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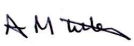
Phase II Geo-Environmental Assessment
11-13 St Pancras Way, London, NW1 0PT

The Unite Group Plc & Travis Perkins (Properties) Ltd

July 2010

QUALITY MANAGEMENT

Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks	Draft	Final		
Date	July 2010	July 2010		
Prepared by	Philip Lewis	Philip Lewis		
Signature				
Checked by	John Richmond / Alison Wiles			
Signature				
Authorised by	Mark Wheeler			
Signature				
Project number	12041745			
File reference	002			

WSP Environment & Energy
70 Chancery Lane
London
WC2A 1AF.

Tel: +44 (0)20 7314 5000

www.wspenvironmental.com

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CONTENTS

EXECUTIVE SUMMARY

At the request of The Unite Group Plc & Travis Perkins (Properties) Ltd ('the client'), WSP Environment & Energy Ltd was instructed to complete a Phase II Geo-Environmental Assessment at 11 – 13 St Pancras Way, London NW1 0PT.

It is understood that the existing Travis Perkins builder's merchants will be demolished prior to redevelopment. The redevelopment will include a new student accommodation scheme and provision for Travis Perkins to occupy a space on the ground floor upon practical completion. The proposed development has not been finalised but it is understood to include the construction of a nine storey residential structure with a builder's merchants (Travis Perkins) occupying some of the ground floor.

The ground investigation and subsequent assessment has been completed to appraise the ground and groundwater conditions in the context of potential risks from land contamination and provide advice on foundation solutions.

GROUND INVESTIGATION

The ground investigation was completed between 11th June and 18th June 2010 and included the progression of three cable percussive boreholes, nine dynamic (window) sampler boreholes and two trial pits.

The ground conditions encountered in the exploratory holes are broadly consistent with the geological sequence as described in the British Geological Survey map and comprised Hardstanding and Made Ground overlying cohesive London Clay and Lambeth Group deposits. Groundwater was encountered in all geological units, including groundwater perched in the Made Ground above the London Clay.

LAND CONTAMINATION

Based on the current information, the concentrations of contaminants identified within the soil and groundwater are not considered to pose a risk to future site users, ecologically sensitive receptors, surface water or the underlying sensitive aquifers. However, potable water supply pipes installed as part of the proposed development are considered to be potential receptors.

Based on the available data the risks to the proposed development and future site users from ground gas are considered to be low.

GEOTECHNICAL

Foundations

The Made Ground encountered across the site is not a suitable founding stratum due to its inherent variability in composition and state of compaction.

The Made Ground is underlain by firm to stiff London Clay, which is underlain by the very stiff Lambeth Group Strata at depth. Both stratums are considered to be a suitable founding stratum due to their undrained shear strength which have an increasing shear strength profile with depth.

The Made Ground encountered across the site is variable in thickness and typically ranged between 2.10m and 4.50m thick. Due to the shallow groundwater regime, the thickness of Made Ground recorded and the anticipated column loads a shallow spread foundation solution is not considered to be appropriate and piled foundations will be required for this site.

Ground Floor Construction

Due to the thickness of Made Ground recorded across the site (in excess of 0.60m thick) it is considered that suspended floor slabs should be adopted for the proposed development.

Impact on Adjacent Structures

A retaining wall is present parallel with the southern site boundary beyond which is a pedestrian access way at the lower level. Any intrusive works or ground loadings within the sphere of influence of the retaining wall will need to consider the impact on the retaining wall and ensure its integrity during the short and long term during redevelopment of the site. The impact from traffic loadings should also be considered.

Groundwater

It is considered that any groundwater inflows are likely to be adequately dealt with by pumping from sumps in the base of any shallow excavations during the summer months.

Obstructions

Obstructions will inhibit the implementation of any foundation solution and should be broken out and removed prior to the commencement of construction. A detailed strategy for obstruction removal should be considered to ensure that abnormal costs are appropriately managed.

Retaining Wall

A retaining brick wall is present in the north-western corner of the site. Any excavations or intrusive works will need to consider the presence of the retaining wall footing and the stability of the wall.

External Works

It is recommended that a CBR value of <2% be adopted in the preliminary design of road pavements and parking areas constructed on the Made Ground. Further testing should be undertaken in the design investigation to confirm the values.

Buried Concrete (Natural Strata)

In accordance with BRE Special Digest 1 (2005), the majority of the results indicate that the design sulphate class is DS-2 and the corresponding Aggressive Chemical Environment for Concrete (ACEC) class for the site is AC-2 (mobile groundwater conditions).

RECOMMENDATIONS

Land Contamination

The WRAS document (October 2002) entitled; 'the Selection of Materials for Water Supply Pipes to be Laid in Contaminated Land' and possibly the UKWIR series of documents entitled, 'Pipe Material Selection and Specification for use in Contaminated Land' should be referenced prior to potable water pipe selection.

Although not considered to pose a potential risk to future site users and controlled water receptors, maintenance and construction workers involved in below ground works should be made aware of the petroleum hydrocarbon concentrations in the perched groundwater and appropriately mitigated the potential risks.

In addition, should the perched groundwater require dewatering during below ground excavations, then the identified petroleum hydrocarbon concentrations will need to be considered to ensure appropriate disposal.

Geotechnical

The geotechnical data within this report should be reviewed and a design investigation should be scoped and implemented in accordance with EC7 once development proposals are finalised and the column loads, tolerable settlements / ultimate limit state requirements of the structure are known a Geotechnical Design Report (GDR) should be produced in accordance with the eurocodes for the site.

WSP ENVIRONMENT & ENERGY

The executive summary should be read in conjunction with the complete report (Ref. WSPE Phase II Geo-Environmental Assessment Report 12041745/002, July 2010) and not relied upon as a separate document.

1 Introduction

1.1 AUTHORISATION

At the request of The Unite Group Plc & Travis Perkins (Properties) Ltd ('the client'), WSP Environment & Energy Ltd (WSPE) was instructed to complete a Phase II Geo-Environmental Assessment at 11 – 13 St Pancras Way, London NW1 0PT.

1.2 BACKGROUND

WSPE have previously completed the following report in relation to the site:

- WSPE 12041745.001 (April 2010). Phase I Environmental Assessment, 11-13 St Pancras Way, London NW1 0PT.

A summary of the findings is presented in **Section 2.2** of this report.

1.2.8 Proposed Development

It is understood that the existing Travis Perkins builder's merchants will be demolished prior to redevelopment. The redevelopment will include a new student accommodation scheme and provision for Travis Perkins to occupy a space on the ground floor upon practical completion. The proposed development has not been finalised but it is understood to include the construction of a nine storey residential structure with a builder's merchants (Travis Perkins) occupying some of the ground floor.

The proposed development plans are presented in **Appendix A.**

1.3 OBJECTIVES

The ground investigation and subsequent assessment has been completed to appraise the ground and groundwater conditions in the context of potential risks from land contamination and provide advice on foundation solutions.

1.4 SCOPE OF WORKS

The ground investigation was completed between 11th June and 18th June 2010 and included the following:

- Production of appropriate Health and Safety documentation;
- Completion of a service clearance survey;
- Supervision of the site works and geological logging by WSPE engineers;
- Concrete coring of exploratory hole locations;
- Two days of dynamic sampling (9 No. boreholes) to a maximum depth of 5m below ground level (bgl) with soil sampling, to assess the shallow ground, ground gas and groundwater conditions in the Made Ground and natural ground deposits. The conversion of selected boreholes into groundwater and ground gas monitoring wells;
- Progression of three cable percussive boreholes (two to 25m bgl and one to 30m bgl) with insitu Standard Penetration Testing (SPT) to assist with geotechnical design and to obtain samples for geotechnical and environmental testing;
- Completion of 2no trial pits to investigate the ground conditions in the vicinity of noted possible relict building features;
- Exposure and logging of the foundations of the retaining wall in the north-eastern site area;
- Collection of a core sample from the foundations of the retaining wall;
- Field screening of soil samples using a photo-ionisation detector;

- Geotechnical laboratory testing for an appropriate suite of parameters, including; bulk density, plasticity index, moisture content, pH, sulphate and triaxial load testing;
- Chemical laboratory testing (on selected samples) for an appropriate suite of determinands. The chemical analysis of soil and groundwater samples has been undertaken by a UKAS & MCERTS accredited laboratory;
- Four rounds of groundwater and ground gas monitoring (including oxygen, carbon dioxide, methane, gas flow rate, groundwater levels and volatile vapours); and
- Provision of a factual and interpretive Phase II Geo-Environmental Risk Assessment report.

1.5 LIMITATIONS

The general limitations to the nature of the investigation are outlined in **Appendix H.**

2 Site Characterisation

2.1 SITE DETAILS

Site Address	11-13, St Pancras Way, London, NW1 0PT
National Grid Reference	529570, 183690
Area	Approximately 0.48 hectares
Site Location	The site is located in a mixed residential, commercial and industrial area of central London (Somers Town), approximately 300m north west of St Pancras International Rail Station (see **Figure 1**, **Appendix A**).
Current Site Use	The site is currently occupied by Travis Perkins builder's merchants.
Surrounding Land Uses	The surrounding land uses comprise: ■ North: College Grove with eight storey student accommodation beyond. ■ South: Homeless shelter comprising a three storey brick building with a 2m deep basement. ■ East: St Pancras Way with St Pancras Hospital and a sorting office beyond. ■ West: Four storey brick building with the Royal Veterinary College beyond.

2.2 DESK BASED INFORMATION

A full Phase I Environmental Assessment (ref. 12041745.001, April 2010) has been completed for the site and the key information from this assessment is summarised in the following sections:

Site History	Historical land uses on the site have included stables, engineering depot and timber yard Historical land uses surrounding the site have included a burial ground, hospital, veterinary college, warehousing, a garage and workshop and a railway siding.
Geology	Geological Map Sheet no. 256, North London, scale 1:50 000, Solid & Drift edition and available borehole logs indicate the site is underlain by Made Ground, London Clay, Lambeth Group Beds, Thanet Sand Formation and the White Chalk Formation.
Hydrology	The nearest surface water body is the Regents (Grand Union) Canal approximately 150m northwest. The Grand Union Canal is utilised for the following purpose: ■ Environmental: Non-remedial River/Wetland Support: Make-Up or Top Up Water (Grand Union Canal At Camley Street Nature Park, London)
Hydrogeology	Reference to the Environment Agency (EA) Groundwater Vulnerability Map, Sheet 40, Thames Estuary, Scale 1:100,000 and the EA website suggests that the following groundwater bodies and aquifer designations are relevant at the subject site: ■ London Clay (Un-productive Aquifer) ■ Lambeth Group (Secondary A Aquifer) ■ Thanet Sands (Principal Aquifer) ■ White Chalk Formation (Principal Aquifer) The following groundwater abstraction has been identified within 500m of the site: ■ Mineral Products: General use relating to Secondary Category (High Loss) The details of the groundwater body being utilised are not known but it is presumed to be

	abstraction from the Thanet Sands / White Chalk Formation.
Resource Potential & Ecological Sensitivity	Surface Water: The nearest surface water feature is the Grand Union Canal which is as detailed in the previous sections is utilised for 'top-up' water. Although this is not a sensitive use (e.g. potable use) the surface water in the Grand Union Canal should be considered as a local resource. In addition reference to the relevant River Basin Management Plan indicates that the Grand Union Canal is classified as having a Moderate ecological quality in the vicinity of the site. Groundwater: The Worked Ground and London Clay deposits beneath and surrounding the site are considered to have a low resource potential. There is some potential for any localised river channel deposits that may be present to be utilised as a resource but this is considered to be limited. In addition the Lambeth Group deposits are classified as a Secondary (A) Aquifer and as such would be considered important as a local scale resource. There are no records of the formation being utilised at present but it is considered to have a future resource potential. The main groundwater resource is considered to comprise the Principal Aquifer of the Thanet Sands / White Chalk[1] which is overlain by significant thicknesses of cohesive deposits.

2.2.1 Environmental Sensitivity

Overall, the site setting is considered to be of **low/moderate** environmental sensitivity, due to the following reasons:

- The site is located in a mixed commercial/residential area;
- The Camley Street Nature Park is located within 500m of the site;
- The site is underlain by a Non Productive Aquifer comprising the London Clay Formation;
- The Grand Union Canal is located within 500m of the site and is utilised as a resource and has a moderate ecological status;
- There are no licensed potable groundwater abstraction licenses within 500m of the site;
- The site is not located within an Environment Agency groundwater Source Protection Zone (SPZ).

2.2.2 Preliminary Conceptual Site Model

The following table provides a summary of the potential pollutant linkages identified from on-site and off-site sources:

Potential contaminant sources	Associated contaminants	Potential migration pathways	Sensitive receptors
On-Site			
■ Historical site use (stables, engineering depot & timber yard); ■ Current site use – builders merchants; ■ Above ground Storage Tank (AST);	■ Metals and inorganics including asbestos, cyanide and pH; ■ Total petroleum hydrocarbons (TPH); ■ Polycyclic Aromatic Hydrocarbons (PAHs); ■ Volatile Organic	**Human Health** ■ Inhalation of volatile vapours/ ground gases; ■ Direct contact with soil and groundwater; ■ Ingress into potable water supply pipes.	■ Future Site Users (residential); ■ Construction & Maintenance Staff;

[1] These deposits are considered to be in hydraulic continuity

and ▪ Made Ground / worked ground;	Compounds (VOC's); ▪ Phenols ▪ Polychlorinated Biphenyls (PCBs); & ▪ Volatile Vapours & ground gas.	**Controlled Waters** ▪ Leaching into groundwater; & Lateral migration	▪ Groundwater: Secondary A & Principal Aquifers ▪ Surface Water: Grand Union Canal
		Built Environment ▪ Permeation into plastic pipes; ▪ Direct Contact with aggressive ground and/or groundwater	▪ Below ground service; potable supply pipes & building service entry points ▪ Building fabric; Potential degradation of concrete foundations & below ground structures.
		Ecological	▪ Camley Street Nature Park
Off Site			
▪ Former Ale Store; ▪ Railway siding; ▪ Former Garage & Workshops; ▪ Hospital; and ▪ Former 'works' & warehousing	▪ Metals and inorganics including asbestos and pH; ▪ TPH; ▪ PAHs; ▪ VOC's ▪ PCBs; & ▪ Volatile Vapours & ground gas	▪ Migration of groundwater or gas onto site.	▪ On-Site Controlled Waters ▪ Groundwater; (Secondary A & Principal Aquifers). ▪ Future Site Users (Residential); ▪ Construction & Maintenance Staff;

2.3 GROUND INVESTIGATION

The ground investigation was completed between 11th June and 18th June 2010.

2.3.1 Summary of Investigation

The table below gives a summary of the exploratory holes completed as part of the ground investigation, along with rationale.

Element of investigation	Details	Rationale
Trial Pits	2No. 0.52m – 0.95m bgl (TP1 to TP2)	To aid in assessment of retaining wall foundations & possible relic building structure. Concrete core on existing footing,
Cable percussion boreholes	3No. 25.0m – 30.0m bgl (BH1, BH2 & BH3)	To provide geotechnical design parameters and install ground gas & groundwater monitoring wells.
Window Sample Boreholes	9No. 0.80m to 5.0m bgl (WS1 to WS9)	To provide information on the shallow ground conditions.
Installation of gas and groundwater monitoring wells	In stalled in 3No. cable percussive boreholes and 3No. window sample boreholes. Monitored on four occasions over two calendar months	To provide information for characterising the ground gas regime and groundwater conditions.

Element of investigation	Details	Rationale
Sampling	Disturbed & undisturbed in-situ (U_{100}) sampling.	To provide sufficient appropriate samples for laboratory testing
Geotechnical Lab Testing	Soils samples were submitted to the UKAS accredited laboratories of WSPE for geotechnical testing.	To allow assessment of geotechnical soil parameters.
Chemical Lab Analysis	Soil and groundwater samples were submitted to the UKAS and MCERTS accredited laboratories of WSPE for chemical analysis.	To allow assessment of potential risks to identified receptors from land contamination issues.

2.4 GROUND CONDITIONS

2.4.1 Summary of Ground Conditions

The table below provides a summary of the ground conditions with the draft exploratory hole logs provided in the **Appendix B.**

Strata	Depth range to top of stratum (m bgl)	Depth range to bottom of stratum (m bgl)	Brief Description
Hardstanding	GL	0.15 – 0.30	Concrete
Made Ground	0.15 – 0.30	1.70 – 4.50	Typically comprised brown locally red brown sandy and gravelly clay. Gravel comprises sub-angular to sub-rounded brick, flint, coal, concrete and subordinate proportions of glass and chalk.
London Clay	1.70 – 4.50	22.5 – 23.0	An upper weathered horizon typically firm light brown clay with partings of light brown silt and fine sand and rare medium angular fine gravel of selenite crystals. Occasional evidence of bioturbation. A deeper horizon typically comprised stiff dark grey clay with silt partings. Mudstone bands were identified in BH1 & BH3 (8.0m – 8.20m bgl & 9.0m – 9.60m bgl respectively). The undrained shear strength of the London Clay increased linearly with depth as outlined in Figure 2.4.
Lambeth Group (Cohesive Soils)	22.5 – 23.0	Not Determined	Very stiff to hard grey mottled red and purple to light brown clay with occasional sub-rounded gravel of mudstone. Becoming sandy with depth (BH2 >28.0m bgl) The undrained shear strength of the Lambeth Group increased linearly with depth as outlined in Figure 2.4.

2.5 SURFACE HARDSTANDING

2.5.8 Description

The surface cover of hardstanding comprised non-reinforced concrete at all exploratory hole positions, the thickness of the concrete ranged between 0.15m (WS1, WS2, WS4, WS6 & WS9) and 0.65m (BH2 7 WS8).

2.6 MADE GROUND

2.6.1 Description

The Made Ground was encountered beneath the concrete hardstanding from depths ranging between 0.15m and 0.30m bgl. The Made Ground predominantly comprised slightly sandy, gravelly clay. The clay fill was soft to firm in strength, locally very soft within WS1 between 1.50m bgl and 1.80m bgl. The Made Ground was varied and included granular material ranging from a gravelly sand to a slightly clayey, sandy gravel and also included brick rubble horizons. The gravel fraction comprised fine to coarse, sub-angular to rounded flint with brick, concrete, coal, chalk, dolerite, glass and anthracite fragments. The Made Ground incorporated various colour variations, including, light brown locally mottled black, black grown, dark grey black, dark brown, although predominantly brown locally red brown or grey brown.

The proven thickness of Made Ground recorded across the site ranged between 1.55m (WS9) and 4.35m (WS6). The thickness of Made Ground was not proven within TP1, TP2, WS4 & WS5, with the latter three exploratory holes refusing on a concrete obstruction at the base.

2.6.2 Classification Test

For the twenty Made Ground samples analysed, the moisture content was recorded to range between 7.5% and 29%.

For the two samples of Made Ground, the liquid limit was recorded at 26% (BH3 at 1.4m bgl) and 33% (BH2 at 1.2m bgl), the plastic limit varied from 18% (BH3) and 19% (BH2). The Made Ground samples from BH3 and BH2 recorded athe plasticity index of 8% and 14% rating the soils as a silt with low plasticity and clay with low plasticity, respectively.

2.6.3 Soil Chemical Test

The chemical testing indicated a pH of between 5.0 and 11 and an acid soluble sulphate content of between 0.32g/l and 3.15g/l.

2.6.4 Soil Strength

Generally SPT N values of between 7 and 27 were recorded, indicating loose to medium dense conditions.

2.7 LONDON CLAY

2.7.8 Description

The London Clay was encountered beneath the Made Ground from depths ranging between 1.7mbgl (WS9) and 3.8mbgl (WS8). The London Clay was initially weathered to a proven depth of between 4.5mbgl and 9.5mbgl. This weathered horizon was described as firm to stiff, closely to extremely closely fissured, light brown mottled light grey, locally sandy clay, with silt and sand partings, fine and medium gravel sized selenite and rare bioturbation.

Beneath the Weathered London Clay at 4.5m to 9.5mbgl, the London Clay typically became stiff to very stiff grey to dark grey clay, with silt/fine sand partings and locally extremely closely spaced fissures.

A 0.2m and 0.6m thick thinly laminated, light grey mudstone horizon was encountered in the London Clay within BH1 (at 8.0mbgl) and BH3 (9.0mbgl), respectively. The Mudstone was described as strong in BH1 and very weak and poorly cemented in BH3.

The proven thickness of London Clay recorded within the three boreholes was 19.8m (BH1), 20.3m (BH2) and 19.1m (BH3). Window sample holes WS1, WS2, WS3, WS7, WS8 & WS9 were completed at depths between 3.0m and 4.0m within the Weathered London Clay and WS6 was terminated within the London Clay at 5.0m bgl.

2.7.9 Classification

For the sixteen samples of London Clay, the liquid limit was recorded between 53% and 88%, the plastic limit varied from 20% and 32%. The plasticity index increased ranged between from 33% and 59%, rating the London Clay as having a high to very high plasticity.

Classification testing on the deposit indicated moisture contents to be between 21% and 32%. Generally the test results showed the moisture content decreasing with depth.

On the basis of bulk density test results the London Clay has a unit weight generally ranging between 19.1 and 20.09 kN/m^3. For this layer, the average bulk unit weight is approximately γ_b = 20.0 kN/m^3.

2.7.10 Soil Chemical Test

The chemical testing indicated a pH of 7.8 to 8.4, and a water soluble sulphate content of between 0.07g/l and 2.3g/l.

2.7.11 Soil Strength

Generally SPT N values of between 12 and 50 were recorded, indicating firm to very stiff conditions. Quick undrained triaxial tests indicated shear strengths of between 71 kN/m^2 and 202 kN/m^2, indicating firm to very stiff conditions.

SPT 'N' values are performed within the London Clay as it is normally possible to correlate the SPT 'N' value with the undrained shear strength. The undrained shear strength is normally obtained by multiplying the SPT 'N' value by a factor, which is typically taken as 4.5.

A plot of undrained shear strength for the London Clay and Lambeth Group versus depth is presented in **Figure 2.4**. This plot shows values derived from SPT 'N' values and laboratory triaxial values. The results show a general increase in shear strength with depth.

2.8 LAMBETH GROUP

2.8.8 Description

The Lambeth Group was encountered beneath the London Clay within BH1 at 23mbgl, BH2 at 22.5mbgl and BH3 at 22.9mbgl. The Lambeth Group was described as very stiff to hard stiff, grey mottled red and purple to light brown clay with occasional sub-rounded gravel of mudstone. The clay became sandy with depth in BH2 below 28m.

The thickness of the Lambeth Group was not proven although was at least 7.5m thick and extended to at least 30mbgl, within the deepest borehole, BH2.

2.8.9 Classification

Classification testing on the deposit indicated moisture contents to be between 19% and 31%. For the five samples of Lambeth Group, the liquid limit was recorded between 48% to 106%, the plastic limit varied from 20% and 35%. The plasticity index ranged between 28% and 71%. Rating the clay representing the Lambeth Group as intermediate to extremely plastic.

On the basis of bulk density test results the London Clay has a unit weight generally ranging between 19.6 and 21.8 kN/m^3. For this layer, the average bulk unit weight is approximately γ_b = 20.7 kN/m^3.

2.8.10 Soil Chemical Test

The chemical testing indicated a pH of 9.2 and 9.6, and a water soluble sulphate content of 0.51g/l.

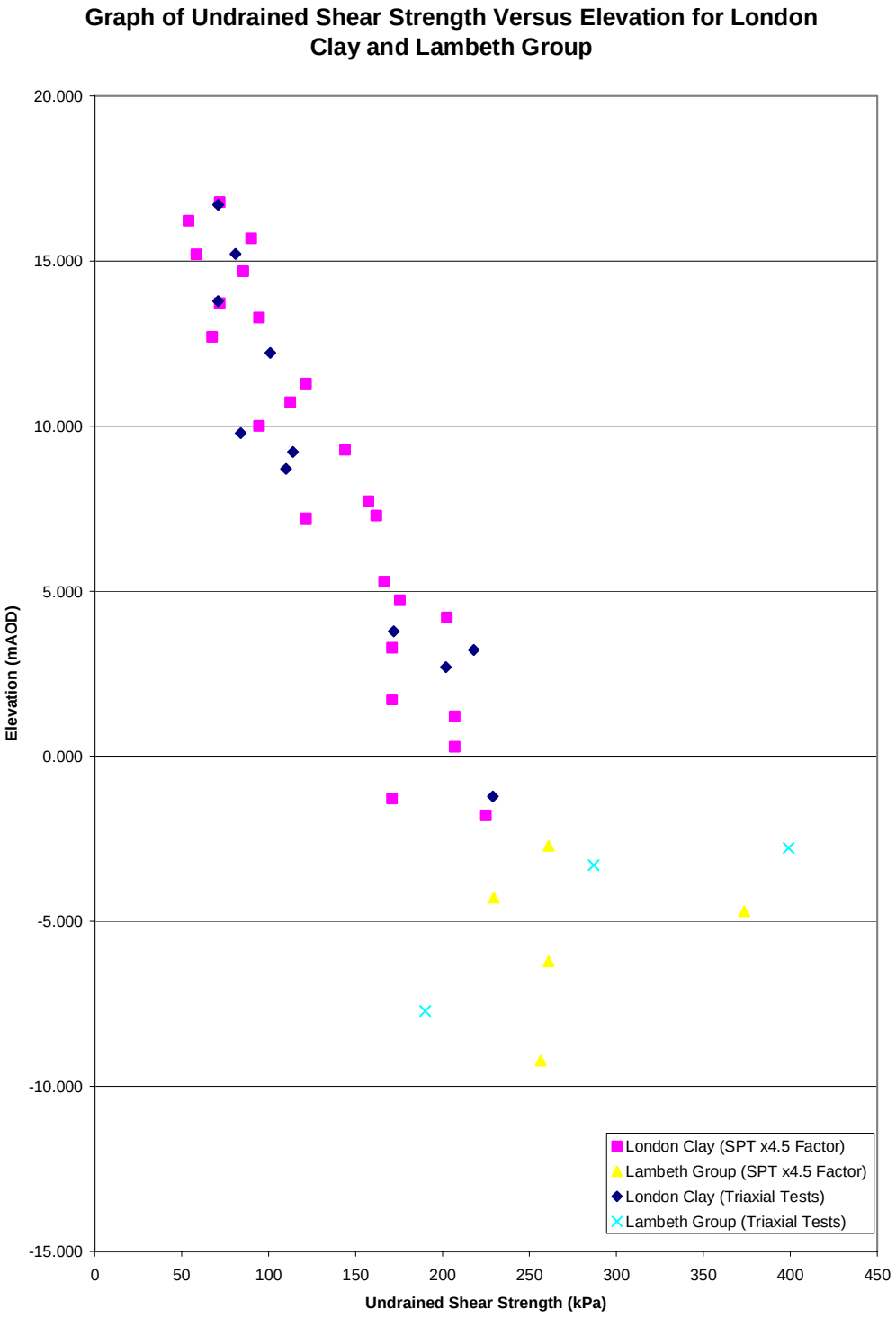
2.8.11 Soil Strength

Generally SPT N values of between 57 and 83 were recorded, indicating very stiff to hard conditions. Quick undrained triaxial tests indicated shear strengths of between 190 kN/m^2 and 399 kN/m^2, indicating very stiff to hard conditions.

SPT 'N' values are performed within the Lambeth Group as it is normally possible to correlate the SPT 'N' value with the undrained shear strength. The undrained shear strength is normally obtained by multiplying the SPT 'N' value by a factor, which is typically taken as 4.5.

A plot of undrained shear strength for the Lambeth Group (and overlying London Clay) versus depth is presented in **Figure 2.4**. This plot shows values derived from SPT 'N' values and laboratory triaxial values. The results show a general increase in shear strength with depth.

Figure 2.4


Graph of Undrained Shear Strength Versus Elevation for London Clay and Lambeth Group
20.000
15.000
10.000
5.000
0.000
-5.000
-10.000
-15.000
Elevation (mAOD)
0
50
100
150
200
250
300
350
400
450
Undrained Shear Strength (kPa)
London Clay (SPT x4.5 Factor)
Lambeth Group (SPT x4.5 Factor)
London Clay (Triaxial Tests)
Lambeth Group (Triaxial Tests)

2.9 GROUNDWATER

Groundwater monitoring results are presented in **Appendix F** and groundwater observations during the ground investigation and subsequent monitoring are summarised below:

Location	Screen Depth Range (m bgl)	Screened Lithology	Groundwater Level Range (m bgl)	
			Strike (Lithology)	Stable
BH1	12.0 – 23.0	London Clay	1.8 (MG)	3.90 – 5.42
BH2	23.0 – 30.0	Lambeth Group	None	5.90 – 7.16
BH3	4.0 – 10.0	London Clay	4.4 & 9.0 (LC)	3.26 – 4.31
WS1	0.50 – 2.0	Made Ground	None	1.42 – 1.46
WS5	0.40 – 0.80	Made Ground	None	None
WS6	2.0 – 3.5	Made Ground	4.2 (MG)	3.14 – 3.30

The observations indicate that there are discrete areas where groundwater is present within the Made Ground perched on top of the London Clay. Within the natural ground deposits a groundwater strike was only observed in BH3 within the London Clay and was coincidental with a mudstone band. The groundwater observations within the natural ground deposits are typical of these formations where groundwater tends to be encountered within discrete micro-fissures and more granular lenses rather than as a distinct unit.

2.10 OBSERVATIONS OF POTENTIAL CONSTRAINTS

The following table gives a summary of non-geological below ground features and observation of visual and olfactory contamination during the ground investigation:

Location	Observation
TP2	Concrete slab exposed at 0.52m bgl
WS4	Refused on concrete at 0.80m bgl
WS5	Refused on concrete at 0.80m bgl
BH1	Strong hydrocarbon odour 2.0 – 3.2m bgl
BH3	Concrete encountered between 0.55 – 0.65m bgl
BH3	Slight hydrocarbon odour 3.6 – 3.8m bgl
TP2	Slight non-discernible odour 0.25 – 0.35m bgl
WS1	Hydrocarbon odour 1.5 – 1.8m bgl
WS8	Organic odour 3.4 – 3.8m bgl

2.11 GEOTECHNICAL PROPERTIES AND CHARACTERISTIC VALUES OF SOIL PARAMETERS

A summary of the geotechnical properties of the strata present at the site is given in the table below.

Geotechnical properties	**Stratum**		
	Made Ground	**London Clay**	**Made Ground**
SPT N value	7 – 29	**SPT N value**	7 – 29
Moisture content (%)	7.5 – 29	**Moisture content (%)**	7.5 – 29
Plasticity Indices (%)	8 – 14	**Plasticity Indices (%)**	8 – 14
Bulk density (Mg/m^3)	Not tested	**Bulk density (Mg/m^3)**	Not tested
Dry Density (Mg/m^3)	Not tested	**Dry Density (Mg/m^3)**	Not tested
pH	5.0 – 11	**pH**	5.0 – 11
Sulphate (g/l)	*0.32 – 3.15	**Sulphate (g/l)**	*0.32 – 3.15

* based on acid soluble analysis

A summary of the **characteristic values of soil parameters** of the strata present at the site is given in the table below.

Stratigraphy	Angle of Shearing Resistance ϕ' (degrees)	Drained Cohesion C'* (kN/m2)	Undrained shear strength (kN/m2)	Drained Stiffness E' (MN/m2) Vertical Loading	Undrained Stiffness Eu (MN/m2) Vertical Stiffness	Poisson's Ratio
Made Ground	25	0	N/A	5000	5000	0.25
London Clay	23	0 kN/m^2 from 16.5 to 15.0, 2 kN/m^2 from 16.5 to 14.5	50kN/m^2 at 16.5mOD + 8.9kN/m^2 /m	240C_u	320C_u	0.20
Lambeth Clay	25	2	218kN/m^2 at -2.25mOD + 8.9kN/m^2 /m	240C_u	320C_u	0.20

Notes
* - Vertical loading. N/A - Not Applicable.

The stiffness values are appropriate for routine shallow foundation design. The values are not appropriate for retaining wall pr pile group assessment.

3 Geotechnical Assessment

The recommendations given below are preliminary recommendations. The data within this report should be reviewed and a design investigation should be scoped and designed in accordance with EC7 once development proposals are finalised and the column loads, tolerable settlements / ultimate limit state requirements of the structure are known and a Geotechnical Design Report (GDR) should be produced in accordance with the eurocodes for the site.

3.1 GENERAL

It is understood that the existing Travis Perkins builder's merchants will be demolished prior to redevelopment and will include a new student accommodation scheme and provision for Travis Perkins to occupy a space on the ground floor upon practical completion. The proposed development has not been finalised but it is understood to include the construction of a nine storey residential structure with a builder's merchants (Travis Perkins) occupying some of the ground floor.

It is understood the column working loads are anticipated to be approximately 3000kN to 4000kN.

3.2 GROUND CONDITIONS SUMMARY AND ENGINEERING PARAMETERS

The ground conditions encountered in the exploratory holes are broadly consistent with the geological sequence as described in the British Geological Survey map and comprised Hardstanding and Made Ground overlying firm to stiff London Clay, which is underlain by the very stiff Lambeth Group cohesive deposits. Groundwater was encountered in all geological units, including groundwater perched in the Made Ground above the London Clay.

A summary of the engineering parameters used within the report is presented in **Section 2.11** of this report.

A conservative groundwater level of about 1.50mbgl is adopted for the purpose of the geotechnical assessment. It should be noted the shallowest groundwater level monitored was at a depth of 1.42m bgl in WS1 and the maximum depth of groundwater recorded was at a depth of 7.16m bgl in BH2.

The observations indicate that there are discrete areas where groundwater is present within the Made Ground perched on top of the London Clay. Within the natural ground deposits a groundwater strike was only observed in BH3 within the London Clay and was coincidental with a mudstone horizon. The groundwater observations within the natural ground deposits are typical of these formations where groundwater tends to be perched within discrete micro-fissures and more granular lenses of fine sand rather than as a distinct unit.

3.3 FOUNDATION DESIGN

The Made Ground encountered across the site is not a suitable founding stratum due to its inherent variability in composition and state of compaction.

The Made Ground is underlain by firm to stiff London Clay, which is underlain by the very stiff Lambeth Group Strata at depth. Both stratums are considered to be a suitable founding stratum due to their undrained shear strength which have an increasing shear strength profile with depth.

The Made Ground encountered across the site is variable in thickness and typically ranged between 2.10m and 4.50m thick. Due to the shallow groundwater regime, the thickness of Made Ground recorded and the anticipated column loads a shallow spread foundation solution is not considered to be appropriate and piled foundations will be required for this site.

It is considered likely that a CFA pile will be the most suitable piling technique for this site given the presence of water bearing superficial Made Ground and probable groundwater seeps within the London Clay. This suggestion does not however preclude the consideration of other pile types being used at the site. The preliminary working loads of CFA piles has been assessed below.

A factor of safety (FOS) of 2.6 has been adopted in the following preliminary pile design. A lower FOS of 2.0 may be adopted but this will require preliminary and working pile tests and the approval of the local District Surveyor.

Not withstanding the requirements of the local District Surveyor, it is recommended that these tests be undertaken to confirm the pile design adopted for the site. The safe working loads for CFA piles have been assessed based on the following formulae:

For the ultimate shaft resistance (Q_s) - Cohesive Soils

Q_s	$= \pi.d.l.\alpha.c_u av$
Where; d	= pile diameter
L	= pile length
α	= adhesion value (taken as 0.5)
$C_u av$	= average undrained shear strength over pile length.

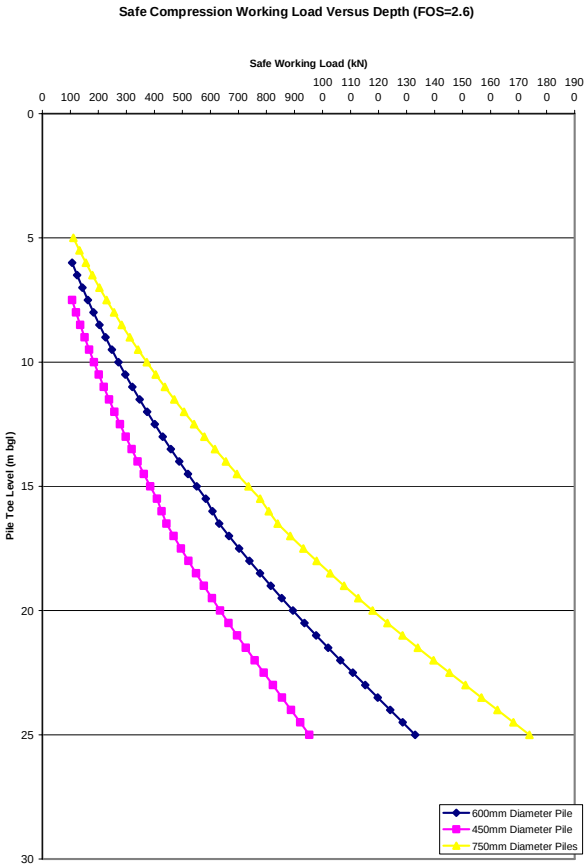
The shaft friction ($.\alpha.c_u av$) has been limited to 110kN/m^2

For the Ultimate Base Capacity, (Q_b) - Cohesive Soils

Q_b	$= (\pi.d^2/4).Nc.c_u$
Where; d	= pile diameter
Nc	= Bearing Capacity Factor (taken as 9.0)
C_u	= undrained shear strength at the base.

The soil profile adopted in this preliminary design has conservatively assumed the maximum thickness of 4.5m of Made Ground recorded in the site investigation. The Made Ground is underlain by London Clay, which is in turn underlain by the Lambeth Group.

The shaft capacity from the Made Ground has been conservatively ignored. A preliminary assessment of the safe working loads of 450mm, 600mm and 750mm diameter CFA piles designed to a factor of safety of 2.6 are shown on the graph below. A pile group will be required to achieve the proposed column loads of between 3000kN and 4000kN.



It is important to note that the specific pile design will depend on a number of factors including the particular details of the piling system to be adopted. The advice of a specialist piling contractor should be sought such that the final design of the piles can be undertaken and the suitability of the particular piling system can be considered. All information relating to the site should be provided to the piling contractor including historical drawings. The piling contractor should review all information available for the site and confirm that the information is adequate to complete the design of the piles or undertake further investigation as required.

The specialist piling contractor should consider noise and vibration and confirm the technique proposed is acceptable for the site and any impact on adjacent structures.

3.4 GROUND FLOOR CONSTRUCTION

Due to the thickness of Made Ground recorded across the site (in excess of 0.60m thick) it is considered that suspended floor slabs should be adopted for the proposed development.

3.5 IMPACT ON ADJACENT STRUCTURES

A retaining wall is present parallel with the southern site boundary beyond which is a pedestrian access way at the lower level.

Any intrusive works or ground loadings within the sphere of influence of the retaining wall will need to consider the impact on the retaining wall and ensure its integrity during the short and long term during redevelopment of the site. The impact from traffic loadings should also be considered.

3.6 GROUND STABILITY

Minor collapses within the Made Ground are considered to be likely, especially considering the shallow groundwater regime observed. Therefore, the stability of unsupported excavations in the made ground should not be relied upon. Zones loosened by the removal of existing and relict construction may be particularly unpredictable and liable to collapse. Safe working conditions should be ensured where persons are required to work in excavations.

