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ADDITIONAL SITE INVESTIGATION REPORT

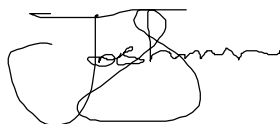
**Trade Park - Phase II
Solent Road, Havant, Hampshire**

Report No: In12963 CL 009

October 2013

Client: Hargreaves Properties Ltd

Report Prepared By:



James Skinner

Report Reviewed By:



James Edley

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1 Introduction

1.1 The Purpose of This Assessment

During early 2013, we were commissioned by Hargreaves Properties Ltd (Hargreaves) to complete an environmental site assessment at the site of former Units 8 – 10, Solent Road Industrial Estate in Havant. Hargreaves has purchased the freehold of this site and proposes to redevelop for future commercial use as Phase II of a new Havant Trade Park development.

Outline planning permission for the Phase II redevelopment has been granted by Havant Borough Council (Planning application ref. APP/12/00491). The outline planning permission contained conditions relating to potential contamination issues at the site (Condition 4, 5 and 6) and sets out a number of requirements; summarised as follows:

- Condition 4 – No development shall take place until a remediation strategy that includes the following components to deal with risks associated with contamination of the site is submitted and approved by the local planning authority:
 - 4.1 – Completion of a Preliminary Risk Assessment that identifies all previous uses, potential contaminants associated with those uses, conceptual site model and potential unacceptable risks arising from contamination at the site.
 - 4.2 – Completion of site investigation to provide information for a detailed risk assessment for the site.
 - 4.3 – Completion of a remedial options appraisal and remediation strategy for the site, based on the results of the site investigation and risk assessment.
 - 4.4 – Completion of a verification plan showing details of data that will be obtained to demonstrate the remedial works are complete and setting out any long-term monitoring requirements.
- Condition 5 – No occupation of the proposed development shall take place until a verification report demonstrating completion of remediation works at the site, should it be required, has been submitted and approved by the local planning authority. This shall also set out any long term monitoring requirements for the site.
- Condition 6 – If, during the development, contamination not previously identified is found to be present and no further development shall be carried out until a remediation strategy has been submitted to address the unforeseen contamination and approved by the local planning authority.

Our initial site investigation works identified isolated hydrocarbon impact of underlying soil and groundwater in a single location, close to the former fuel tanks. Monitoring data indicated that extensive lateral migration of hydrocarbons has not occurred and no receptors were likely to be at any risk of impact. No other contamination issues were identified.

At the time of our initial investigation, however, the majority of the former Unit 10 building was still occupied by tenants and we were not able to access and investigate the eastern most end of the site. All tenants have now vacated the site and Unit 10 was demolished during September 2013, allowing us full access to complete our investigation works. The purpose of the additional investigation, as detailed in this report, was therefore to verify ground conditions under the eastern end of the site, following the demolition of the remaining buildings.

Our initial assessment and these additional works are designed to address the requirements of Planning Condition 4 and, in the event that no other contamination issues are identified, Condition 5.

All the activities comprising this assessment were carried out in accordance with the procedures set out in our Quality Manual. Your attention is drawn to the Notice to Interested Parties included as Attachment One.

1.2 The Scope of This Assessment

Our assessment of the site was carried out in the following parts:

- Construction of three trial pits across the eastern end of the site, following the demolition of the remainder of Unit 10 and removal of the former building floor slabs and foundations.
- Chemical analysis of representative soil samples collected from these trial pits for various potential contaminants, based on our understanding of the sites previous uses;
- Provision of this report detailing the additional investigation findings and revised conclusions regarding the overall condition of the site.
- Provision of recommendations relating to the presence of potential contaminants identified during our investigation;

1.3 Previous Reports Relating to the Site

As part of our environmental assessment we have reviewed the following investigation.

- Ref 1 - Environmental Investigation Report, Trade Park – Phase II, Solent Road, Havant, February 2013 – Completed by Subadra on behalf of Hargreaves Properties Ltd, (Our report ref. In12963 CL 002).

This report should be read in conjunction with the above document. We have used information from this document, where relevant, in the various sections of this report.

2 Summary of Previous Investigation Works (Ref 1)

Our initial site investigation works included a total of nine boreholes constructed across the Phase II development area during February 2013. We installed five of these boreholes as groundwater monitoring wells and obtained a groundwater sample from a sixth location as part of our investigation work.

The underlying shallow geology was found to be highly variable, with significant variance in the composition and thickness of the various units encountered and also high variations in the strength of the shallow clay soils (Alluvium or Head Deposits) noted. Chalk was encountered in three of the boreholes constructed at varying depths. Groundwater was encountered at shallow depth in the underlying drift deposits. We calculated a groundwater flow direction under the site to the west / north west.

We identified concentrations of total petroleum hydrocarbons, generally consistent with diesel or fuel oils in shallow soil and groundwater collected from BH12, located behind the former Unit 9 building in an area historically used for vehicle storage and close to above ground gas oil tanks. No other significant contamination was encountered in any of the soil or groundwater samples analysed.

The results of our Generic Quantitative Risk Assessment indicated that the concentrations of various organic and inorganic compounds identified during our investigation do not pose a potentially unacceptable risk to future commercial site workers.

With regard to environmental receptors, and specifically the underlying shallow River Gravel Deposits aquifer and nearby Brockhampton Stream, our Generic Quantitative Risk Assessment indicated that the concentrations of hydrocarbon compounds encountered in groundwater from BH12 exceed relevant generic acceptance criteria.

The hydrocarbons we identified in soil and groundwater from BH12 were consistent with diesel or fuel oils. Based on the information we have reviewed regarding the site, the most likely source of these hydrocarbons comprised the former above ground fuel tanks or from waste storage or vehicle repair works being undertaken in this area of hard standing behind Unit 9.

No hydrocarbon impact was identified in either soil or groundwater samples taken from BH10, located immediately to the west of the former tank area. No detectable hydrocarbons were detected in groundwater samples taken from any other wells at the site, including the hydraulically down gradient wells BH15, BH16 and BH4. We therefore concluded the identified contamination to be limited in extent, with no evidence to suggest extensive lateral migration of hydrocarbons had occurred.

We recommended that further inspection and verification sampling of the remaining site area where access was not possible be completed when the existing buildings are demolished and the hard standing removed. Any hydrocarbon impacted soil encountered in the vicinity of BH12 should be excavated and removed from the site to reduce any residual contaminant mass and reduce any potential long term risk posed to the underlying aquifer.

3 Results of the Additional Investigation

3.1 Additional Trial Pitting Investigation – October 2013

3.1.1 Description of Works Completed

We undertook additional delineation investigation works at the site on 10th October 2013, following the demolition of the remaining buildings at the site and removal of the majority of floor slabs and foundation structures.

We constructed four trial pits across the eastern areas of the Phase II site in order to assess underlying soil condition in areas where access was not previously available and also to further investigate the corner of former Unit 9, immediately up-gradient of BH12 (where the isolated hydrocarbon impact had been encountered previously).

Representative soil samples were recovered from each trial pit and logged onsite by a suitably qualified technician. Sub-samples were preserved in glass jars and stored in cool boxes during transportation to the laboratory for subsequent analysis.

3.1.2 Trial Pit Locations and Rationale

Our rationale for the various trial pit locations is summarised as follows:

- TP1 – Hydraulically up-gradient of BH12 and immediately adjacent to a former fuel tank installation inside the former Unit 9 building. Designed to investigate potential source of contamination identified in BH12 during the earlier investigation works.
- TP2 – South eastern corner of the Phase II site area, in a location previously occupied by buildings.
- TP3 – North eastern corner of the Phase II site area, in a location previously occupied by buildings.
- TP4 - North eastern corner of the Phase II site area, in a location previously occupied by buildings.

A site plan showing the original borehole and additional trial pit locations is provided as Figure One, shown overleaf.

