/2012	02/10/2012
				Sampling Time	1100	1145	1230
Test	Units	DETSxx	LOD				
Carbazole	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-butylphthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Butylbenzylphthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)ester	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Fluoranthene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Pyrene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Benzo(a)anthracene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Chrysene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-octylphthalate	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Benzo(b)fluoranthene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Benzo(k)fluoranthene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Benzo(a)pyrene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Indeno(123cd)pyrene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Dibenzo(ah)anthracene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0
Benzo(ghi)perylene	ug/l	DETS 071*	1	< 1.0	< 1.0	< 1.0	< 1.0

Sample Comments

DETS cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".

All samples received are listed below. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations.

If no sampled date (soils) or date/time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters), this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Lab No.	Sample ID	Date Sampled	Containers Received	Deviating due to holding time being exceeded for test	Deviating due to inappropriate container for test
449906	CP12-01 WATER	02/10/2012	Glass Jar 1 litre (1 litre) x2, Glass Vial (40ml) x2, Plastic Bottle 1 litre (1 litre)		
449907	CP12-02 WATER	02/10/2012	Glass Jar 1 litre (1 litre) x2, Glass Vial (40ml) x2, Plastic Bottle 1 litre (1 litre)		
449908	CP12-03 WATER	02/10/2012	Glass Jar 1 litre (1 litre)		
449909	Control WATER	02/10/2012	Glass Jar 1 litre (1 litre) x2, Glass Vial (40ml) x2, Plastic Bottle 1 litre (1 litre)		

APPENDIX 4
GAS AND GROUNDWATER

GAS AND GROUNDWATER MONITORING RESULTS

CONTRACT NAME:			Reading														
CONTRACT NO:			20958														
DATE:			02/10/2012														
Background Readings:			O ₂ % v/v: 20.0		CO ₂ % v/v: 0.0		CH ₄ % v/v: 0.		WEATHER CONDITIONS: Warm, sunny spells, 50% cloud, slight wind, 15°C								
			H ₂ S ppm: 0.0		CO ppm: 0.0		1010		GROUND CONDITIONS: Dry								
BOREHOLE	TIME	ATMOSPHERIC PRESSURE	O ₂ % v/v		CO ₂ % v/v		CH ₄ % v/v		H ₂ S ppm	CO ppm	Gas Flow Rate (l/hr)		DEPTH TO LNAPL	WATER DEPTH	DEPTH TO DNAPL	TOTAL DEPTH	VOC
			LOW	STEADY	HIGH	STEADY	HIGH	STEADY	PEAK	PEAK	PEAK	AVERAGE	mBGL	mBGL	mBGL	mBGL	ppm
CP12-01		1010	19.1	19.1	0.7	0.7	0.0	0.0	0	0	0.4	0.0		2.20		6.05	0.00
CP12-02		1010	19.8	19.8	0.6	0.6	0.0	0.0	0	0	0.4	0.0		7.00		7.10	0.00
CP12-03		1010	20.0	20.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0		1.58		5.70	0.00
WS12-01		1010	6.7	6.7	7.5	7.5	0.0	0.0	0	0	-1.4	-1.4		2.27		2.32	0.00
WS12-02		1010	COULD NOT OPEN COVER DUE TO DAMAGE FROM N.R.TRAFFICKING														
WS12-03		1010	20.2	20.2	0.0	0.0	0.0	0.0	0	0	0.0	0.0		DRY		1.88	0.00
WS12-04		1010	19.5	19.5	0.0	0.0	0.0	0.0	0	0	0.0	0.0		DRY		1.45	0.00
WS12-05		1010	12.0	12.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0		1.64		2.00	1.10
WS12-06		1010	17.5	17.5	0.0	0.0	0.0	0.0	0	0	0.0	0.0		0.96		1.07	0.00
WS12-09		1010				NO ACCESS											

REMARKS:

- Geotechnical Investigation and Advice
- Environmental Investigation and Advice
- Structural and Condition Surveys
- Desk Studies
- Compliance Testing of Material
- Concrete Technology
- Asbestos Survey and Management
- Insitu Testing
- Archaeological Studies and Surveys



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