Further Reference should be made to CIRIA Report No. 97,"Trenching Practice" 1992.

3.7 GROUNDWATER

The groundwater regime was variable beneath the site and groundwater was recorded at depths of between 1.42m bgl in WS1 (shallowest level) and 7.16m bgl in BH2 (deepest level). Therefore, inflows into any excavations cannot be discounted.

It is considered that any such inflows are likely to be adequately dealt with by pumping from sumps in the base of any shallow excavations during the summer months. Care must be taken during pumping to limit the removal of fines which otherwise may result in settlement of areas adjacent to the excavation.

It is considered that groundwater levels are likely to fluctuate due to seasonal variations and groundwater / seepages are likely to become increasingly difficult to control and pose an increased risk outside the summer months and during periods of wet weather or deep excavations.

3.8 OBSTRUCTIONS

Below ground obstructions were recorded in two of the exploratory holes. WS5 and WS4 both refused on a concrete slab at 0.80m bgl. It should be noted further obstructions in the ground can not be discounted. The current structures and their foundations will form obstructions in the ground and allowance for the removal and grubbing out of these foundations will need to be considered. Obstructions will inhibit the implementation of any foundation solution and should be broken out and removed prior to the commencement of construction. A detailed strategy for obstruction removal should be considered to ensure that abnormal costs are appropriately managed.

3.9 RETAINING WALL

A retaining brick wall is present in the north-western corner of the site, which retains approximately 0.80m of soil with a 2.45m high brick wall above. A section through the retaining wall and foundation is outlined on the log for TP1 which is enclosed in Appendix B.

TP1 identifies the foundation to be at 0.45m bgl extending to a depth of 0.70m bgl. The footing is 0.37m in width beyond the outside edge of the retaining wall. Any excavations or intrusive works will need to consider the presence of the retaining wall footing and the stability of the wall.

3.10 EXTERNAL WORKS

It is recommended that a CBR value of <2% be adopted in the preliminary design of road pavements and parking areas constructed on the Made Ground. Further testing should be undertaken in the design investigation to confirm the values.

The exposed subgrade should be proof rolled with a heavy roller and any soft spots revealed should be excavated and a greater depth of subgrade provided. Any sub structure remains should be "grubbed out" to a minimum depth of 500mm below the underside of formation to prevent hard spots from forming. Any voids arising form the removal of below ground construction should be backfilled with well graded granular fill compacted to an appropriate Method Specification.

It is considered likely that following proof rolling a higher CBR value could be achieved, although in-situ CBR or plate load tests would be required to confirm this. In situ CBR testing will be required as a matter of course for any adoptable areas of paving.

3.11 BURIED CONCRETE

pH and sulphate testing was undertaken in Made Ground and natural strata which are discussed separately below.

Natural Strata

Laboratory testing identified natural soil conditions to be typically slightly alkaline (pH of 7.8 to 9.5).

Water soluble sulphate concentrations of between 0.31g/l and 2.3g/l were recorded in all strata. In accordance with BRE Special Digest 1 (2005), the majority of the results indicate that the design sulphate class is DS-2 and the corresponding Aggressive Chemical Environment for Concrete (ACEC) class for the site is AC-2 (mobile groundwater conditions).

Made Ground

The laboratory results were not available at the time of issue of this report. The buried concrete classification will be revised prior to issue of the final report.

4 Contamination Assessment

4.1 HUMAN HEALTH ASSESSMENT

4.1.8 Overview

The presence of contaminated materials on a site is generally only of concern if an actual or potentially unacceptable risk exists. Part IIA was introduced into the EPA by the Environment Act 1995. Part IIA, its accompanying regulations and Statutory Guidance contained in DEFRA Circular 01/2006 presented the statutory definition of "contaminated land". For the purposes of Part IIA, contaminated land is defined as: "any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on, or under the land that:

- Significant harm is being caused or there is a significant possibility of such harm being caused;
- Pollution of controlled waters is being, or is likely to be caused.

The Part IIA regime was designed and intended to encourage voluntary remediation rather than regulatory action and to work with the established role of planning and building control in those cases where the land is suitable for or scheduled for redevelopment.

DEFRA Circular 01/2006 makes clear that, where new development is taking place, it is the developer's responsibility to ensure that development is safe and suitable for use for the purpose for which it is intended and thus to carry out any necessary remediation. In most cases the enforcement of remediation requirements is therefore through planning conditions and building control rather than through a Remediation Notice under Part IIA. Planning Policy Statement 23 (PPS23) Annex 2, states that 'As a minimum, after carrying out the development and commencement of its use, the land should not be capable of being determined as contaminated land under Part IIA of the EPA 1990.'

A developer will need to satisfy the local authority that unacceptable risk from contamination will be successfully addressed through remediation without undue environmental impact during and following the development.

Legislation and guidance on the assessment of contaminated sites acknowledges the need for a tiered risk based approach. This report represents a Generic Quantitative Risk Assessment (GQRA) being a comparison of site contaminant levels against generic standards and compliance criteria including an assessment of risk using the source-pathway-target model.

The term pollutant linkage has been described in the Preliminary Conceptual Site Model (**Section 2.2.2**) above as has Source, Pathway and Receptors. Each of these three elements can exist independently, but they create a risk only where they are linked together, so that a particular contaminant affects a particular receptor through a particular pathway. Without a pollutant linkage, there is not a risk – even if a contaminant is present. Even where there is a pollutant linkage and therefore some measure of risk, the question still needs to be asked as to whether the level of risk justifies remediation. In the context of land contamination, 'risk' is a combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

Further details of the WSPE risk assessment approach are provided in **Appendix G**.

4.2 RISK ASSESSMENT COMPLETED WITHIN THIS REPORT

4.2.1 Compliance Criteria

The Environment Agency have produced a number of Soil Guideline Values (SGVs), and where these are not available and in order to provide a consistent methodology for the assessment of various contaminants a series of Generic Assessment Criteria (GAC) screening values have been calculated by WSPE. These values have been calculated using CLEA V1.06, a computer modelling tool designed to assess human health related risks presented by contaminated soil.

4.2.2 Analysis of Data

This report includes a Generic Quantitative Risk Assessment (GQRA) which is presented in the following sections. The assessment completed is based on the proposed development where no residential units will be located at ground floor level and thus criteria representative of commercial/industrial end use have been utilised In addition, no

statistical analysis has been completed and recorded concentrations have been compared directly to relevant Generic Assessment Criteria (GAC).

4.3 ASSESSMENT OF THE ANALYTICAL RESULTS – HUMAN HEALTH

4.3.1 General

Twenty one samples of the shallow soils (typically <2.5m bgl) comprising seventeen samples of the Made Ground and four samples of the natural ground were analysed for a range of metal, inorganic and organic determinands.

Metals & Inorganics

None of the determinands were found to have concentrations elevated above the relevant GAC/SGV considering a commercial / industrial end use.

Copies of the analytical results are provided in **Appendix C** and an assessment table is provided in **Appendix E.**

Organics

None of the determinands were found to have concentrations elevated above the relevant GAC/SGV considering a commercial / industrial end use. However, it is noted that the highest concentrations of petroleum hydrocarbons were recorded in locations WS4 and WS5 in the vicinity of the diesel AST. This suggests that there may have been some historical spillages from this feature, although impact to the underlying soils has been limited and would be further inhibited by the presence of a second, below ground concrete slab recorded at approximately 0.80m bgl in both locations.

Copies of the analytical results are provided in **Appendix C** and an assessment table is provided in **Appendix E.**

4.3.2 Asbestos in Soils

Thirteen of the Made Ground samples were screened for the presence of Asbestos Containing Materials (ACM). No ACM were identified.

4.4 CONTROLLED WATERS

4.4.1 General Approach

The main Controlled Water receptors beneath and within the vicinity of the site have been identified in the site characterisation (**Section 2**). Samples of groundwater were obtained from all lithological units encountered analysed for a comprehensive range of determinands.

4.4.2 Water Quality Standards (WQS)

Based on the 'prevent and limit' approach of the Water Framework Directive (2000/60/EC) and the identified receptors, the following Water Quality Standards (WQS) have been applied:

- UK Drinking Water Quality Standards 2000 (Amended 2004).
- Environmental Quality Standards (EQS). The River Basin Districts Typology, Standards and Groundwater Threshold Values (Water Framework Directive) (England and Wales) Directions 2009.
- World Health Organisation (WHO) Petroleum Products in Drinking Water.

4.5 ASSESSMENT OF THE ANALYTICAL RESULTS – CONTROLLED WATERS

The following section has been sub-divided into metals and organics within the groundwater samples and provides an assessment of the results. Copies of the analytical results are provided in **Appendix C**.

4.5.1 Metals & Inorganic in Groundwater

The majority of the groundwater samples have not recorded metal or inorganic determinand concentrations in excess of the relevant LOD or relevant WQS. The exception is the concentration of Cadmium recorded in all groundwater samples which were found to be elevated above the EQS of 0.25ug/l. However, it should be noted that all recorded concentrations were below the UK DWS of 5ug/l.

4.5.2 Organics in Groundwater

The majority of groundwater samples analysed have not recorded organic determinand concentrations in excess of the laboratory limit of detection or the relevant WQS. However, elevated concentrations of petroleum hydrocarbons were identified in the groundwater sampled from location WS6 which (as outlined in **Section 2.4.2**) is representative of groundwater perched within the Made Ground deposits.

4.5.3 Discussion of Results

The soil and groundwater analytical results indicate that there has been limited impact in terms of land contamination. The elevated concentrations of petroleum hydrocarbons were recorded in the groundwater at WS6 where the deepest succession of Made Ground has been observed. This would suggest that the perched groundwater has accumulated within a localised depression in the underlying London Clay. The presence of the perched groundwater is, in itself, evidence that vertical migration through the underlying London Clay is not a plausible pathway. This is further evidenced by the analytical results for the groundwater sampled from the deeper geological units where no elevated concentrations of petroleum hydrocarbons have been observed.

Elevated concentrations of cadmium were recorded in all groundwater samples, above the EQS but below the UK DWS. In the context of the site setting and considering that the London Clay would not be classified as a groundwater body under the Water Framework Directive, both these WQS are questionable.

4.6 ASSESSMENT OF GROUND GAS

4.6.1 General Approach

A ground gas assessment has been undertaken to assess potential risks associated with carbon dioxide and methane to future site users and to provide an initial view of the potential ground gas regime should future development be considered. The results obtained have been compared with relevant guidance that includes the following:

- The Building Regulations 2006, Approved Document C, Section 2;
- Assessing Risks Posed by Hazardous Gases to Buildings, CIRIA Report C665, 2007;
- BS 8485: 2007. Code of practice for the characterization and remediation from ground gas in affected developments;
- Landfill Gas, Waste Management Paper Number 27;
- Construction of new buildings on gas-contaminated land, BRE Report, 1991; and
- Protecting Developments from Methane, CIRA 149 Report 1995.

The CIRIA C665 method uses both gas concentrations and borehole flow rates to define a characteristic situation for a site based on the limiting borehole gas volume flow for methane and carbon dioxide. The limiting borehole gas volume flow is now renamed as the gas screening value. Gas screening value (l of gas per hour) = borehole flow rate (l/h) x gas concentration (%). The calculation is carried out for both methane and carbon dioxide and the worse case value adopted.

4.6.2 Assessment of the Results – Ground Gas

Ground gas monitoring has been undertaken on four monitoring visits.

The results are presented in **Appendix F** and the following table provides a summary of the maximum concentrations observed:

Screened Strata	Maximum Methane (%)	Maximum Carbon Dioxide (%)	Maximum Oxygen (%)	Flow (l/hr)	Gas Screening Value
BH1 (London Clay)	<0.1	1.3	17.7	<0.1	<0.07
BH2 (Lambeth Group)	<0.1	0.6	20.3	<0.1	<0.07
BH3 (London Clay)	<0.1	1.5	20.5	0.1	<0.07
WS1 (Made Ground)	<0.1	0.5	20.4	0.1	<0.07
WS5 (Made Ground)	<0.1	<0.1	20.4	<0.1	<0.07
WS6 (Made Ground)	0.1	2.4	21.10	<0.1	<0.07

No elevated concentrations of bulk ground gases were detected during the monitoring and on this basis the ground gas regimes have been characterised as follows:

- NHBC Guidance: Green; ground gas protection measures are not required.
- CIRIA: Very Low Risk (Characterisation 1).

It should be noted that the monitoring rounds were completed during periods of high atmospheric pressure and none of the data was collected during periods of falling atmospheric pressure, as recommended within the CIRIA guidance. As such there is some uncertainty associated with the ground gas regime.

However, based on the four rounds of ground gas monitoring completed the risk from ground gas on the proposed development are considered to be low and reference to the relevant guidance documents indicates that no special precautions would be required.

5 Revised Conceptual Site Model

The following section provides a revised conceptual model for the site as a result of the Generic Assessment of the analytical results and their risk to Human Health and Controlled Water receptors.

5.1 CONTAMINANT SOURCES

In general, no elevated contaminant concentrations were identified within the ground or groundwater. The exception being concentrations of petroleum hydrocarbons recorded in the perched groundwater.

5.2 MIGRATION PATHWAYS

Discounted Pathways

The proposed development is understood to comprise hardstanding across the entirety of the ground floor and this is considered to limit the potential impact on the identified receptors. In addition, there is a significant thickness of cohesive soils between potential contaminant sources in the shallow Made Ground and the underlying sensitive aquifers.

The following pathways have been discounted:

- Inhalation of volatile vapours/ground gases.
- Dermal contact with soil and groundwater; and
- Ingestion of soil and dust.
- Migration via the underlying soils and groundwater.

Active Pathways

The following pathways are considered to be active:

- Ingress into potable water supply pipes.

5.3 RECEPTORS

Pollutant linkages to identified receptors are limited and there is considered to be no plausible linkage between contaminants in the soil and groundwater beneath the site and potential human end users, ecologically sensitive receptors, surface water or the underlying sensitive aquifers.

Potable water supply pipes that may be installed as part of the proposed development are considered to be potential receptors.

6 Conclusions and Recommendations

6.1 CONCLUSIONS

6.1.1 Site Investigation

The ground investigation was completed between 11th June and 18th June 2010 and included the progression of three cable percussive boreholes, nine dynamic (window) sampler boreholes and two trial pits.

Subsequent to the investigation laboratory testing was completed on soil and groundwater samples for a range of chemical and geotechnical determinands. Post completion of the investigation, groundwater level, ground gas and volatile vapour monitoring has also been undertaken.

The ground conditions encountered in the exploratory holes are broadly consistent with the geological sequence as described in the British Geological Survey map and comprised Hardstanding and Made Ground overlying cohesive London Clay and Lambeth Group deposits. Groundwater was encountered in all geological units, including groundwater perched in the Made Ground above the London Clay.

6.1.2 Land Contamination

Based on the current information, the concentrations of contaminants identified within the soil and groundwater are not considered to pose a risk to future site users, ecologically sensitive receptors, surface water or the underlying sensitive aquifers.

However, potable water supply pipes installed as part of the proposed development are considered to be potential receptors.

6.1.3 Geotechnical

Foundations

The Made Ground encountered across the site is not a suitable founding stratum due to its inherent variability in composition and state of compaction.

The Made Ground is underlain by firm to stiff London Clay, which is underlain by the very stiff Lambeth Group Strata at depth. Both stratums are considered to be a suitable founding stratum due to their undrained shear strength which have an increasing shear strength profile with depth.

The Made Ground encountered across the site is variable in thickness and typically ranged between 2.10m and 4.50m thick. Due to the shallow groundwater regime, the thickness of Made Ground recorded and the anticipated column loads a shallow spread foundation solution is not considered to be appropriate and piled foundations will be required for this site.

Ground Floor Construction

Due to the thickness of Made Ground recorded across the site (in excess of 0.60m thick) it is considered that suspended floor slabs should be adopted for the proposed development.

Impact on Adjacent Structures

A retaining wall is present parallel with the southern site boundary beyond which is a pedestrian access way at the lower level. Any intrusive works or ground loadings within the sphere of influence of the retaining wall will need to consider the impact on the retaining wall and ensure its integrity during the short and long term during redevelopment of the site. The impact from traffic loadings should also be considered.

Groundwater

It is considered that any groundwater inflows are likely to be adequately dealt with by pumping from sumps in the base of any shallow excavations during the summer months.

Obstructions

Obstructions will inhibit the implementation of any foundation solution and should be broken out and removed prior to the commencement of construction. A detailed strategy for obstruction removal should be considered to ensure that abnormal costs are appropriately managed.

Retaining Wall

A retaining brick wall is present in the north-western corner of the site. Any excavations or intrusive works will need to consider the presence of the retaining wall footing and the stability of the wall.

External Works

It is recommended that a CBR value of <2% be adopted in the preliminary design of road pavements and parking areas constructed on the Made Ground. Further testing should be undertaken in the design investigation to confirm the values.

Buried Concrete (Natural Strata)

In accordance with BRE Special Digest 1 (2005), the majority of the results indicate that the design sulphate class is DS-2 and the corresponding Aggressive Chemical Environment for Concrete (ACEC) class for the site is AC-2 (mobile groundwater conditions).

6.2 RECOMMENDATIONS

6.2.1 Land Contamination

The WRAS document (October 2002) entitled; 'the Selection of Materials for Water Supply Pipes to be Laid in Contaminated Land' and possibly the UKWIR series of documents entitled, 'Pipe Material Selection and Specification for use in Contaminated Land' should be referenced prior to potable water pipe selection.

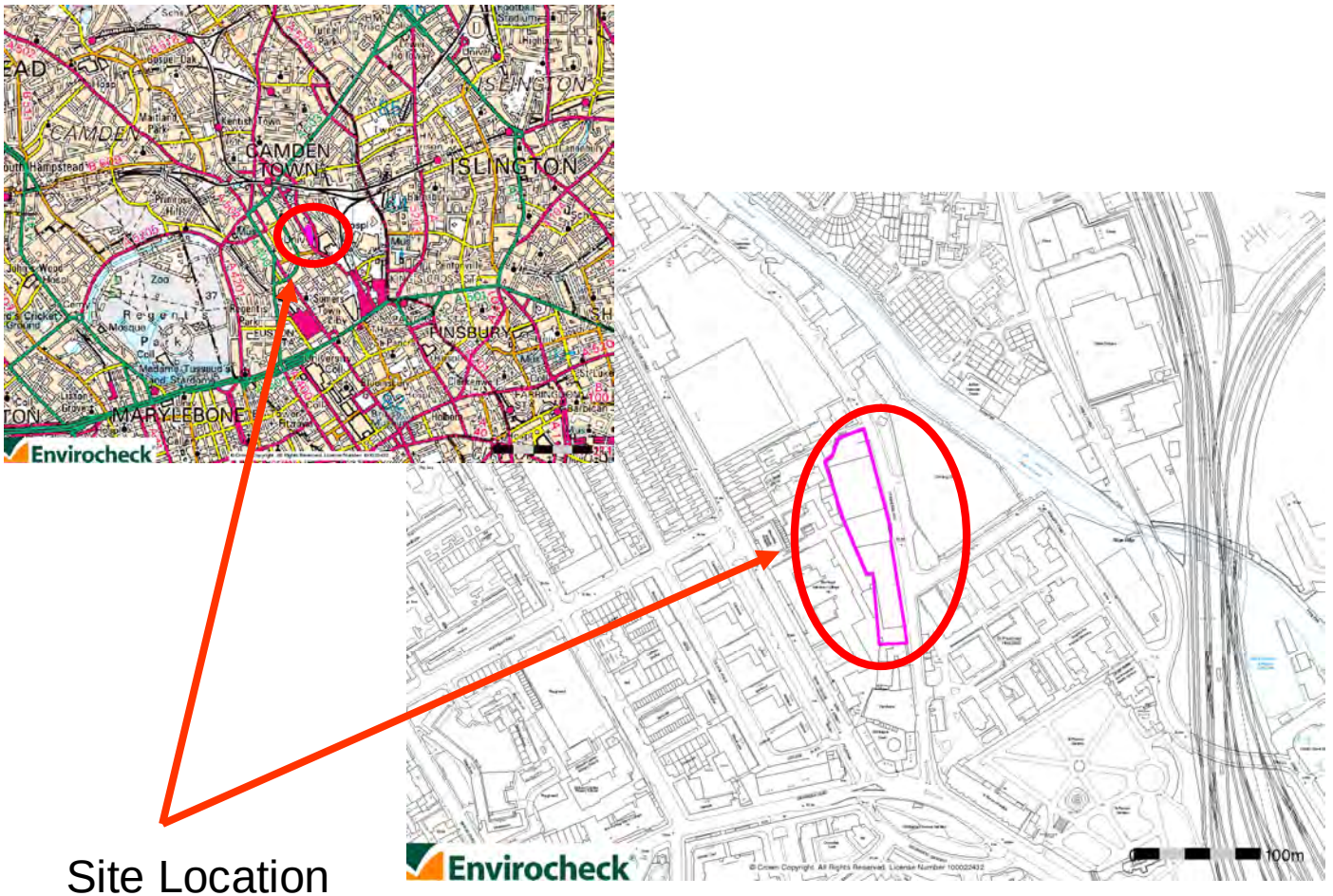
Although not considered to pose a potential risk to future site users and controlled water receptors, maintenance and construction workers involved in below ground works should be made aware of the petroleum hydrocarbon concentrations in the perched groundwater and appropriately mitigated the potential risks.

In addition, should the perched groundwater require dewatering during below ground excavations, then the identified petroleum hydrocarbon concentrations will need to be considered to ensure appropriate disposal.

6.2.2 Geotechnical

The geotechnical data within this report should be reviewed and a design investigation should be scoped and implemented in accordance with EC7 once development proposals are finalised and the column loads, tolerable settlements / ultimate limit state requirements of the structure are known a Geotechnical Design Report (GDR) should be produced in accordance with the eurocodes for the site.

Appendix A Figures & Development Schematics



Site Location

DO NOT SCALE

NOTES:

O Approximate site location

N

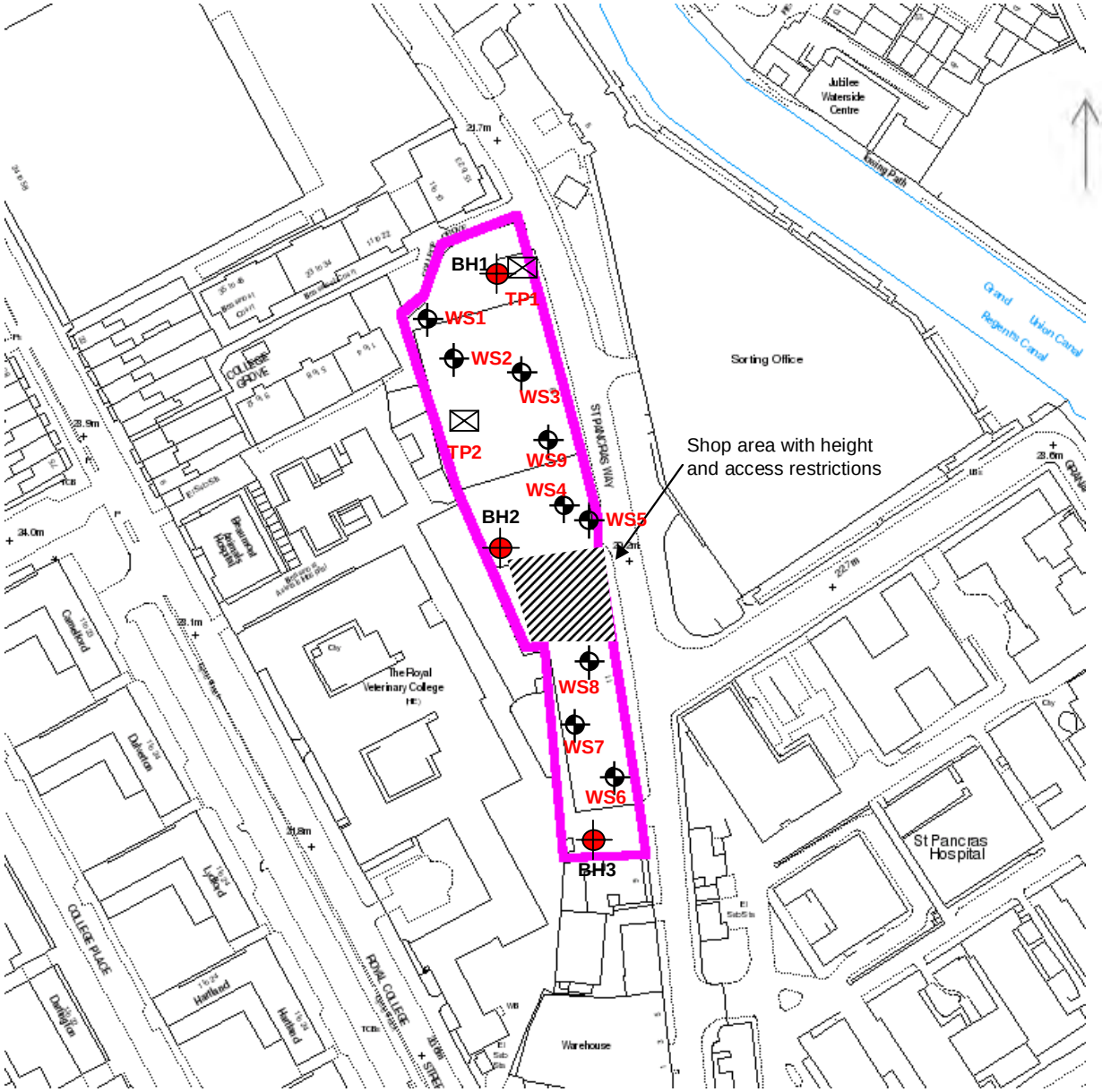
WSP Environmental UK Limited
WSP House, 70 Chancery Lane, London, WC2A
Tel: +44 (0) 020 314 5000 Fax: +44 (0) 020 314 5005
http:// www.wspgroup.com

CLIENT: Unite Group Plc & Travis Perkins (Properties) Ltd

PROJECT: St Pancras Way

TITLE: Site Location Plan

SCALE@SIZE:	ISSUE:
NTS	FINAL
DESIGN/DRAWN:	DATE:
PIL	July 2010
PROJECT No:	DRAWING No:
12041745-002	Figure 1



DO NOT SCALE

NOTES:

Approximate site boundary

WS — Dynamic Sampler Location

BH — Cable Percussive Borehole Location

TP — Trial Pit Location.

Shop area – inaccessible

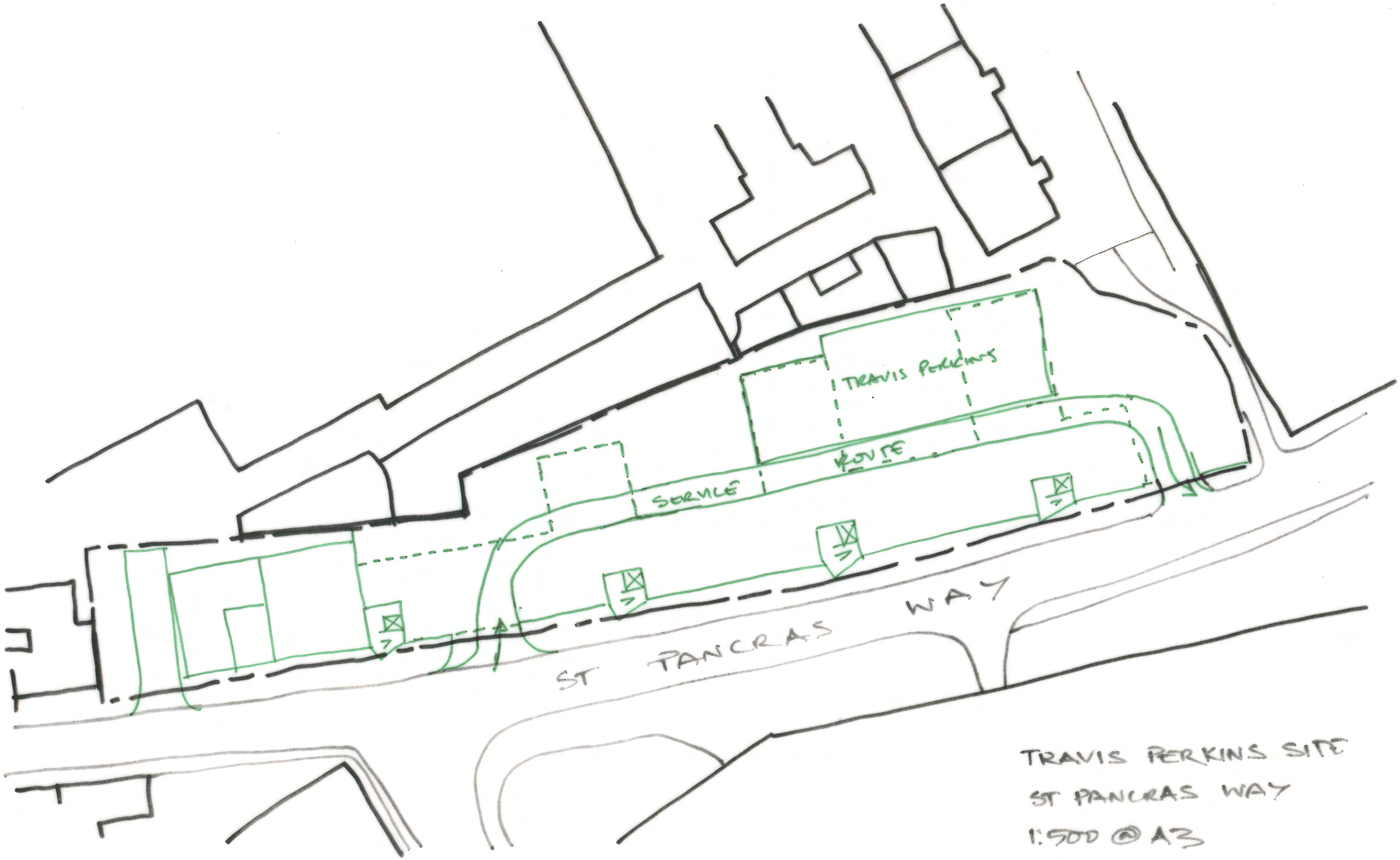
WSP Environmental UK Limited
WSP House, 70 Chancery Lane, London, WC2A
Tel: +44 (0) 020 314 5000 Fax: +44 (0) 020 314 5005
http:// www.wspgroup.com

CLIENT: Unite Group Plc & Travis Perkins (Properties) Ltd

PROJECT: St Pancras Way

TITLE: Exploratory Hole Location Plan

SCALE@SIZE:	ISSUE:
NTS	DRAFT
DESIGN/DRAWN:	DATE:
PIL	July 2010
PROJECT No:	DRAWING No:
12041745-002	Figure



TRAVIS PERKINS SITE

ST PANCRAS WAY

1:500 @ A3

GROUND

01A.

TRAVIS PERKINS SITE

ST PANCRAS WAY

1:500 @ A3

FIRST – THIRD

02

TRAVIS PERKINS SITE

ST PANCRAS WAY

1:500 @ A3

FOURTH

03

TRAVIS PERKINS SITE

ST PANCRAS WAY

1:500 @ A3

FIFTH - SIXTH

04

TRAVIS PERKINS SITE
ST PANCRAS WAY
1:500 @ A3
SEVENTH - EIGHTH
05

TRAVIS PERKINS SITE

ST PANCRAS WAY

1:500 @ A3

NINTH

06

Appendix B Exploratory Hole Logs

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

BOREHOLE LOG

Hole No. **BH1**

Project: 11-13 St Pancras Way

Sheet: 1 of 2

Job No: 12041745-002

Client: Unite Group Plc

Date: 14-06-10 15-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
S. Hutson	Dando	P. Lewis/ A. Morgan	E 529548.836 N 183764.865	20.219

SAMPLES & TESTS							STRATA					Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Dia. mm
0.00-0.50	B						19.97	0.25	CONCRETE.		MG	
0.50-0.70	ES							(0.95)	MADE GROUND: Soft, light brown mottled black and red, slightly sandy gravely clay. Gravel is fine to coarse, sub-angular to sub-rounded, brick, flint and coal. Sand is fine to coarse.		MG	
1.00	D						19.02	1.20				
1.20-1.70	B					1			MADE GROUND: Firm locally soft, light brown, slightly gravelly sandy clay with rare cobbles of concrete. Gravel is fine to coarse, sub-angular to rounded, brick and coal. Sand is fine to coarse.		MG	
1.20	SPT	3,4,4 5,7,8 N=24 (C)				1		(0.80)				
1.90	D						18.22	2.00	MADE GROUND: Medium dense, dark brown black, slightly clayey sandy gravel with rare cobble sized pockets of soft, light brown, slightly gravelly sandy clay. Gravel is fine to coarse, sub-angular to sub-rounded, brick, flint and coal. Sand is fine to coarse.		MG	
2.00-2.50	B							(1.20)				
2.00	SPT	5,5,7 6,7,7 N=27 (C)					17.02	3.20	2.00 - 3.20 m bgl strong hydrocarbon odour.			
2.80	D								Firm to stiff, extremely closely fissured, light brown CLAY with frequent light brown silt and fine sand partings, rare medium angular gravel of selenite and evidence of bioturbation. (WEATHERED LONDON CLAY)			
3.00-3.50	B											
3.00	SPT	1,1,2 3,4,4 N=13 (C)										
3.80	D							(4.80)			LC	
4.00	SPT	1,2,3 2,3,4 N=12 (S)							6.00 m bgl becoming light grey mottled light brown.			
4.80	D											
5.00	U	65 blows										
5.50	D											
6.00	D											
6.50	SPT	1,2,3 3,5,5 N=16 (S)					12.22	8.00				
							12.02	8.20	Strong, thinly laminated, light grey MUDSTONE. (WEATHERED LONDON CLAY)		LC	
7.50	D											
8.00	U	100 blows						(1.30)	Firm to stiff, extremely closely fissured, light brown mottled light grey CLAY with frequent light brown silt and fine sand partings, rare medium angular gravel of selenite and evidence of bioturbation. (WEATHERED LONDON CLAY)		LC	
8.50	D											
9.00	D						10.72	9.50				
9.50	SPT	3,4,5 6,7,7 N=25 (S)							Firm to stiff, extremely closely fissured, dark grey CLAY with frequent light brown silt and fine sand partings. (LONDON CLAY)			
10.50	D								9.50 m bgl becoming dark grey.			
11.00	U	120 blows										
11.50	D											
12.00	D											
12.50	SPT	5,6,8 9,9,9 N=35 (S)									LC	
13.50	D											
14.00	U	120 blows										
14.50	D											
15.00	D											

Boring Progress

Date	Time	Depth	Casing Dpt	Dia. (mm)	Water Dpt
16-06-10	00.00	15.00	3.00	250	

Water Strikes

Date	Time	Strike	Minutes	Standing	Casing
16-06-10		1.80	30	1.50	1.50

Chiselling

From	To	Hours	Tool

Water Added

From	To

General Remarks
Hand excavated to 1.2m bgl to avoid services.

Scale 1:100

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

BOREHOLE LOG

Hole No. **BH1**

Project: 11-13 St Pancras Way

Sheet: 2 of 2

Job No: 12041745-002

Client: Unite Group Plc

Date: 14-06-10 15-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
S. Hutson	Dando	P. Lewis/ A. Morgan	E 529548.836 N 183764.865	20.219

SAMPLES & TESTS							STRATA					Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Dia. mm
15.50	SPT	4,5,8 9,10,12 N=39 (S)						(13.50)	Firm to stiff, extremely closely fissured, dark grey CLAY with frequent light brown silt and fine sand partings. (LONDON CLAY) *(continued)*		LC	
16.50	D											
17.00	U	120 blows										
17.50	D											
18.00	D											
18.50	SPT	6,6,8 10,9,11 N=38 (S)										
19.50	D											
20.00	U	120 blows										
20.50	D											
21.00	D											
21.50	SPT	5,5,8 10,8,12 N=38 (S)										
22.50	D						-2.78	23.00				
23.00	U	120 blows							Very stiff to hard, extremely closely fissured, brown mottled light grey CLAY with occasional gravel of fine to medium sub-angular to sub-rounded mudstone. (LAMBETH GROUP)		LMBE	
23.50	D							(2.00)				
24.00	D											
24.50	SPT	7,8,13 12,15,21 N=61 (S)					-4.78	25.00				
									Hole terminated at 25.00m bgl.			

Boring Progress

Date	Time	Depth	Casing Dpt	Dia. (mm)	Water Dpt
18-06-10	00.00	25.00	3.00		

Water Strikes

Date	Time	Strike	Minutes	Standing	Casing

Chiselling

From	To	Hours	Tool

Water Added

From	To

General Remarks
Hand excavated to 1.2m bgl to avoid services.

Scale 1:100

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

BOREHOLE LOG

Hole No. **BH2**

Project: 11-13 St Pancras Way

Sheet: 1 of 2

Job No: 12041745-002

Client: Unite Group Plc

Date: 14-06-10, 15-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
S. Hutson	Dando	P. Lewis/ A. Morgan	E 529559.681 N 183696.255	20.285

SAMPLES & TESTS							STRATA					Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Dia. mm
							19.99	0.30	CONCRETE.		MG	
0.30-0.80	B								MADE GROUND: Firm, brown to red brown, gravelly sandy clay with occasional cobbles of sub-angular brick and concrete. Gravel is fine to coarse, sub-angular to sub-rounded, brick, concrete and occasionally flint.			
0.30-0.80	ES							(1.50)			MG	
1.00	D											
1.20-1.70	B											
1.20	SPT	3,3,3 3,3,1 N=10 (C)					18.49	1.80				
							18.09	2.20	MADE GROUND: Brown, slightly sandy very gravelly clay. Gravel is medium to coarse, sub-rounded to rounded flint and rarely fine sub-angular brick.		MG	
							17.79	2.50			LC	
1.90	D								Firm locally stiff, brown mottled grey CLAY. (WEATHERED LONDON CLAY)			
2.00-2.50	B											
2.00	SPT	2,2,2 3,3,2 N=10 (C)							Firm locally stiff, very closely fissured, grey brown CLAY. (WEATHERED LONDON CLAY)			
2.80	D											
3.00	U	75 blows						(3.50)	4.00 m bgl becoming grey with occasional brown orange silt partings.		LC	
3.50	D											
3.50	SPT	2,2,3 3,4,6 N=16 (S)										
4.00	D											
4.10	U	75 blows					14.29	6.00				
4.60	D								Stiff, extremely closely fissured, grey to dark grey CLAY with occasional white grey silt partings and rare bioturbation. (LONDON CLAY)			
4.60	SPT	2,3,4 5,5,6 N=20 (S)										
5.10	D											
5.10	U	85 blows										
5.60	D											
5.60	SPT	2,3,4 5,5,5 N=19 (S)										
6.00	D											
6.50	U	95 blows										
7.00	D											
7.00	SPT	4,4,4 5,6,6 N=21 (S)										
8.00	D											
8.50	U	100 blows									LC	
9.00	D											
9.00	SPT	5,5,7 6,7,7 N=27 (S)										
10.00	D											
10.50	U	110 blows										
11.00	D											
11.00	SPT	5,6,7 8,8,9 N=32 (S)										
12.00	D											
12.50	U	100 blows						(16.50)				
13.00	D											
13.00	SPT	5,5,9 8,9,10 N=36 (S)										
14.00	D											

Boring Progress

Date	Time	Depth	Casing Dpt	Dia. (mm)	Water Dpt
				250	

Chiselling

From	To	Hours	Tool

Water Added

From	To

Water Strikes

Date	Time	Strike	Minutes	Standing	Casing

General Remarks
Hand excavated to 1.2m bgl to avoid services.