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Proposed Retail Trade Park - Phase II
Solent Road, Havant
PO9 1JH

DATE November 2013

SUBADRA ARCHIVE NO IN12963 DR 012

DRAWING BY JS CHECKED BY JE

KEY

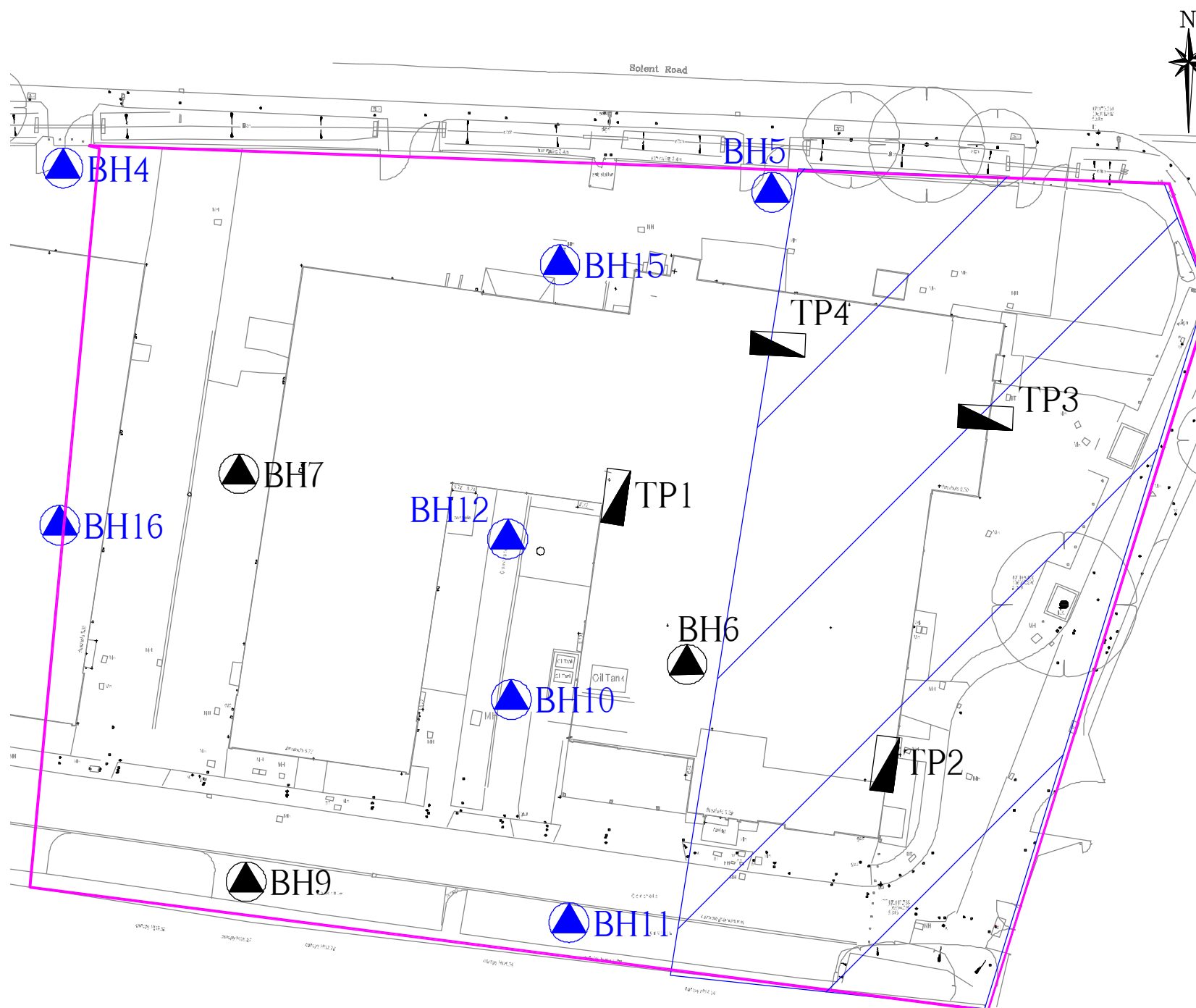
 AREA OF SITE NOT INVESTIGATED DURING JAN 2013

 PHASE II DEVELOPMENT AREA

 TP1 TRIAL PIT LOCATION - NOV 2013

 BH1 GROUNDWATER WELL - JAN 2013

 BH1 BOREHOLE - JAN 2013



BOREHOLE AND TRIAL
PIT LOCATION PLAN

FIGURE ONE

Additional Site Investigation Report – Trade Park - Phase II, Solent Road, Havant

3.1.3 Trial Pit 1

Location	Item	Description / Comment
Trial Pit 1	Location	Hydraulically up-gradient of BH12 and immediately adjacent to a former fuel tank installation inside the former Unit 9 / 10 building. Designed to investigate potential source of contamination identified in BH12 during the earlier investigation works
	Geology	0.0 – 0.7m - Made Ground – Soft to firm brown or beige brown clay with brick and concrete rubble, chalk fragments and flint. 0.7 – 1.5m - Alluvium – Soft to firm brown grey sandy clay with frequent flint gravel. 1.5 - >2.3m - Alluvium / River Terrace Deposits – loose to medium dense light creamy grey chalky very clayey flint gravel or flint gravely clay.
	Groundwater	Groundwater ingress from gravely soils at around 2.0m depths.
	Observed Contamination	None. No odours or hydrocarbon sheen noted.
		
Photograph One – TP1. Shallow Made Ground and Alluvium		Photograph Two – TP1. Flint gravelly River Terrace Deposits (?) at ~1.7m.

Additional Site Investigation Report – Trade Park - Phase II, Solent Road, Havant

3.1.4 Trial Pit 2

Location	Item	Description / Comment
Trial Pit 2	Location	South eastern corner of the Phase II site area, in a location previously by buildings (Unit 10)
	Geology	0.0 – 0.5m - Made Ground – Soft to firm brown or beige brown clay with brick and concrete rubble, chalk fragments and flint. 0.5 – 1.5m - Alluvium – Soft to firm brown and grey mottled slightly sandy clay with occasional flint gravel. 1.5 – 2.0m - Alluvium – Soft to firm grey sandy clay with occasional flint gravel. 2.0 - >2.5m - River Terrace Deposits – Loose to medium dense light creamy grey chalky very clayey flint gravel.
	Groundwater	Groundwater ingress from underlying gravely soils at around 2.0m depths.
	Observed Contamination	None noted. No odours or sheens on accumulated groundwater.
		
Photograph Three – TP2. Water ingress noted in the underlying River Terrace Deposits.		Photograph Four –General view of the south eastern corner of the site.

Additional Site Investigation Report – Trade Park - Phase II, Solent Road, Havant

3.1.5 Trial Pit 3

Location	Item	Description / Comment
Trial Pit 3	Location	North eastern corner of the Phase II site area, in a location previously occupied by buildings (Unit 10 / 10a).
	Geology	0.0 – 0.8m - Made Ground – Loose brown or beige brown very sandy clayey gravel with brick and concrete rubble, chalk fragments and flint. 0.8 – 2.0m – Alluvium? – Loose light brown or creamy brown grey chalky very clayey flint gravel. 2.0 – >2.5m - Alluvium – Firm light grey or beige slightly sandy clay with occasional flint gravel.
	Groundwater	Slight water ingress from the shallow gravelly soils at around 1.5 – 2.0m. Perched water? Side walls wet and unstable.
	Observed Contamination	None noted.
		
Photograph Five – TP3. Excavating shallow Made Ground		Photograph Six – Looking northeast across the location of TP3

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3.1.6 Trial Pit 4

Location	Item	Description / Comment
Trial Pit 4	Location	North eastern corner of the Phase II site area, in a location previously occupied by buildings (Unit 10).
	Geology	0.0 – 0.7m - Made Ground – Loose brown or beige brown very sandy clayey gravel with brick and concrete rubble, chalk fragments and flint. 0.7 – 2.0m – Alluvium? – Loose light brown or creamy brown grey chalky very clayey or chalky flint gravel. 2.0 – >2.5m - Alluvium – Firm light grey or beige slightly sandy clay with occasional flint gravel and chalk fragments
	Groundwater	No defined water ingress noted. Side walls in the shallow gravel Alluvium generally unstable.
	Observed Contamination	None noted.
		
Photograph Seven – TP4. Underlying grey alluvial soils exposed.		Photograph Eight – Looking north / northwest across the location of TP4.

3.2 Chemical Analysis Rationale

Analysis	Rationale	No. of samples (soil)
Total petroleum hydrocarbons (TPH) reported by carbon range –	Representative of compounds present in petrol, diesel and lube oils;	7
Benzene, toluene, ethylbenzene and xylenes (BTEX) and volatile TPH fractions	Representative of compounds present in petrol;	3
Polycyclic aromatic hydrocarbons	Representative of compounds present in diesel and lube oil	3
Inorganic contaminants suite (including heavy metals).	Typical of compounds found in fill material	3
The results of our analysis are summarised in the tables below. Certificates for all chemical analysis are included in Attachment Three.		

Table One: Schedule of Analysis – Soil Samples

3.3 Soil Analysis

Sampling Location	Depth (m)	Total Petroleum Hydrocarbons - Concentration (mg/kg)				
		>C ₈ -C ₁₀	>C ₁₀ -C ₁₂	>C ₁₂ -C ₁₆	>C ₁₆ -C ₂₁	>C ₂₁ -C ₃₅
TP1	0.8	<0.5	<0.5	<0.5	<0.5	<0.5
TP1	1.7	<0.5	<0.5	<0.5	<0.5	<0.5
TP2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
TP2	2.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP3	0.7	<0.5	<0.5	<0.5	<0.5	<0.5
TP3	2.3	<0.5	<0.5	<0.5	<0.5	<0.5
TP4	2.2	<0.5	<0.5	<0.5	<0.5	<0.5

Table Two: TPH Analysis Results – Soil

Sampling Location	Depth (m)	Concentration (mg/kg)						
		Total Petroleum Hydrocarbons			Benzene	Toluene	Ethylbenzene	Total Xylenes
		C ₆ -C ₈	>C ₈ -C ₁₀	>C ₁₀ -C ₁₂				
TP2	2.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2
TP3	2.3	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2
TP4	2.2	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2

Table Three: BTEX and Volatile TPH Bands Analysis Results – Soil

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Sampling Location	Depth (m)	Polycyclic Aromatic Hydrocarbon Concentration (mg/kg)*		
		Naphthalene	Benzo(a)pyrene	Total PAHs
TP2	0.6	<0.1	<0.1	<1.6
TP3	0.7	<0.1	<0.1	<1.6
TP4	0.6	<0.1	<0.1	<1.6

Note: * - See analysis certificate for full EPA16 speciated PAH data.

Table Four: PAH Analysis Results – Soil

Sampling Location	Depth (m)	Inorganic Element Concentration (mg/kg)					
		Arsenic	Barium	Beryllium	Cadmium	Chromium III	Copper
TP2	0.6	4	52	0.8	<0.5	14	6
TP3	0.7	7	85	1.3	<0.5	23	15
TP4	0.6	7	91	1.3	<0.5	22	18
		Lead	Mercury	Nickel	Selenium	Vanadium	Zinc
TP2	0.6	14	<1	12	<3	21	32
TP3	0.7	19	<1	24	<3	37	45
TP4	0.6	36	<1	21	<3	34	59

Table Five: Inorganic Compounds Analysis Results – Soil Samples

4 Conclusions and Recommendations

Item	Data
Conclusions	The results of our additional trial pitting exercise indicate no contamination of underlying soils across the eastern areas of the site that we were not able to investigate during our earlier site assessment works. We also noted no visual or olfactory evidence of hydrocarbon contamination on underlying groundwater. We have confirmed that no significant hydrocarbon contamination is present in the location immediately up-gradient of BH12, where we had previously identified hydrocarbons in underlying groundwater. We have also not encountered any historical fuel infrastructure such as below ground tanks. We do not, therefore, consider there to be an ongoing source of contamination present at the site. On the basis of our additional trial pitting works, we consider the conclusions of our initial investigation remain valid. As no lateral migration of contaminants appears to have occurred, and as no significant source of contamination has been identified, we do not consider the limited residual hydrocarbon impact we have identified to pose a potential long-term risk to the Brockhampton Stream or nearby groundwater abstractions to the north and west.
Recommendations	Based upon the results of our various site investigation works, we do not consider further assessment and/or remedial works to be required for the Phase II development site. We would continue to recommend that we be notified in the event of any contamination of shallow soils or historical fuel infrastructure being encountered during the proposed redevelopment. In this event, we recommend additional soil sampling to characterise any remaining contamination and allow decisions to be made regarding any additional works that should be undertaken.
Your attention is drawn to the Notice to Interested Parties included as Attachment One.	

Table Six: Conclusions and Recommendations

ATTACHMENT ONE: NOTICE TO INTERESTED PARTIES

NOTICE TO INTERESTED PARTIES

The purpose of our site assessment is to provide general information on the environmental and/or geotechnical conditions existing at the site and related to soil or groundwater. The Client or others specified the scope of the investigation and the validity of our conclusions may be limited by the scope of work specified. We are not responsible for any such limitations or omissions.

Where stated in this report, we have used information supplied by third parties. While we have evaluated as far as possible the validity of this information, we cannot guarantee its accuracy in any way whatsoever.

No investigation technique is capable of completely identifying all of the contaminants that might be present in the soil or groundwater under a site. Where specified in our report, we have examined the ground by constructing a number of boreholes and/or trial pits. We recovered samples of soil and/or groundwater from available exposures.

The depth and spacing of our sampling locations were selected to ensure with a reasonable probability that they would be representative of the actual conditions across the whole site. However, safety considerations relating to existing site infrastructure may have restricted our ability to investigate all potential contaminant sources. Specifically, we were unable to investigate the soil and groundwater condition immediately adjacent to the underground petroleum installation and other buried services. These limitations must be borne in mind when considering the conclusions reached in this report.

Soil is intrinsically variable and the spread of contaminants within the soil is therefore subject to a degree of non-uniformity. For these reasons no sampling technique can completely eliminate the possibility of obtaining samples that are not representative of the actual conditions. Our sampling techniques are intended to reduce the possibility to an acceptable level.

Groundwater levels and soil vapour levels that we report were accurate at the time of the investigation. Groundwater and soil vapour levels are variable. Long term monitoring may be required to ensure that the levels recorded during our investigation are representative of long term and possible 'worst case' conditions.

This investigation was carried out to assess the significance of contamination resulting from use of the site as identified in this report. Unless we have indicated otherwise, no assessment of the potential impact of any other previous uses has been made. No investigation was carried out to determine whether or not any deleterious or hazardous materials have been used in the construction of the buildings present on the site.

We do not accept any responsibility for the cost of remedial works or other costs incurred in whatever way whatsoever as a result of any omissions, errors or other shortcomings in this report unless we have been given reasonable opportunity to verify ourselves that such faults exist and we have been given a reasonable opportunity to carry out works to remedy such faults ourselves using the most practicable means available to us. We do not accept liability for any consequential losses incurred by you while we carry out any remedial works we deem necessary.

This report has been prepared for Hargreaves Properties Ltd. Use of, and reliance on, this report by other third parties will be at such third parties own risk, and we are unable to accept any liability or responsibility to third parties.

Neither the whole nor any part of this report, or any reference to it, may be included in any published document circular or statement or published in any way without our prior written approval.

This report and its contents, together with any supporting correspondence or other documentation, remain the property of Subadra Consulting Limited until paid for in full.

ATTACHMENT TWO: CHEMICAL ANALYSIS CERTICATES

Laboratory Analysis Report

Report Number 004528

Sampling Date 10th October 2013

Report Date 16th October 2013

Client	Site Name/Address
Hargreaves Properties Ltd Rustington House Worthing Road Rustington West Sussex BN16 3PS	Retail Trade Park

Number of Samples	Sample Type	Analysis Completed	Blind Testing	UKAS	MCERTS
7	Soil	IH QM:E9.5 based on TNRCC 1005 by GC-FID	RT Corp	Yes	No

QM E9.5: IH TPH Banded method C8 - C35 - Solvent (pentane) extraction then Liquid injection into GC-FID.
Samples were received 10-10-13
Samples were prepared and analysed 15-10-13

Analysis Report Approved By

Katherine Clark

Duty Reporting Manager



Glossary of Terms Used in This Report

Blank - A sample known to contain none of the compounds being analysed, and used to confirm that the analytical instrument is not giving false positives during analysis.

Blind Testing: Name of any blind testing scheme participated in. The laboratory's accuracy is reported as a Z score; the lower the Z score the more accurate the analysis, with a score of less than 2 considered excellent.

CRM - Certified Reference Material. A sample prepared by an accredited source and containing a known concentration of a given compound or compounds, which can be used to validate an analysis method.