Scale 1:100

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

BOREHOLE LOG

Hole No. **BH2**

Project: 11-13 St Pancras Way

Sheet: 2 of 2

Job No: 12041745-002

Client: Unite Group Plc

Date: 14-06-10 15-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
S. Hutson	Dando	P. Lewis/ A. Morgan	E 529559.681 N 183696.255	20.285

SAMPLES & TESTS							STRATA					Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Dia. mm
14.50	U	110 blows							Stiff, extremely closely fissured, grey to dark grey CLAY with occasional white grey silt partings and rare bioturbation. (LONDON CLAY) *(continued)*			
15.00	D											
15.00	SPT	5,6,8 9,10,10 N=37 (S)										
16.00	D											
16.50	U	110 blows										
17.00	D											
17.00	SPT	6,6,8 10,10,10 N=38 (S)										
18.00	D											
18.50	U	120 blows									LC	
19.00	D											
19.50	D											
20.00	SPT	7,8,10 11,10,15 N=46 (S)										
21.00	D											
21.50	U	120 blows										
22.00	D						-2.22	22.50				
22.50	D								Very stiff, exremely closely fissured, grey mottled red to light brown CLAY with occasional fine to medium, sub-rounded gravel of mudstone. (LAMBETH GROUP)			
23.00	SPT	7,8,16 18,24 N=58/ 0.225 (S)										
24.00	D											
24.50	U	120 blows										
25.00	D											
25.50	D											
26.00	D							(7.50)			LMBE	
26.50	SPT	10,10,14 17,27 N=58/ 0.225 (S)										
27.00	D											
28.00	U	120 blows							28.00 m bgl becoming light grey mottled purple and red with occasional coarse gravel sized pockets of light brown sandy CLAY.			
28.50	D											
29.00	D											
29.50	SPT	8,9,15 18,24 N=57/ 0.225 (S)					-9.72	30.00				
30.00	D								Hole terminated at 30.00m bgl.			

Boring Progress

Date	Time	Depth	Casing Dpt	Dia. (mm)	Water Dpt
14-06-10	00.00	17.50	1.50		
15-06-10	00.00	30.00	1.50		

Chiselling

From	To	Hours	Tool

Water Added

From	To

Water Strikes

Date	Time	Strike	Minutes	Standing	Casing

General Remarks
Hand excavated to 1.2m bgl to avoid services.

Scale 1:100

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

BOREHOLE LOG

Hole No. **BH3**

Project: 11-13 St Pancras Way

Sheet: 1 of 2

Job No: 12041745-002

Client: Unite Group Plc

Date: 15-06-10 18-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
S. Hutson	Dando	A. Morgan	E 529576.448 N 183624.303	19.702

SAMPLES & TESTS							STRATA					
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Install / Backfill Dia. mm
							19.50	0.20	CONCRETE.		MG	
0.15-0.60	B						19.15	0.55	MADE GROUND: Brown, gravelly sand. Gravel is fine to coarse, sub-angular to sub-rounded flint and concrete. Sand is medium.		MG	
0.65-0.70	ES		0				19.05	0.65			MG	
0.80-1.30	B		1				19.00	0.70			MG	
1.10-1.20	ES						18.40	1.30	CONCRETE.		MG	
1.40	D								MADE GROUND: Brown, sandy gravelly clay. Gravel is fine to coarse, sub-angular, brick and concrete. Sand is fine to coarse.			
1.50-2.00	B											
1.50	SPT	1,2,2 2,1,2 N=7 (C)						(2.30)	MADE GROUND: Loose to medium dense, brown, gravelly sand with occasional cobbles of brick and concrete. Gravel is fine to coarse, sub-angular to sub-rounded, brick, flint and concrete.		MG	
2.40	D								MADE GROUND: Soft to firm, brown, sandy gravelly clay. Gravel is fine to coarse, sub-angular, brick and concrete. Sand is fine to coarse.			
2.50-3.00	B											
2.50	SPT	3,3,5 6,6,3 N=20 (C)					16.10	3.60				
							15.90	3.80	MADE GROUND: Soft, grey to light grey, slightly sandy gravelly clay. Gravel is fine to medium, sub-rounded to rounded, flint and rarely fine, sub-angular brick. Sand is fine to coarse.		MG	
						1 1	15.20	4.50	3.60 - 3.80 m bgl slight hydrocarbon odour.		LC	
3.40	D								Firm, closely fissured, brown to grey CLAY. (WEATHERED LONDON CLAY)			
3.50-4.00	B											
3.50	SPT	1,1,2 3,3,3 N=11 (C)							Stiff, very closely fissured, grey to dark grey CLAY. (LONDON CLAY)			
4.40	D											
4.50	SPT	1,2,2 3,3,5 N=13 (S)						(4.50)			LC	
5.40	D											
5.50	U	40 blows										
6.90	D											
7.00	SPT	1,2,4 4,3,4 N=15 (S)										
8.40	D					2 2	10.70	9.00				
8.50	U	100 blows										
9.00-9.50	B								Very weak, poorly cemented, thinly laminated light grey MUDSTONE. (LONDON CLAY)		LC	
9.00	D						10.10	9.60				
9.60	D								Stiff, very closely fissured, grey to dark grey CLAY. (LONDON CLAY)			
9.70	SPT	3,3,4 4,6,7 N=21 (S)										
10.90	D											
11.00	U	65 blows										
11.50	D											
12.40	D							(5.90)			LC	
12.50	SPT	4,4,5 7,7,8 N=27 (S)										
13.90	D											
14.00	U	80 blows										
14.50	D											
							4.20	15.50				
15.40	D								Very stiff, very closely fissured, grey to dark grey CLAY. (LONDON CLAY).		LC	

Boring Progress

Date	Time	Depth	Casing Dpt	Dia. (mm)	Water Dpt
14-06-10	00.00	6.00	5.00	250	

Water Strikes

Date	Time	Strike	Minutes	Standing	Casing
14-06-10		4.40	30	4.40	3.50
15-06-10		9.00	30	9.00	5.00

Chiselling

From	To	Hours	Tool

Water Added

From	To

General Remarks

Hand excavated to 1.4m bgl to avoid services.

Scale 1:100

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

BOREHOLE LOG

Hole No. **BH3**

Project: 11-13 St Pancras Way

Sheet: 2 of 2

Job No: 12041745-002

Client: Unite Group Plc

Date: 15-06-10 18-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
S. Hutson	Dando	A. Morgan	E 529576.448 N 183624.303	19.702

SAMPLES & TESTS							STRATA					Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Dia. mm
15.50	SPT	7,7,9 10,10,16 N=45 (S)							Very stiff, very closely fissured, grey to dark grey CLAY. (LONDON CLAY). *(continued)*			
16.90	D											
17.00	U	100 blows										
17.50	D											
18.40	D											
18.50	SPT	7,7,9 11,12,14 N=46 (S)						(7.40)			LC	
19.90	D											
20.00	U	110 blows										
20.50	D											
21.40	D											
21.50	SPT	8,8,10 12,11,17 N=50 (S)					-3.20	22.90				
22.90	D								Very stiff, very closely fissured, light grey mottled red to purple CLAY with occasional fine, sub-rounded gravel of mudstone. (LAMBETH GROUP)			
23.00	U	125 blows										
23.50	D							(2.10)			LMBE	
24.30	D											
24.40	SPT	9,9,17 19,23,24 N=83 (S)					-5.30	25.00				
25.00	D								Hole terminated at 25.00m bgl.			

Boring Progress

Date	Time	Depth	Casing Dpt	Dia. (mm)	Water Dpt
15-06-10	00.00	25.00	5.00		

Chiselling

From	To	Hours	Tool

Water Added

From	To

Water Strikes

Date	Time	Strike	Minutes	Standing	Casing

General Remarks
Hand excavated to 1.4m bgl to avoid services.

Scale 1:100

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

08 WSP BH LOG 12041745-002 - 11-13 ST PANCRAS WAY.GPJ WSPETEMPLATE1.03.GDT 22/7/10

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

WINDOW SAMPLE LOG

Hole No. **WS1**

Project: 11-13 St Pancras Way

Sheet: 1 of 1

Job No: 12041745-002

Client: Unite Group Plc

Date: 11-06-10
11-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
SA Smith	Competitior	A. Morgan		

SAMPLES & TESTS							STRATA						Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description		Legend	Geology	Dia. mm
								0.15	CONCRETE.			MG	
0.50-0.70	ES		0					(0.55) 0.70	MADE GROUND: Soft, light brown, slightly sandy slightly gravelly clay. Gravel is fine to coarse, sub-angular to sub-rounded, flint and brick. Sand is fine to coarse.			MG	
								(0.80) 1.50	MADE GROUND: Soft, brown, slightly sandy gravelly clay. Gravel is fine to coarse, sub-angular to sub-rounded, flint, brick and coal. Sand is fine to coarse.			MG	
1.50-1.80	ES		31					(0.30) 1.80	MADE GROUND: Very soft, black brown, slightly sandy slightly gravelly clay. Gravel is fine to medium, angular to sub-rounded, flint and coal. Sand is fine to coarse.			MG	
								(0.30) 2.10	1.50 - 1.80 m bgl hydrocarbon odour. MADE GROUND: Firm, light grey mottled light brown, slightly sandy clay with rare cobbles of sub-angular brick. Sand is fine to coarse.			MG	
2.20-2.50	ES		1					(1.00) 3.10	Stiff ,closely fissured, light grey mottled light brown, slightly sandy CLAY with occasional coarse gravel sized pockeds of fine to medium, angular gravel of selenite and occasional rootlets. Sand is fine to coarse. (WEATHERED LONDON CLAY) 3.00 - 3.10 m bgl organic odour.			LC	
								(0.90) 4.00	Stiff, closely fissured, light grey mottled light brown, sandy CLAY with frequent cobble sized pockets of fine to medium, angular gravel of selenite. (WEATHERED LONDON CLAY)			LC	
									Hole terminated at 4.00m bgl.				

Hole Diameter			Recovery			Water Strikes					
Depth	Diameter (mm)	Remarks	Core Top (m)	Core Base (m)	% Recovery	Date	Time	Strike	Minutes	Standing	Casing

General Remarks
No water strike.

Scale 1:37.5

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

08 WSP WINDOW SAMPLE LOG 12041745-002 - 11-13 ST PANCRAS WAY.GPJ WSPETEMPLATE1.03.GDT 22/7/10

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

WINDOW SAMPLE LOG

Hole No. **WS2**

Project: 11-13 St Pancras Way

Sheet: 1 of 1

Job No: 12041745-002

Client: Unite Group Plc

Date: 11-06-10
11-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
SA Smith	Competitior	A. Morgan		

SAMPLES & TESTS							STRATA					Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Dia. mm
								0.15	CONCRETE.		MG	
0.80-1.00	ES		0					(1.25)	MADE GROUND: Soft, brown, slightly sandy gravelly clay. Gravel is fine to coarse, sub-angular to sub-rounded flint and coal. Sand is fine to coarse. 1.00 m bgl becoming brown mottled red.		MG	
								1.40				
								(0.90)	MADE GROUND: Soft, dark grey black, slightly sandy gravelly clay. Gravel is fine to coarse, angular to sub-angular anthracite and brick. Sand is fine to coarse. 1.80 m bgl cobble sized pocket of fine sub-angular to subrounded gravel of chalk.		MG	
								2.30				
2.50-2.80	ES		0					(1.70)	Stiff, closely fissured, light grey mottled light brown, sandy CLAY with rare coarse gravel sized pockets of fine, angular gravel of selenite and occasional rootlets. (WEATHERED LONDON CLAY)		LC	
								4.00				
									Hole terminated at 4.00m bgl.			

Hole Diameter			Recovery			Water Strikes					
Depth	Diameter (mm)	Remarks	Core Top (m)	Core Base (m)	% Recovery	Date	Time	Strike	Minutes	Standing	Casing

General Remarks
No water strike.

Scale 1:37.5

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

WINDOW SAMPLE LOG

Hole No. **WS3**

Project: 11-13 St Pancras Way

Sheet: 1 of 1

Job No	Client	Date
12041745-002	Unite Group Plc	11-06-10 11-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
SA Smith	Competitior	A. Morgan		

SAMPLES & TESTS							STRATA					
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Install / Backfill Dia. mm
								0.25	CONCRETE.		MG	
								0.50	MADE GROUND: Brick rubble.		MG	
0.70-1.00	ES		0					(0.80) 1.30	MADE GROUND: Light brown, slightly clayey sandy gravel. Gravel is fine to coarse, sub-angular to sub-rounded brick, chalk and coal. Sand is fine to coarse.		MG	
								(0.30) 1.60	MADE GROUND: Soft, light brown, slightly sandy gravelly clay. Gravel is fine to coarse, angular to sub-angular flint and brick. Sand is fine to coarse.		MG	
1.60-2.00	ES		0					(0.50) 2.10	MADE GROUND: Soft to firm, black, slightly gravelly sandy clay. Gravel is fine to medium, angular to sub-rounded flint and brick. Sand is fine to coarse.		MG	
								(1.90) 4.00	Soft, light grey mottled light brown, sandy CLAY with rare fine, angular gravel of selenite. Sand is fine to coarse. (WEATHERED LONDON CLAY) 2.80 m bgl becoming firm and closely fissured. 3.20 m bgl becoming stiff.		LC	
									Hole terminated at 4.00m bgl.			

Hole Diameter			Recovery			Water Strikes					
Depth	Diameter (mm)	Remarks	Core Top (m)	Core Base (m)	% Recovery	Date	Time	Strike	Minutes	Standing	Casing

General Remarks
No water strike.

Scale 1:37.5

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

WINDOW SAMPLE LOG

Hole No. **WS4**

Project: 11-13 St Pancras Way

Sheet: 1 of 1

Job No: 12041745-002

Client: Unite Group Plc

Date: 11-06-10
11-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
SA Smith	Competitior	A. Morgan	E 529569.349 N 183706.277	20.330

SAMPLES & TESTS							STRATA						Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description		Legend	Geology	Dia. mm
							20.18	0.15	CONCRETE.			MG	
0.20-0.80	ES		0					(0.65)	MADE GROUND: Brown grey, sandy gravel. Gravel is fine to coarse, sub-angular to sub-rounded brick and cement. Sand is fine to coarse.			MG	
							19.53	0.80					
									Refused at 0.80m bgl due to presence of second concrete slab.				

Hole Diameter			Recovery			Water Strikes					
Depth	Diameter (mm)	Remarks	Core Top (m)	Core Base (m)	% Recovery	Date	Time	Strike	Minutes	Standing	Casing

General Remarks
Refused on second concrete slab at 0.8m bgl. No water strike.

Scale 1:37.5

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

WINDOW SAMPLE LOG

Hole No. **WS5**

Project: 11-13 St Pancras Way

Sheet: 1 of 1

Job No	Client	Date
12041745-002	Unite Group Plc	14-06-10 14-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
SA Smith	Competitior	A. Morgan	E 529581.708 N 183703.122	20.347

SAMPLES & TESTS						Water	STRATA					Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)		Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Dia. mm
							20.15	0.20	CONCRETE.		MG	
0.20-0.60	ES		0					(0.60)	MADE GROUND: Multicoloured, sandy gravel. Gravel is fine to coarse, sub-angular to sub-rounded, concrete, brick, coal and flint. Sand is fine to coarse. 0.20 - 0.80 m bgl organic odour.		MG	
							19.55	0.80	Refused at 0.80m bgl due to presence of second concrete slab.			

Hole Diameter			Recovery			Water Strikes					
Depth	Diameter (mm)	Remarks	Core Top (m)	Core Base (m)	% Recovery	Date	Time	Strike	Minutes	Standing	Casing

General Remarks
Refused on second concrete slab at 0.8m bgl. No water strike.

Scale 1:37.5

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

WINDOW SAMPLE LOG

Hole No. **WS6**

Project: 11-13 St Pancras Way

Sheet: 1 of 1

Job No: 12041745-002

Client: Unite Group Plc

Date: 14-06-10
14-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
SA Smith	Competitior	A. Morgan		

SAMPLES & TESTS							STRATA						Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description		Legend	Geology	Dia. mm
								0.15	CONCRETE.			MG	
								(0.35) 0.50	MADE GROUND: Light brown sand. Sand is fine to coarse.			MG	
0.70-0.90	ES		0					(1.10) 1.60	MADE GROUND: Firm to stiff, brown, slightly sandy gravelly clay with occasional cobbles of dolerite and rare cobble sized pockets of closely fissured, light grey mottled brown clay. Gravel is fine to coarse, angular to sub-rounded, brick, dolerite, coal and flint			MG	
								1.65	MADE GROUND: Soft, light brown, very sandy clay.			MG	
								1.75	MADE GROUND: Stiff, light brown mottled grey, slightly sandy clay. Sand is fine to coarse.			MG	
								(1.35) 3.10	MADE GROUND: Firm, brown mottled multicoloured, slightly gravelly sandy clay with rare cobbles of yellow brick. Gravel is fine to coarse, angular to sub-rounded, flint, brick and coal. 2.10 m bgl becoming slightly sandy gravelly CLAY. 2.30 m bgl becoming light brown mottled multicoloured.			MG	
								(0.70) 3.80	MADE GROUND: Brick rubble.			MG	
						1		(0.70) 4.50	MADE GROUND: Dark brown, slightly sandy clayey gravel. Gravel is fine to coarse, sub-angular to sub-rounded brick and flint. Sand is fine to coarse.			MG	
4.60-5.00	ES		0					(0.50) 5.00	Stiff to very stiff, dark grey, CLAY with occasional cobbles of hard, grey, mudstone and rare coarse sand of selenite. (LONDON CLAY).			LC	
									Hole terminated at 5.00m bgl.				

Hole Diameter			Recovery			Water Strikes					
Depth	Diameter (mm)	Remarks	Core Top (m)	Core Base (m)	% Recovery	Date	Time	Strike	Minutes	Standing	Casing
						14-06-10	13.00	4.20			

General Remarks

Scale 1:37.5

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

WINDOW SAMPLE LOG

Hole No. **WS7**

Project: 11-13 St Pancras Way

Sheet: 1 of 1

Job No: 12041745-002

Client: Unite Group Plc

Date: 14-06-10
14-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
SA Smith	Competitior	A. Morgan		

SAMPLES & TESTS							STRATA					Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Dia. mm
								0.18	CONCRETE.		MG	
0.70-1.00	ES		0					(1.22) 1.40	MADE GROUND: Soft, light brown, slightly gravelly sandy clay with rare cobbles of brick. Gravel is fine to coarse, sub-angular to sub-rounded, brick, flint and coal. Sand is fine to coarse.		MG	
								(0.40) 1.80	MADE GROUND: Light brown, clayey gravel. Gravel is fine to coarse, angular to sub-angular flint and coal.		MG	
1.80-2.10	ES		0					(2.20) 4.00	Stiff, light brown mottled light grey, slightly sandy CLAY. Sand is fine to coarse. (WEATHERED LONDON CLAY) 2.10 m bgl 0.02m thick band of orange clayey SAND.		LC	
									Hole terminated at 4.00m bgl.			

Hole Diameter			Recovery			Water Strikes					
Depth	Diameter (mm)	Remarks	Core Top (m)	Core Base (m)	% Recovery	Date	Time	Strike	Minutes	Standing	Casing

General Remarks
No water strike.

Scale 1:37.5

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

WINDOW SAMPLE LOG

Hole No. **WS8**

Project: 11-13 St Pancras Way

Sheet: 1 of 1

Job No: 12041745-002

Client: Unite Group Plc

Date: 14-06-10
14-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
SA Smith	Competitior	A. Morgan		

SAMPLES & TESTS							STRATA					
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Install / Backfill Dia. mm
								(0.30) 0.30	CONCRETE.		MG	
0.40-0.70	ES		0					(0.40) 0.70	MADE GROUND: Soft, light brown mottled dark brown, slightly gravelly sandy clay. Gravel is fine to coarse, brick, flint and glass.		MG	
								0.90	MADE GROUND: Yellow cream brick rubble.		MG	
								(0.90) 1.80	MADE GROUND: Light brown, slightly clayey slightly gravelly sand. Gravel is fine to coars,e angular to sub-rounded, flint, brick and coal. Sand is fine to coarse.		MG	
2.00-2.50	ES		0					(1.60) 3.40	MADE GROUND: Soft, dark brown, slightly gravelly sandy clay. Gravel is fine to coarse, angular to sub-rounded, flint, brick coal and ceramics.		MG	
								(0.40) 3.80	MADE GROUND: Soft, black, sandy clay with rare fine, angular gravel of coal. Sand is fine to coarse. 3.40 - 3.80 m bgl organic odour.		MG	
								4.00	Stiff, light grey mottled light brown, sandy CLAY. Sand is fine to coarse. (WEATHERED LONDON CLAY)		LC	
									Hole terminated at 4.00m bgl.			

Hole Diameter			Recovery			Water Strikes					
Depth	Diameter (mm)	Remarks	Core Top (m)	Core Base (m)	% Recovery	Date	Time	Strike	Minutes	Standing	Casing

General Remarks
No water strike.

Scale 1:37.5

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000
Fax: 02073145111

WINDOW SAMPLE LOG

Hole No. **WS9**

Project: 11-13 St Pancras Way

Sheet: 1 of 1

Job No: 12041745-002

Client: Unite Group Plc

Date: 14-06-10
14-06-10

Contractor / Driller	Method/Plant Used	Logged By	Co-Ordinates (NGR)	Ground Level (m AOD)
SA Smith	Competitior	A. Morgan		

SAMPLES & TESTS							STRATA					Install / Backfill
Depth	Type	Test Result	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	Description	Legend	Geology	Dia. mm
								0.15	CONCRETE.		MG	
0.40-0.60	ES							(1.55)	MADE GROUND: Soft, light grey mottled light brown, slightly sandy gravelly clay. Gravel is fine to coarse, angular to sub-rounded, flint, brick and coal. Sand is fine to coarse.		MG	
								1.70				
								(1.30)	Stiff, closely fissured, light grey mottled light brown, sandy CLAY. Sand is fine to coarse. (WEATHERED LONDON CLAY)		LC	
								3.00				
									Hole terminated at 3.00m bgl.			

Hole Diameter			Recovery			Water Strikes					
Depth	Diameter (mm)	Remarks	Core Top (m)	Core Base (m)	% Recovery	Date	Time	Strike	Minutes	Standing	Casing

General Remarks
No water strike.

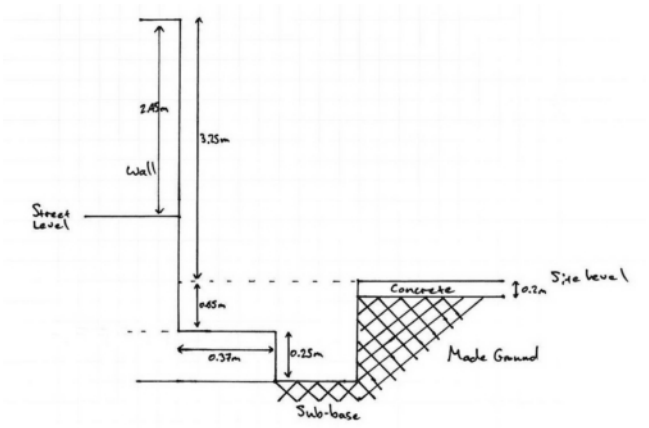
Scale 1:37.5

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000

TRIAL PIT LOG

Project	Job No
11-13 St Pancras Way	12041745-002

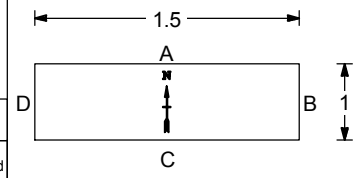


Depth	Type	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	STRATA Description	Legend	Geology	Install / Backfill
							(0.20)	CONCRETE.		MG	
							0.20				
							(0.70)	MADE GROUND: Soft, brown mottled grey, locally slightly silty clay with frequent cobbles of whole brick.		MG	
0.65	CORE						0.90				
							0.95	MADE GROUND: Very compacted, grey brown, clayey sandy gravel. Gravel is fine to coarse, sub-angular to sub-rounded flint.		MG	
								Hole terminated at 0.95m bgl.			

General Remarks
No water strike.

Shoring/Support: None
Stability: Good

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.



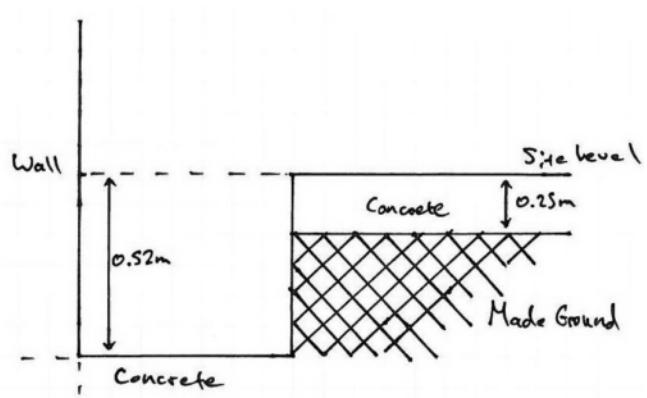
Length: 1.50m	Logged By: P. Lewis	Client: Unite Group Plc		Sheet: 1 of 1
Width: 1.00m	Ground Level (m AOD)	Co-Ordinates (NGR)	Date: 15-06-10 15-06-10	Trial Hole No. TP1
Orientation: 180 degrees from north	Method/Plant Used: 3 Tonne Excavator	Contractor: Thomas Roy	Scale: 1:8.0	

08 WSP TP LOG LS 2 PHOTO 12041745-002 - 11-13 ST PANCRAS WAY.GPJ WSPETEMPLATE1.03.GDT 22/7/10

WSP
70 Chancery Lane
WC2A 1AF
Telephone: 02073145000

TRIAL PIT LOG

Project	Job No
11-13 St Pancras Way	12041745-002

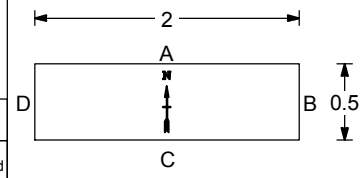


Depth	Type	PID (ppmV)	HSV (kN/m2)	P.Pen (kN/m2)	Water	Elev. (mAOD)	Depth (Thick-ness)	STRATA Description	Legend	Geology	Install / Backfill
							(0.25) 0.25	CONCRETE.		MG	
0.25-0.35	ES						(0.10) 0.35	MADE GROUND: Brown, clayey gravelly sand. Gravel is fine to medium, sub-angular to sub-rounded, brick, concrete and flint. Sand is fine to medium. 0.25 - 0.35 m bgl slight non-discernible odour.		MG	
							(0.17) 0.52	MADE GROUND: Brown to grey brown, slightly gravelly clay. Gravel is fine to coarse, sub-angular brick and occasional concrete.		MG	
								Refused at 0.52m bgl.			

General Remarks
Refused on second concrete slab at 0.52m bgl. No water strike.

Shoring/Support: None
Stability: Good

Notes: All dimensions in metres. Logs should be read in accordance with the provided Key. Descriptions are based on visual and manual identification.



Length: 2.00m	Logged By: P. Lewis	Client: Unite Group Plc	Sheet: 1 of 1
Width: 0.50m	Ground Level (m AOD)	Co-Ordinates (NGR)	Date: 15-06-10 / 15-06-10
Orientation: 180 degrees from north	Method/Plant Used: 3 Tonne Excavator	Contractor: Thomas Roy	Scale: 1:8.0

Trial Hole No.

TP2

08 WSP TP LOG LS 2 PHOTO 12041745-002 - 11-13 ST PANCRAS WAY.GPJ WSPETEMPLATE1.03.GDT 22/7/10

Appendix C Chemical Laboratory Results

WSP Environmental London
WSP House
70 Chancery Lane
London
UK
WC2A 1AF

Certificate of Analysis

Job Number 10-15051

Report Date	12 July 2010
Project Number	12041745 002
Customer	Unite Group Plc
Site Address	11-13 St Pancras Way, London, NW1 0PT
Date of Sampling	11/06/2010-21/06/2010
Date of Analysis	24 June 2010 - 12 July 2010

Dear Philip

Please find attached your results for the above project.
This report includes the samples we received at WSP Environmental Laboratories on 24 June 2010.

Your feedback is critical to the evolution and improvement of our business, so please feel free to email us your comments to: ideas_lab@wspgroup.com.

Results authorised by

Piers Taverner
Extractions Manager

Chemical Analysis is undertaken in accordance with in-house technical procedures and is subject to quality control procedures. Results are expressed on a dry weight basis (dried at below 30˚C) for all soil analyses. Any opinions or interpretations indicated are outside the scope of our UKAS accreditation.

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168085	168087	168090	168091	168093	168094	168095	168096	168097	168098
			Sample Date	15/06/2010	14/06/2010	14/06/2010	14/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010
			Sample Id	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3
			Other ID	ES1	ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2	ES1
			Depth (m)	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1
Determination	**LOD**	**Units**	**Method**										
Solid Description			101	clay	clay	sand with clay	sand with clay	clay	clay	clay	clay	clay	granular / sand
Moisture	0.1	%	101	19	19	18	17	23	22	21	23	25	12
pH		pH units	206 *	7.9	8.4	---	11	8.5	8.3	---	8.0	---	9.8
Selenium, total, as Se	0.3	mg/kg	412 *	0.5	0.4	< 0.3	< 0.3	0.4	0.6	0.6	0.6	0.7	0.3
Mercury, total, as Hg	0.1	mg/kg	405 *	2.1	0.6	1.7	2.8	1.2	2.0	< 0.1	0.5	< 0.1	0.8
Arsenic, total, as As	2.5	mg/kg	406 *	< 2.5	< 2.5	7.7	6.0	< 2.5	2.9	< 2.5	< 2.5	< 2.5	3.7
Cadmium, total, as Cd	0.25	mg/kg	406 *	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Chromium, total, as Cr	1	mg/kg	406 *	51	42	40	37	56	39	58	51	63	27
Copper, total, as Cu	2.5	mg/kg	406 *	100	32	65	88	49	73	32	38	31	31
Nickel, total, as Ni	2.5	mg/kg	406 M*	40	27	30	28	43	32	43	40	50	21
Lead, total, as Pb	2.5	mg/kg	406 M*	390	74	280	320	310	290	4.5	57	< 2.5	99
Zinc, total, as Zn	5	mg/kg	406 M*	140	85	130	150	120	110	110	100	120	97
Sulphate, acid soluble, as SO4	50	mg/kg	236	6300	940	1000	---	---	---	73000	---	870	---
Naphthalene	0.1	mg/kg	408	< 0.1	< 0.1	0.3	---	< 0.1	---	---	< 0.1	---	0.1
Acenaphthylene	0.1	mg/kg	408	< 0.1	< 0.1	< 0.1	---	< 0.1	---	---	< 0.1	---	< 0.1
Acenaphthene	0.1	mg/kg	408	< 0.1	< 0.1	0.8	---	< 0.1	---	---	< 0.1	---	< 0.1
Fluorene	0.1	mg/kg	408	< 0.1	< 0.1	0.7	---	< 0.1	---	---	< 0.1	---	< 0.1
Phenanthrene	0.1	mg/kg	408	1.2	< 0.1	6.7	---	0.2	---	---	< 0.1	---	0.3
Anthracene	0.1	mg/kg	408	0.3	< 0.1	1.4	---	< 0.1	---	---	< 0.1	---	< 0.1
Fluoranthene	0.1	mg/kg	408	3.0	< 0.1	14	---	0.4	---	---	< 0.1	---	0.6
Pyrene	0.1	mg/kg	408	2.3	0.1	10	---	0.3	---	---	< 0.1	---	0.5
Benzo(a)anthracene	0.1	mg/kg	408	1.1	< 0.1	4.9	---	0.2	---	---	< 0.1	---	0.3
Chrysene	0.1	mg/kg	408	1.1	< 0.1	5.0	---	0.2	---	---	< 0.1	---	0.4
Benzo(k)fluoranthene	0.1	mg/kg	408	0.5	< 0.1	2.4	---	0.1	---	---	< 0.1	---	0.1
Benzo(b)fluoranthene	0.1	mg/kg	408	0.9	< 0.1	4.0	---	0.2	---	---	< 0.1	---	0.2
Benzo(a)pyrene	0.1	mg/kg	408	1.1	< 0.1	4.6	---	0.3	---	---	< 0.1	---	0.3
Indeno(1,2,3-c,d)pyrene	0.1	mg/kg	408	0.6	< 0.1	2.6	---	0.1	---	---	< 0.1	---	0.1
Dibenzo(a,h)anthracene	0.1	mg/kg	408	< 0.1	< 0.1	0.6	---	< 0.1	---	---	< 0.1	---	< 0.1
Benzo(g,h,i)perylene	0.1	mg/kg	408	0.7	< 0.1	2.9	---	0.1	---	---	< 0.1	---	0.1
PAH Total (EPA 16)	1	mg/kg	408	13	< 1.0	61	---	2.3	---	---	< 1.0	---	3.1
PCB Congener 28	1	µg/kg	217	< 1.0	< 1.0	< 1.0	---	< 1.0	---	---	---	---	< 1.0