Duplicate - A duplicate sample, used to give a measure of the repeatability of a given analysis.

External Calibration - External calibration samples are samples containing a known concentration of the compounds being analysed. They are added to the analysis sequence after every nth sample being analysed and provide confirmation that the instrument remains within its calibration range.

IRM - In house reference material. A sample prepared by our laboratory and containing a known concentration of a given compound or compounds, which can be used to validate an analysis method.

Linearity - The linearity of a given analytical method is the range of concentrations between which the analytical instrument's response is directly proportional to the concentration being analysed, and hence the range of concentrations that the instrument can be said to give quantitative results.

LOD - The lowest response for any given compound generated at the instrument's detector, that can be differentiated from the instrument's baseline noise.

LOQ - Limit of quantification. This is the lowest concentration that a given compound can be both detected and its concentration accurately measured in a sample.

MCERTS - An accreditation scheme created by the Environment Agency for the analysis of soil samples used to determine land quality. The scheme does not apply to analysis of soil samples used for waste classification purposes or to the analysis of water samples.

Method Calibration - The means by which an analytical method is calibrated. Usually this involves analysing a number of external calibration samples, containing different concentrations of the compounds to be analysed.

Precision - A measure of the repeatability of the analysis.

Sample - The material provided by the client to the laboratory for analysis.

Sensitivity - The smallest increment in analytical result that can be reliably quantified.

Spike - Also known as an internal calibration, a spike sample is a sample to be analysed which has a known concentration of another compound added. This provides a check on that the compounds being analysed are being correctly extracted from the sample matrix.

UKAS - The UK's implementation of ISO17025, the international standard accreditation for laboratory analysis

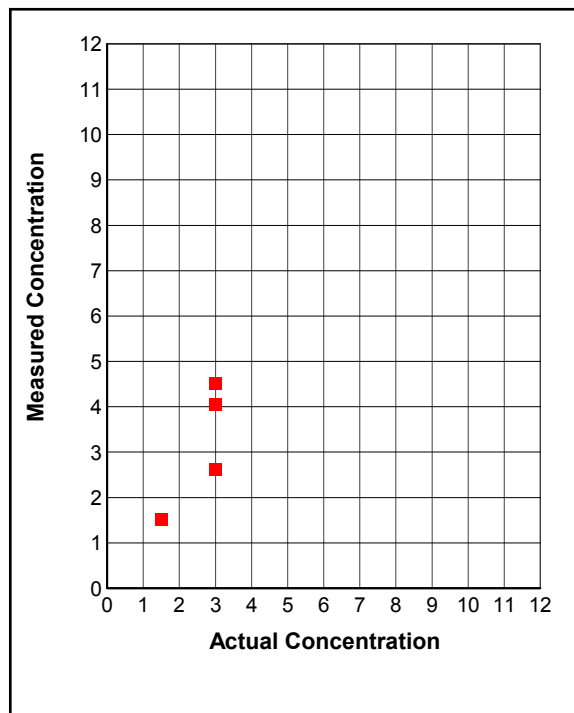
Quality Control/Quality Assurance Information

TPH Banded - Soil

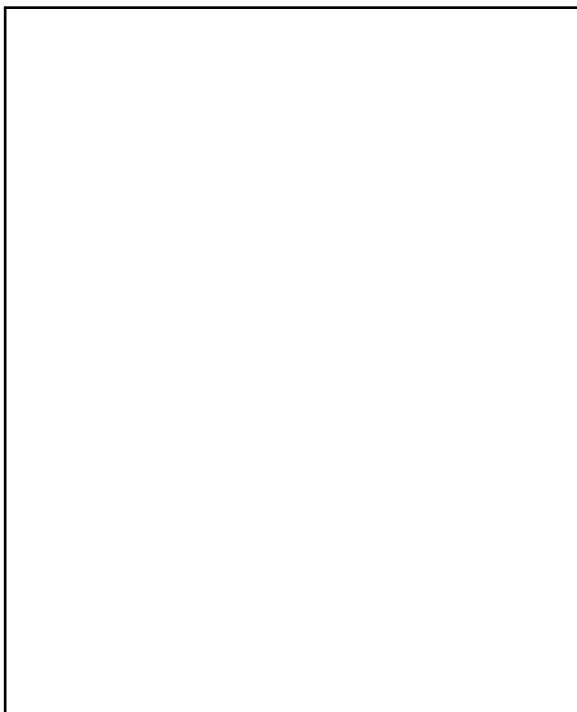
Our laboratory carries out a wide variety of verification analyses in order to ensure the validity of the analysis results we produce.

Samples are analysed in batches, usually according to the sample chain of custody form we receive. However, we also add additional samples into the sample sequence. These additional samples may include blanks, calibration samples, in-house reference material samples and duplicate samples. In addition to this, each sample is 'spiked' with a known concentration of a compound. In the case of this analysis, we use a combination of 2-fluorobiphenyl and 1-chlorooctadecane. The results of the analyses we have carried out on the additional quality assurance samples during the ten days prior to the samples reported here are shown in the accompanying graphs. Results are reported in mg/kg for the C8-C10 band.

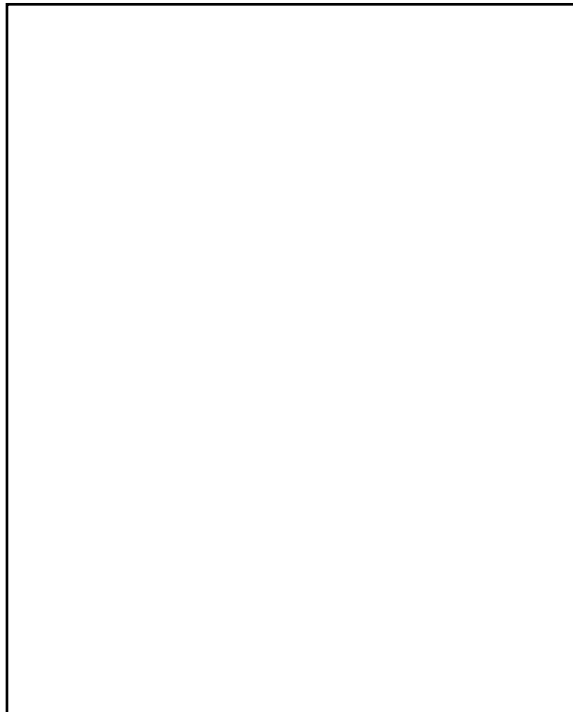
These provide a visual indication of the stability of our laboratory analysis.



Calibration Samples - Previous 10 days



Spike Samples - Previous 10 days



Reference Material - Previous 10 days

Retail Trade Park

Summary of Results

TPH Banded - Soil

Accreditation	UKAS	Blind Testing	RT Corp		
Results Reported As	Dry Weight	Last Three Z Scores	-1.18	-1.24	-0.36

Analysis Method Parameters			
Reporting Units	mg/kg	Limit of Detection	0.05mg/kg
Linearity	2,000mg/kg	Limit of Quantification	0.1mg/kg
Sensitivity	0.1mg/kg	Precision	+/-0.1mg/kg

Sample Location	Sample	Depth	Total Petroleum Hydrocarbons				
			C8-C10	>C10-C12	>C12-C16	>C16-C21	>C21-C35
TP1/1	sIn12963.008001	0.80	<0.5	<0.5	<0.5	<0.5	<0.5
TP1/2	sIn12963.008002	1.70	<0.5	<0.5	<0.5	<0.5	<0.5
TP2/1	sIn12963.008003	0.60	<0.5	<0.5	<0.5	<0.5	<0.5
TP2/3	sIn12963.008005	2.50	<0.5	<0.5	<0.5	<0.5	<0.5
TP3/1	sIn12963.008006	0.70	<0.5	<0.5	<0.5	<0.5	<0.5
TP3/3	sIn12963.008008	2.30	<0.5	<0.5	<0.5	<0.5	<0.5
TP4/3	sIn12963.008011	2.20	<0.5	<0.5	<0.5	<0.5	<0.5

Retail Trade Park

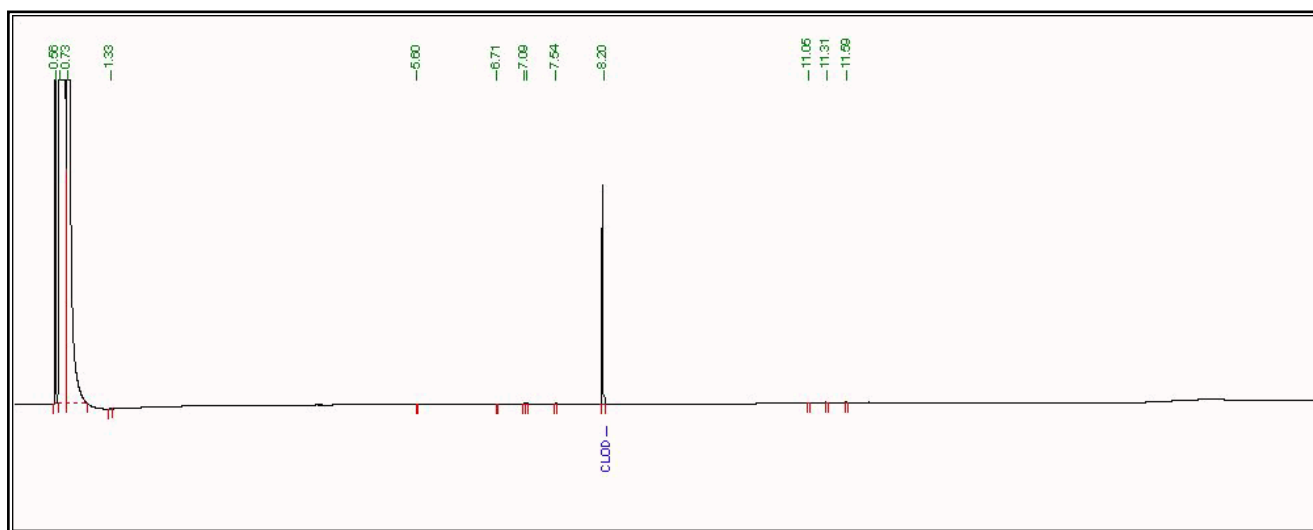
Individual Sample Results

TPH Banded - Soil

Sample Location	TP1/1	Results Reported As	Dry Weight
Sample	sln12963.008001	Reporting Units	mg/kg
Depth(m)	0.80	Date Received	14/10/2013
Chain of Custody No.	7,675	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	15/10/2013

Moisture Content			VES (ml)	ES (g)	CRF	BSV	Results				
WW (g)	DW (g)	MC (%)					C8-C10	>C10- C12	>C12-C16	>C16-C21	>C21-C35
41.92	38.75	26.57	10	10.48	0.89	0.00	<0.5	<0.5	<0.5	<0.5	<0.5

Note: WW denotes wet weight; DW denotes dry weight; MC denotes moisture content; CRF denotes calibration recovery factor; BSV denotes blank subtraction value



Gas Chromatogram for Sample

Retail Trade Park

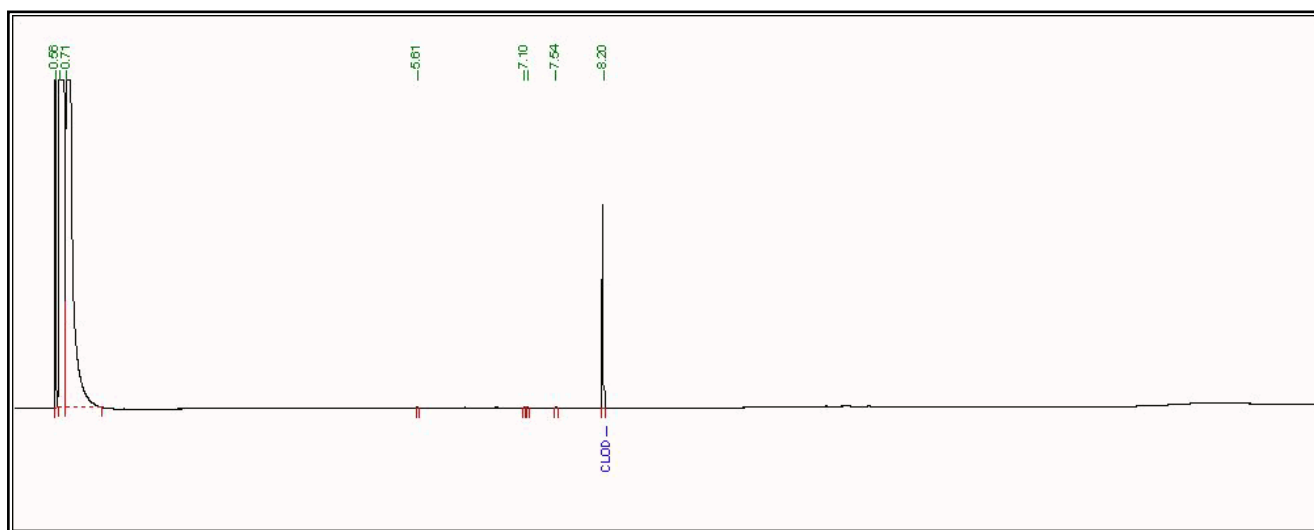
Individual Sample Results

TPH Banded - Soil

Sample Location	TP1/2	Results Reported As	Dry Weight
Sample	sln12963.008002	Reporting Units	mg/kg
Depth(m)	1.70	Date Received	14/10/2013
Chain of Custody No.	7,675	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	15/10/2013

Moisture Content			VES (ml)	ES (g)	CRF	BSV	Results				
WW (g)	DW (g)	MC (%)					C8-C10	>C10- C12	>C12-C16	>C16-C21	>C21-C35
42.00	39.70	17.94	10	10.39	0.82	0.00	<0.5	<0.5	<0.5	<0.5	<0.5

Note: WW denotes wet weight; DW denotes dry weight; MC denotes moisture content; CRF denotes calibration recovery factor; BSV denotes blank subtraction value



Gas Chromatogram for Sample

Retail Trade Park

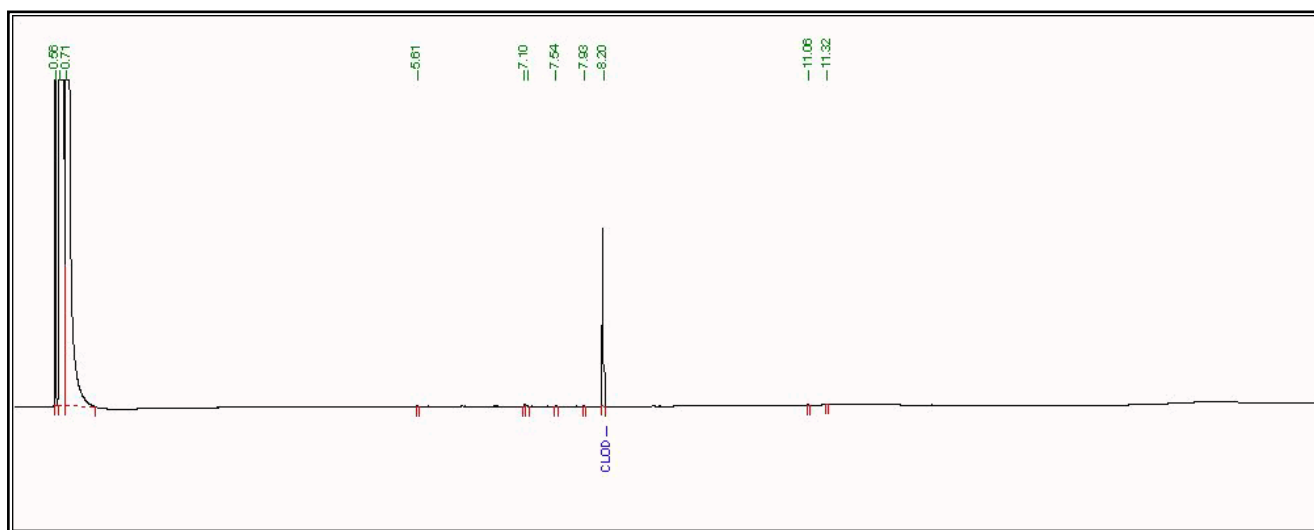
Individual Sample Results

TPH Banded - Soil

Sample Location	TP2/1	Results Reported As	Dry Weight
Sample	sln12963.008003	Reporting Units	mg/kg
Depth(m)	0.60	Date Received	14/10/2013
Chain of Custody No.	7,675	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	15/10/2013