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168085	168087	168090	168091	168093	168094	168095	168096	168097	168098
			Sample Date	15/06/2010	14/06/2010	14/06/2010	14/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010
			Sample Id	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3
			Other ID	ES1	ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2	ES1
			Depth (m)	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1
Determination	**LOD**	**Units**	**Method**										
PCB Congener 52	1	µg/kg	217	< 1.0	< 1.0	< 1.0	---	< 1.0	---	---	---	---	< 1.0
PCB Congener 101	1	µg/kg	217	< 1.0	< 1.0	< 1.0	---	< 1.0	---	---	---	---	< 1.0
PCB Congener 118	1	µg/kg	217	< 1.0	< 1.0	< 1.0	---	< 1.0	---	---	---	---	< 1.0
PCB Congener 138	1	µg/kg	217	< 1.0	< 1.0	< 1.0	---	< 1.0	---	---	---	---	< 1.0
PCB Congener 153	1	µg/kg	217	< 1.0	< 1.0	< 1.0	---	< 1.0	---	---	---	---	< 1.0
PCB Congener 180	1	µg/kg	217	< 1.0	< 1.0	< 1.0	---	< 1.0	---	---	---	---	< 1.0
Total PCB Congeners (EPA 7)	7	µg/kg	217	< 7.0	< 7.0	< 7.0	---	< 7.0	---	---	---	---	< 7.0
Benzene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
m+p-Xylene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
o-Xylene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
TAME	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PRO (>C5-C6)	10	mg/kg	401	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
PRO (>C6-C8)	10	mg/kg	401	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
PRO (>C8-C10)	10	mg/kg	401	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
PRO (>C5-C10)	30	mg/kg	401	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
PRO (>C6-C10)	20	mg/kg	401	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Aliphatic (>C5-C6)	0.2	mg/kg	401	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aliphatic (>C6-C8)	0.2	mg/kg	401	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aliphatic (>C8-C10)	0.2	mg/kg	401	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	6.8	< 0.2	< 0.2	< 0.2	< 0.2
Aliphatic (>C10-C12)	2	mg/kg	419	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	9.0	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic (>C12-C16)	2	mg/kg	419	< 2.0	< 2.0	2.8	12	< 2.0	19	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic (>C16-C21)	5	mg/kg	419	< 5.0	< 5.0	9.4	33	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aliphatic (>C21-C35)	5	mg/kg	419	7.6	16	22	53	< 5.0	37	< 5.0	< 5.0	< 5.0	< 5.0
Aliphatic (>C35-C40)	2	mg/kg	419	< 2.0	< 2.0	2.9	6.0	< 2.0	9.4	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic (>C40-C44)	2	mg/kg	419	< 2.0	< 2.0	2.6	3.7	< 2.0	4.4	< 2.0	< 2.0	< 2.0	< 2.0
Total Aliphatics (>C6-C44)	20	mg/kg	419	< 20	22	40	110	< 20	89	< 20	< 20	< 20	< 20
Aromatic (>C6-C7)	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic (>C7-C8)	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic (>C8-C10)	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168085	168087	168090	168091	168093	168094	168095	168096	168097	168098
			Sample Date	15/06/2010	14/06/2010	14/06/2010	14/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010
			Sample Id	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3
			Other ID	ES1	ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2	ES1
			Depth (m)	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1
Determination	**LOD**	**Units**	**Method**										
Aromatic (>C10-C12)	2	mg/kg	419	< 2.0	< 2.0	< 2.0	4.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic (>C12-C16)	2	mg/kg	419	< 2.0	< 2.0	5.1	15	< 2.0	4.3	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic (>C16-C21)	5	mg/kg	419	< 5.0	< 5.0	10	37	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic (>C21-C35)	5	mg/kg	419	6.3	14	57	200	< 5.0	16	< 5.0	< 5.0	7.0	6.0
Aromatic (>C35-C40)	2	mg/kg	419	9.9	5.2	19	67	< 2.0	12	< 2.0	< 2.0	2.7	2.5
Aromatic (>C40-C44)	2	mg/kg	419	4.4	< 2.0	6.2	23	< 2.0	3.0	< 2.0	< 2.0	< 2.0	< 2.0
Total Aromatics (>C6-C44)	20	mg/kg	419	25	23	99	340	< 20	37	< 20	< 20	< 20	< 20
Total TPH (>C6-C44)	40	mg/kg	419	< 40	44	140	450	< 40	130	< 40	< 40	< 40	< 40
Dichlorodifluoromethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Chloromethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Chloroethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Bromomethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Trichlorofluoromethane	0.01	mg/kg	421	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,1-Dichloroethene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
MTBE	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Trans-1,2-Dichloroethene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,1-Dichloroethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Cis-1,2-Dichloroethene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
2,2-Dichloropropane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Chloroform	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Bromochloromethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,1,1-Trichloroethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,1-Dichloropropene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,2-Dichloroethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Benzene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,2-Dichloropropane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Trichloroethene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Bromodichloromethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Dibromomethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
TAME	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Cis-1,3-Dichloropropene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Toluene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168085	168087	168090	168091	168093	168094	168095	168096	168097	168098
			Sample Date	15/06/2010	14/06/2010	14/06/2010	14/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010
			Sample Id	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3
			Other ID	ES1	ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2	ES1
			Depth (m)	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1
Determination	**LOD**	**Units**	**Method**										
Trans-1,3-Dichloropropene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,1,2-Trichloroethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Carbon Tetrachloride	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Vinyl Chloride	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,3-Dichloropropane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Tetrachloroethene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Dibromochloromethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,2-Dibromoethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Chlorobenzene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,1,1,2-Tetrachloroethane	0.01	mg/kg	421	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Ethylbenzene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
m,p-Xylene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
o-Xylene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Styrene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Bromoform	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Isopropylbenzene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,1,2,2-Tetrachloroethane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,2,3-Trichloropropane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
n-Propylbenzene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Bromobenzene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
2-Chlorotoluene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,3,5-Trimethylbenzene	0.01	mg/kg	421 *	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
4-Chlorotoluene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Tert-Butylbenzene	0.01	mg/kg	421 *	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,2,4-Trimethylbenzene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
sec-Butylbenzene	0.01	mg/kg	421 *	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
p-Isopropyltoluene	0.01	mg/kg	421 *	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,3-Dichlorobenzene	0.01	mg/kg	421 *	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,4-Dichlorobenzene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
n-Butylbenzene	0.01	mg/kg	421 *	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,2-Dichlorobenzene	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,2-Dibromo-3-Chloropropane	0.01	mg/kg	421 M*	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168085	168087	168090	168091	168093	168094	168095	168096	168097	168098
			Sample Date	15/06/2010	14/06/2010	14/06/2010	14/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010
			Sample Id	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3
			Other ID	ES1	ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2	ES1
			Depth (m)	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1
Determination	**LOD**	**Units**	**Method**										
1,2,4-Trichlorobenzene	0.01	mg/kg	421	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Hexachlorobutadiene	0.01	mg/kg	421	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Naphthalene	0.01	mg/kg	421	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
1,2,3-Trichlorobenzene	0.01	mg/kg	421	< 0.01	---	< 0.01	---	< 0.01	---	---	< 0.01	---	< 0.01
Dichloromethane	0.04	mg/kg	421	< 0.04	---	< 0.04	---	< 0.04	---	---	< 0.04	---	< 0.04
Pyridine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
N-Nitrosodimethylamine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Picoline	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
N-Nitrosomethylethylamine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
N-Nitrosodiethylamine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Ethyl methanesulfonate	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Phenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Aniline	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Bis(2-chloroethyl)ether	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Pentachloroethane	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Chlorophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
1,3-Dichlorobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
1,4-Dichlorobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Benzyl alcohol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
1,2-Dichlorobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Methylphenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Bis(2-chloroisopropyl)ether	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
N-Nitrosopyrrolidine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
3+4-methylphenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Acetophenone	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
N-Nitroso-di-N-propylamine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
o-toluidine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Hexachloroethane	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Nitrobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
N-Nitrosopiperidine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Isophorone	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Nitrophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168085	168087	168090	168091	168093	168094	168095	168096	168097	168098
			Sample Date	15/06/2010	14/06/2010	14/06/2010	14/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010
			Sample Id	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3
			Other ID	ES1	ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2	ES1
			Depth (m)	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1
Determination	**LOD**	**Units**	**Method**										
2,4-Dimethylphenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Bis(2-chloroethoxy)methane	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2,4-Dichlorophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
1,2,4-Trichlorobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Naphthalene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2,6-Dichlorophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
p-Chloroaniline	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Hexachloropropene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Hexachlorobutadiene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
N-Nitroso-di-N-butylamine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
4-Chloro-3-methylphenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Safrole	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Methylnaphthalene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
1,2,4,5-Tetrachlorobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Hexachlorocyclopentadiene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2,4,5-Trichlorophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2,4,6-Trichlorophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Isosafrole	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Chloronaphthalene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Nitroaniline	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
1,4-Naphthoquinone	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Dimethyl phthalate	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
1,3-Dinitrobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2,6-Dintrotoluene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Acenaphthylene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
3-Nitroaniline	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Acenaphthene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
4-Nitrophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Pentachlorobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2,4-Dinitrotoluene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Dibenzofuran	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
1-Naphthylamine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168085	168087	168090	168091	168093	168094	168095	168096	168097	168098
			Sample Date	15/06/2010	14/06/2010	14/06/2010	14/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010
			Sample Id	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3
			Other ID	ES1	ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2	ES1
			Depth (m)	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1
Determination	**LOD**	**Units**	**Method**										
2,3,4,6-Tetrachlorophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Naphthylamine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Diethyl Phthalate	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
4-Chlorophenyl phenyl ether	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Fluorene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Methyl-4,6-dinitrophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Diphenylamine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Azobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
1,3,5-Trinitrobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
4-Bromophenyl phenyl ether	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Diallate	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Hexachlorobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
4-Aminobiphenyl	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Pentachlorophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Pentachloronitrobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Pronamide	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Dinoseb	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Phenanthrene	1.3	mg/kg	208	< 1.3	---	4.6	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Anthracene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Carbazole	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Di-N-butyl phthalate	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Isodrin	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Fluoranthene	1.3	mg/kg	208	< 1.3	---	3.8	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Benzidine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Pyrene	1.3	mg/kg	208	< 1.3	---	3.1	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
p-Dimethylaminoazobenzene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Chlorobenzilate	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
3,3-Dimethylbenzidine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Butyl Benzyl Phthalate	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Kepone	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
2-Acetylaminofluorene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
3,3-Dichlorobenzidine	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168085	168087	168090	168091	168093	168094	168095	168096	168097	168098
			Sample Date	15/06/2010	14/06/2010	14/06/2010	14/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010	11/06/2010
			Sample Id	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3
			Other ID	ES1	ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2	ES1
			Depth (m)	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1
Determination	**LOD**	**Units**	**Method**										
Chrysene	1.3	mg/kg	208	< 1.3	---	2.1	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Benzo(a)anthracene	1.3	mg/kg	208	< 1.3	---	1.7	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Bis(2-ethylhexyl)phthalate	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Di-n-octylphthalate	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
7,12-Dimethylbenz(a)anthracene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Benzo(b)fluoranthene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Benzo(k)fluoranthene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Benzo(a)pyrene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
3-Methylcholanthrene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Indeno(1,2,3-c,d)pyrene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Dibenzo(a,h)anthracene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
Benzo(g,h,i)perylene	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3
3+4-Chlorophenol	1.3	mg/kg	208	< 1.3	---	< 1.3	---	< 1.3	< 1.3	---	< 1.3	< 1.3	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168099	168100	168101	168102	168103	168104	168105	168106	168107	168108
			Sample Date	11/06/2010	11/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010
			Sample Id	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9
			Other ID	ES2	ES1	ES1	ES1	ES2	ES1	ES2	ES1	ES2	ES1
			Depth (m)	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6
Determination	**LOD**	**Units**	**Method**										
Solid Description			101	silty sand	sand and stones	stones with sand	clay	clay	clay	clay	clay	clay	clay with stones
Moisture	0.1	%	101	21	11	7.5	22	22	19	24	23	25	11
pH		pH units	206 *	---	11	---	7.6	---	5.0	---	---	8.0	---
Selenium, total, as Se	0.3	mg/kg	412 *	0.7	0.4	0.3	0.5	0.7	0.3	0.6	0.5	0.6	0.5
Mercury, total, as Hg	0.1	mg/kg	405 *	3.7	1.3	0.8	0.2	< 0.1	1.8	< 0.1	2.5	0.8	1.4
Arsenic, total, as As	2.5	mg/kg	406 *	20	8.6	3.4	< 2.5	< 2.5	< 2.5	< 2.5	18	< 2.5	4.7
Cadmium, total, as Cd	0.25	mg/kg	406 *	< 0.25	0.72	0.39	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Chromium, total, as Cr	1	mg/kg	406 *	18	37	29	56	61	40	61	29	52	42
Copper, total, as Cu	2.5	mg/kg	406 *	460	120	71	30	31	22	32	140	49	41
Nickel, total, as Ni	2.5	mg/kg	406 M*	23	49	34	44	47	18	56	25	42	28
Lead, total, as Pb	2.5	mg/kg	406 M*	620	390	240	18	3.3	48	4.9	710	200	170
Zinc, total, as Zn	5	mg/kg	406 M*	270	470	330	110	110	74	110	170	120	100
Sulphate, acid soluble, as SO4	50	mg/kg	236	1200	---	5200	---	1100	---	640	4100	---	730
Naphthalene	0.1	mg/kg	408	---	---	0.3	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Acenaphthylene	0.1	mg/kg	408	---	---	0.2	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Acenaphthene	0.1	mg/kg	408	---	---	0.2	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Fluorene	0.1	mg/kg	408	---	---	0.2	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Phenanthrene	0.1	mg/kg	408	---	---	3.5	---	< 0.1	< 0.1	---	---	< 0.1	0.1
Anthracene	0.1	mg/kg	408	---	---	0.8	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Fluoranthene	0.1	mg/kg	408	---	---	7.4	---	< 0.1	< 0.1	---	---	< 0.1	0.2
Pyrene	0.1	mg/kg	408	---	---	5.5	---	< 0.1	< 0.1	---	---	< 0.1	0.2
Benzo(a)anthracene	0.1	mg/kg	408	---	---	2.9	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Chrysene	0.1	mg/kg	408	---	---	3.2	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	408	---	---	1.5	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	408	---	---	2.6	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Benzo(a)pyrene	0.1	mg/kg	408	---	---	2.7	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Indeno(1,2,3-c,d)pyrene	0.1	mg/kg	408	---	---	1.6	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Dibenzo(a,h)anthracene	0.1	mg/kg	408	---	---	0.3	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
Benzo(g,h,i)perylene	0.1	mg/kg	408	---	---	2.0	---	< 0.1	< 0.1	---	---	< 0.1	< 0.1
PAH Total (EPA 16)	1	mg/kg	408	---	---	35	---	< 1.0	< 1.0	---	---	< 1.0	< 1.0
PCB Congener 28	1	µg/kg	217	---	---	---	---	---	< 1.0	---	---	---	< 1.0

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168099	168100	168101	168102	168103	168104	168105	168106	168107	168108
			Sample Date	11/06/2010	11/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010
			Sample Id	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9
			Other ID	ES2	ES1	ES1	ES1	ES2	ES1	ES2	ES1	ES2	ES1
			Depth (m)	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6
Determination	**LOD**	**Units**	**Method**										
PCB Congener 52	1	µg/kg	217	---	---	---	---	---	< 1.0	---	---	---	< 1.0
PCB Congener 101	1	µg/kg	217	---	---	---	---	---	< 1.0	---	---	---	< 1.0
PCB Congener 118	1	µg/kg	217	---	---	---	---	---	< 1.0	---	---	---	< 1.0
PCB Congener 138	1	µg/kg	217	---	---	---	---	---	< 1.0	---	---	---	< 1.0
PCB Congener 153	1	µg/kg	217	---	---	---	---	---	< 1.0	---	---	---	< 1.0
PCB Congener 180	1	µg/kg	217	---	---	---	---	---	< 1.0	---	---	---	< 1.0
Total PCB Congeners (EPA 7)	7	µg/kg	217	---	---	---	---	---	< 7.0	---	---	---	< 7.0
Benzene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
m+p-Xylene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
o-Xylene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
TAME	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PRO (>C5-C6)	10	mg/kg	401	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
PRO (>C6-C8)	10	mg/kg	401	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
PRO (>C8-C10)	10	mg/kg	401	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
PRO (>C5-C10)	30	mg/kg	401	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
PRO (>C6-C10)	20	mg/kg	401	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Aliphatic (>C5-C6)	0.2	mg/kg	401	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aliphatic (>C6-C8)	0.2	mg/kg	401	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aliphatic (>C8-C10)	0.2	mg/kg	401	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aliphatic (>C10-C12)	2	mg/kg	419	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3.5	< 2.0	< 2.0	< 2.0
Aliphatic (>C12-C16)	2	mg/kg	419	< 2.0	17	6.3	< 2.0	< 2.0	< 2.0	4.9	< 2.0	< 2.0	< 2.0
Aliphatic (>C16-C21)	5	mg/kg	419	< 5.0	94	38	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aliphatic (>C21-C35)	5	mg/kg	419	8.3	460	230	< 5.0	< 5.0	< 5.0	7.9	14	< 5.0	< 5.0
Aliphatic (>C35-C40)	2	mg/kg	419	< 2.0	80	35	< 2.0	< 2.0	< 2.0	4.1	3.7	< 2.0	< 2.0
Aliphatic (>C40-C44)	2	mg/kg	419	< 2.0	47	16	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Total Aliphatics (>C6-C44)	20	mg/kg	419	< 20	700	320	< 20	< 20	< 20	22	23	< 20	< 20
Aromatic (>C6-C7)	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic (>C7-C8)	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic (>C8-C10)	0.01	mg/kg	401	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Solid Samples

Job No. 10-15051
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Report Date: 12/07/2010

			Lab No.	168099	168100	168101	168102	168103	168104	168105	168106	168107	168108
			Sample Date	11/06/2010	11/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010
			Sample Id	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9
			Other ID	ES2	ES1	ES1	ES1	ES2	ES1	ES2	ES1	ES2	ES1
			Depth (m)	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6
Determination	**LOD**	**Units**	**Method**										
Aromatic (>C10-C12)	2	mg/kg	419	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic (>C12-C16)	2	mg/kg	419	7.0	18	7.6	< 2.0	< 2.0	< 2.0	< 2.0	2.7	< 2.0	< 2.0
Aromatic (>C16-C21)	5	mg/kg	419	< 5.0	64	16	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic (>C21-C35)	5	mg/kg	419	38	440	160	< 5.0	7.7	< 5.0	< 5.0	13	< 5.0	< 5.0
Aromatic (>C35-C40)	2	mg/kg	419	16	200	75	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic (>C40-C44)	2	mg/kg	419	4.5	86	28	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Total Aromatics (>C6-C44)	20	mg/kg	419	72	810	290	< 20	< 20	< 20	< 20	22	< 20	< 20
Total TPH (>C6-C44)	40	mg/kg	419	72	1500	610	< 40	< 40	< 40	< 40	44	< 40	< 40
Dichlorodifluoromethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Chloromethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Chloroethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Bromomethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Trichlorofluoromethane	0.01	mg/kg	421	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,1-Dichloroethene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
MTBE	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Trans-1,2-Dichloroethene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,1-Dichloroethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Cis-1,2-Dichloroethene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
2,2-Dichloropropane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Chloroform	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Bromochloromethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,1,1-Trichloroethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,1-Dichloropropene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,2-Dichloroethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Benzene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,2-Dichloropropane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Trichloroethene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Bromodichloromethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Dibromomethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
TAME	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Cis-1,3-Dichloropropene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Toluene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01

Solid Samples

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			Lab No.	168099	168100	168101	168102	168103	168104	168105	168106	168107	168108
			Sample Date	11/06/2010	11/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010
			Sample Id	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9
			Other ID	ES2	ES1	ES1	ES1	ES2	ES1	ES2	ES1	ES2	ES1
			Depth (m)	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6
Determination	**LOD**	**Units**	**Method**										
Trans-1,3-Dichloropropene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,1,2-Trichloroethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Carbon Tetrachloride	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Vinyl Chloride	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,3-Dichloropropane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Tetrachloroethene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Dibromochloromethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,2-Dibromoethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Chlorobenzene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,1,1,2-Tetrachloroethane	0.01	mg/kg	421	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Ethylbenzene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
m,p-Xylene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
o-Xylene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Styrene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Bromoform	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Isopropylbenzene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,1,2,2-Tetrachloroethane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,2,3-Trichloropropane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
n-Propylbenzene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Bromobenzene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
2-Chlorotoluene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,3,5-Trimethylbenzene	0.01	mg/kg	421 *	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
4-Chlorotoluene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Tert-Butylbenzene	0.01	mg/kg	421 *	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,2,4-Trimethylbenzene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
sec-Butylbenzene	0.01	mg/kg	421 *	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
p-Isopropyltoluene	0.01	mg/kg	421 *	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,3-Dichlorobenzene	0.01	mg/kg	421 *	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,4-Dichlorobenzene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
n-Butylbenzene	0.01	mg/kg	421 *	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,2-Dichlorobenzene	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,2-Dibromo-3-Chloropropane	0.01	mg/kg	421 M*	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01

Solid Samples

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			Lab No.	168099	168100	168101	168102	168103	168104	168105	168106	168107	168108
			Sample Date	11/06/2010	11/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010
			Sample Id	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9
			Other ID	ES2	ES1	ES1	ES1	ES2	ES1	ES2	ES1	ES2	ES1
			Depth (m)	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6
Determination	**LOD**	**Units**	**Method**										
1,2,4-Trichlorobenzene	0.01	mg/kg	421	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Hexachlorobutadiene	0.01	mg/kg	421	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Naphthalene	0.01	mg/kg	421	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
1,2,3-Trichlorobenzene	0.01	mg/kg	421	---	---	< 0.01	---	< 0.01	< 0.01	---	< 0.01	---	< 0.01
Dichloromethane	0.04	mg/kg	421	---	---	< 0.04	---	< 0.04	< 0.04	---	< 0.04	---	< 0.04
Pyridine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
N-Nitrosodimethylamine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Picoline	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
N-Nitrosomethylethylamine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
N-Nitrosodiethylamine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Ethyl methanesulfonate	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Phenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Aniline	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Bis(2-chloroethyl)ether	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Pentachloroethane	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Chlorophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,3-Dichlorobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,4-Dichlorobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Benzyl alcohol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,2-Dichlorobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Methylphenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Bis(2-chloroisopropyl)ether	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
N-Nitrosopyrrolidine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
3+4-methylphenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Acetophenone	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
N-Nitroso-di-N-propylamine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
o-toluidine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Hexachloroethane	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Nitrobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
N-Nitrosopiperidine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Isophorone	1.3	mg/kg	208	---	1.9	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Nitrophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168099	168100	168101	168102	168103	168104	168105	168106	168107	168108
			Sample Date	11/06/2010	11/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010
			Sample Id	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9
			Other ID	ES2	ES1	ES1	ES1	ES2	ES1	ES2	ES1	ES2	ES1
			Depth (m)	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6
Determination	**LOD**	**Units**	**Method**										
2,4-Dimethylphenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Bis(2-chloroethoxy)methane	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2,4-Dichlorophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,2,4-Trichlorobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Naphthalene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2,6-Dichlorophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
p-Chloroaniline	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Hexachloropropene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Hexachlorobutadiene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
N-Nitroso-di-N-butylamine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
4-Chloro-3-methylphenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Safrole	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Methylnaphthalene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,2,4,5-Tetrachlorobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Hexachlorocyclopentadiene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2,4,5-Trichlorophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2,4,6-Trichlorophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Isosafrole	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Chloronaphthalene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Nitroaniline	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,4-Naphthoquinone	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Dimethyl phthalate	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,3-Dinitrobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2,6-Dintrotoluene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Acenaphthylene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
3-Nitroaniline	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Acenaphthene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
4-Nitrophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Pentachlorobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2,4-Dinitrotoluene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Dibenzofuran	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1-Naphthylamine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168099	168100	168101	168102	168103	168104	168105	168106	168107	168108
			Sample Date	11/06/2010	11/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010
			Sample Id	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9
			Other ID	ES2	ES1	ES1	ES1	ES2	ES1	ES2	ES1	ES2	ES1
			Depth (m)	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6
Determination	**LOD**	**Units**	**Method**										
2,3,4,6-Tetrachlorophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Naphthylamine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Diethyl Phthalate	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
4-Chlorophenyl phenyl ether	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Fluorene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Methyl-4,6-dinitrophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Diphenylamine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Azobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,3,5-Trinitrobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
4-Bromophenyl phenyl ether	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Diallate	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Hexachlorobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
4-Aminobiphenyl	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Pentachlorophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Pentachloronitrobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Pronamide	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Dinoseb	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Phenanthrene	1.3	mg/kg	208	---	4.0	5.7	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Anthracene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Carbazole	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Di-N-butyl phthalate	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Isodrin	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Fluoranthene	1.3	mg/kg	208	---	5.3	6.2	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Benzidine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Pyrene	1.3	mg/kg	208	---	4.6	5.2	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
p-Dimethylaminoazobenzene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Chlorobenzilate	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
3,3-Dimethylbenzidine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Butyl Benzyl Phthalate	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Kepone	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
2-Acetylaminofluorene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
3,3-Dichlorobenzidine	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168099	168100	168101	168102	168103	168104	168105	168106	168107	168108
			Sample Date	11/06/2010	11/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010	14/06/2010
			Sample Id	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9
			Other ID	ES2	ES1	ES1	ES1	ES2	ES1	ES2	ES1	ES2	ES1
			Depth (m)	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6
Determination	**LOD**	**Units**	**Method**										
Chrysene	1.3	mg/kg	208	---	2.3	2.9	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Benzo(a)anthracene	1.3	mg/kg	208	---	2.2	2.8	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Bis(2-ethylhexyl)phthalate	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Di-n-octylphthalate	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
7,12-Dimethylbenz(a)anthracene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Benzo(b)fluoranthene	1.3	mg/kg	208	---	< 1.3	2.2	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Benzo(k)fluoranthene	1.3	mg/kg	208	---	1.6	2.0	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Benzo(a)pyrene	1.3	mg/kg	208	---	< 1.3	2.2	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
3-Methylcholanthrene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Indeno(1,2,3-c,d)pyrene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Dibenzo(a,h)anthracene	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Benzo(g,h,i)perylene	1.3	mg/kg	208	---	< 1.3	1.4	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
3+4-Chlorophenol	1.3	mg/kg	208	---	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168109
			Sample Date	15/06/2010
			Sample Id	TP2
			Other ID	ES1
			Depth (m)	0.25-0.35
Determination	**LOD**	**Units**	**Method**	
Solid Description			101	granular with loam
Moisture	0.1	%	101	13
pH		pH units	206 *	---
Selenium, total, as Se	0.3	mg/kg	412 *	0.5
Mercury, total, as Hg	0.1	mg/kg	405 *	5.2
Arsenic, total, as As	2.5	mg/kg	406 *	18
Cadmium, total, as Cd	0.25	mg/kg	406 *	0.25
Chromium, total, as Cr	1	mg/kg	406 *	29
Copper, total, as Cu	2.5	mg/kg	406 *	110
Nickel, total, as Ni	2.5	mg/kg	406 M*	29
Lead, total, as Pb	2.5	mg/kg	406 M*	940
Zinc, total, as Zn	5	mg/kg	406 M*	250
Sulphate, acid soluble, as SO4	50	mg/kg	236	3300
Naphthalene	0.1	mg/kg	408	0.4
Acenaphthylene	0.1	mg/kg	408	< 0.1
Acenaphthene	0.1	mg/kg	408	< 0.1
Fluorene	0.1	mg/kg	408	< 0.1
Phenanthrene	0.1	mg/kg	408	0.6
Anthracene	0.1	mg/kg	408	< 0.1
Fluoranthene	0.1	mg/kg	408	0.5
Pyrene	0.1	mg/kg	408	0.6
Benzo(a)anthracene	0.1	mg/kg	408	0.3
Chrysene	0.1	mg/kg	408	0.4
Benzo(k)fluoranthene	0.1	mg/kg	408	0.1
Benzo(b)fluoranthene	0.1	mg/kg	408	0.2
Benzo(a)pyrene	0.1	mg/kg	408	0.3
Indeno(1,2,3-c,d)pyrene	0.1	mg/kg	408	0.1
Dibenzo(a,h)anthracene	0.1	mg/kg	408	< 0.1
Benzo(g,h,i)perylene	0.1	mg/kg	408	0.2
PAH Total (EPA 16)	1	mg/kg	408	3.7
PCB Congener 28	1	µg/kg	217	---

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168109
			Sample Date	15/06/2010
			Sample Id	TP2
			Other ID	ES1
			Depth (m)	0.25-0.35
Determination	**LOD**	**Units**	**Method**	
PCB Congener 52	1	µg/kg	217	---
PCB Congener 101	1	µg/kg	217	---
PCB Congener 118	1	µg/kg	217	---
PCB Congener 138	1	µg/kg	217	---
PCB Congener 153	1	µg/kg	217	---
PCB Congener 180	1	µg/kg	217	---
Total PCB Congeners (EPA 7)	7	µg/kg	217	---
Benzene	0.01	mg/kg	401	< 0.01
Ethylbenzene	0.01	mg/kg	401	< 0.01
m+p-Xylene	0.01	mg/kg	401	< 0.01
MTBE	0.01	mg/kg	401	< 0.01
o-Xylene	0.01	mg/kg	401	< 0.01
TAME	0.01	mg/kg	401	< 0.01
Toluene	0.01	mg/kg	401	< 0.01
PRO (>C5-C6)	10	mg/kg	401	< 10.0
PRO (>C6-C8)	10	mg/kg	401	< 10.0
PRO (>C8-C10)	10	mg/kg	401	< 10.0
PRO (>C5-C10)	30	mg/kg	401	< 30
PRO (>C6-C10)	20	mg/kg	401	< 20
Aliphatic (>C5-C6)	0.2	mg/kg	401	< 0.2
Aliphatic (>C6-C8)	0.2	mg/kg	401	< 0.2
Aliphatic (>C8-C10)	0.2	mg/kg	401	< 0.2
Aliphatic (>C10-C12)	2	mg/kg	419	3.1
Aliphatic (>C12-C16)	2	mg/kg	419	12
Aliphatic (>C16-C21)	5	mg/kg	419	12
Aliphatic (>C21-C35)	5	mg/kg	419	47
Aliphatic (>C35-C40)	2	mg/kg	419	5.9
Aliphatic (>C40-C44)	2	mg/kg	419	2.6
Total Aliphatics (>C6-C44)	20	mg/kg	419	82
Aromatic (>C6-C7)	0.01	mg/kg	401	< 0.01
Aromatic (>C7-C8)	0.01	mg/kg	401	< 0.01
Aromatic (>C8-C10)	0.01	mg/kg	401	< 0.01

Solid Samples

Job No. 10-15051
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			Lab No.	168109
			Sample Date	15/06/2010
			Sample Id	TP2
			Other ID	ES1
			Depth (m)	0.25-0.35
Determination	**LOD**	**Units**	**Method**	
Aromatic (>C10-C12)	2	mg/kg	419	2.8
Aromatic (>C12-C16)	2	mg/kg	419	7.8
Aromatic (>C16-C21)	5	mg/kg	419	< 5.0
Aromatic (>C21-C35)	5	mg/kg	419	51
Aromatic (>C35-C40)	2	mg/kg	419	18
Aromatic (>C40-C44)	2	mg/kg	419	5.1
Total Aromatics (>C6-C44)	20	mg/kg	419	89
Total TPH (>C6-C44)	40	mg/kg	419	170
Dichlorodifluoromethane	0.01	mg/kg	421 M*	< 0.01
Chloromethane	0.01	mg/kg	421 M*	< 0.01
Chloroethane	0.01	mg/kg	421 M*	< 0.01
Bromomethane	0.01	mg/kg	421 M*	< 0.01
Trichlorofluoromethane	0.01	mg/kg	421	< 0.01
1,1-Dichloroethene	0.01	mg/kg	421 M*	< 0.01
MTBE	0.01	mg/kg	421 M*	< 0.01
Trans-1,2-Dichloroethene	0.01	mg/kg	421 M*	< 0.01
1,1-Dichloroethane	0.01	mg/kg	421 M*	< 0.01
Cis-1,2-Dichloroethene	0.01	mg/kg	421 M*	< 0.01
2,2-Dichloropropane	0.01	mg/kg	421 M*	< 0.01
Chloroform	0.01	mg/kg	421 M*	< 0.01
Bromochloromethane	0.01	mg/kg	421 M*	< 0.01
1,1,1-Trichloroethane	0.01	mg/kg	421 M*	< 0.01
1,1-Dichloropropene	0.01	mg/kg	421 M*	< 0.01
1,2-Dichloroethane	0.01	mg/kg	421 M*	< 0.01
Benzene	0.01	mg/kg	421 M*	< 0.01
1,2-Dichloropropane	0.01	mg/kg	421 M*	< 0.01
Trichloroethene	0.01	mg/kg	421 M*	< 0.01
Bromodichloromethane	0.01	mg/kg	421 M*	< 0.01
Dibromomethane	0.01	mg/kg	421 M*	< 0.01
TAME	0.01	mg/kg	421 M*	< 0.01
Cis-1,3-Dichloropropene	0.01	mg/kg	421 M*	< 0.01
Toluene	0.01	mg/kg	421 M*	< 0.01

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168109
			Sample Date	15/06/2010
			Sample Id	TP2
			Other ID	ES1
			Depth (m)	0.25-0.35
Determination	**LOD**	**Units**	**Method**	
Trans-1,3-Dichloropropene	0.01	mg/kg	421 M*	< 0.01
1,1,2-Trichloroethane	0.01	mg/kg	421 M*	< 0.01
Carbon Tetrachloride	0.01	mg/kg	421 M*	< 0.01
Vinyl Chloride	0.01	mg/kg	421 M*	< 0.01
1,3-Dichloropropane	0.01	mg/kg	421 M*	< 0.01
Tetrachloroethene	0.01	mg/kg	421 M*	< 0.01
Dibromochloromethane	0.01	mg/kg	421 M*	< 0.01
1,2-Dibromoethane	0.01	mg/kg	421 M*	< 0.01
Chlorobenzene	0.01	mg/kg	421 M*	< 0.01
1,1,1,2-Tetrachloroethane	0.01	mg/kg	421	< 0.01
Ethylbenzene	0.01	mg/kg	421 M*	< 0.01
m,p-Xylene	0.01	mg/kg	421 M*	< 0.01
o-Xylene	0.01	mg/kg	421 M*	< 0.01
Styrene	0.01	mg/kg	421 M*	< 0.01
Bromoform	0.01	mg/kg	421 M*	< 0.01
Isopropylbenzene	0.01	mg/kg	421 M*	< 0.01
1,1,2,2-Tetrachloroethane	0.01	mg/kg	421 M*	< 0.01
1,2,3-Trichloropropane	0.01	mg/kg	421 M*	< 0.01
n-Propylbenzene	0.01	mg/kg	421 M*	< 0.01
Bromobenzene	0.01	mg/kg	421 M*	< 0.01
2-Chlorotoluene	0.01	mg/kg	421 M*	< 0.01
1,3,5-Trimethylbenzene	0.01	mg/kg	421 *	< 0.01
4-Chlorotoluene	0.01	mg/kg	421 M*	< 0.01
Tert-Butylbenzene	0.01	mg/kg	421 *	< 0.01
1,2,4-Trimethylbenzene	0.01	mg/kg	421 M*	< 0.01
sec-Butylbenzene	0.01	mg/kg	421 *	< 0.01
p-Isopropyltoluene	0.01	mg/kg	421 *	< 0.01
1,3-Dichlorobenzene	0.01	mg/kg	421 *	< 0.01
1,4-Dichlorobenzene	0.01	mg/kg	421 M*	< 0.01
n-Butylbenzene	0.01	mg/kg	421 *	< 0.01
1,2-Dichlorobenzene	0.01	mg/kg	421 M*	< 0.01
1,2-Dibromo-3-Chloropropane	0.01	mg/kg	421 M*	< 0.01

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168109
			Sample Date	15/06/2010
			Sample Id	TP2
			Other ID	ES1
			Depth (m)	0.25-0.35
Determination	**LOD**	**Units**	**Method**	
1,2,4-Trichlorobenzene	0.01	mg/kg	421	< 0.01
Hexachlorobutadiene	0.01	mg/kg	421	< 0.01
Naphthalene	0.01	mg/kg	421	< 0.01
1,2,3-Trichlorobenzene	0.01	mg/kg	421	< 0.01
Dichloromethane	0.04	mg/kg	421	< 0.04
Pyridine	1.3	mg/kg	208	< 1.3
N-Nitrosodimethylamine	1.3	mg/kg	208	< 1.3
2-Picoline	1.3	mg/kg	208	< 1.3
N-Nitrosomethylethylamine	1.3	mg/kg	208	< 1.3
N-Nitrosodiethylamine	1.3	mg/kg	208	< 1.3
Ethyl methanesulfonate	1.3	mg/kg	208	< 1.3
Phenol	1.3	mg/kg	208	< 1.3
Aniline	1.3	mg/kg	208	< 1.3
Bis(2-chloroethyl)ether	1.3	mg/kg	208	< 1.3
Pentachloroethane	1.3	mg/kg	208	< 1.3
2-Chlorophenol	1.3	mg/kg	208	< 1.3
1,3-Dichlorobenzene	1.3	mg/kg	208	< 1.3
1,4-Dichlorobenzene	1.3	mg/kg	208	< 1.3
Benzyl alcohol	1.3	mg/kg	208	< 1.3
1,2-Dichlorobenzene	1.3	mg/kg	208	< 1.3
2-Methylphenol	1.3	mg/kg	208	< 1.3
Bis(2-chloroisopropyl)ether	1.3	mg/kg	208	< 1.3
N-Nitrosopyrrolidine	1.3	mg/kg	208	< 1.3
3+4-methylphenol	1.3	mg/kg	208	< 1.3
Acetophenone	1.3	mg/kg	208	< 1.3
N-Nitroso-di-N-propylamine	1.3	mg/kg	208	< 1.3
o-toluidine	1.3	mg/kg	208	< 1.3
Hexachloroethane	1.3	mg/kg	208	< 1.3
Nitrobenzene	1.3	mg/kg	208	< 1.3
N-Nitrosopiperidine	1.3	mg/kg	208	< 1.3
Isophorone	1.3	mg/kg	208	< 1.3
2-Nitrophenol	1.3	mg/kg	208	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168109
			Sample Date	15/06/2010
			Sample Id	TP2
			Other ID	ES1
			Depth (m)	0.25-0.35
Determination	**LOD**	**Units**	**Method**	
2,4-Dimethylphenol	1.3	mg/kg	208	< 1.3
Bis(2-chloroethoxy)methane	1.3	mg/kg	208	< 1.3
2,4-Dichlorophenol	1.3	mg/kg	208	< 1.3
1,2,4-Trichlorobenzene	1.3	mg/kg	208	< 1.3
Naphthalene	1.3	mg/kg	208	< 1.3
2,6-Dichlorophenol	1.3	mg/kg	208	< 1.3
p-Chloroaniline	1.3	mg/kg	208	< 1.3
Hexachloropropene	1.3	mg/kg	208	< 1.3
Hexachlorobutadiene	1.3	mg/kg	208	< 1.3
N-Nitroso-di-N-butylamine	1.3	mg/kg	208	< 1.3
4-Chloro-3-methylphenol	1.3	mg/kg	208	< 1.3
Safrole	1.3	mg/kg	208	< 1.3
2-Methylnaphthalene	1.3	mg/kg	208	< 1.3
1,2,4,5-Tetrachlorobenzene	1.3	mg/kg	208	< 1.3
Hexachlorocyclopentadiene	1.3	mg/kg	208	< 1.3
2,4,5-Trichlorophenol	1.3	mg/kg	208	< 1.3
2,4,6-Trichlorophenol	1.3	mg/kg	208	< 1.3
Isosafrole	1.3	mg/kg	208	< 1.3
2-Chloronaphthalene	1.3	mg/kg	208	< 1.3
2-Nitroaniline	1.3	mg/kg	208	< 1.3
1,4-Naphthoquinone	1.3	mg/kg	208	< 1.3
Dimethyl phthalate	1.3	mg/kg	208	< 1.3
1,3-Dinitrobenzene	1.3	mg/kg	208	< 1.3
2,6-Dintrotoluene	1.3	mg/kg	208	< 1.3
Acenaphthylene	1.3	mg/kg	208	< 1.3
3-Nitroaniline	1.3	mg/kg	208	< 1.3
Acenaphthene	1.3	mg/kg	208	< 1.3
4-Nitrophenol	1.3	mg/kg	208	< 1.3
Pentachlorobenzene	1.3	mg/kg	208	< 1.3
2,4-Dinitrotoluene	1.3	mg/kg	208	< 1.3
Dibenzofuran	1.3	mg/kg	208	< 1.3
1-Naphthylamine	1.3	mg/kg	208	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168109
			Sample Date	15/06/2010
			Sample Id	TP2
			Other ID	ES1
			Depth (m)	0.25-0.35
Determination	**LOD**	**Units**	**Method**	
2,3,4,6-Tetrachlorophenol	1.3	mg/kg	208	< 1.3
2-Naphthylamine	1.3	mg/kg	208	< 1.3
Diethyl Phthalate	1.3	mg/kg	208	< 1.3
4-Chlorophenyl phenyl ether	1.3	mg/kg	208	< 1.3
Fluorene	1.3	mg/kg	208	< 1.3
2-Methyl-4,6-dinitrophenol	1.3	mg/kg	208	< 1.3
Diphenylamine	1.3	mg/kg	208	< 1.3
Azobenzene	1.3	mg/kg	208	< 1.3
1,3,5-Trinitrobenzene	1.3	mg/kg	208	< 1.3
4-Bromophenyl phenyl ether	1.3	mg/kg	208	< 1.3
Diallate	1.3	mg/kg	208	< 1.3
Hexachlorobenzene	1.3	mg/kg	208	< 1.3
4-Aminobiphenyl	1.3	mg/kg	208	< 1.3
Pentachlorophenol	1.3	mg/kg	208	< 1.3
Pentachloronitrobenzene	1.3	mg/kg	208	< 1.3
Pronamide	1.3	mg/kg	208	< 1.3
Dinoseb	1.3	mg/kg	208	< 1.3
Phenanthrene	1.3	mg/kg	208	< 1.3
Anthracene	1.3	mg/kg	208	< 1.3
Carbazole	1.3	mg/kg	208	< 1.3
Di-N-butyl phthalate	1.3	mg/kg	208	< 1.3
Isodrin	1.3	mg/kg	208	< 1.3
Fluoranthene	1.3	mg/kg	208	< 1.3
Benzidine	1.3	mg/kg	208	< 1.3
Pyrene	1.3	mg/kg	208	< 1.3
p-Dimethylaminoazobenzene	1.3	mg/kg	208	< 1.3
Chlorobenzilate	1.3	mg/kg	208	< 1.3
3,3-Dimethylbenzidine	1.3	mg/kg	208	< 1.3
Butyl Benzyl Phthalate	1.3	mg/kg	208	< 1.3
Kepone	1.3	mg/kg	208	< 1.3
2-Acetylaminofluorene	1.3	mg/kg	208	< 1.3
3,3-Dichlorobenzidine	1.3	mg/kg	208	< 1.3

Solid Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168109
			Sample Date	15/06/2010
			Sample Id	TP2
			Other ID	ES1
			Depth (m)	0.25-0.35
Determination	**LOD**	**Units**	**Method**	
Chrysene	1.3	mg/kg	208	< 1.3
Benzo(a)anthracene	1.3	mg/kg	208	< 1.3
Bis(2-ethylhexyl)phthalate	1.3	mg/kg	208	< 1.3
Di-n-octylphthalate	1.3	mg/kg	208	< 1.3
7,12-Dimethylbenz(a)anthracene	1.3	mg/kg	208	< 1.3
Benzo(b)fluoranthene	1.3	mg/kg	208	< 1.3
Benzo(k)fluoranthene	1.3	mg/kg	208	< 1.3
Benzo(a)pyrene	1.3	mg/kg	208	< 1.3
3-Methylcholanthrene	1.3	mg/kg	208	< 1.3
Indeno(1,2,3-c,d)pyrene	1.3	mg/kg	208	< 1.3
Dibenzo(a,h)anthracene	1.3	mg/kg	208	< 1.3
Benzo(g,h,i)perylene	1.3	mg/kg	208	< 1.3
3+4-Chlorophenol	1.3	mg/kg	208	< 1.3