Moisture Content			VES (ml)	ES (g)	CRF	BSV	Results				
WW (g)	DW (g)	MC (%)					C8-C10	>C10- C12	>C12-C16	>C16-C21	>C21-C35
32.50	30.14	18.38	10	10.3	0.81	0.00	<0.5	<0.5	<0.5	<0.5	<0.5

Note: WW denotes wet weight; DW denotes dry weight; MC denotes moisture content; CRF denotes calibration recovery factor; BSV denotes blank subtraction value



Gas Chromatogram for Sample

Retail Trade Park

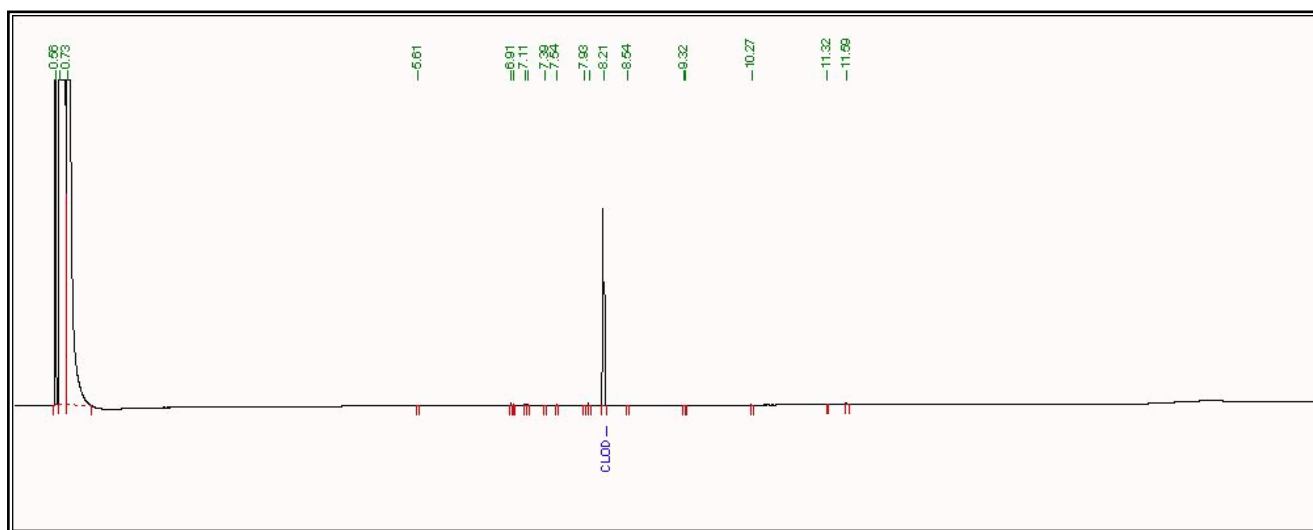
Individual Sample Results

TPH Banded - Soil

Sample Location	TP2/3	Results Reported As	Dry Weight
Sample	sln12963.008005	Reporting Units	mg/kg
Depth(m)	2.50	Date Received	14/10/2013
Chain of Custody No.	7,675	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	15/10/2013

Moisture Content			VES (ml)	ES (g)	CRF	BSV	Results				
WW (g)	DW (g)	MC (%)					C8-C10	>C10- C12	>C12-C16	>C16-C21	>C21-C35
32.51	29.90	20.39	10	10.2	0.63	0.00	<0.5	<0.5	<0.5	<0.5	<0.5

Note: WW denotes wet weight; DW denotes dry weight; MC denotes moisture content; CRF denotes calibration recovery factor; BSV denotes blank subtraction value



Gas Chromatogram for Sample

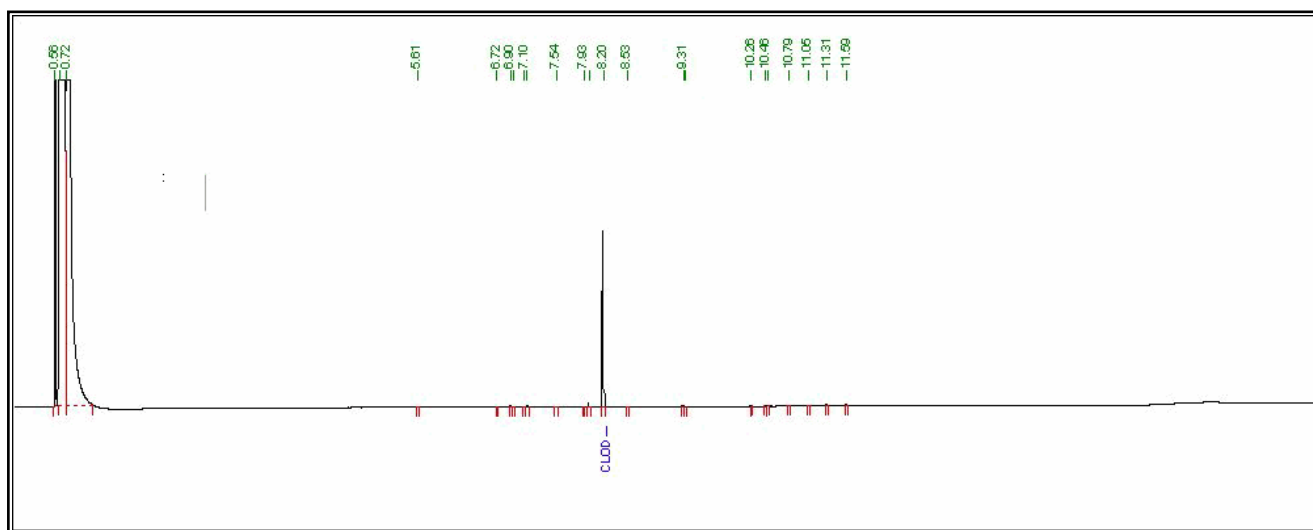
Individual Sample Results

TPH Banded - Soil

Sample Location	TP3/1	Results Reported As	Dry Weight
Sample	sln12963.008006	Reporting Units	mg/kg
Depth(m)	0.70	Date Received	14/10/2013
Chain of Custody No.	7,675	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	15/10/2013

Moisture Content			VES (ml)	ES (g)	CRF	BSV	Results				
WW (g)	DW (g)	MC (%)					C8-C10	>C10- C12	>C12-C16	>C16-C21	>C21-C35
41.92	39.13	22.81	10	10.35	0.71	0.00	<0.5	<0.5	<0.5	<0.5	<0.5

Note: WW denotes wet weight; DW denotes dry weight; MC denotes moisture content; CRF denotes calibration recovery factor; BSV denotes blank subtraction value



Gas Chromatogram for Sample

Retail Trade Park

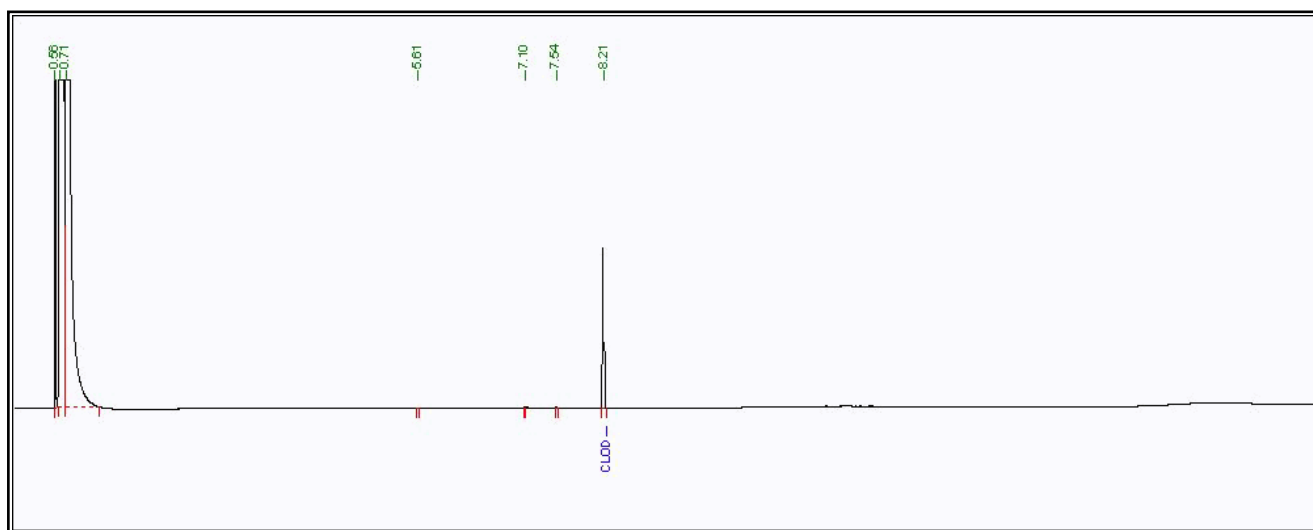
Individual Sample Results

TPH Banded - Soil

Sample Location	TP3/3	Results Reported As	Dry Weight
Sample	sln12963.008008	Reporting Units	mg/kg
Depth(m)	2.30	Date Received	14/10/2013
Chain of Custody No.	7,675	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	15/10/2013