Water Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168110	168111	168112	168113
			Sample Date	21/06/2010	21/06/2010	21/06/2010	21/06/2010
			Sample Id	BH1	BH2	BH3	WS1
			Other ID				
			Depth (m)	0	0	0	0
Determination	**LOD**	**Units**	**Method**				
pH		pH units	305 *	7.1	7.5	7.4	7.6
Arsenic, soluble, as As	10	µg/l	506 *	< 10	< 10	< 10	< 10
Cadmium, soluble, as Cd	0.5	µg/l	506 *	1.7	1.3	1.4	1.0
Chromium, soluble, as Cr	10	µg/l	506 *	< 10	< 10	< 10	< 10
Copper, soluble, as Cu	5	µg/l	506 *	7.7	< 5.0	9.8	20
Lead, soluble, as Pb	10	µg/l	506 *	< 10	< 10	< 10	< 10
Mercury, soluble, as Hg	0.2	µg/l	505 *	< 0.2	< 0.2	< 0.2	< 0.2
Nickel, soluble, as Ni	10	µg/l	506 *	52	35	51	14
Selenium, soluble, as Se	0.5	µg/l	512 *	< 0.5	< 0.5	< 0.5	< 0.5
Zinc, soluble, as Zn	10	µg/l	506 *	47	37	21	17
Hardness, Total, as CaCO3	20	mg/l	522 *	1200	700	1900	---
PRO (>C5-C6)	10	µg/l	501	< 10.0	< 10.0	< 10.0	< 10.0
PRO (>C6-C8)	10	µg/l	501	< 10.0	< 10.0	< 10.0	< 10.0
PRO (>C8-C10)	10	µg/l	501	< 10.0	< 10.0	< 10.0	< 10.0
Total PRO (>C5-C10)	30	µg/l	501	< 30	< 30	< 30	< 30
Total PRO (>C6-C10)	20	µg/l	501	< 20	< 20	< 20	< 20
Benzene	3	µg/l	501	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	3	µg/l	501	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	3	µg/l	501	< 3.0	< 3.0	< 3.0	< 3.0
o-Xylene	3	µg/l	501	< 3.0	< 3.0	< 3.0	< 3.0
m+p-Xylene	3	µg/l	501	< 3.0	< 3.0	< 3.0	< 3.0
MTBE	3	µg/l	501	< 3.0	< 3.0	< 3.0	< 3.0
TAME	3	µg/l	501	< 3.0	< 3.0	< 3.0	< 3.0
Aliphatic (>C6-C8)	10	µg/l	501	< 10.0	< 10.0	< 10.0	< 10.0
Aliphatic (>C8-C10)	10	µg/l	501	< 10.0	< 10.0	< 10.0	< 10.0
Aliphatic (>C10-C12)	15	µg/l	519	< 15	< 15	< 15	70
Aliphatic (>C12-C16)	10	µg/l	519	< 10	< 10	< 10	140
Aliphatic (>C16-C21)	15	µg/l	519	< 15	< 15	< 15	28
Aliphatic (>C21-C35)	25	µg/l	519	< 25	< 25	< 25	270
Aliphatic (>C35-C40)	10	µg/l	519	< 10	< 10	< 10	82
Aliphatic (>C40-C44)	10	µg/l	519	< 10	< 10	< 10	31
Aliphatic Total (>C6-C44)	105	µg/l	519	< 110	< 110	< 110	620

Water Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168110	168111	168112	168113
			Sample Date	21/06/2010	21/06/2010	21/06/2010	21/06/2010
			Sample Id	BH1	BH2	BH3	WS1
			Other ID				
			Depth (m)	0	0	0	0
Determination	**LOD**	**Units**	**Method**				
Aromatic (>C6-C7)	10	µg/l	501	< 10.0	< 10.0	< 10.0	< 10.0
Aromatic (>C7-C8)	10	µg/l	501	< 10.0	< 10.0	< 10.0	< 10.0
Aromatic (>C8-C10)	10	µg/l	501	< 10.0	< 10.0	< 10.0	< 10.0
Aromatic (>C10-C12)	10	µg/l	519	< 10	< 10	< 10	< 10
Aromatic (>C12-C16)	10	µg/l	519	< 10	< 10	< 10	27
Aromatic (>C16-C21)	10	µg/l	519	10	< 10	12	26
Aromatic (>C21-C35)	15	µg/l	519	< 15	< 15	< 15	160
Aromatic (>C35-C40)	10	µg/l	519	< 10	< 10	< 10	45
Aromatic (>C40-C44)	10	µg/l	519	< 10	< 10	< 10	17
Aromatic Total (>C6-C44)	95	µg/l	519	< 95	< 95	< 95	280
Dichlorodifluoromethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Chloromethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Bromomethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloroethene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Dichloromethane	10	µg/l	521	< 10.0	< 10.0	< 10.0	< 10.0
MTBE	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,2-Dichloroethene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloroethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Cis-1,2-Dichloroethene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
2,2-Dichloropropane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Chloroform	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Bromochloromethane	3	µg/l	521 *	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1-Trichloroethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloropropene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,2-Dichloroethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Benzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Bromodichloromethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Dibromomethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0

Water Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168110	168111	168112	168113
			Sample Date	21/06/2010	21/06/2010	21/06/2010	21/06/2010
			Sample Id	BH1	BH2	BH3	WS1
			Other ID				
			Depth (m)	0	0	0	0
Determination	**LOD**	**Units**	**Method**				
TAME	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
Cis-1,3-Dichloropropene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Trans-1,3-Dichloropropene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2-Trichloroethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Tetrachloroethene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,2-Dibromoethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Chlorobenzene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,1,1,2-Tetrachloroethane	2	µg/l	521	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
m+p-Xylene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Isopropylbenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,2,3-Trichloropropane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
n-Propylbenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
2-Chlorotoluene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0

Water Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168110	168111	168112	168113
			Sample Date	21/06/2010	21/06/2010	21/06/2010	21/06/2010
			Sample Id	BH1	BH2	BH3	WS1
			Other ID				
			Depth (m)	0	0	0	0
Determination	**LOD**	**Units**	**Method**				
n-Butylbenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,2-Dibromo-3-Chloropropane	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
1,2,4-Trichlorobenzene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Hexachlorobutadiene	2	µg/l	521 *	< 2.0	< 2.0	< 2.0	< 2.0
Naphthalene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	1	µg/l	521 *	< 1.0	< 1.0	< 1.0	< 1.0
Pyridine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
N-Nitrosodimethylamine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2-Picoline	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
N-Nitrosomethylethylamine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
N-Nitrosodiethylamine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Ethyl methanesulfonate	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Phenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Aniline	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Bis(2-chloroethyl)ether	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Pentachloroethane	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2-Chlorophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
1,3-Dichlorobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
1,4-Dichlorobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Benzyl alcohol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
1,2-Dichlorobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2-Methylphenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Bis(2-chloroisopropyl)ether	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
N-Nitrosopyrrolidine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
3+4-Methylphenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Acetophenone	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
N-Nitroso-di-N-propylamine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
o-toluidine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Hexachloroethane	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Nitrobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
N-Nitrosopiperidine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0

Water Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168110	168111	168112	168113
			Sample Date	21/06/2010	21/06/2010	21/06/2010	21/06/2010
			Sample Id	BH1	BH2	BH3	WS1
			Other ID				
			Depth (m)	0	0	0	0
Determination	**LOD**	**Units**	**Method**				
Isophorone	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2-Nitrophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2,4-Dimethylphenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Bis(2-chloroethoxy)methane	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2,4-Dichlorophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
1,2,4-Trichlorobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Naphthalene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2,6-Dichlorophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
p-Chloroaniline	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Hexachloropropene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Hexachlorobutadiene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
N-Nitroso-di-N-butylamine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
4-Chloro-3-methylphenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Safrole	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2-Methylnaphthalene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
1,2,4,5-Tetrachlorobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Hexachlorocyclopentadiene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2,4,5-Trichlorophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2,4,6-Trichlorophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Isosafrole	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2-Chloronaphthalene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2-Nitroaniline	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
1,4-Naphthoquinone	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Dimethyl phthalate	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
1,3-Dinitrobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2,6-Dintrotoluene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Acenaphthylene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
3-Nitroaniline	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Acenaphthene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
4-Nitrophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Pentachlorobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2,4-Dinitrotoluene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0

Water Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168110	168111	168112	168113
			Sample Date	21/06/2010	21/06/2010	21/06/2010	21/06/2010
			Sample Id	BH1	BH2	BH3	WS1
			Other ID				
			Depth (m)	0	0	0	0
Determination	**LOD**	**Units**	**Method**				
Dibenzofuran	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
1-Naphthylamine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2,3,4,6-Tetrachlorophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2-Naphthylamine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Diethyl Phthalate	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
4-Chlorophenyl phenyl ether	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Fluorene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
2-Methyl-4,6-dinitrophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Diphenylamine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Azobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
1,3,5-Trinitrobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
4-Bromophenyl phenyl ether	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Diallate	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Hexachlorobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
4-Aminobiphenyl	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Pentachlorophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Pentachloronitrobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Pronamide	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Dinoseb	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Phenanthrene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Anthracene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Carbazole	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Di-N-butyl phthalate	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Isodrin	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Fluoranthene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Benzidine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Pyrene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
p-Dimethylaminoazobenzene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Chlorobenzilate	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
3,3-Dimethylbenzidine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Butyl Benzyl Phthalate	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Kepone	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0

Water Samples

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

			Lab No.	168110	168111	168112	168113
			Sample Date	21/06/2010	21/06/2010	21/06/2010	21/06/2010
			Sample Id	BH1	BH2	BH3	WS1
			Other ID				
			Depth (m)	0	0	0	0
Determination	**LOD**	**Units**	**Method**				
2-Acetylaminofluorene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
3,3-Dichlorobenzidine	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Chrysene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Benzo(a)anthracene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Bis(2-ethylhexyl)phthalate	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Di-n-octylphthalate	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
7,12-Dimethylbenz(a)anthracene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Benzo(b)fluoranthene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Benzo(k)fluoranthene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Benzo(a)pyrene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
3-Methylcholanthrene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Indeno(1,2,3-c,d)pyrene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Dibenzo(a,h)anthracene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
Benzo(g,h,i)perylene	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
3+4-Chlorophenol	4	µg/l	308	< 4.0	< 4.0	< 4.0	< 4.0
3,5-Dimethylphenol	4	µg/l	208	< 4.0	< 4.0	< 4.0	< 4.0
Free Cyanide $		µg/l	SUBCON $	<5	<5	<5	<5

Certificate of Bulk Sample Asbestos Identification

WSP
The Laboratory
Lakeview Drive
Sherwood
Nottingham NG15 0ED

t: +44 (0)1623 886 800

Project No. 12041745/002
Job No. 10-15051
Location 11-13 St Pancras Way, London, NW1 0PT
Customer Unite Group Plc
Contact Philip Lewis
Date sampled 11/06/2010 - 15/06/2010
Date of receipt 24/06/2010
Date of analysis 12/07/2010

Stereo light microscope 01132
Polarised light microscope 226954

Lab Reference	Sample Location	Sample Description	Asbestos Identification	Comments
168085	BH1 0.5-0.7 ES1	Soil	No Asbestos Detected	None
168087	BH2 0.3-0.8 ES1	Soil	No Asbestos Detected	None
168090	BH3 0.65-0.7 ES1	Soil	No Asbestos Detected	None
168093	WS1 0.5-0.7 ES1	Soil	No Asbestos Detected	None
168096	WS2 0.8-1 ES1	Soil	No Asbestos Detected	None
168098	WS3 0.7-1 ES1	Soil	No Asbestos Detected	None
168100	WS4 0.2-0.8 ES1	Soil	No Asbestos Detected	None
168101	WS5 0.2-0.6 ES1	Soil	No Asbestos Detected	None
168102	WS6 0.7-0.9 ES1	Soil	No Asbestos Detected	None
168104	WS7 0.7-1 ES1	Soil	No Asbestos Detected	None

Authorised by Piers Taverner
Signature

Analyst Adam Taylor
Signature

UKAS TESTING
2538N

Position Extractions Manager
Date of issue 12 July 2010

The above samples were submitted by WSP Environmental.

Analysis is in accordance with in-house technical procedures - AID, based upon HSE guidance note HSG 248 "Asbestos: The Analysts' Guide For Sampling, Analysis and Clearance Procedures". Sampling by WSP RMS is in accordance with in - house technical procedures - SSA. Where the sample was not taken by WSP RMS, the information above is that which is supplied by the client. WSP are not responsible for sampling errors where the sample is taken by others. Sample/material descriptions, opinions, comments and interperation expressed herein are outside the scope of UKAS accreditation. Information supplied by e-mail may be subject to error during transfer.

WSP Environmental Risk Management Services Division

Registered Office:
WSP House
70 Chancery Lane
London
WC2A 1AF

Registered Number
1152332 England

Certificate of Bulk Sample Asbestos Identification

WSP
The Laboratory
Lakeview Drive
Sherwood
Nottingham NG15 0ED

t: +44 (0)1623 886 800

Project No. 12041745/002
Job No. 10-15051
Location 11-13 St Pancras Way, London, NW1 0PT
Customer Unite Group Plc
Contact Philip Lewis
Date sampled 11/06/2010 - 15/06/2010
Date of receipt 24/06/2010
Date of analysis 12/07/2010

Stereo light microscope 01132
Polarised light microscope 226954

Lab Reference	Sample Location	Sample Description	Asbestos Identification	Comments
168106	WS8 0.4-0.7 ES1	Soil	No Asbestos Detected	None
168108	WS9 0.4-0.6 ES1	Soil	No Asbestos Detected	None
168109	TP2 0.25-0.35 ES1	Soil	No Asbestos Detected	None

Authorised by Piers Taverner
Signature

Analyst Adam Taylor
Signature

Position Extractions Manager
Date of issue 12 July 2010

UKAS TESTING 2538N

WSP Environmental Risk Management Services Division

Registered Office:
WSP House
70 Chancery Lane
London
WC2A 1AF

Registered Number
1152332 England

The above samples were submitted by WSP Environmental.

Comments

Job No. 10-15051
Site: 11-13 St Pancras Way, London, NW1 0PT
Report Date: 12/07/2010

Sample No	Comments
168102	No vials received - Volatiles to be sub sampled in the lab.
168108	No vials received - Volatiles to be sub sampled in the lab.

Appendix D Geotechnical Laboratory Results

WSP Environmental London
WSP House
70 Chancery Lane
London
UK
WC2A 1AF

Test Report

Order Number	
Job Number	10-15163
Report date	15 July 2010
Project number	12041745 002
Customer	Unite Group Plc
Site address	11-13 St Pancras Way, London, NW1 0PT
Date of sampling	14/06/2010
Date of analysis	21/06/2010 - 15/07/2010

Dear Philip

Please find attached your results for the above project.

The samples from this job are due for disposal on 12/08/2010
Your feedback is critical to the evolution and improvement of our business. Please email us your comments to ideaslab@wspgroup

Results authorised by

Mark Beastall, Geotechnical Laboratory Manager.

Unaccredited Tests are marked with an asterix (**). Testing marked with (*) - in house method based on BS1377 method.
Testing carried out at "As received / Natural State" unless otherwise stated. All other tests are UKAS accredited.
Testing marked "X" - see attached reports for results.

Abbreviations

NP = Non plastic
U/S = Unsuitable
M/S = Missing sample
I/S = Insufficient sample to carry out scheduled test
S/C = See comments
UUS = Unconsolidated Undrained single stage
UUM = Unconsolidated Undrained Multi stage
$ = Subcontracted
AD = Asbestos detected. NAD = No Asbestos detected

Summary of Geotechnical Laboratory results

Job 10-15163

RP09a 12/11/08

Sample Data					Classification BS 1377 Part 2											Compaction BS1377 Part 4			Rock ISRM		Strength & Compression testing BS 1377 Parts 5 & 7								
TP / BH No.	Other Id	Sampnum	Depth from (m)	Depth to (m)	Moisture Content	Liquid Limit	Plastic Limit	Plasticity index	Plasticity category	Material passing 425um	Linear Shrinkage	Saturated Moisture content	Bulk Density	Dry Density	PSD / Sedimentation	Particle Density	CBR	MCV	Compaction	Point load Axial IS50	Point load Diametral IS50	Triaxial Type	Diameter	Cell Pressure	Corrected Deviator Stress	Undrained Shear Strength	Strain @ Failure	Mode of Failure	Hand Shear Vane *	One Dimensional Consolidation
					%	%	%	%		%	%	%	Mg/m^3	Mg/m^3		Mg/m^3				MPA	MPA		mm	kPa	kPa	CUkPa	%		kPa	
BH1	D2	169128	1.9		29		NP	NP	NP	60																				
BH1	SPT1	169133	4																											
BH1	U1	169135	5		30								1.91	1.47								UUS	104	150	162	81	4.1	B		
BH1	SPT2	169138	6.5																											
BH1	U2	169140	8		29	84	31	53	CV	100			1.98	1.54								UUS	104	240	202	101	5	B		
BH1	SPT3	169143	9.5																											
BH1	U3	169145	11		26	85	28	57	CV	100			2	1.59								UUS	104	330	228	114	5.1	B		
BH1	SPT4	169148	12.5																											
BH1	U4	169150	14		24	72	26	46	CV	100																				
BH1	SPT5	169153	15.5																											
BH1	U5	169155	17		21	59	25	34	CH	100			2.06	1.7								UUS	104	510	436	218	5	B		
BH1	SPT6	169158	18.5																											
BH1	U6	169160	20		23	71	24	47	CV	100																				
BH1	SPT7	169163	21.5																											
BH1	U7	169165	23		19	48	20	28	CI	100			S/C	S/C																
BH1	SPT8	169168	24.5		22	76	26	50	CV	100																				
BH2	B2	169172	1.2	1.7	14	33	19	14	CL	80																				
BH2	SPT1	169178	3.5																											
BH2	U2	169180	4.1		31																									
BH2	U3	169184	5.1		30																									
BH2	SPT3	169186	5.6																											
BH2	U4	169188	6.5		26	76	29	47	CV	100			1.95	1.56								UUS	104	195	142	71	11.5	B		
BH2	U5	169192	8.5		31	88	30	58	CV	100																				
BH2	SPT5	169194	9																											

Summary of Geotechnical Laboratory results

Job 10-15163

RP09a 12/11/08

Sample Data					Classification BS 1377 Part 2											Compaction BS1377 Part 4			Rock ISRM		Strength & Compression testing BS 1377 Parts 5 & 7								
TP / BH No.	Other Id	Sampnum	Depth from (m)	Depth to (m)	Moisture Content	Liquid Limit	Plastic Limit	Plasticity index	Plasticity category	Material passing 425um	Linear Shrinkage	Saturated Moisture content	Bulk Density	Dry Density	PSD / Sedimentation	Particle Density	CBR	MCV	Compaction	Point load Axial IS50	Point load Diametral IS50	Triaxial Type	Diameter	Cell Pressure	Corrected Deviator Stress	Undrained Shear Strength	Strain @ Failure	Mode of Failure	Hand Shear Vane *	One Dimensional Consolidation
					%	%	%	%		%	%	%	Mg/m^3	Mg/m^3		Mg/m^3				MPA	MPA		mm	kPa	kPa	CUkPa	%		kPa	
BH2	U6	169196	10.5		26	81	27	54	CV	100			2	1.59								UUS	104	315	167	84	6.4	B		
BH2	U8	169204	14.5		28																									
BH2	SPT8	169206	15																											
BH2	U9	169208	16.5		22	60	27	33	CH	100			2.09	1.72								UUS	104	480	343	172	5.5	B		
BH2	U10	169212	18.5		26	87	28	59	CV	100																				
BH2	SPT10	169215	20																											
BH2	U11	169217	21.5		23	62	25	37	CH	100			S/C	S/C																
BH2	U12	169222	24.5		22																									
BH2	SPT12	169226	26.5																											
BH2	U13	169228	28		31	106	35	71	CE	100			S/C	S/C																
BH2	SPT13	169231	29.5		24	68	25	43	CH	100																				
BH3	D1	169235	1.4		28	26	18	8	ML	85																				
BH3	D5	169242	4.5																											
BH3	D6	169244	5.5		30	81	28	53	CV	100																				
BH3	D8	169248	8.5		30	83	27	56	CV	100																				
BH3	D11	169252	9.7																											
BH3	D13	169254	11		28								1.97	1.54								UUS	104	330	220	110	7.9	B		
BH3	U5	169259	14		26	88	32	56	CV	100																				
BH3	D19	169262	15.5																											
BH3	U6	169264	17		23	53	20	33	CH	100			2.04	1.66								UUS	104	510	405	202	9	B		
BH3	U7	169267	18.5																											
BH3	D24	169269	20		22	58	25	33	CH	100																				
BH3	SPT2	169272	21.5																											
BH3	U8	169274	23		23	77	28	49	CV	100			S/C	S/C																

Summary of Geotechnical Laboratory results

Job 10-15163

RP09a 12/11/08

Sample Data					Classification BS 1377 Part 2												Compaction BS1377 Part 4			Rock ISRM		Strength & Compression testing BS 1377 Parts 5 & 7								
TP / BH No.	Other Id	Sampnum	Depth from (m)	Depth to (m)	Moisture Content	Liquid Limit	Plastic Limit	Plasticity index	Plasticity category	Material passing 425um	Linear Shrinkage	Saturated Moisture content	Bulk Density	Dry Density	PSD / Sedimentation	Particle Density	CBR	MCV	Compaction	Point load Axial IS50	Point load Diametral IS50	Triaxial Type	Diameter	Cell Pressure	Corrected Deviator Stress	Undrained Shear Strength	Strain @ Failure	Mode of Failure	Hand Shear Vane *	One Dimensional Consolidation
					%	%	%	%		%	%	%	Mg/m^3	Mg/m^3		Mg/m^3				MPA	MPA		mm	kPa	kPa	CUkPa	%		kPa	
BH3	SPT8	169277	24.4																											
BH2		169280	3		32								1.93	1.46								UUS	104	90	142	71	4	B		

Summary of Geotechnical Laboratory results

Job 10-15163

RP09b 12/11/08

Sample Data					Chemical								Other Analyses																					
					BRE SD1				BS 1377 Part 3																											
TP / BH No.	Other Id	Sampnum	Depth from (m)	Depth to (m)	Water Soluble Sulphate *	Acid Soluble Sulphate	Total Sulphur	Water Soluble Chloride	Organic Matter	Loss on Ignition **	pH *	matter >2mm	Triaxial U100/U38 $																						
					g/l	%	%	g/l	%	%	units	%																								
BH1	D2	169128	1.9																															
BH1	SPT1	169133	4		2.3						7.8	< 1.00																						
BH1	U1	169135	5																															
BH1	SPT2	169138	6.5		1.1						7.8	< 1.00																						
BH1	U2	169140	8																															
BH1	SPT3	169143	9.5		0.45						8.2	< 1.00																						
BH1	U3	169145	11																															
BH1	SPT4	169148	12.5		0.39						8.2	< 1.00																						
BH1	U4	169150	14																															
BH1	SPT5	169153	15.5		0.61						7.9	< 1.00																						
BH1	U5	169155	17																															
BH1	SPT6	169158	18.5		0.55						7.9	< 1.00																						
BH1	U6	169160	20																															
BH1	SPT7	169163	21.5								8	< 1.00																						
BH1	U7	169165	23										SEE ATTACHED																					
BH1	SPT8	169168	24.5								9.2	< 1.00																						
BH2	B2	169172	1.2	1.7																														
BH2	SPT1	169178	3.5								7.8	< 1.00																						
BH2	U2	169180	4.1																															
BH2	U3	169184	5.1																															
BH2	SPT3	169186	5.6								7.9	< 1.00																						
BH2	U4	169188	6.5																															
BH2	U5	169192	8.5																															
BH2	SPT5	169194	9								8.3	< 1.00																						

Summary of Geotechnical Laboratory results

Job 10-15163

RP09b 12/11/08

Sample Data					Chemical								Other Analyses																							
					BRE SD1				BS 1377 Part 3																													
TP / BH No.	Other Id	Sampnum	Depth from (m)	Depth to (m)	Water Soluble Sulphate *	Acid Soluble Sulphate	Total Sulphur	Water Soluble Chloride	Organic Matter	Loss on Ignition **	pH *	matter >2mm	Triaxial U100/U38 $																								
					g/l	%	%	g/l	%	%	units	%																										
BH2	U6	169196	10.5																																		
BH2	U8	169204	14.5																																		
BH2	SPT8	169206	15								8.2	< 1.00																									
BH2	U9	169208	16.5																																		
BH2	U10	169212	18.5																																		
BH2	SPT10	169215	20								8.3	< 1.00																									
BH2	U11	169217	21.5										SEE ATTACHED																								
BH2	U12	169222	24.5																																		
BH2	SPT12	169226	26.5								9.6	< 1.00																									
BH2	U13	169228	28										SEE ATTACHED																								
BH2	SPT13	169231	29.5								9.5	< 1.00																									
BH3	D1	169235	1.4																																		
BH3	D5	169242	4.5		0.46						8	< 1.00																									
BH3	D6	169244	5.5																																		
BH3	D8	169248	8.5																																		
BH3	D11	169252	9.7		0.34						8.2	< 1.00																									
BH3	D13	169254	11																																		
BH3	U5	169259	14																																		
BH3	D19	169262	15.5		0.31						8.4	< 1.00																									
BH3	U6	169264	17																																		
BH3	U7	169267	18.5		0.56						8.3	< 1.00																									
BH3	D24	169269	20																																		
BH3	SPT2	169272	21.5		0.07						8.1	< 1.00																									
BH3	U8	169274	23										SEE ATTACHED																								

Summary of Geotechnical Laboratory results

Job 10-15163

RP09b 12/11/08

Sample Data					Chemical								Other Analyses																					
					BRE SD1				BS 1377 Part 3																											
TP / BH No.	Other Id	Sampnum	Depth from (m)	Depth to (m)	Water Soluble Sulphate *	Acid Soluble Sulphate	Total Sulphur	Water Soluble Chloride	Organic Matter	Loss on Ignition **	pH *	matter >2mm	Triaxial U100/U38 $																						
					g/l	%	%	g/l	%	%	units	%																								
BH3	SPT8	169277	24.4		0.51						9.3	< 1.00																						
BH2		169280	3																															

Job 10-15163

Summary of Geotechnical Laboratory results

Environmental Laboratories

BH/TP No.	Sampnum	Depth	Laboratory Visual Description Eurocode 7 - BS EN 14688-1 & BS5930 (1999) Table 13	Remarks
BH1	169128	1.9	Loose brown / black mottled clayey SILT, much gravel, strong petroleum odour	
BH1	169133	4	Firm brown / occ orange mottled silty sandy CLAY, rare gypsum	
BH1	169135	5	Firm brown / light brown fissured CLAY with pockets of gypsum	
BH1	169138	6.5	Firm brown CLAY, rare silty sand	
BH1	169140	8	Firm brown CLAY	
BH1	169143	9.5	Firm brown CLAY	
BH1	169145	11	Firm brown SILTY CLAY	
BH1	169148	12.5	Firm / stiff brown slightly silty CLAY	
BH1	169150	14	Firm / stiff brown silty CLAY	
BH1	169153	15.5	Firm / stiff brown slightly silty CLAY	
BH1	169155	17	Firm brown SILT with clay	
BH1	169158	18.5	Firm / stiff brown silty sandy CLAY	
BH1	169160	20	Firm to stiff brown silty CLAY, rare peat pockets	
BH1	169163	21.5	Firm / stiff brown sandy CLAY	
BH1	169165	23	Firm brown sandy SILT, slight clay	
BH1	169168	24.5	Stiff brown / rare gray mottled silty CLAY	
BH2	169172	1.2-1.7	Soft silty sandy gravelly CLAY with occ flint	
BH2	169178	3.5	Firm brown slightly silty CLAY occ sand & gypsum	
BH2	169180	4.1	Firm brown slightly silty CLAY occ gypsum	
BH2	169184	5.1	Firm brown laminated CLAY	
BH2	169186	5.6	Firm brown CLAY	
BH2	169188	6.5	Firm brown fissured silty CLAY with occ mudstone pieces	
BH2	169192	8.5	Firm brown slightly silty CLAY	
BH2	169194	9	Firm brown CLAY	
BH2	169196	10.5	Firm brown laminated silty CLAY	
BH2	169204	14.5	Firm / stiff brown slightly silty CLAY	
BH2	169206	15	Stiff brown slightly silty CLAY	
BH2	169208	16.5	Top 2/3: Firm brown laminated silty CLAY. Bottom 1/3: Dark gray / black SILT, mudstone, charcoal	
BH2	169212	18.5	Firm / stiff brown silty CLAY	

Summary of Geotechnical Laboratory results

Environmental Laboratories

BH/TP No.	Sampnum	Depth	Laboratory Visual Description Eurocode 7 - BS EN 14688-1 & BS5930 (1999) Table 13	Remarks
BH2	169215	20	Stiff brown silty CLAY	
BH2	169217	21.5	Sub-Contract	
BH2	169222	24.5	Stiff / very stiff brown / green / red mottled slightly silty CLAY	
BH2	169226	26.5	Stiff / very stiff brown slightly silty CLAY	
BH2	169228	28	Stiff brown / light gray / purple mottled laminated CLAY	
BH2	169231	29.5	Stiff / very stiff beige / brown / red mottled silty CLAY	
BH3	169235	1.4	Loose brown MADE GROUND - very sandy clay, brick, tile, slate, occ gravel, sandstone	
BH3	169242	4.5	Firm / stiff brown slightly silty CLAY	
BH3	169244	5.5	Firm brown silty CLAY	
BH3	169248	8.5	Firm brown silty CLAY	
BH3	169252	9.7	Firm / stiff brown CLAY	
BH3	169254	11	Firm brown fissured laminated silty CLAY	
BH3	169259	14	Firm Brown CLAY	
BH3	169262	15.5	Firm / stiff brown slightly silty CLAY	
BH3	169264	17	Firm / stiff brown fissured slightly sandy SILT, slight clay	
BH3	169267	18.5	Firm / stiff brown slightly silty CLAY	
BH3	169269	20	Firm / stiff brown slightly silty CLAY	
BH3	169272	21.5	Firm / stiff brown slightly silty CLAY	
BH3	169274	23	Sub-Contract	
BH3	169277	24.4	Stiff brown (slightly orangish) slightly silty CLAY	
BH2	169280	3	Firm brown / gray mottled fissured laminated CLAY with small pockets of gypsum	

PLASTICITY CHART from BS5930 : 2000

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The Laboratory
Lakeview Drive
Sherwood
Nottingham NG15 0ED

Environmental Laboratories

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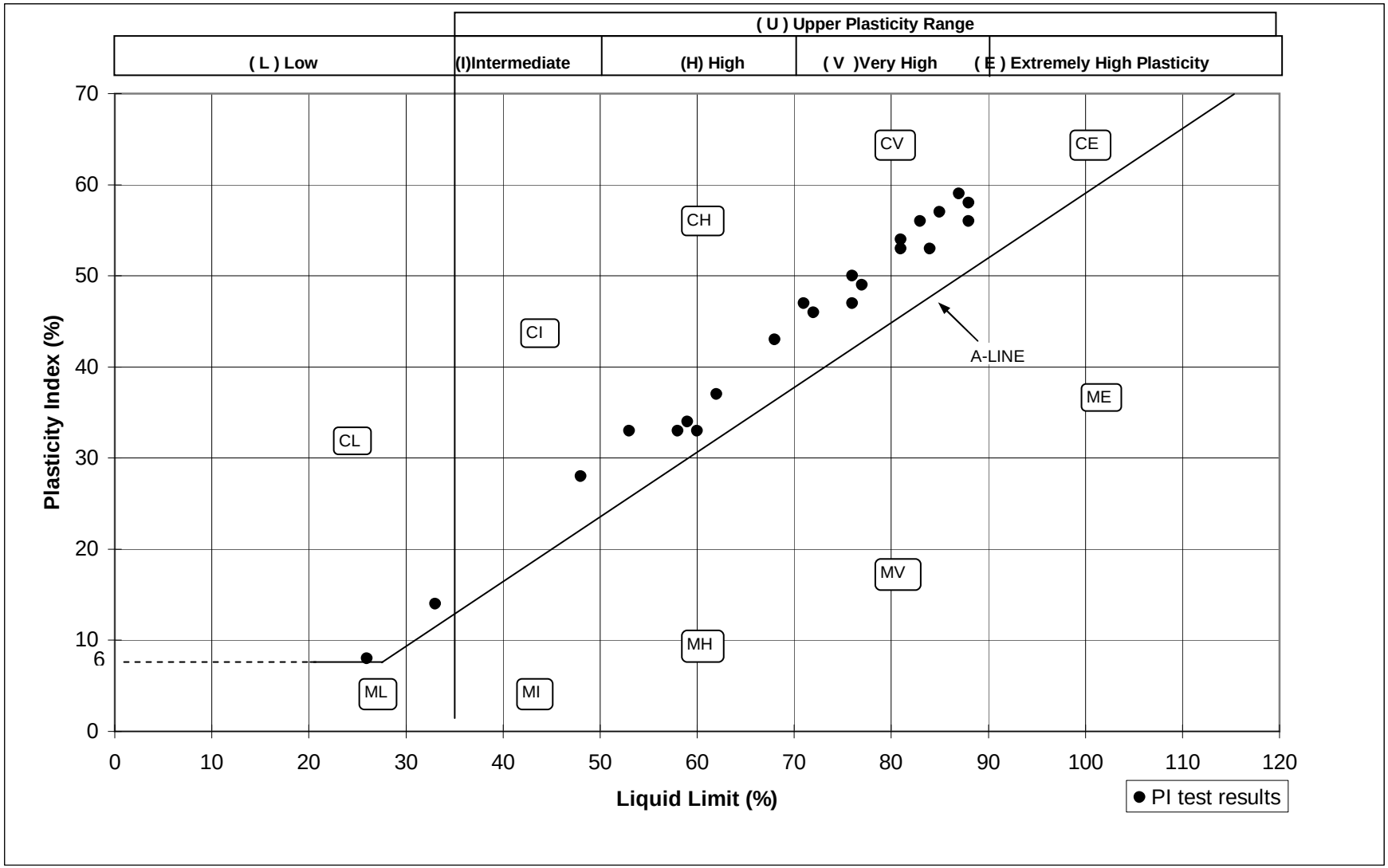


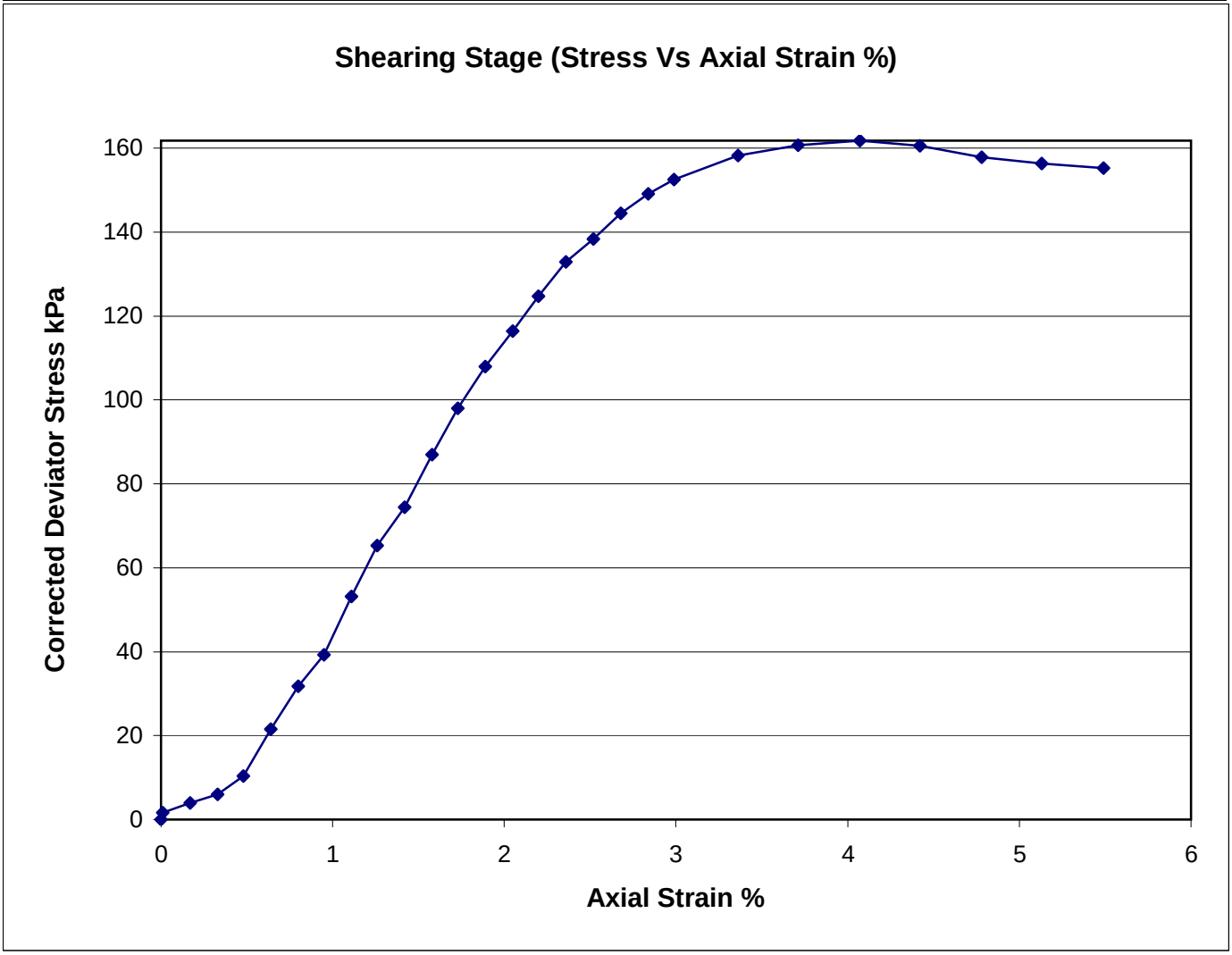
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169135	**Borehole**	BH1 U1 5

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	5.00
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Firm brown / light brown fissured CLAY with pockets of gypsum		

Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	186.79	**Initial Bulk Density (mg/m³)**	1.91
Depth within sample (mm)	35.00	**Initial Dry Density (mg/m³)**	1.47
Orientation within sample	Vertical	**Initial Moisture Content (%)***	30.3
Initial diameter (mm)	104	**Trimmings (%)**	30.9
Membrane thickness (mm)	0.00	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

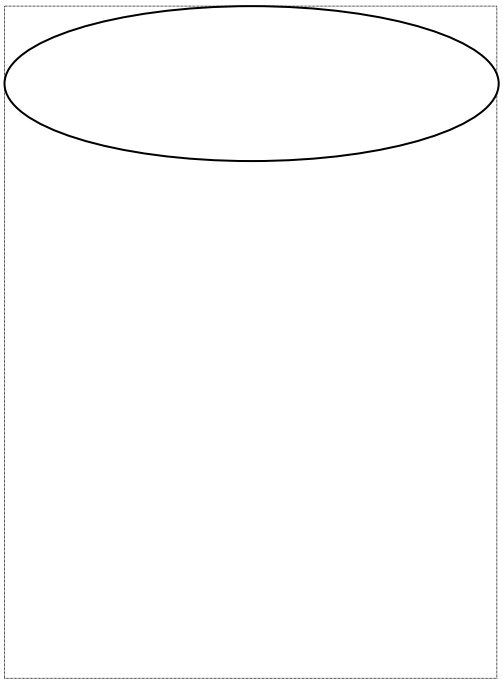


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.64	**Cell Pressure (kPa)**	150

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	162		
Axial strain (%)	4.1		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	81
Final Density (mg/m³)	1.91	**Final Moisture Content (%)**	30.3



Mode of Failure	**B**		

Tested by / date	15/07/2010

UKAS TESTING 0206

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169140	**Borehole**	BH1 U2 8

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	8.00
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Firm brown CLAY		