Moisture Content			VES (ml)	ES (g)	CRF	BSV	Results				
WW (g)	DW (g)	MC (%)					C8-C10	>C10- C12	>C12-C16	>C16-C21	>C21-C35
32.69	30.00	21.16	10	10.12	0.65	0.00	<0.5	<0.5	<0.5	<0.5	<0.5

Note: WW denotes wet weight; DW denotes dry weight; MC denotes moisture content; CRF denotes calibration recovery factor; BSV denotes blank subtraction value



Gas Chromatogram for Sample

Retail Trade Park

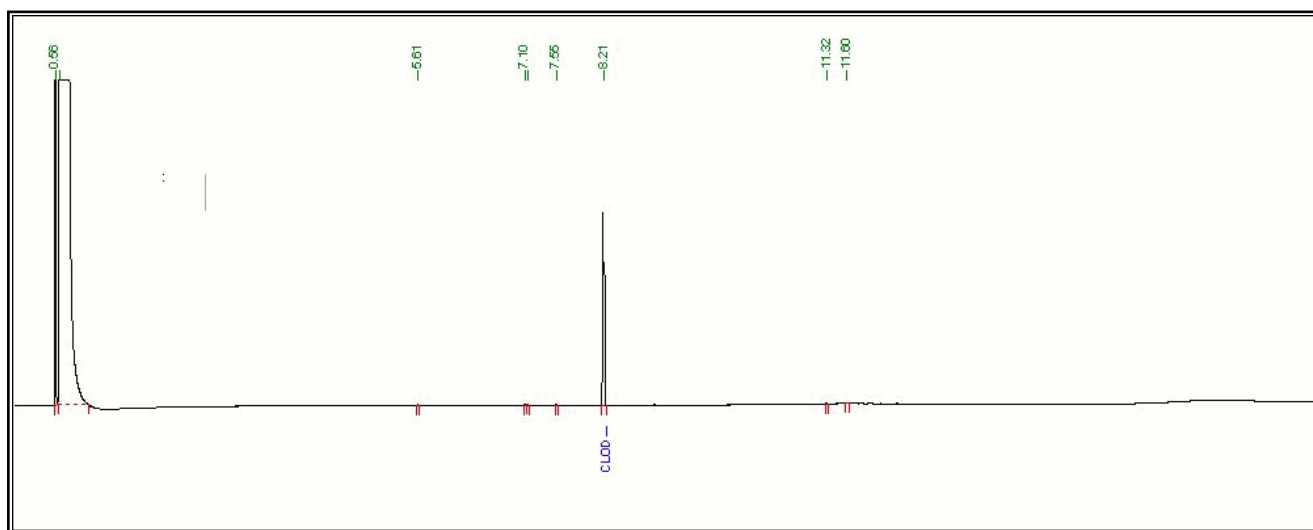
Individual Sample Results

TPH Banded - Soil

Sample Location	TP4/3	Results Reported As	Dry Weight
Sample	sln12963.008011	Reporting Units	mg/kg
Depth(m)	2.20	Date Received	14/10/2013
Chain of Custody No.	7,675	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	15/10/2013

Moisture Content			VES (ml)	ES (g)	CRF	BSV	Results				
WW (g)	DW (g)	MC (%)					C8-C10	>C10- C12	>C12-C16	>C16-C21	>C21-C35
41.95	40.23	12.68	10	10.02	0.81	0.00	<0.5	<0.5	<0.5	<0.5	<0.5

Note: WW denotes wet weight; DW denotes dry weight; MC denotes moisture content; CRF denotes calibration recovery factor; BSV denotes blank subtraction value



Gas Chromatogram for Sample

Retail Trade Park

End of Report

Laboratory Analysis Report

Report Number 004532

Sampling Date 10th October 2013

Report Date 17th October 2013

Client	Site Name/Address
Hargreaves Properties Ltd Rustington House Worthing Road Rustington West Sussex BN16 3PS	Retail Trade Park

Number of Samples	Sample Type	Analysis Completed	Blind Testing	UKAS	MCERTS
3	Soil	IH QM:E9.4 based on US EPA 5021 by GC-FID	RT Corp	Yes	No

QM E9.4: In-House BTEX by Headspace method - Liquid-Gas extraction using headspace then Gas injection into GC-FID.

Samples were received 10/10/13

Samples were prepared and analysed 14/10/13

Analysis Report Approved By

Katherine Clark

Duty Reporting Manager



Glossary of Terms Used in This Report

Blank - A sample known to contain none of the compounds being analysed, and used to confirm that the analytical instrument is not giving false positives during analysis.

Blind Testing: Name of any blind testing scheme participated in. The laboratory's accuracy is reported as a Z score; the lower the Z score the more accurate the analysis, with a score of less than 2 considered excellent.

CRM - Certified Reference Material. A sample prepared by an accredited source and containing a known concentration of a given compound or compounds, which can be used to validate an analysis method.

Duplicate - A duplicate sample, used to give a measure of the repeatability of a given analysis.

External Calibration - External calibration samples are samples containing a known concentration of the compounds being analysed. They are added to the analysis sequence after every nth sample being analysed and provide confirmation that the instrument remains within its calibration range.

IRM - In house reference material. A sample prepared by our laboratory and containing a known concentration of a given compound or compounds, which can be used to validate an analysis method.

Linearity - The linearity of a given analytical method is the range of concentrations between which the analytical instrument's response is directly proportional to the concentration being analysed, and hence the range of concentrations that the instrument can be said to give quantitative results.

LOD - The lowest response for any given compound generated at the instrument's detector, that can be differentiated from the instrument's baseline noise.

LOQ - Limit of quantification. This is the lowest concentration that a given compound can be both detected and its concentration accurately measured in a sample.

MCERTS - An accreditation scheme created by the Environment Agency for the analysis of soil samples used to determine land quality. The scheme does not apply to analysis of soil samples used for waste classification purposes or to the analysis of water samples.

Method Calibration - The means by which an analytical method is calibrated. Usually this involves analysing a number of external calibration samples, containing different concentrations of the compounds to be analysed.

Precision - A measure of the repeatability of the analysis.

Sample - The material provided by the client to the laboratory for analysis.

Sensitivity - The smallest increment in analytical result that can be reliably quantified.

Spike - Also known as an internal calibration, a spike sample is a sample to be analysed which has a known concentration of another compound added. This provides a check on that the compounds being analysed are being correctly extracted from the sample matrix.