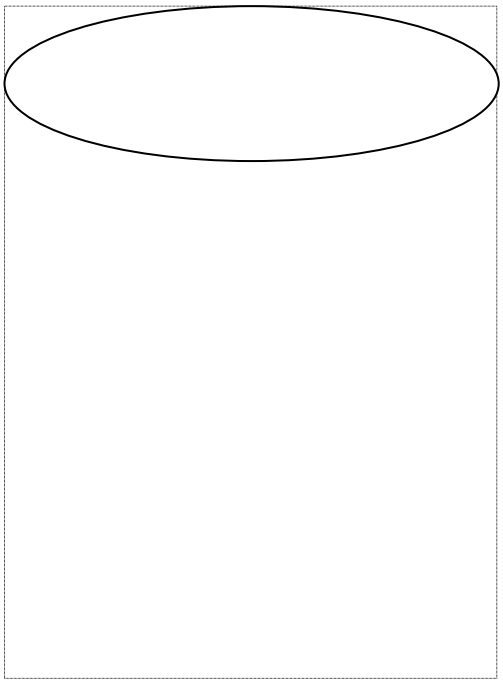
Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	186.37	**Initial Bulk Density (mg/m³)**	1.98
Depth within sample (mm)	70.00	**Initial Dry Density (mg/m³)**	1.54
Orientation within sample	Vertical	**Initial Moisture Content (%)***	28.5
Initial diameter (mm)	104	**Trimmings (%)**	28.2
Membrane thickness (mm)	0.00	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.80	**Cell Pressure (kPa)**	240

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	202		
Axial strain (%)	5.0		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	101
Final Density (mg/m³)	1.98	**Final Moisture Content (%)**	28.5



Mode of Failure	**B**		

Tested by / date	15/07/2010

UKAS TESTING 0206

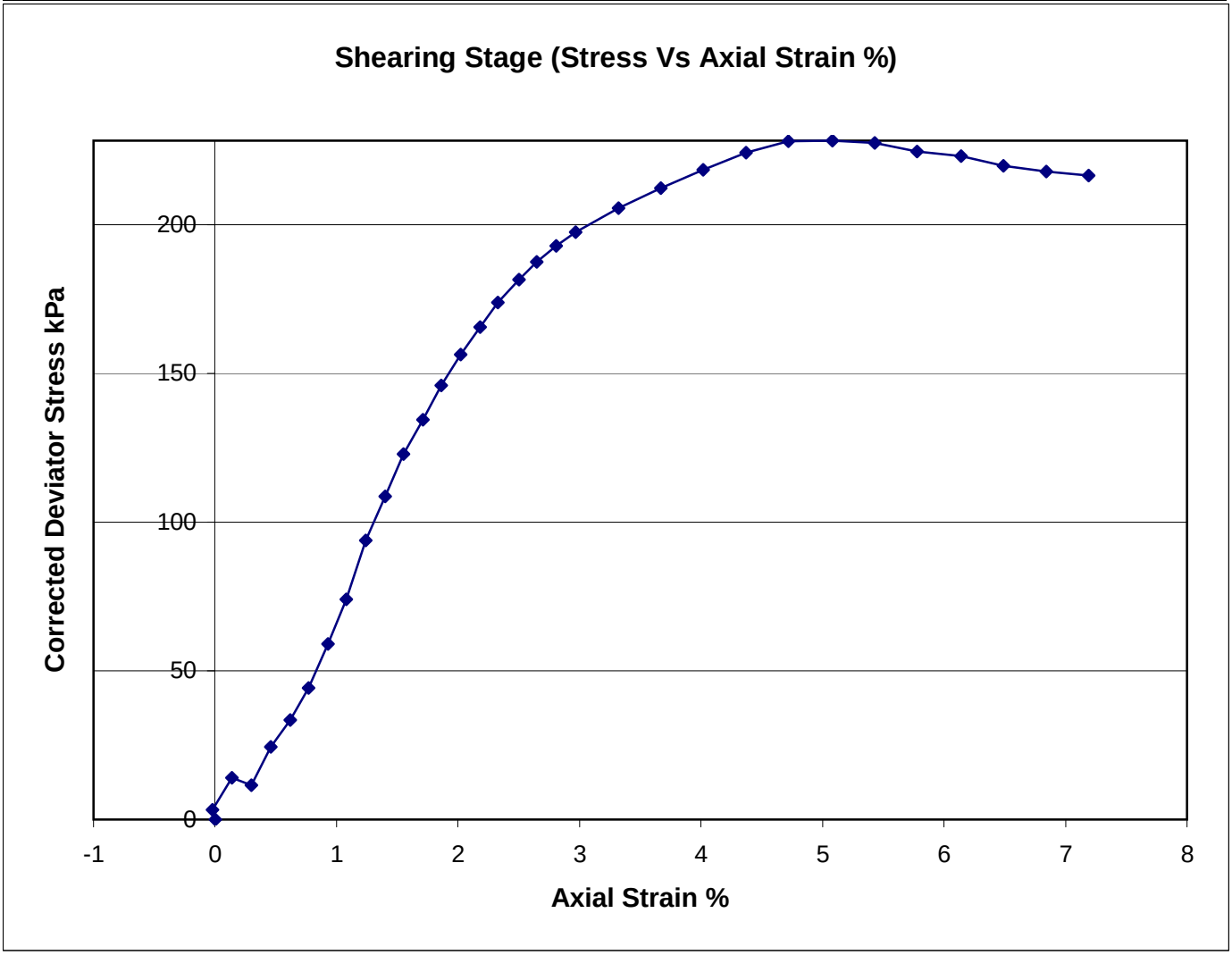
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169145	**Borehole**	BH1 U3 11

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	11.00
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Firm brown SILTY CLAY		

Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	188.61	**Initial Bulk Density (mg/m³)**	2.00
Depth within sample (mm)	45.00	**Initial Dry Density (mg/m³)**	1.59
Orientation within sample	Vertical	**Initial Moisture Content (%)***	25.6
Initial diameter (mm)	104	**Trimmings (%)**	26.6
Membrane thickness (mm)	0.00	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

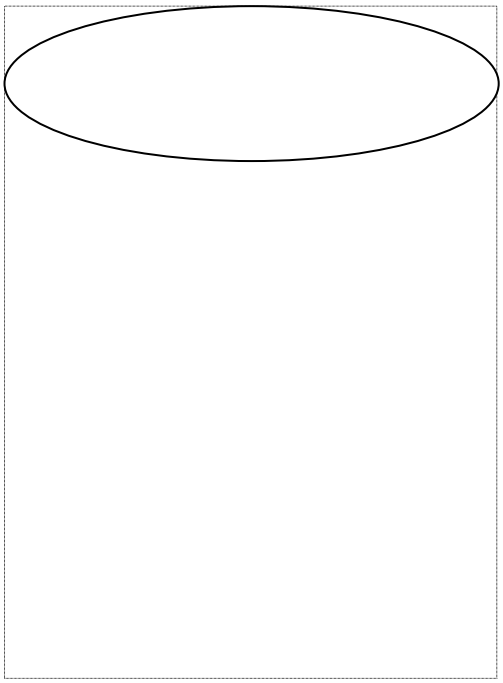


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.58	**Cell Pressure (kPa)**	330

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	228		
Axial strain (%)	5.1		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	114
Final Density (mg/m³)	2.00	**Final Moisture Content (%)**	25.6



Mode of Failure	**B**		

Tested by / date	15/07/2010

UKAS TESTING 0206

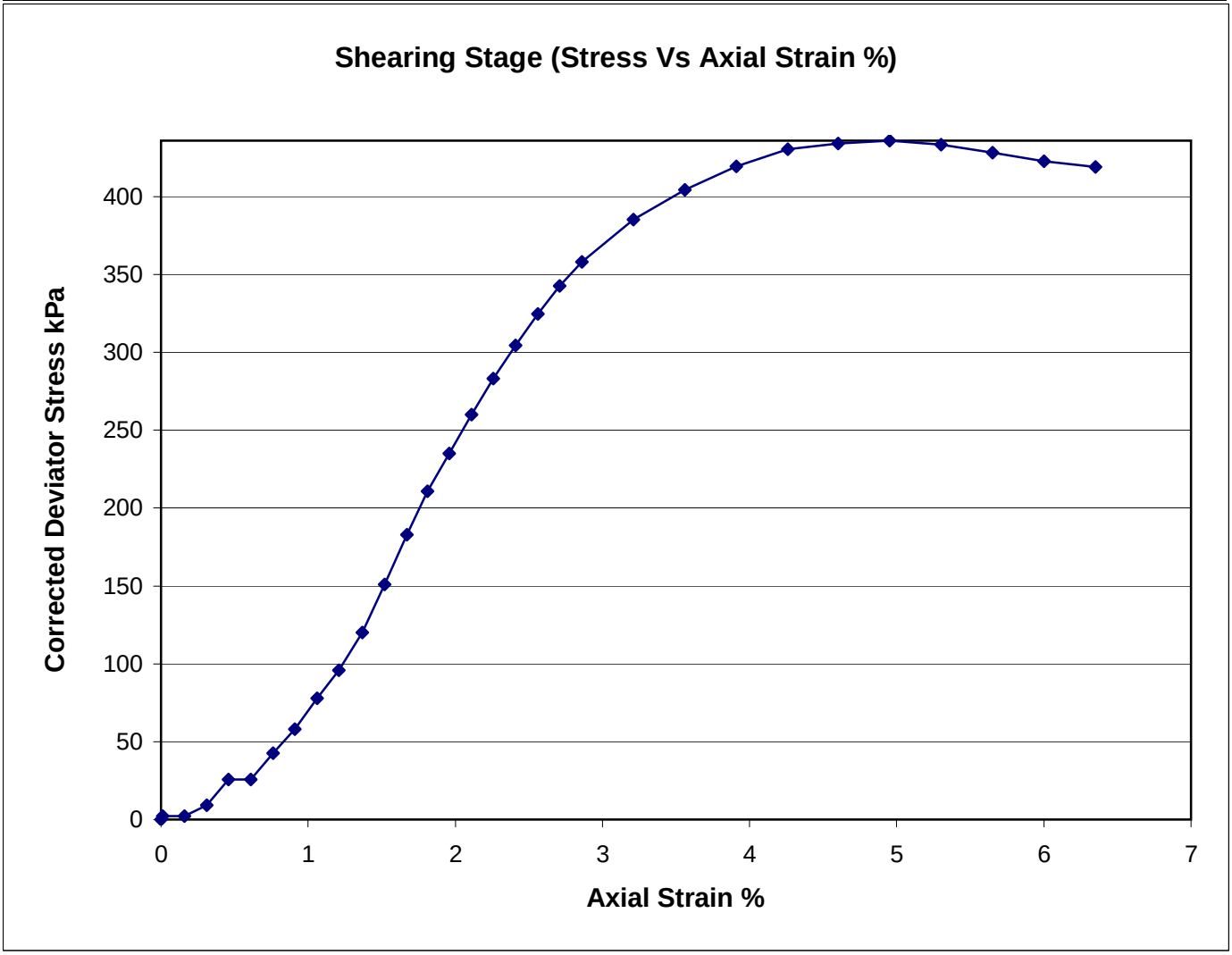
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169155	**Borehole**	BH1 U5 17

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	17.00
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Firm brown SILT with clay		

Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	186.39	**Initial Bulk Density (mg/m³)**	2.06
Depth within sample (mm)	35.00	**Initial Dry Density (mg/m³)**	1.70
Orientation within sample	Vertical	**Initial Moisture Content (%)***	21.4
Initial diameter (mm)	104	**Trimmings (%)**	21.7
Membrane thickness (mm)	0.00	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

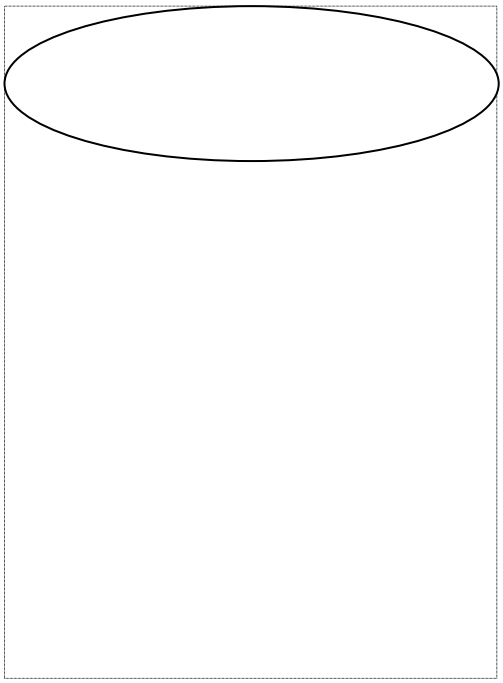


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.54	**Cell Pressure (kPa)**	510

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	436		
Axial strain (%)	5.0		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	218
Final Density (mg/m³)	2.06	**Final Moisture Content (%)**	21.4



Mode of Failure	**B**

Tested by / date	15/07/2010

UKAS TESTING 0206

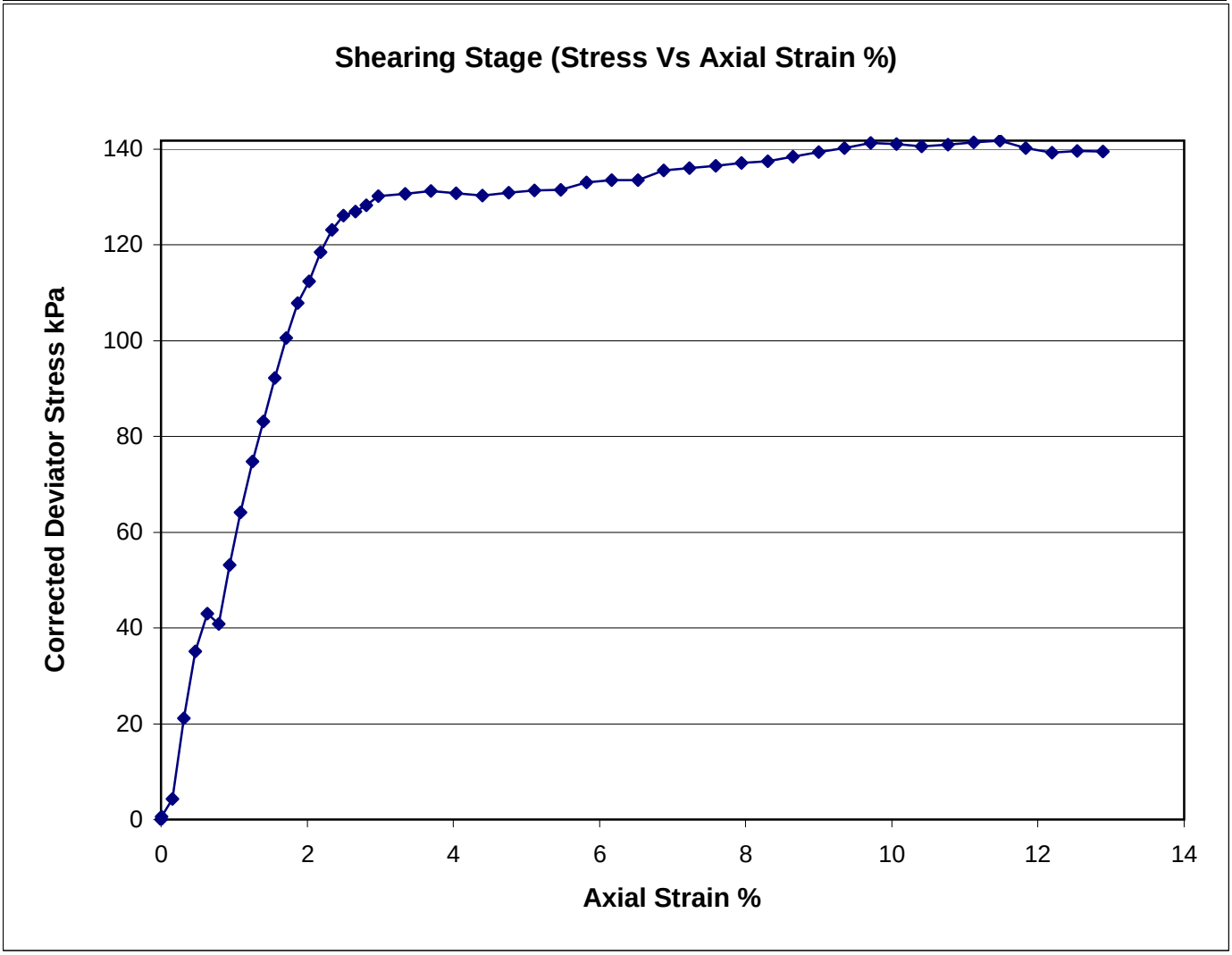
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169188	**Borehole**	BH2 U4 6.5

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	6.50
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Firm brown fissured silty CLAY with occ mudstone pieces		

Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	188.54	**Initial Bulk Density (mg/m³)**	1.95
Depth within sample (mm)	65.00	**Initial Dry Density (mg/m³)**	1.56
Orientation within sample	Vertical	**Initial Moisture Content (%)***	25.6
Initial diameter (mm)	104	**Trimmings (%)**	28.4
Membrane thickness (mm)	0.00	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

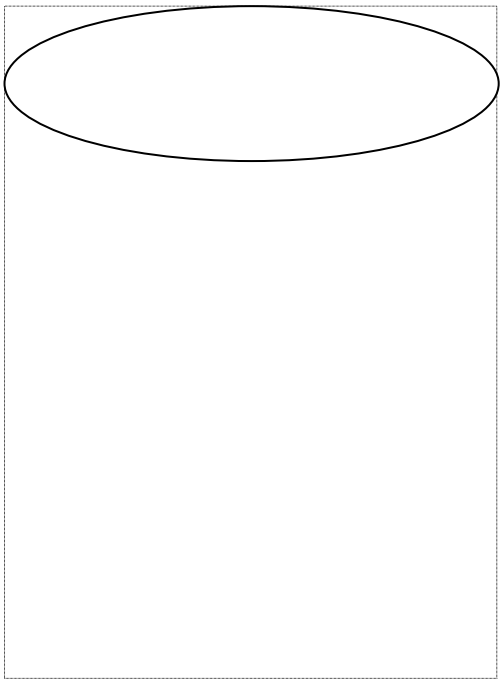


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.53	**Cell Pressure (kPa)**	195

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	142		
Axial strain (%)	11.5		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	71
Final Density (mg/m³)	1.95	**Final Moisture Content (%)**	25.6



Mode of Failure	**B**		

Tested by / date	15/07/2010

UKAS TESTING 0206

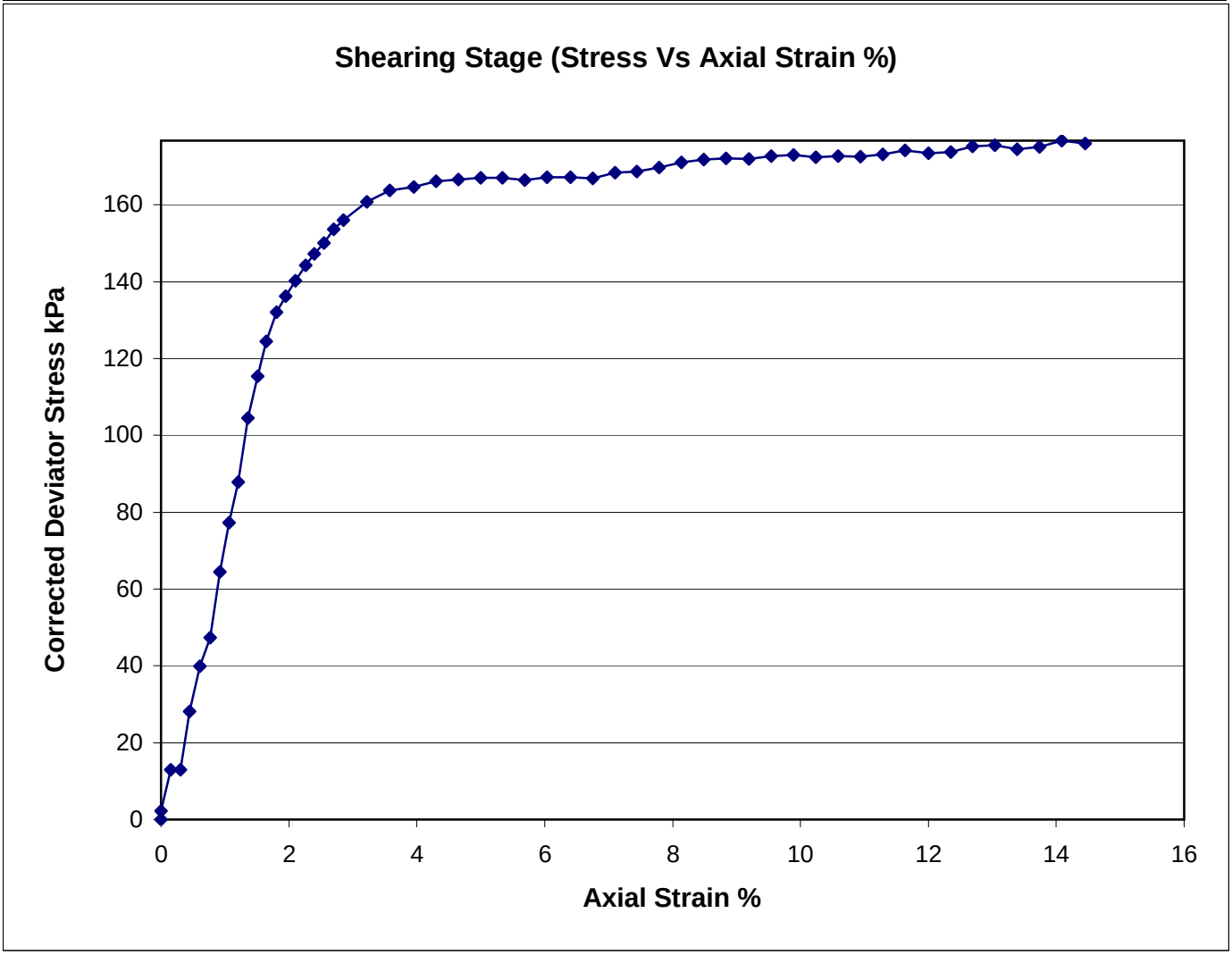
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169196	**Borehole**	BH2 U6 10.5

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	10.50
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Firm brown laminated silty CLAY		

Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	186.30	**Initial Bulk Density (mg/m³)**	2.00
Depth within sample (mm)	15.00	**Initial Dry Density (mg/m³)**	1.59
Orientation within sample	Vertical	**Initial Moisture Content (%)***	25.5
Initial diameter (mm)	104	**Trimmings (%)**	25.1
Membrane thickness (mm)	0.00	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

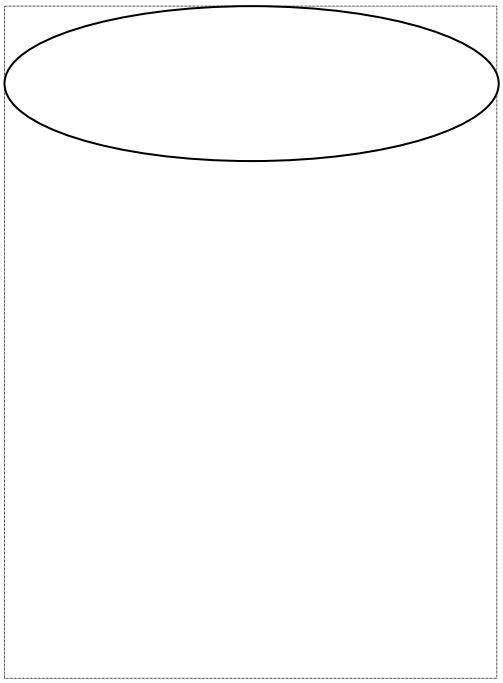


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.59	**Cell Pressure (kPa)**	315

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	167		
Axial strain (%)	6.4		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	84
Final Density (mg/m³)	2.00	**Final Moisture Content (%)**	25.5



Mode of Failure	**B**		

Tested by / date	15/07/2010

UKAS TESTING 0206

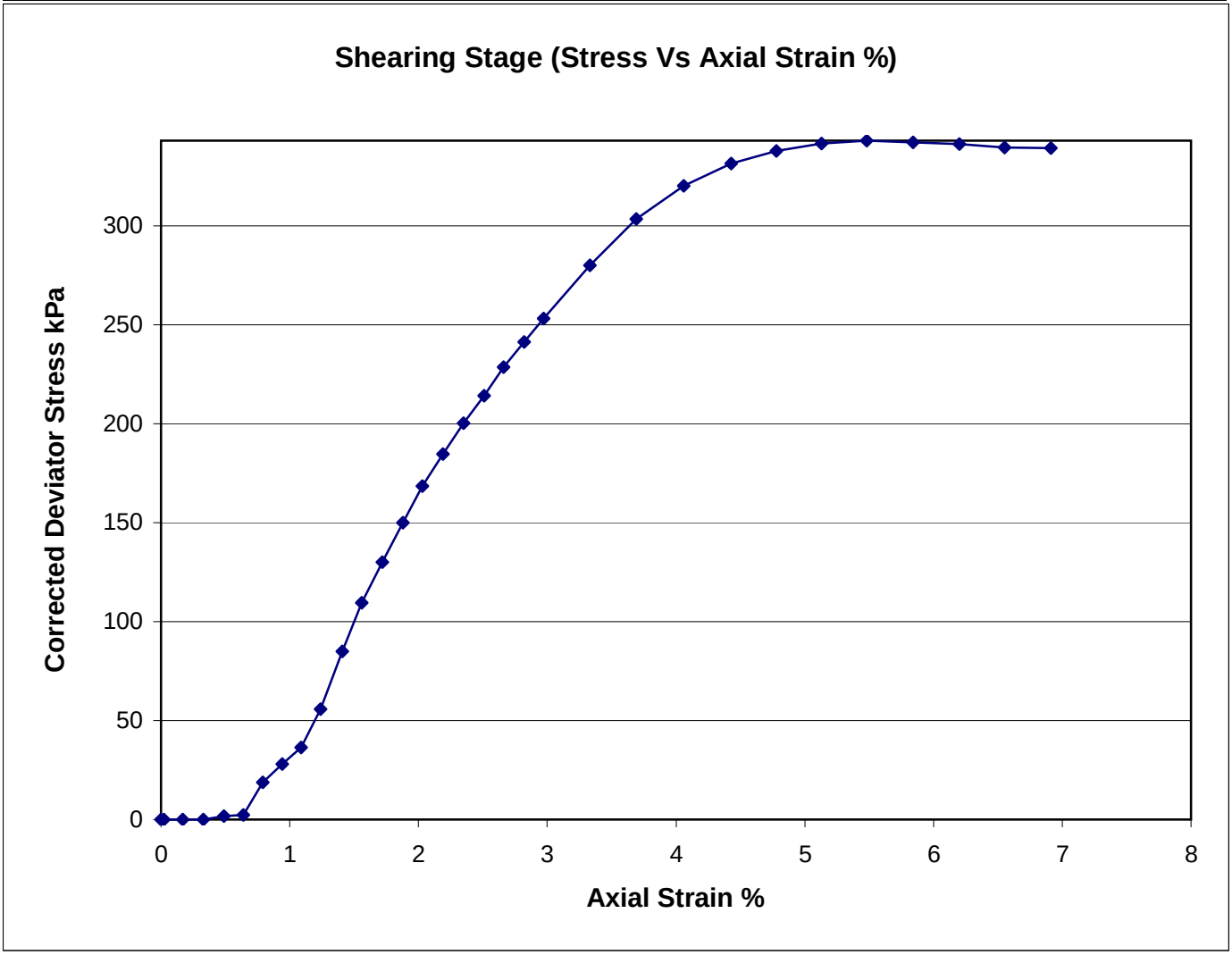
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169208	**Borehole**	BH2 U9 16.5

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	16.50
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Top 2/3: Firm brown laminated silty CLAY. Bottom 1/3: Dark gray / black SILT, mudstone, charcoal		

Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	187.60	**Initial Bulk Density (mg/m³)**	2.09
Depth within sample (mm)	45.00	**Initial Dry Density (mg/m³)**	1.72
Orientation within sample	Vertical	**Initial Moisture Content (%)***	21.5
Initial diameter (mm)	104	**Trimmings (%)**	20.7
Membrane thickness (mm)	0.02	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

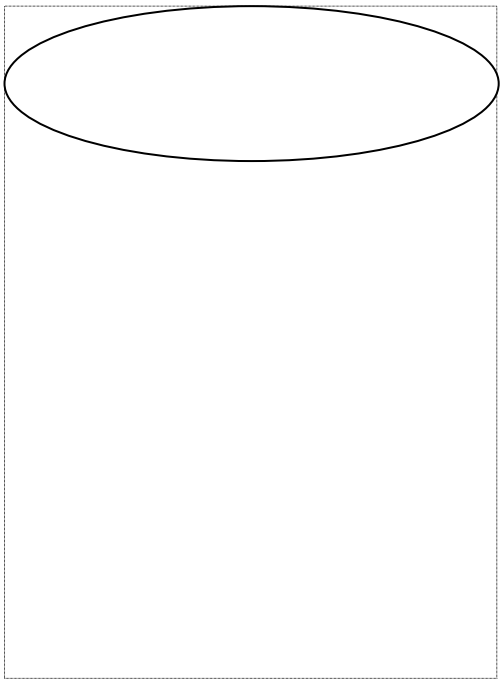


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.59	**Cell Pressure (kPa)**	480

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	343		
Axial strain (%)	5.5		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	172
Final Density (mg/m³)	2.09	**Final Moisture Content (%)**	21.5



Mode of Failure	**B**		

Tested by / date	15/07/2010

UKAS TESTING 0206

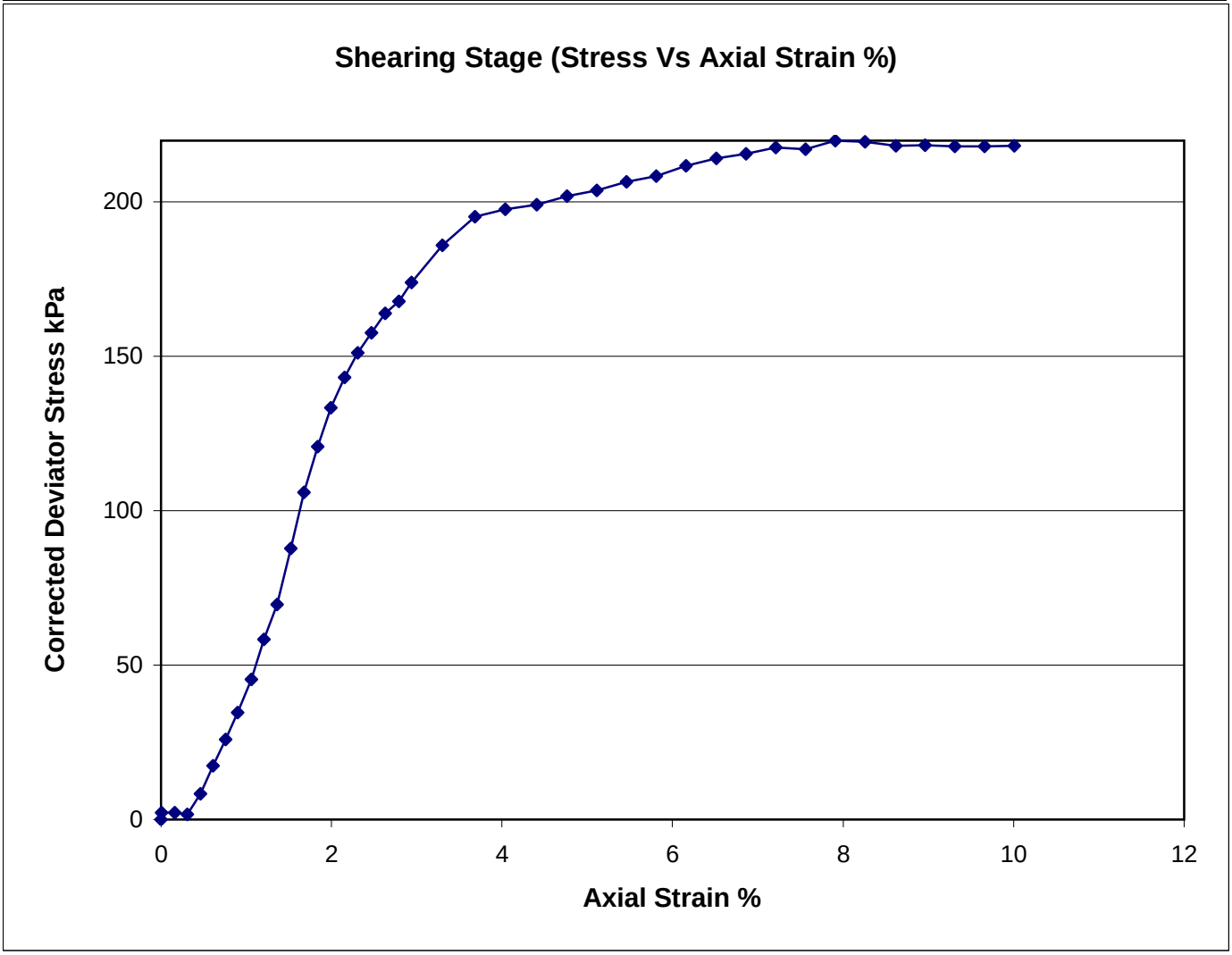
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169254	**Borehole**	BH3 D13 11

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	11.00
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Firm brown fissured laminated silty CLAY		

Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	190.00	**Initial Bulk Density (mg/m³)**	1.97
Depth within sample (mm)	45.00	**Initial Dry Density (mg/m³)**	1.54
Orientation within sample	Vertical	**Initial Moisture Content (%)***	27.9
Initial diameter (mm)	104	**Trimmings (%)**	27.8
Membrane thickness (mm)	0.00	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

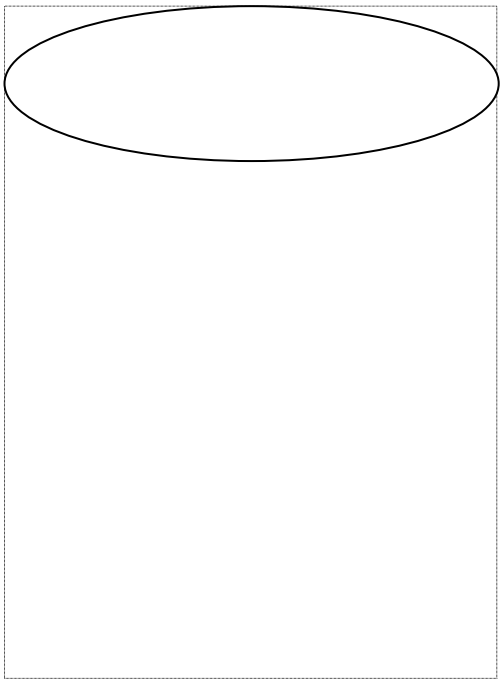


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.58	**Cell Pressure (kPa)**	330

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	220		
Axial strain (%)	7.9		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	110
Final Density (mg/m³)	1.97	**Final Moisture Content (%)**	27.9



Mode of Failure	**B**		

Tested by / date	15/07/2010

UKAS TESTING 0206

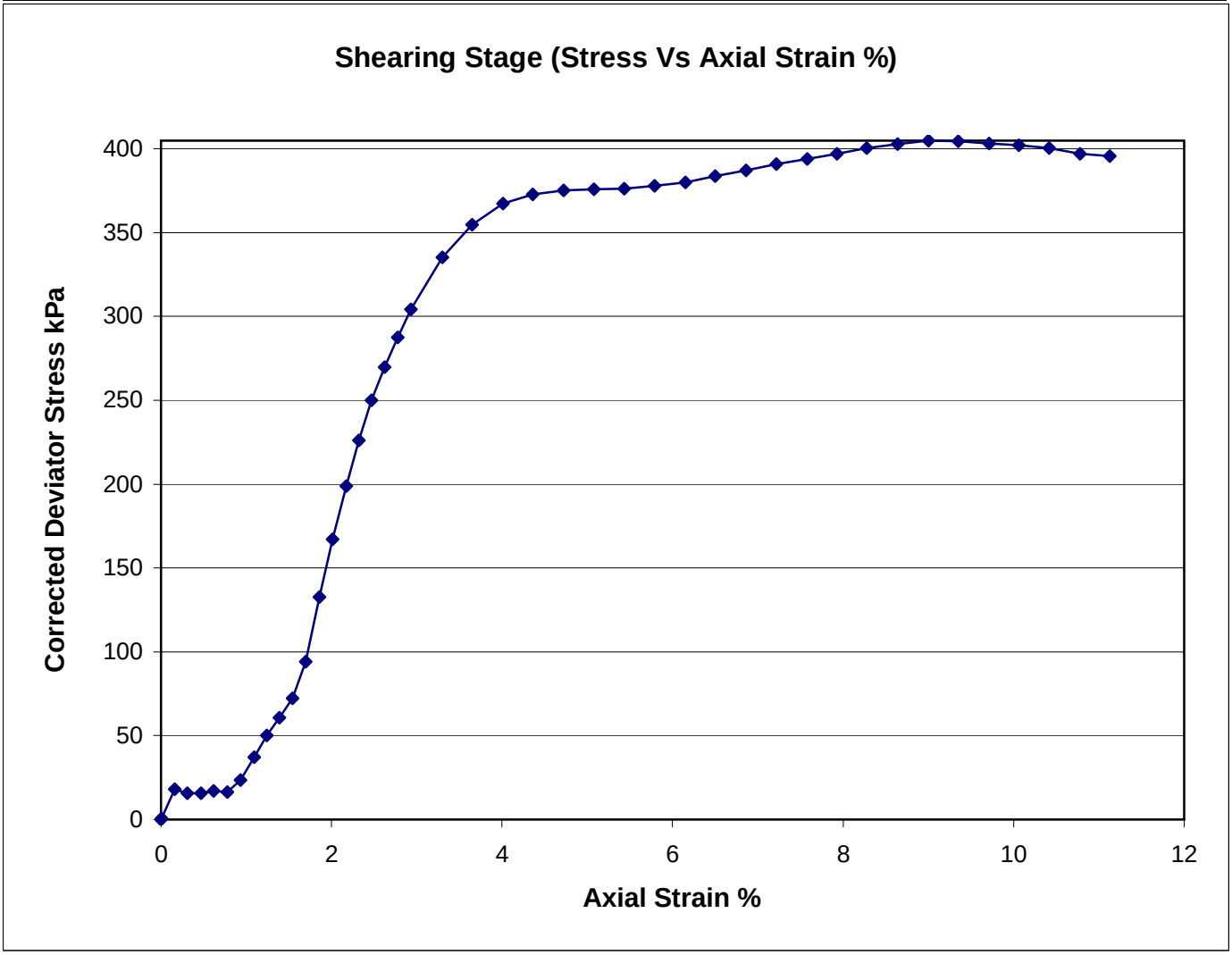
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169264	**Borehole**	BH3 U6 17

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	17.00
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Firm / stiff brown fissured slightly sandy SILT, slight clay		

Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	208.00	**Initial Bulk Density (mg/m³)**	2.04
Depth within sample (mm)	45.00	**Initial Dry Density (mg/m³)**	1.66
Orientation within sample	Vertical	**Initial Moisture Content (%)***	22.7
Initial diameter (mm)	104	**Trimmings (%)**	20.2
Membrane thickness (mm)	0.00	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

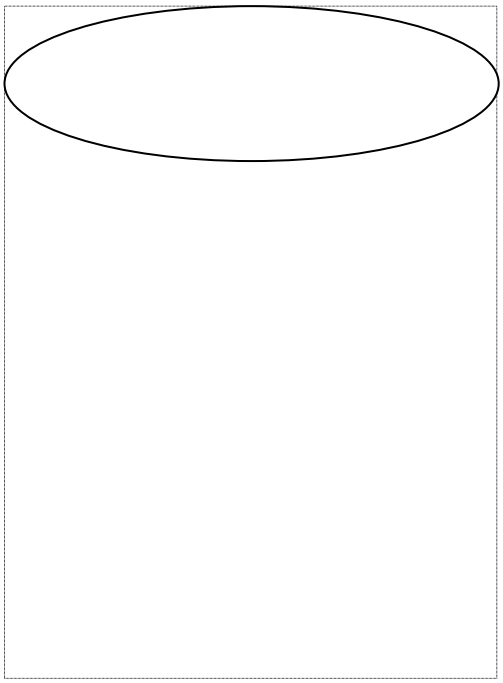


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.58	**Cell Pressure (kPa)**	510

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	405		
Axial strain (%)	9.0		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	202
Final Density (mg/m³)	2.04	**Final Moisture Content (%)**	22.7



Mode of Failure	**B**		

Tested by / date	15/07/2010

UKAS TESTING 0206

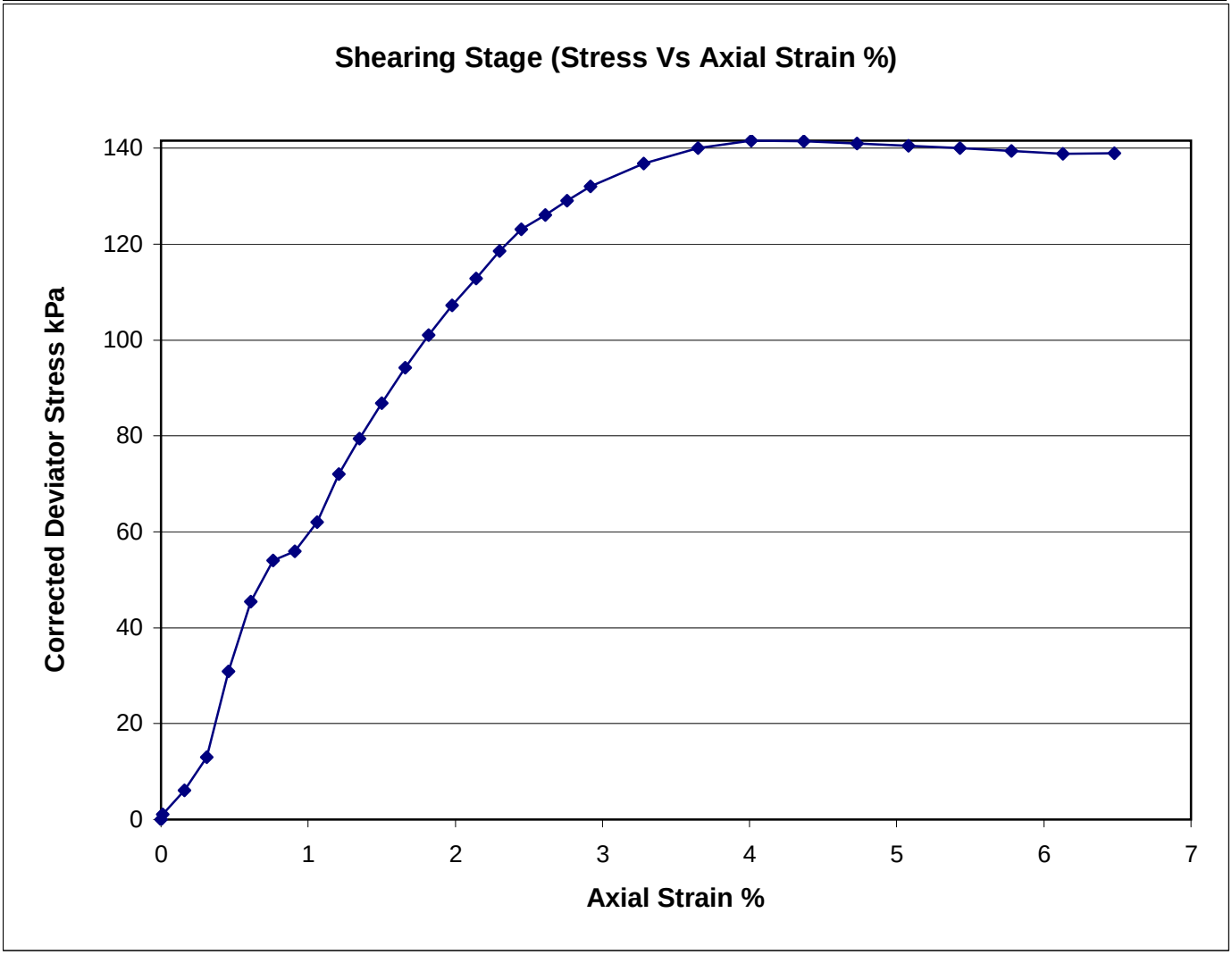
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Customer	Unite Group Plc		
Site	11-13 St Pancras Way, London, NW1 0PT		
Project No	12041745 002	**Job**	10-15163
Sampnum	169280	**Borehole**	BH2 3

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	**Sample Depth (m)**	3.00
Sample type	Undisturbed sample - open drive	**Particle Density (mg/m³)**	2.65
Variations from procedure	None	**Lab temperature (℃)**	21
Sample description	Firm brown / gray mottled fissured laminated CLAY with small pockets of gypsum		

Specimen & Equipment Details			
Specimen reference	**A1**	**Stage reference**	1
Initial height (mm)	190.30	**Initial Bulk Density (mg/m³)**	1.93
Depth within sample (mm)	40.00	**Initial Dry Density (mg/m³)**	1.46
Orientation within sample	Vertical	**Initial Moisture Content (%)***	32.1
Initial diameter (mm)	104	**Trimmings (%)**	32.1
Membrane thickness (mm)	0.00	*Calculated from initial and dry weights of whole specimen	
Preparation	Sample taken from U100 tube		
Comments			

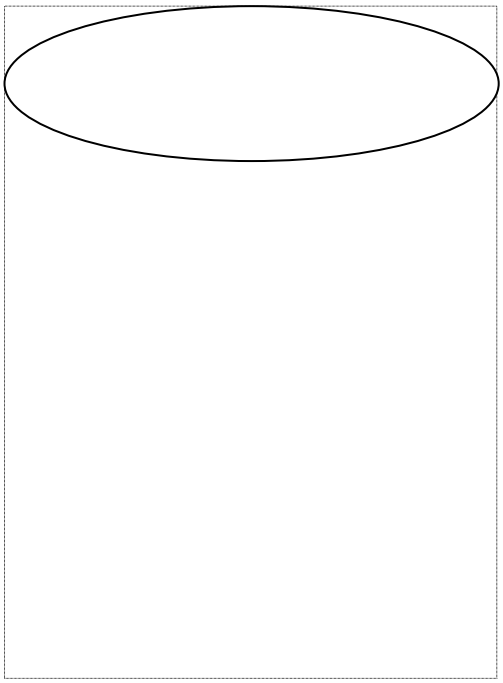


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

WSP Environmental Laboratories

Shear Conditions			
Rate of Axial Strain (%/min)	0.58	**Cell Pressure (kPa)**	90

Conditions at Failure			
Failure criterion	Maximum Deviator Stress		
Maximum corrected deviator stress (kPa)	142		
Axial strain (%)	4.0		
Corrected deviator stress (kPa)	0.0	**Undrained shear strength (kPa)**	71
Final Density (mg/m³)	1.93	**Final Moisture Content (%)**	32.1



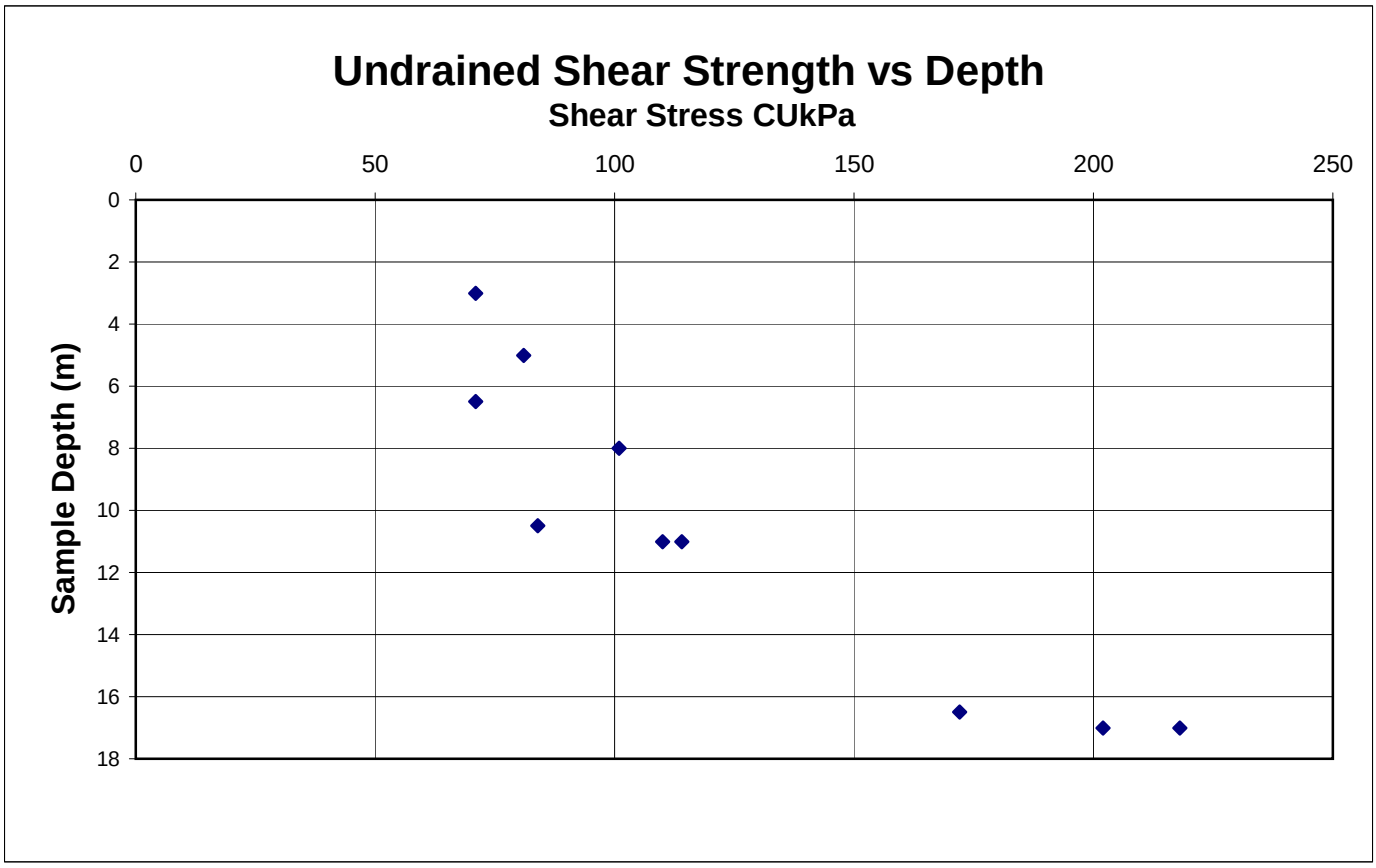
Mode of Failure	**B**		

Tested by / date	15/07/2010

UKAS TESTING 0206

Undrained Shear Strength versus Sample Depth SUMMARY

Customer	Unite Group Plc		
Project No	12041745 002	**Job**	10-15163



WSP Environmental Ltd
The Laboratory
Lakeview Drive
Sherwood Park
Nottingham NG15 0ED

UKAS TESTING 0206

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL10/1310

Client's Reference: Report Date: 14 July 2010

Client Name: WSP Environmental
The Laboratory
4/5 Lakeview, Lakeview Drive
Sherwood Park
Nottingham
NG15 0ED

For the attention of: Pam Rogers

Contract Title: 11-13 St Pancras Way

Date Received: 12-Jul-10
Date Commenced: 12-Jul-10
Date Completed:

Notes: Observations and Interpretations are outside the UKAS Accreditation

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

Checked and Approved Signatories:

R Gunson	A Watkins	D Lambe
(Director)	(Director)	(Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AR
tel: +44 (0)844 815 6641
fax: +44 (0)844 815 6642
e-mail: rgunson@prosoils.co.uk
awatkins@prosoils.co.uk

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Depth m	Description of Sample
BH1			23.00	Hard brown mottled grey silty CLAY.
BH2			21.50	Very stiff dark brown slightly sandy very silty CLAY.
BH2			28.00	Very stiff brown mottled grey silty CLAY.
BH3			23.00	Very stiff grey mottled brown silty CLAY.

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Compiled by	Date	Checked by	Date	Approved by	Date
	14/07/10		14/07/10		14/07/10

11 - 13 PANCRAS WAY.

Contract No: PSL10/1310

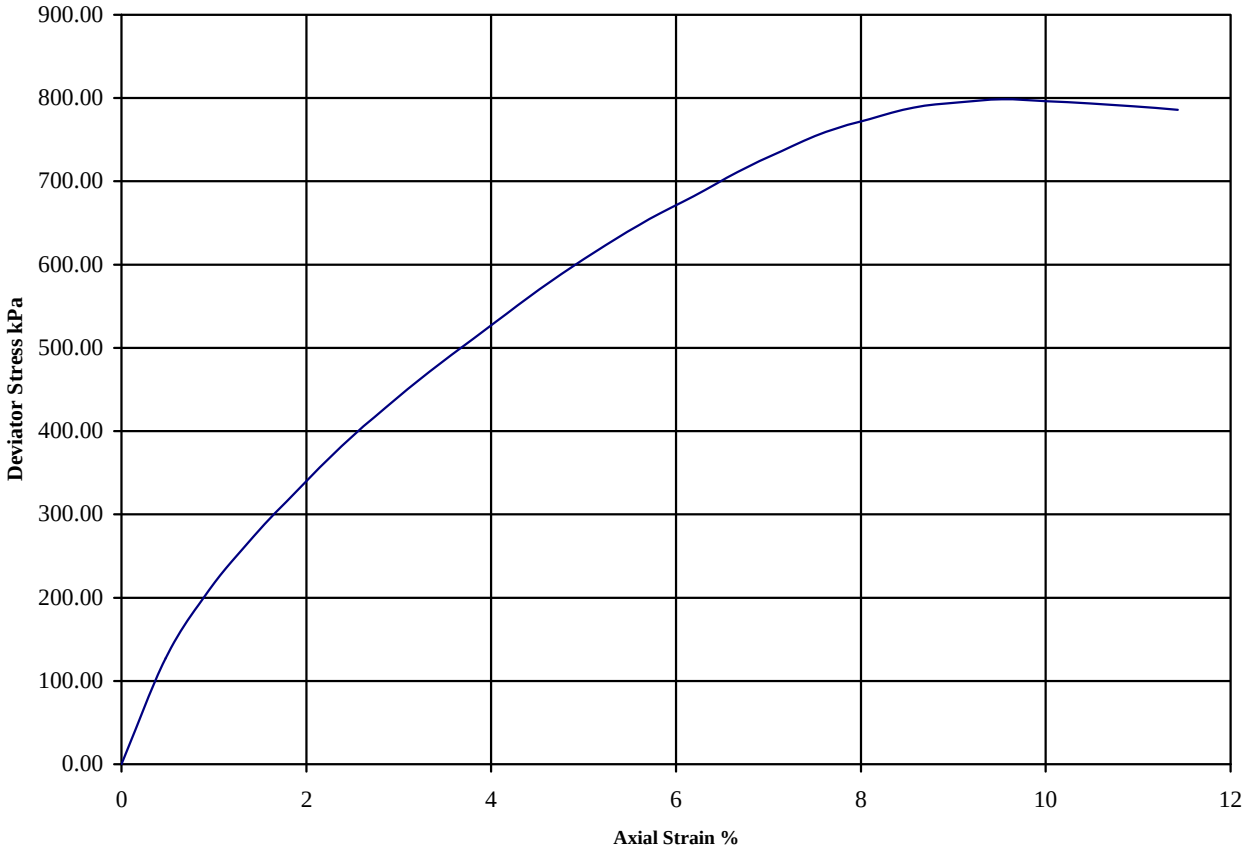
Client Ref: 10-15163

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure
B.S. 1377 : Part7 : Clause 8 : 1990

Hole Number: BH1 **Depth (m):** 23.00

Sample Number: **Sample Type:** U



Diameter (mm):		104.0	Height (mm):		210.0	Test:	100 mm Single Stage. Undisturbed		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Diviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Remarks
A	18	2.12	1.80	690	799	399	9.5	Brittle	Sample taken from top of tube Rate of strain = 1.9 %/min Latex Membrane used 0.2 mm thickness, Correction applied 0.35 kPa See summary of soil descriptions.

Checked	Date	Approved	Date
RC	14/07/10	RC	14/07/10

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11-13 PANCRAS WAY.

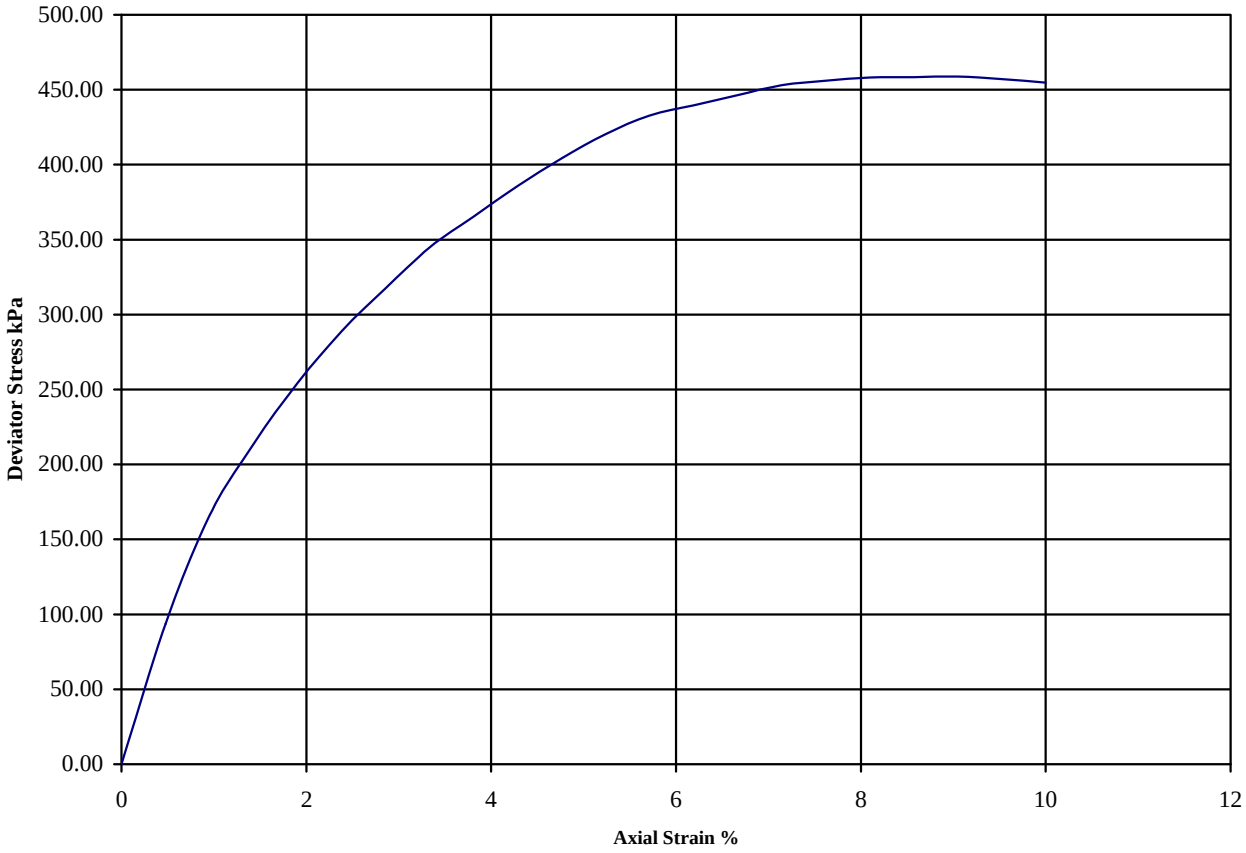
Contract No: PSL10/1310

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure
B.S. 1377 : Part7 : Clause 8 : 1990

Hole Number: BH2 **Depth (m):** 21.50

Sample Number: **Sample Type:** U



Diameter (mm):		104.0	Height (mm):		210.0	Test:	100 mm Single Stage. Undisturbed		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Diviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Remarks
A	22	2.03	1.67	645	459	229	9.0	Brittle	Sample taken from top of tube Rate of strain = 1.9 %/min Latex Membrane used 0.2 mm thickness, Correction applied 0.35 kPa See summary of soil descriptions.

Checked	Date	Approved	Date
RC	14/07/10	RC	14/07/10

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Professional Soils Laboratory

11-13 PANCRAS WAY.

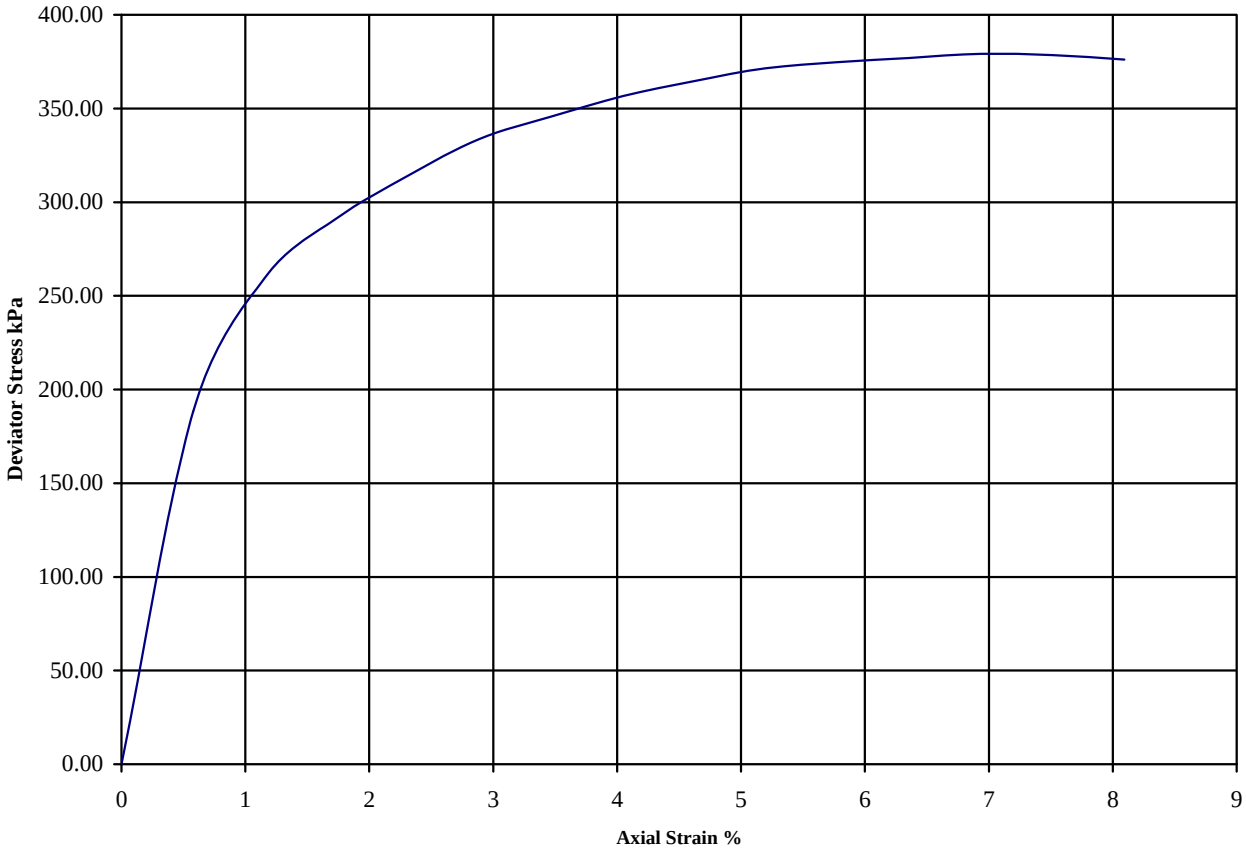
Contract No: PSL10/1310

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure
B.S. 1377 : Part7 : Clause 8 : 1990

Hole Number: BH2 **Depth (m):** 28.00

Sample Number: **Sample Type:** U



Diameter (mm):		104.0	Height (mm):		173.0	Test:	100 mm Single Stage. Undisturbed		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Diviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Remarks
A	25	1.96	1.57	840	379	190	6.9	Brittle	Sample taken from top of tube Rate of strain = 2.3 %/min Latex Membrane used 0.2 mm thickness, Correction applied 0.35 kPa See summary of soil descriptions.

Checked	Date	Approved	Date
	14/07/01		14/07/10

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11-13 PANCRAS WAY.

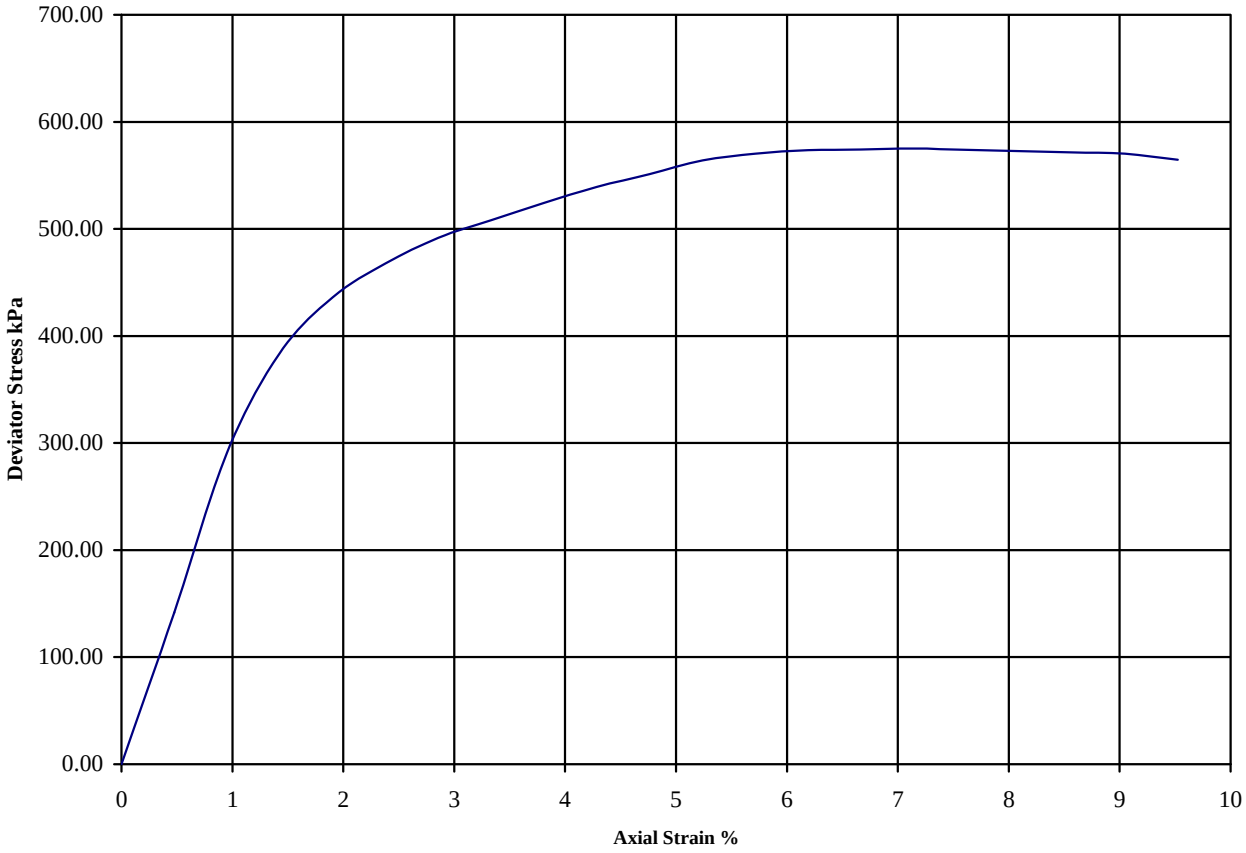
Contract No: PSL10/1310

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure
B.S. 1377 : Part7 : Clause 8 : 1990

Hole Number: BH3 **Depth (m):** 23.00

Sample Number: **Sample Type:** U



Diameter (mm):		104.0	Height (mm):		210.0	Test:	100 mm Single Stage. Undisturbed		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Diviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Remarks
A	16	2.18	1.88	690	575	287	7.1	Brittle	Sample taken from top of tube Rate of strain = 1.9 %/min Latex Membrane used 0.2 mm thickness, Correction applied 0.35 kPa See summary of soil descriptions.

Checked	Date	Approved	Date
RC	14/07/10	RC	14/07/10

PSL
Professional Soils Laboratory

11-13 PANCRAS WAY.

Contract No: PSL10/1310

Appendix E Comparison of Chemical Analytical Results with Screening Criteria

COMPARISON OF THE GROUNDWATER ANALYTICAL RESULTS WITH SCREENING VALUES

DETERMI-NANDS	CONCENTRATION RANGE (µG/L)	NO. OF SAMPLES ABOVE LOD*	SCREENING VALUE (µG/L)	LESS THAN THE GAC YES (✓) / NO (✖)
pH	7.1 – 7.6	3	N/A	**N/A**
Sulphate	Not analysed		N/A	**N/A**
Arsenic	<10	0	50[B]	✓
Cadmium	1.0 – 1.7	4	0.25[B]	✖
Chromium	<10	0	4.7[B]	✓
Copper	<5 – 20	3	28[B]	✓
Lead	<10	0	7.2[B]	✓
Mercury	<0.2	0	1[A]	✓
Nickel	14 – 52	4	20[A]	✓
Selenium	<0.5	0	10[A]	✓
Zinc	17 – 47	4	75[B]	✓
Benzene	<3.0	0	10[B]	✓
Toluene	<3.0	0	50[B]	✓
Ethylbenzene	<3.0	0	300[C]	✓
o-Xylene	<3.0	0	30[B]	✓
m+p-Xylene	<3.0	0		✓
MTBE	<3.0	0	15[C]	✓
Naphthalene	<0.1	0	10[B]	✓
Pyrene	<0.1	0	N/A	✓
Fluorene	<0.1	0		✓
Anthracene	<0.1	0		✓
Phenanthrene	<0.1	0		✓
Acenaphthylene	<0.1	0		✓
Acenaphthene	<0.1	0		✓

DETERMI-NANDS	CONCENTRATION RANGE (µG/L)	NO. OF SAMPLES ABOVE LOD*	SCREENING VALUE (µG/L)	LESS THAN THE GAC YES (✓) / NO (✖)
TPH Aliphatic (>C6-C8)	<10	0	15000[C]	✓
TPH Aliphatic (>C8-C10)	<10	0	300[C]	✓
TPH Aliphatic (>C10-C12)	<15 – 70	1		✓
TPH Aliphatic (>C12-C16)	<10 – 140	1		✓
TPH Aliphatic (>C16-C21)	<15 – 28	1	INSOLUBLE	✓
TPH Aliphatic (>C21-C35)	<25 – 270	1	INSOLUBLE	✓
TPH Aliphatic (>C35-C40)	<10 – 82	1	INSOLUBLE	✓
TPH Aliphatic (>C40-C44)	<10 – 31	1	INSOLUBLE	✓
TPH Aromatic (>C6-C7)	<10	0	10[C]	✓
TPH Aromatic (>C7-C8)	<10	0	700[C]	✓
TPH Aromatic (>C8-C10)	<10	0	300[C]	✓
TPH Aromatic (>C10-C12)	<10	0	94[C]	✓
TPH Aromatic (>C12-C16)	<10 – 27	1		
TPH Aromatic (>C16-C21)	<10 – 26	3	90[C]	✖
TPH Aromatic (>C21-C35)	<15 – 160	1		
TPH Aromatic (>C35-C40)	<10 – 45	1	N/A	✓
TPH Aromatic (>C40-C44)	<10 – 17	1		✓
Benzo[a]anthracene	<0.1	0	N/A	
Benzo[b]fluoranthene	<0.1	0		
Benzo[k]fluoranthene	<0.1	0	*	*
Benzo[ghi]perylene	<0.1	0	*	*
Benzo[a]pyrene	<0.1	0	0.01[A]	✓
Chrysene	<0.1	0	N/A	
Dibenz[ah]anthracene	<0.1	0		
Fluoranthene	<0.1	0		
Indeno[123-cd]pyrene	<0.1	0	*	*
*Sum of PAHs	<0.3	0	0.1[A]	✓

A – UK DRINKING WATER STANDARDS, B – WFD ENVIRONMENTAL QUALITY STANDARDS, C – WORLD HEALTH ORGANISATION, D – PRIVATE WATER SUPPLY

1.00

Project Number: 12041745-002

Project Name: St Pancras Way

Soil Organic Matter **1.00**

Please select the appropriate end use scenario from the list below. Note only one can be selected.

Residential w/ plant	☐	FALSE
Residential no plant	☐	FALSE
Allotments	☐	FALSE
Commercial / Industrial	☑	TRUE

click to convert from text to numbers

	mg	mg	mg	mg	mg	mg	ng	mg	ng	mg	mg	mg	mg	mg	ng	mg	ng	mg	mg	mg	mg	
Sample Name →	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9	TP2	
Sample Depth →	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6	0.25-0.35	
SOM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Selenium	0.50	0.40	0.30	0.30	0.40	0.60	0.60	0.60	0.70	0.30	0.70	0.40	0.30	0.50	0.70	0.30	0.60	0.50	0.60	0.50	0.50	
Mercury	2.10	0.60	1.70	2.80	1.20	2.00	0.10	0.50	0.10	0.80	3.70	1.30	0.80	0.20	0.10	1.80	0.10	2.50	0.80	1.40	5.20	
Arsenic	2.50	2.50	7.70	6.00	2.50	2.90	2.50	2.50	2.50	3.70	20.00	8.60	3.40	2.50	2.50	2.50	2.50	18.00	2.50	4.70	18.00	
Cadmium	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.72	0.39	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
Chromium	51.00	42.00	40.00	37.00	56.00	39.00	58.00	51.00	63.00	27.00	18.00	37.00	29.00	56.00	61.00	40.00	61.00	29.00	52.00	42.00	29.00	
Copper	100.00	32.00	65.00	88.00	49.00	73.00	32.00	38.00	31.00	31.00	460.00	120.00	71.00	30.00	31.00	22.00	32.00	140.00	49.00	41.00	110.00	
Nickel	40.00	27.00	30.00	28.00	43.00	32.00	43.00	40.00	50.00	21.00	23.00	49.00	34.00	44.00	47.00	18.00	56.00	25.00	42.00	28.00	29.00	
Lead	390.00	74.00	280.00	320.00	310.00	290.00	4.50	57.00	2.50	99.00	620.00	390.00	240.00	18.00	3.30	48.00	4.90	710.00	200.00	170.00	940.00	
Zinc	140.00	85.00	130.00	150.00	120.00	110.00	110.00	100.00	120.00	97.00	270.00	470.00	330.00	110.00	110.00	74.00	110.00	170.00	120.00	100.00	250.00	
Naphthalene	0.10	0.10	0.30		0.10			0.10		0.10		1.30	0.30		0.10	0.10			0.10	0.10	0.40	
Acenaphthylene	0.10	0.10	0.10		0.10			0.10		0.10		1.30	0.20		0.10	0.10			0.10	0.10	0.10	
Acenaphthene	0.10	0.10	0.80		0.10			0.10		0.10		1.30	0.20		0.10	0.10			0.10	0.10	0.10	
Fluorene	0.10	0.10	0.70		0.10			0.10		0.10		1.30	0.20		0.10	0.10			0.10	0.10	0.10	
Phenanthrene	1.20	0.10	6.70		0.20			0.10		0.30		4.00	3.50		0.10	0.10			0.10	0.10	0.60	
Anthracene	0.30	0.10	1.40		0.10			0.10		0.10		1.30	0.80		0.10	0.10			0.10	0.10	0.10	
Fluoranthene	3.00	0.10	14.00		0.40			0.10		0.60		5.30	7.40		0.10	0.10			0.10	0.20	0.50	
Pyrene	2.30	0.10	10.00		0.30			0.10		0.50		4.60	5.50		0.10	0.10			0.10	0.20	0.60	
Benzo(a)anthracene	1.10	0.10	4.90		0.20			0.10		0.30		2.20	2.90		0.10	0.10			0.10	0.10	0.30	
Chrysene	1.10	0.10	5.00		0.20			0.10		0.40		2.30	3.20		0.10	0.10			0.10	0.10	0.40	
Benzo(k)fluoranthene	0.50	0.10	2.40		0.10			0.10		0.10		1.60	1.50		0.10	0.10			0.10	0.10	0.10	
Benzo(b)fluoranthene	0.90	0.10	4.00		0.20			0.10		0.20		1.30	2.60		0.10	0.10			0.10	0.10	0.20	
Benzo(a)pyrene	1.10	0.10	4.60		0.30			0.10		0.30		1.30	2.70		0.10	0.10			0.10	0.10	0.30	
Indeno(1,2,3-c,d)pyrene	0.60	0.10	2.60		0.10			0.10		0.10		1.30	1.60		0.10	0.10			0.10	0.10	0.10	
Dibenzo(a,h)anthracene	0.10	0.10	0.60		0.10			0.10		0.10		1.30	0.30		0.10	0.10			0.10	0.10	0.10	
Benzo(g,h,i)perylene	0.70	0.10	2.90		0.10			0.10		0.10		1.30	2.00		0.10	0.10			0.10	0.10	0.20	
Aliphatic (>C5-C6)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
Aliphatic (>C6-C8)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
Aliphatic (>C8-C10)	0.20	0.20	0.20	0.20	0.20	6.80	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
Aliphatic (>C10-C12)	2.00	2.00	2.00	2.00	2.00	9.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.50	2.00	2.00	2.00	3.10	
Aliphatic (>C12-C16)	2.00	2.00	2.80	12.00	2.00	19.00	2.00	2.00	2.00	2.00	2.00	17.00	6.30	2.00	2.00	2.00	4.90	2.00	2.00	2.00	12.00	
Aliphatic (>C16-C21)	5.00	5.00	9.40	33.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	94.00	38.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	12.00	
Aliphatic (>C21-C35)	7.60	16.00	22.00	53.00	5.00	37.00	5.00	5.00	5.00	5.00	8.30	460.00	230.00	5.00	5.00	5.00	7.90	14.00	5.00	5.00	47.00	
Aliphatic (>C35-C40)	2.00	2.00	2.90	6.00	2.00	9.40	2.00	2.00	2.00	2.00	2.00	80.00	35.00	2.00	2.00	2.00	4.10	3.70	2.00	2.00	5.90	
Aliphatic (>C40-C44)	2.00	2.00	2.60	3.70	2.00	4.40	2.00	2.00	2.00	2.00	2.00	47.00	16.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.60	
Aromatic (>C6-C7)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Aromatic (>C7-C8)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Aromatic (>C8-C10)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Aromatic (>C10-C12)	2.00	2.00	2.00	4.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.80	
Aromatic (>C12-C16)	2.00	2.00	5.10	15.00	2.00	4.30	2.00	2.00	2.00	2.00	7.00	18.00	7.60	2.00	2.00	2.00	2.00	2.70	2.00	2.00	7.80	
Aromatic (>C16-C21)	5.00	5.00	10.00	37.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	64.00	16.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
Aromatic (>C21-C35)	6.30	14.00	57.00	200.00	5.00	16.00	5.00	5.00	7.00	6.00	38.00	440.00	160.00	5.00	7.70	5.00	5.00	13.00	5.00	5.00	51.00	
Aromatic (>C35-C40)	9.90	5.20	19.00	67.00	2.00	12.00	2.00	2.00	2.70	2.50	16.00	200.00	75.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	18.00	
Aromatic (>C40-C44)	4.40	2.00	6.20	23.00	2.00	3.00	2.00	2.00	2.00	2.00	4.50	86.00	28.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	5.10	
Benzene	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Ethylbenzene	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
m+p-Xylene	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
MTBE	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
o-Xylene	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
TAME	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Toluene	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	

	Assessment Criteria	BH1	BH2	BH3	BH3	WS1	WS1	WS1	WS2	WS2	WS3
	↓	0.5-0.7	0.3-0.8	0.65-0.7	1.1-1.2	0.5-0.7	1.5-1.8	2.2-2.5	0.8-1	2.5-2.8	0.7-1
Selenium	13000.00	0.50	0.40	0.30	0.30	0.40	0.60	0.60	0.60	0.70	0.30
Mercury	3600.00	2.10	0.60	1.70	2.80	1.20	2.00	0.10	0.50	0.10	0.80
Arsenic	640.00	2.50	2.50	7.70	6.00	2.50	2.90	2.50	2.50	2.50	3.70
Cadmium	230.00	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Chromium	30000.00	51.00	42.00	40.00	37.00	56.00	39.00	58.00	51.00	63.00	27.00
Copper	72000.00	100.00	32.00	65.00	88.00	49.00	73.00	32.00	38.00	31.00	31.00
Nickel	1800.00	40.00	27.00	30.00	28.00	43.00	32.00	43.00	40.00	50.00	21.00
Lead	6013.04	390.00	74.00	280.00	320.00	310.00	290.00	4.50	57.00	2.50	99.00
Zinc	660000.00	140.00	85.00	130.00	150.00	120.00	110.00	110.00	100.00	120.00	97.00
Naphthalene	200 (76)	0.10	0.10	0.30	0.00	0.10	0.00	0.00	0.10	0.00	0.10
Acenaphthylene	84000 (86)	0.10	0.10	0.10	0.00	0.10	0.00	0.00	0.10	0.00	0.10
Acenaphthene	85000 (57)	0.10	0.10	0.80	0.00	0.10	0.00	0.00	0.10	0.00	0.10
Fluorene	64000 (31)	0.10	0.10	0.70	0.00	0.10	0.00	0.00	0.10	0.00	0.10
Phenanthrene	22000.00	1.20	0.10	6.70	0.00	0.20	0.00	0.00	0.10	0.00	0.30
Anthracene	520000.00	0.30	0.10	1.40	0.00	0.10	0.00	0.00	0.10	0.00	0.10
Fluoranthene	23000.00	3.00	0.10	14.00	0.00	0.40	0.00	0.00	0.10	0.00	0.60
Pyrene	54000.00	2.30	0.10	10.00	0.00	0.30	0.00	0.00	0.10	0.00	0.50
Benzo(a)anthracene	89.00	1.10	0.10	4.90	0.00	0.20	0.00	0.00	0.10	0.00	0.30
Chrysene	140.00	1.10	0.10	5.00	0.00	0.20	0.00	0.00	0.10	0.00	0.40
Benzo(k)fluoranthene	140.00	0.50	0.10	2.40	0.00	0.10	0.00	0.00	0.10	0.00	0.10
Benzo(b)fluoranthene	100.00	0.90	0.10	4.00	0.00	0.20	0.00	0.00	0.10	0.00	0.20
Benzo(a)pyrene	14.00	1.10	0.10	4.60	0.00	0.30	0.00	0.00	0.10	0.00	0.30
Indeno(1,2,3-c,d)pyrene	60.00	0.60	0.10	2.60	0.00	0.10	0.00	0.00	0.10	0.00	0.10
Dibenzo(a,h)anthracene	13.00	0.10	0.10	0.60	0.00	0.10	0.00	0.00	0.10	0.00	0.10
Benzo(g,h,i)perylene	650.00	0.70	0.10	2.90	0.00	0.10	0.00	0.00	0.10	0.00	0.10
Aliphatic (>C5-C6)	3400 (304)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Aliphatic (>C6-C8)	8300 (144)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Aliphatic (>C8-C10)	2100 (77)	0.20	0.20	0.20	0.20	0.20	6.80	0.20	0.20	0.20	0.20
Aliphatic (>C10-C12)	10000 (34)	2.00	2.00	2.00	2.00	2.00	9.00	2.00	2.00	2.00	2.00
Aliphatic (>C12-C16)	61000 (24)	2.00	2.00	2.80	12.00	2.00	19.00	2.00	2.00	2.00	2.00
Aliphatic (>C16-C21)	1600000.00	5.00	5.00	9.40	33.00	5.00	5.00	5.00	5.00	5.00	5.00
Aliphatic (>C21-C35)	1600000.00	7.60	16.00	22.00	53.00	5.00	37.00	5.00	5.00	5.00	5.00
Aliphatic (>C35-C40)	1600000.00	2.00	2.00	2.90	6.00	2.00	9.40	2.00	2.00	2.00	2.00
Aliphatic (>C40-C44)	1600000.00	2.00	2.00	2.60	3.70	2.00	4.40	2.00	2.00	2.00	2.00
Aromatic (>C6-C7)	28000 (1217)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Aromatic (>C7-C8)	59000 (869)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Aromatic (>C8-C10)	3700 (613)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Aromatic (>C10-C12)	17000 (364)	2.00	2.00	2.00	4.20	2.00	2.00	2.00	2.00	2.00	2.00
Aromatic (>C12-C16)	36000 (169)	2.00	2.00	5.10	15.00	2.00	4.30	2.00	2.00	2.00	2.00
Aromatic (>C16-C21)	28000.00	5.00	5.00	10.00	37.00	5.00	5.00	5.00	5.00	5.00	5.00
Aromatic (>C21-C35)	28000.00	6.30	14.00	57.00	200.00	5.00	16.00	5.00	5.00	7.00	6.00
Aromatic (>C35-C40)	28000.00	9.90	5.20	19.00	67.00	2.00	12.00	2.00	2.00	2.70	2.50
Aromatic (>C40-C44)	28000.00	4.40	2.00	6.20	23.00	2.00	3.00	2.00	2.00	2.00	2.00
Benzene	28.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Ethylbenzene	17000 (520)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
m+p-Xylene	6200 (580)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MTBE	7900.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
o-Xylene	6500 (630)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Toluene	59000 (870)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

	Assessment Criteria	WS3	WS4	WS5	WS6	WS6	WS7	WS7	WS8	WS8	WS9	TP2
	↓	1.6-2	0.2-0.8	0.2-0.6	0.7-0.9	4.6-5	0.7-1	1.8-2.1	0.4-0.7	2-2.5	0.4-0.6	0.25-0.35
Selenium	13000.00	0.70	0.40	0.30	0.50	0.70	0.30	0.60	0.50	0.60	0.50	0.50
Mercury	3600.00	3.70	1.30	0.80	0.20	0.10	1.80	0.10	2.50	0.80	1.40	5.20
Arsenic	640.00	20.00	8.60	3.40	2.50	2.50	2.50	2.50	18.00	2.50	4.70	18.00
Cadmium	230.00	0.25	0.72	0.39	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Chromium	30000.00	18.00	37.00	29.00	56.00	61.00	40.00	61.00	29.00	52.00	42.00	29.00
Copper	72000.00	460.00	120.00	71.00	30.00	31.00	22.00	32.00	140.00	49.00	41.00	110.00
Nickel	1800.00	23.00	49.00	34.00	44.00	47.00	18.00	56.00	25.00	42.00	28.00	29.00
Lead	6013.04	620.00	390.00	240.00	18.00	3.30	48.00	4.90	710.00	200.00	170.00	940.00
Zinc	660000.00	270.00	470.00	330.00	110.00	110.00	74.00	110.00	170.00	120.00	100.00	250.00
Naphthalene	200 (76)	0.00	1.30	0.30	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.40
Acenaphthylene	84000 (86)	0.00	1.30	0.20	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.10
Acenaphthene	85000 (57)	0.00	1.30	0.20	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.10
Fluorene	64000 (31)	0.00	1.30	0.20	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.10
Phenanthrene	22000.00	0.00	4.00	3.50	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.60
Anthracene	520000.00	0.00	1.30	0.80	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.10
Fluoranthene	23000.00	0.00	5.30	7.40	0.00	0.10	0.10	0.00	0.00	0.10	0.20	0.50
Pyrene	54000.00	0.00	4.60	5.50	0.00	0.10	0.10	0.00	0.00	0.10	0.20	0.60
Benzo(a)anthracene	89.00	0.00	2.20	2.90	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.30
Chrysene	140.00	0.00	2.30	3.20	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.40
Benzo(k)fluoranthene	140.00	0.00	1.60	1.50	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.10
Benzo(b)fluoranthene	100.00	0.00	1.30	2.60	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.20
Benzo(a)pyrene	14.00	0.00	1.30	2.70	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.30
Indeno(1,2,3-c,d)pyrene	60.00	0.00	1.30	1.60	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.10
Dibenzo(a,h)anthracene	13.00	0.00	1.30	0.30	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.10
Benzo(g,h,i)perylene	650.00	0.00	1.30	2.00	0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.20
Aliphatic (>C5-C6)	3400 (304)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Aliphatic (>C6-C8)	8300 (144)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Aliphatic (>C8-C10)	2100 (77)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Aliphatic (>C10-C12)	10000 (34)	2.00	2.00	2.00	2.00	2.00	2.00	3.50	2.00	2.00	2.00	3.10
Aliphatic (>C12-C16)	61000 (24)	2.00	17.00	6.30	2.00	2.00	2.00	4.90	2.00	2.00	2.00	12.00
Aliphatic (>C16-C21)	1600000.00	5.00	94.00	38.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	12.00
Aliphatic (>C21-C35)	1600000.00	8.30	460.00	230.00	5.00	5.00	5.00	7.90	14.00	5.00	5.00	47.00
Aliphatic (>C35-C40)	1600000.00	2.00	80.00	35.00	2.00	2.00	2.00	4.10	3.70	2.00	2.00	5.90
Aliphatic (>C40-C44)	1600000.00	2.00	47.00	16.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.60
Aromatic (>C6-C7)	28000 (1217)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Aromatic (>C7-C8)	59000 (869)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Aromatic (>C8-C10)	3700 (613)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Aromatic (>C10-C12)	17000 (364)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.80
Aromatic (>C12-C16)	36000 (169)	7.00	18.00	7.60	2.00	2.00	2.00	2.00	2.70	2.00	2.00	7.80
Aromatic (>C16-C21)	28000.00	5.00	64.00	16.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Aromatic (>C21-C35)	28000.00	38.00	440.00	160.00	5.00	7.70	5.00	5.00	13.00	5.00	5.00	51.00
Aromatic (>C35-C40)	28000.00	16.00	200.00	75.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	18.00
Aromatic (>C40-C44)	28000.00	4.50	86.00	28.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	5.10
Benzene	28.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Ethylbenzene	17000 (520)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
m+p-Xylene	6200 (580)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MTBE	7900.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
o-Xylene	6500 (630)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Toluene	59000 (870)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Appendix F Monitoring Data

Groundwater and Ground Gas Monitoring Summary

Site Name	11-13 St Pancras Way
Client	Unite Group Plc
Job No.	12041745-002

Start Date	21/06/2010
End Date	06/07/2010
No. Visits	4

	Borehole	Methane (% v/v)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Flow (l/hr)		Standing Water Level (m)		Gas Screening Value Methane (l/hr)	Gas Screening Value Carbon Dioxide (l/hr)
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX		
1	BH1	0.0	0.0	0.6	1.3	14.9	17.7	0.0	0.0	3.90	5.42		
2	BH2	0.0	0.0	0.1	0.6	16.0	20.3	0.0	0.0	5.90	7.16		
3	BH3	0.0	0.0	0.2	1.5	19.2	20.5	0.0	0.1	3.26	4.31		0.0015
4	WS1	0.0	0.0	0.3	0.5	19.2	20.4	0.0	0.1	1.42	1.46		0.0005
5	WS5	0.0	0.0	0.0	0.0	19.7	20.4	0.0	0.0	0.00	0.00		
6	WS6	0.0	0.1	0.2	2.4	17.6	19.9	0.0	0.0	3.14	3.30		
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Groundwater and Ground Gas Monitoring Summary

Site Name	11-13 St Pancras Way
Client	Unite Group Plc
Job No.	12041745-002

Start Date	21/06/2010
End Date	06/07/2010
No. Visits	4

	Borehole	Standing Water Level (m)		Response Zone		Thickness of Product (mm)		PID Readings ppmV		H2S ppm	CO ppm	Was the well ever flooded?	Was Product >1mm detected?
		MIN	MAX	TOP	BASE	MIN	MAX	MIN	MAX	MAX	MAX		
1	BH1	3.9	5.4	12.0	23.0	0	0	0	0	0	3	Yes	No
2	BH2	5.9	7.2	23.0	30.0	0	0	0	0	1	85	Yes	No
3	BH3	3.3	4.3	4.0	10.0	0	0	0	0	1	5	No	No
4	WS1	1.4	1.5	0.5	2.0	0	0	0	0	1	4	No	No
5	WS5	0.0	0.0	0.3	0.8	0	0	0	0	1	3	Yes	No
6	WS6	3.1	3.3	2.0	3.5	0	0	0	0	0	5	No	No
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Groundwater and Ground Gas Monitoring Summary

Site Name	11-13 St Pancras Way
Client	Unite Group Plc
Job No.	12041745-002

Start Date	21/06/2010
End Date	06/07/2010
No. Visits	4

Visit No.	Visit Date	Pressure Trend	Start mB	End mB
1	21/06/2010	Rising	1019	1020
2	24/06/2010	Rising	1015	1016
3	01/07/2010	No Change	1010	1010
4	06/07/2010	No Change	1022	1022
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	Minimum mB	Maximum mB
Barometric Pressure	1010	1022

Gas Screening Value (GSV) Calculation

	GSV Max per hole* (l/hr)	GSV using Max Values** (l/hr)	Maximum Values (% v/v)
Carbon Dioxide	0.0015	**0.0024**	2.4
Methane	0	**0.0001**	0.1
Max Flow (l/hr)	0.1		

Key	Methane Column	Carbon Dioxide Column	Depth to Water Column	Gas Flow
	n/a	n/a	Response Zone Part Flooded	n/a
	> 1% v/v	> 5% v/v	Response Zone Totally Flooded	>70 l/hr

***GSV Max Per Hole** is the maximum calculated GSV using data *specific to each borehole* over the monitoring period.

****GSV Using Max Values** is a worst case estimated of the GSV using Maxmimum Concentration and Maximum Flow for the whole data set.

CIRIA C665 - Table 8.5 (Refer to CIRIA document for full table and notes) (2007)

	Characteristic Situation (CIRIA R149)	Comparable PIT gas regime	Risk Classification	Gas Screening Value (l/hr)	Additional Factors
	1	A	Very Low Risk	<0.07	Typically methane ≤ 1% and/or carbon dioxide ≤ 5% otherwise consider increase to Characteristic Situation 2
	2	B	Low Risk	<0.7	Borehole air flow rate not to exceed 70l/hr. Otherwise consider increase to Characteristic Situation 3
	3	C	Moderate Risk	<3.5	
	4	D	Moderate to High Risk	<15	Quantitative Risk Assessment required to evaluate scope of protection measures
	5	E	High Risk	<70	
	6	F	Very High Risk	>70	

NHBC Report No. 4 - Table 14.1 (Refer to NHBC document for full table) (March 2007)

Traffic Light Classification	Methane		Carbon Dioxide	
	Typical Max Concentration (%v/v)	Gas Screening Value (l/hr)	Typical Max Concentration (%v/v)	Gas Screening Value (l/hr)
Green				
Amber	1	0.13	5	0.78
Amber 2	5	0.63	10	1.6
Red	20	1.6	30	3.1

Notes:
1. The worst-case ground gas regime identified on the site, either methane or carbon dioxide, at the worst case temporal conditions that the site may be expected to encounter will be the decider as to what Traffic Light is allocated.
2. Borehole Gas Volume Flow Rate, in litres per hour is defined as Wilson and Card (1999), is the borehole flow rate multiplied by the concentrations in the air stream of the particular gas being considered;
3. The typical Maximum Concentration can be exceeded in certain circumstances should the conceptual model indicate that it is safe to do so;
4. The Gas Screening Value Threshold should not generally be exceeded without the completion fo a detailed ground gas risk assessment taking into account site-specific conditions.

Appendix G Risk Assessment Approach

RISK ASSESSMENT APPROACH

ANALYSIS PROTOCOLS

Two criteria are used for the selection of potential contaminants to test for during a ground investigation, as follows:

- Contaminants must be likely to be present on many sites affected by current or former industrial use in the United Kingdom in sufficient concentrations to cause harm. The purpose of this criterion is to exclude substances that are rarely found or are unlikely to be present in harmful concentrations; and
- Contaminants must pose a potential risk to human beings and to sensitive environmental receptors, i.e. the water environment, the ecosystem or the integrity of construction or building materials.

Only substances meeting both of the above criteria are selected for chemical analysis. Therefore, the selected substances are:

- Likely to occur on many industrial sites in sufficient concentrations to cause harm or pollution; and,
- Known or suspected to pose significant risk to humans (death, serious injury, cancer or other disease, genetic mutation, birth defects or the impairment of reproductive functions); or,
- Known or suspected to pose a significant risk in the water environment, or likely to cause other adverse impacts in the water environment, as a result of their presence on land; or,
- Known or suspected to pose a significant risk to ecosystems as a result of their presence on land; or,
- Known or suspected to have a significant effect on buildings or building materials; or,
- Known or suspected to be persistent and mobile in soils or have tendency to bio-accumulate through exposure of sensitive organisms.

The following documents are the primary sources for identifying those contaminants likely to be present:

- CLR 8 'Priority Contaminants for the Assessment of Land' (Environment Agency 2002a). This document identifies priority contaminants, selected on the basis that they are likely to be present on many current or former sites affected by industrial or waste management activity in the UK in sufficient concentrations to cause harm; and
- The Department of the Environment's Industry Profiles (DoE 1995-95) which describe specific industrial processes and the chemicals that are commonly found on industrial land.

RISK ASSESSMENT APPROACH

The approach to risk assessment with respect to risks to human health from contaminated land in the UK is set out in the publication *Model Procedures for the Management of Land Contamination (CLR11)* (Environment Agency 2004a). This sets out a tiered approach:

- Preliminary Risk Assessment (e.g. establishing potential pollutant linkages);
- Generic Quantitative Risk Assessment (GQRA) (e.g. the comparison of contaminant concentrations against Soil Guideline Values (SGV) or other Generic Assessment Criteria (GAC)); and
- Detailed Quantitative Risk Assessment (DQRA) (e.g. the comparison of contaminant concentrations against site specific assessment criteria).

USE OF STATISTICAL TESTS IN DATA INTERPRETATION

A statistical basis for the assessment of the analytical results obtained is detailed within CL:AIRE / CIEH (2008). The premise is to review an entire data set in an appropriate way in comparison to GAC, with the approach differentiated for datasets where random or targeted sampling has been undertaken and where a site is being considered in a planning or Part 2A context.

GENERIC QUANTITATIVE RISK ASSESSMENT – HUMAN HEALTH

In order to undertake a GQRA, contaminant concentrations need to be compared to appropriate GAC. Current UK industry practice is to use, as first preference, UK SGVs published by the Environment Agency and derived using the Contaminated Land Exposure Assessment model (CLEA).

The CLEA model provides an approach for the assessment of chronic risks to human health from concentrations of a substance within soil; where appropriate.

The current version of the model (V1.04) was published in January 2009 and, following its publication, a number of SGVs have also been produced. However, the SGVs published to date are only for a limited number of contaminants. Where published SGV do not exist, other GAC values have been utilised in accordance with the following hierarchy:

- GAC prepared in accordance with the CLEA V1.04 model by authoritative bodies (e.g. Chartered Institute of Environmental Health (CIEH), Environment Industries Commission (EIC)); or in their absence,
- WSP in-house GAC prepared in accordance with the CLEA V1.04 model and associated documents;
- The approach utilised by WSP in the preparation of GAC is detailed in the following sections.

WSP APPROACH

The approach adopted by WSP has been to generate GAC for chronic risks to human health using CLEA V1.04. In generating GAC, input parameters consistent with the recent Environment Agency publications have been adopted:

- Environment Agency (2009a), Human Health Toxicological Assessment of Contaminants in Soil, Report SC050021/SR2, January 2009;
- Environment Agency (2009b), CLEA Software (Version 1.04) Handbook (and Software), Report SC050021/SR4, January 2009; and
- Environment Agency (2009c), Updated Technical Background to the CLEA Model, Report SC050021/SR3, January 2009;

SUBSTANCE SPECIFIC INFORMATION – HEALTH CRITERIA VALUES

Toxicological data for respective contaminants has been chosen for use based on the guidance in Environment Agency (2009a). Where UK guidance is available (i.e. existing published TOX reports (Environment Agency 2002l-t) the HCV have been adopted. Where no TOX report is available the following approaches has been used (given in order of preference);

- Published toxicity reviews to derive HCV within Nathanial et. al, 2006;
- Other appropriate UK sources;
- Authoritative European sources;
- International Organisations (e.g. World Health Organisation); or
- Appropriate, authoritative US sources (e.g. USEPA).

SUBSTANCE SPECIFIC INFORMATION – PHYSICO CHEMICAL CHARACTERISTICS

Fate and transport characteristics for the contaminants for which GAC have been derived were chosen using the following hierarchy of data sources;

- Environment Agency (2008a), Compilation of Data for Priority Organic Pollutants, Report SC050021/SR7, November 2008;
- Defra/Environment Agency sources (e.g. Environment Agency, Review of the Fate and Transport of Selected Contaminants in the Soil Environment, Draft Technical Report P5- 079/TR1 (Environment Agency 2003a));
- Other UK Government documents;
- European data sources; (e.g. RIVM Report 711701 023 Technical evaluation of the Intervention Values for Soil/sediment and Groundwater, (RIVM 2001);
- International data sources; (e.g. World Health Organisation); or

- Other national sources (e.g. USEPA).
- Where appropriate, source values have been adjusted to reflect a UK soil temperature of 10ºC (e.g. Kaw).

MODEL SETTINGS

In the generation of GAC, default settings have been used for the following exposure scenarios:

- Residential with Plant Uptake;
- Residential without Plant Uptake;
- Allotments; and
- Commercial/Industrial.

The default soil type is set as Sandy Loam with the default pH of 7; Soil Organic Matter of 1%, 3% and 6% have been considered.

SOIL SATURATION

With the exception of petroleum hydrocarbon fractions, GAC have been limited to the calculated soil saturation limit for organic species; this is in accordance with the approach taken by the Environment Agency in the production of SGV. Petroleum hydrocarbon fractions are, where appropriate, addressed based on Hazard Index and so have not been limited to soil saturation.

CYANIDES

The primary risk to human receptors from free cyanide in soils is an acute risk (i.e. a single dose could have a lethal affect as opposed to adverse affects from cumulative intake (chronic affect)).

There is no current UK guidance available for calculating acute risks from free cyanide, therefore the (officially withdrawn) SNIFFER 2000 methodology has been used to derive an acute GAC of 60 mg/kg for all exposure scenarios. The value is given for Free or Easily Liberatable Cyanide but should be used to assess Total Cyanide in the absence of cyanide speciation. In cases where the Total Cyanide exceeds the GAC then analysis from Free or Easily Liberatable Cyanide should be completed.

APPLICATION OF GAC FOR HUMAN HEALTH

In the application of GAC (and SGV) to a site the user recognises the limitations of CLEA model. Specifically these relate to the absence of certain pollutant considerations such as risks to services, of fire and explosion, aesthetics, institutional perception, groundwater, surface waters, ecotoxicological risk and risks to buildings (amongst others).

The GAC specifically do not meet the requirements of legal definition of 'significant possibility of significant harm' but provide a benchmark below which concentrations of contaminants are not considered to warrant further consideration in the context of the land use scenario.

GROUNDWATER TO INDOOR AIR (HUMAN HEALTH)

The CLEA model does not explicitly consider the potential for chronic impact to Human Health from indoor inhalation of concentrations of volatile vapours from dissolved phase contamination. The potential exists for this to be an important exposure route for a limited number of highly volatile contaminants. GAC have been calculated for volatile contaminants for volatilisation from groundwater using RISC 4. It should be noted that the Risc 4 approach does not include advection into buildings and an alternative approach may be required where this is a significant effect.

Exposure factors required for the model have been derived using the information contained within current Environment Agency Guidance (2009a, b). Where ranges of values are provided for input parameters in the Environment Agency guidance, an appropriate conservative single value has been chosen for input into the RISC 4 model. The following table details the receptor exposure factors used in the RISC 4 model to generate the GAC.

Receptor exposure factors

Residential Receptor	unit	Residential	Source	Commercial	Source
Lifetime	yr	6	Environment Agency 2009a, Section 3.23	49	Environment Agency 2009a, Section 3.4.1
Body weight	kg	14.2	Environment Agency 2009b Table 3.2 average over age 0-6 considering child age 0-1 has 0.5yr exposure	70	Environment Agency 2009b Section 4.1
Exposure frequency for indoor air	no/yr	365	Environment Agency 2009a, Table 3.1	230	Environment Agency 2009a, Table 3.9
Exposure duration for indoor air	yr	6	Environment Agency 2009a, Section 3.2.3	49	Environment Agency 2009a, Section 3.4.1
Lung retention factor	fraction	1	Conservative assumption	1	Conservative assumption
Inhalation rate indoors	m^3/hr	0.5	Environment Agency 2009a, calculated average from Table 4.14	0.56	Environment Agency 2009a, calculated average from Table 4.14
Time indoors	hr/day	21.7	Environment Agency 2009a, Table 3.2	8.3	Environment Agency 2009a Box 3.6
Bioavailability for all contaminants	%	100%	Default conservative assumption	100%	Default conservative assumption

Default building parameters have been utilised in the generation of the groundwater GAC values as presented in the following table.

Building Parameters

Building Parameters	Unit	Two Storey Small Terraced House	Source	Pre-1970, 3 Storey Office	Source
Cross sectional area of building	m^2	28	Environment Agency 2009a, Table 3.3	424	Environment Agency 2009a, Table 3.10
Volume of building	m^3	134.4	Environment Agency 2009a, Table 3.3	4070.4	Environment Agency 2009a, Table 3.10
Number of air exchanges per day	no.	12	Environment Agency 2009a, Table 3.3	24	Environment Agency 2009a, Table 3.10
Thickness of basement or foundation walls	m	0.15	Environment Agency 2009a, Table 3.3	0.15	Environment Agency 2009a, Table 3.10
Fraction of the foundation that are cracks		0.001429	Calculated based on Environment Agency 2009a, floor crack area as a fraction of total floor area	0.000389	Calculated based on Environment Agency 2009a, floor crack area as a fraction of total floor area
Porosity of foundation cracks		1	Assumes crack fraction is entirely available for vapour ingress	1	Assumes crack fraction is entirely available for vapour ingress
Water content in foundation cracks		0	Conservative Assumption	0	Conservative Assumption

In the absence of UK guidelines, the exposure scenario adopted has considered a groundwater source 0.5m below the base of the building as a conservative approach representing an example of a very shallow aquifer and corresponding with the depth of a soil source as adopted in the generic scenario in the CLEA model. The appropriateness of this assumption should be assessed on a site by site basis considering the conceptual model for the site. The groundwater model parameters are presented in the following table.

Groundwater Scenario

Groundwater Parameters	units	value	Source
Distance to Building Foundation from Groundwater	m	0.50	Environment Agency 2009a p51.
Total porosity in source zone	cm^3/cm^3	0.53	Environment Agency 2009a, Table 4.4 (Sandy Loam)
Water content in source zone	cm^3/cm^3	0.33	Environment Agency 2009a, Table 4.4 (Sandy Loam)
Thickness of the Capillary Fringe	cm	10	Estimate
Air content in the Capillary fringe	cm^3/cm	0.01	Estimate

For many contaminants, no risk is calculated at concentrations below the pure phase solubility of the contaminant. Caution should be applied when Non-Aqueous Phase Liquids (NAPL) are likely to be present, either where these have been detected during monitoring or where the concentration of a component in a mixture exceeds 10% of its calculated effective solubility. In such cases a separate assessment of the generation of volatile vapours from NAPL via modelling or a soil vapour survey may be required.

It is important to note that the values are only applicable to Human Health and cannot be used to determine the potential risks to Controlled Waters.

GENERIC QUANTITATIVE RISK ASSESSMENT - CONTROLLED WATERS

CONTROL OF RESIDUAL CONTAMINATION

Part 2A of the Environmental Protection Act 1990 introduced the regime for the identification and remediation of contaminated land. Land may be classified as contaminated land under the regime by virtue of actual or likely pollution of Controlled Waters caused by substances in, on or under the land. The Environment Agency is a statutory consultee in relation to controlled waters issues. In situations where there is no existing pollutant linkage, Section 161 of the Water Resources Act 1991 (as amended 2003) and the Anti-Pollution Works Regulations 1999 can be used to address contamination which could represent a potential risk.

CONTROL OF CONTAMINATION FROM ONGOING ACTIVITIES

The existing Groundwater Directive (80/68/EEC) aims to protect groundwater from pollution by controlling discharges and disposals of certain dangerous substances to groundwater. In the UK, the directive is implemented through the Groundwater Regulations 1998. Groundwater pollution is prevented under these Regulations by preventing or limiting the inputs of listed substances into groundwater. Substances controlled under the Regulations fall into two lists:

List 1	List 2
organohalogen compounds and substances which may form such compounds in the aquatic environment; organophosphorus compounds; organotin compounds; substances which possess carcinogenic, mutagenic or teratogenic properties in or via the aquatic environment (including substances which have those properties which would otherwise be in list 2); mercury and its compounds; cadmium and its compounds; mineral oils and hydrocarbons; and cyanides.	the following metals and metalloids and their compounds; Zinc, Copper, Nickel, Chromium, Lead, Selenium, Arsenic, Antimony, Molybdenum, Titanium, Tin, Barium, Beryllium, Boron, Uranium, Vanadium, Cobalt, Thallium, Tellurium, Silver; biocides and their derivatives not appearing in List 1; substances which have a deleterious effect on the taste or odour of groundwater and compounds liable to cause the formation of such substances in such water and to render it unfit for human consumption; toxic or persistent organic compounds of silicon and substances which may cause the formation of such compounds in water, excluding those which are biologically harmless or are rapidly converted in water into harmless substances; inorganic compounds of phosphorus and elemental phosphorus; fluorides; and ammonia and nitrites.

- List 1 substances are the most toxic and must be prevented from entering groundwater. Substances in this list may be disposed of to the ground, under a permit, but must not reach groundwater; and
- List 2 substances are less dangerous, and can be discharged to groundwater under a permit, but must not cause pollution.

Listed dangerous substances have assessment criteria in the form of Environmental Quality Standards (EQS). The dangerous substance is not believed to be detrimental to aquatic life at a concentration below its EQS limit.

The existing Groundwater Directive is to be repealed by the Water Framework Directive in 2013. New or amended regulations are expected before then to enact both the Water Framework Directive and its Daughter Directive on the

protection of groundwater. This new Groundwater Directive (2006/118/EC) is commonly referred to as the Groundwater Daughter Directive.

In the meantime, the existing principle of preventing or limiting the inputs of List 1 or List 2 substances respectively into groundwater under the original Groundwater Regulations 1998 remains, but will be expanded to encompass any substance liable to cause pollution. In addition, the Water Framework Directive provides a risk-based framework for regulation.

WATER FRAMEWORK DIRECTIVE

The Water Framework Directive (WFD) 2000/60/EC came into force on in December 2000 and its transition into UK legislation began in 2003. The directive aims to reduce pollution, prevent deterioration and improve the health of aquatic ecosystems through achieving good status for all water bodies. Good status is considered to be a function of concentrations of pollutants which:

- Do not exceed the quality standards under relevant European Community legislation;
- Would not result in a failure of associated surface water bodies to achieve environmental objectives;
- Would not result in a significant diminution of the ecological or chemical quality of associated surface water bodies;
- Would not result in any significant damage to groundwater dependent terrestrial ecosystems; and
- Do not exhibit the effects of saline or other intrusions.
- In addition, the Water Framework Directive sets further objectives, these include:
- A requirement for measures to be implemented to prevent or limit input of pollutants to groundwater;
- A requirement for measures to be implemented to reverse and significant and sustained upward trends; and
- Groundwater bodies to be protected such that their quality does not deteriorate to the point where additional treatment is required for drinking water supplies.

River Basin Management Plans required as part of the WFD have been published in draft and are to be finalised by December 2009. A consultation document on the classification of water bodies has been issued by Defra (http://www.defra.gov.uk/corporate/consult/wfd-classification-direction/index.htm) which sets out Groundwater and Surface Water Threshold Values, for river basins in England and Wales.

ASSESSMENT APPROACH

At the GQRA level, assessment typically comprises the following:

- Consideration of soil concentrations of organic substances in the context of soil saturation to determine the potential for migration under gravity;
- Comparison of soil leachate concentrations against appropriate GAC; and
- Comparison of groundwater concentrations against appropriate GAC.
- This approach is equivalent to Tier 1 / Level 1 Assessment as undertaken using ConSim (2003) / Environment Agency Remedial Targets Methodology V3.1 (2006).

The ideal remediation standard from the regulatory perspective is natural background quality, namely, there should be no significant deterioration in the water quality at the receptor (that is, it should not be detectable against natural background variations). This data may be obtained from up hydraulic gradient locations or regional datasets. The Environment Agency has published information on the baseline condition of several aquifers, it is recognised, however, that such data is rarely available and remediation to such a standard is often not technically achievable or cost effective. For this reason target concentrations utilised as GAC may be based on water quality standards that are appropriate for the intended use or to ensure that objectives for a groundwater or associated water body are met. In England and Wales, the standards selected (as appropriate) include the following:

- The Water Supply (Water Quality) Regulations: 2001 (WSR);
- Environmental Quality Standards, Dangerous Substances Directive (EQS) prepared for List 1 and 2 substances under the existing Groundwater Directive (80/68/EEC);

- The Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996 (SWR);
- The Private Water Supplies Regulations 1991;
- European Drinking Water Standards, (Council Directive 98/83/EC);
- World Health Organisation, Guidelines for Drinking Water Quality, First Addendum to the Third Edition, Volume 1 2006; and
- United States Environmental Protection Agency (USEPA) Region Three, Six and Nine Human Health Medium Specific Risk Based Screening Levels for soils and tap water with dermal exposure routes, which have been derived using human health exposure models consistent with the ASTM Risk Based Corrective Action, approach (ASTM, E1739-95, 1995).
- Priority is given to UK standards, however, where data is not available for a specific substance, additional standards such as those published by the WHO or USEPA are used.

ECOLOGICAL RISK ASSESSMENT

Where a statutory ecological receptor is identified on, or in proximity to the site, an assessment in accordance with current Environment Agency Ecological Risk Assessment (ERA) Framework will be undertaken. The frameworks is currently in development (http://www.environment-agency.gov.uk/research/planning/40375.aspx)

EXCEEDANCES

Where a GAC is exceeded further work and/or remediation is normally required. For moderate exceedances further work may include progression to a Detailed Quantitative Risk Assessment (DQRA) which is likely to require further data collection. The outcome of the DQRA may be that the risk is not significant or, if the risk is identified as being significant, the generation of site-specific remedial targets.

Where significant exceedances of GAC are identified remedial measures may be require immediately.

The simplest remediation method that is generally accepted for contamination that has been identified to pose a potential risk to humans, but not to other receptors, is to provide a barrier between occupiers / users of a site and the identified contamination. This barrier normally comprises a 'clean' covering horizon of soil. This remediation method is only suitable for contaminants that are of low volatility.

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Appendix H Limitations and Exceptions

Notes on Limitations

For

Geo-Environmental and Geotechnical Consultancy Services

General

WSP Environmental Limited has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from WSP Environmental Limited; a charge may be levied against such approval.

WSP Environmental Limited accepts no responsibility or liability for:

a) the consequences of this document being used for any purpose or project other than for which it was commissioned, and

b) this document to any third party with whom an agreement has not been executed.

Phase I Environmental Audits

The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources (including the Client), together with (where appropriate) a brief walk over inspection of the site and meetings and discussions with relevant authorities and other interested parties. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, WSP Environmental Limited reserves the right to review such information and, if warranted, to modify the opinions accordingly.

It should be noted that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

Phase II Environmental Audits

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, and ground and groundwater conditions to allow a reasonable risk assessment to be made. The objectives of the investigation have been limited to establishing the risks associated with potential human targets, building materials, the environment (including adjacent land), and to surface and groundwater.

The amount of exploratory work and chemical testing undertaken has necessarily been restricted by the short timescale available, and the locations of exploratory holes have been restricted to the areas unoccupied by the building(s) on the site and by buried services. A more comprehensive investigation may be required if the site is to be redeveloped as, in addition to risk assessment, a number of important engineering and environmental issues may need to be resolved.

For these reasons if costs have been included in relation to site remediation these must be considered as tentative only and must, in any event, be confirmed by a qualified quantity surveyor.

The exploratory holes undertaken, which investigate only a small volume of the ground in relation to the size of the site, can only provide a general indication of site conditions. The number of sampling points and the methods of sampling and testing do not preclude the existence of localised "hotspots" of contamination where concentrations may be significantly higher than those actually encountered.

The risk assessment and opinions provided, inter alia, take in to consideration currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.

Geo-environmental Investigations

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, geotechnical characteristics, and ground and groundwater conditions to provide a reasonable assessment of the environmental risks together with engineering and development implications.

If costs have been included in relation to site remediation these must be confirmed by a qualified quantity surveyor.

The exploratory holes undertaken, which investigate only a small volume of the ground in relation to the size of the site, can only provide a general indication of site conditions. The opinions provided and recommendations given in this report are based on the ground conditions apparent at the site of each of the exploratory holes. There may be exceptional ground conditions elsewhere on the site which have not been disclosed by this investigation and which have therefore not been taken into account in this report.

The comments made on groundwater conditions are based on observations made at the time that site work was carried out. It should be noted that groundwater levels will vary owing to seasonal, tidal and weather related effects.

The scope of the investigation was selected on the basis of the specific development proposed by the Client and may be inappropriate to another form of development or scheme.

The risk assessment and opinions provided, inter alia, take in to consideration currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.