UKAS - The UK's implementation of ISO17025, the international standard accreditation for laboratory analysis

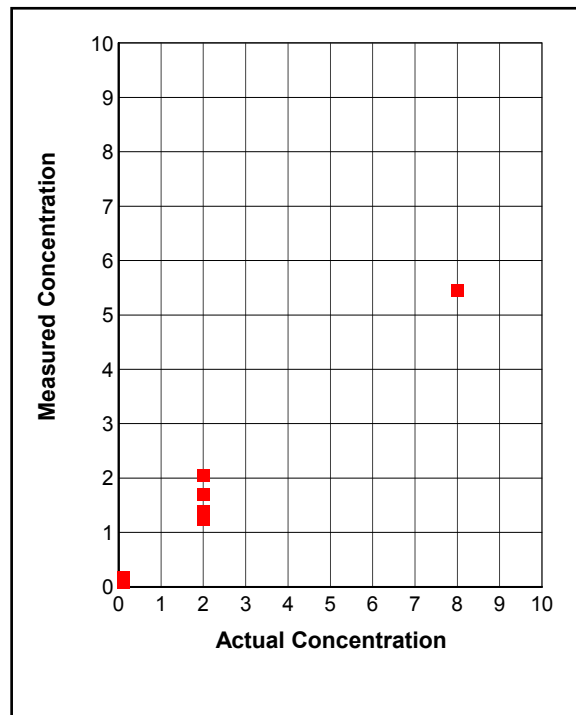
Quality Control/Quality Assurance Information

BTEX by Headspace - Soil

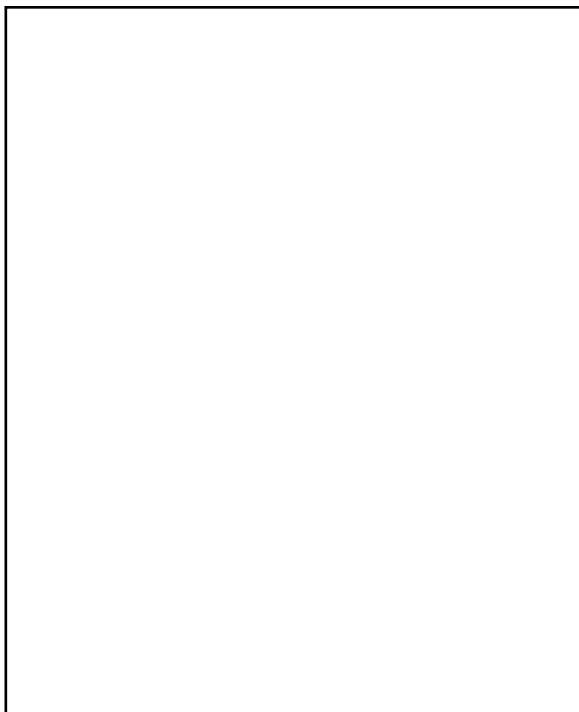
Our laboratory carries out a wide variety of verification analyses in order to ensure the validity of the analysis results we produce.

Samples are analysed in batches, usually according to the sample chain of custody form we receive. However, we also add additional samples into the sample sequence. These additional samples may include blanks, calibration samples, in-house reference material samples and duplicate samples. In addition to this each sample being analysed is 'spiked' with a known concentration of a compound. In the case of BTEX analyses, we use bromobenzene to spike the samples.

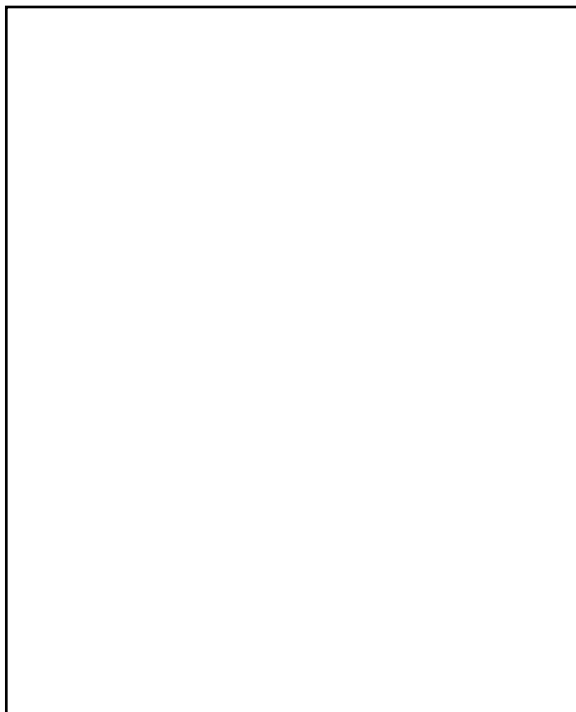
The results of the benzene analyses we have carried out on the additional quality assurance samples during the ten days prior to the samples reported here are shown in the accompanying graphs. Results are reported in mg/kg. These provide a visual indication of the stability of our laboratory analysis.



Calibration Samples - Previous 10 days



Spike Samples - Previous 10 days



Reference Material - Previous 10 days

Retail Trade Park

Summary of Results

BTEX by Headspace - Soil

Accreditation	UKAS	Blind Testing	RT Corp		
Results Reported As	Dry Weight	Last Three Z Scores	-0.86	0.01	-2.39

Analysis Method Parameters			
Reporting Units	mg/kg	Limit of Detection	0.01 mg/kg
Linearity	0.02 - 10.0 mg/kg	Limit of Quantification	0.02 mg/kg
Sensitivity	0.1 mg/kg	Precision	+/- 0.1 mg/kg

Sample Location	Sample	Depth	Benzene	Ethyl-Benzene	Toluene	m+p Xylenes	o-Xylene
TP2/3	sIn12963.005005	2.50	<0.1	<0.1	<0.1	<0.1	<0.1
TP3/3	sIn12963.005008	2.30	<0.1	<0.1	<0.1	<0.1	<0.1
TP4/3	sIn12963.005011	2.20	<0.1	<0.1	<0.1	<0.1	<0.1

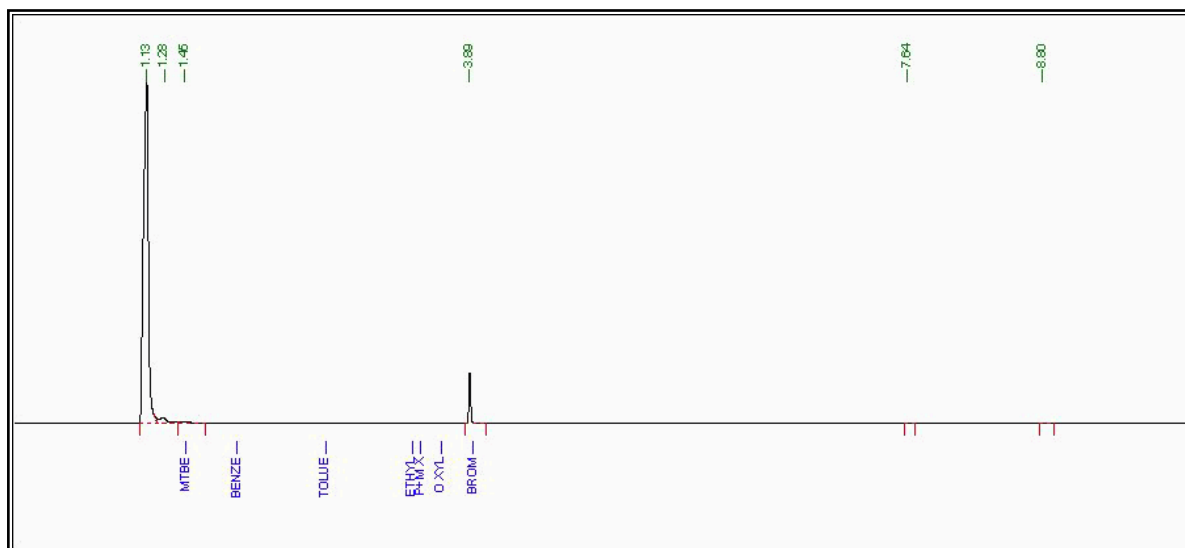
Sample Location	Sample	Depth	Total Petroleum Hydrocarbons			
			C6-C8	>C8-C10	>C10-C12	>C12-C15
TP2/3	sIn12963.005005	2.50	<0.5	<0.5	<0.5	<0.5
TP3/3	sIn12963.005008	2.30	<0.5	<0.5	<0.5	<0.5
TP4/3	sIn12963.005011	2.20	<0.5	<0.5	<0.5	<0.5

Individual Sample Results

BTEX By Headspace - Soil

Sample Location	TP2/3	Results Reported As	Dry Weight
Sample	sIn12963.005005	Reporting Units	mg/kg
Depth(m)	2.50	Date Received	14/10/2013
Chain of Custody No.	7672	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	16/10/2013

Moisture Content (%)	Results								
	Benzene	Ethyl-Benzene	Toluene	m+p Xylene	o Xylene	C6-C8	>C8-C10	>C10-C12	>C12-C15
20.39	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5



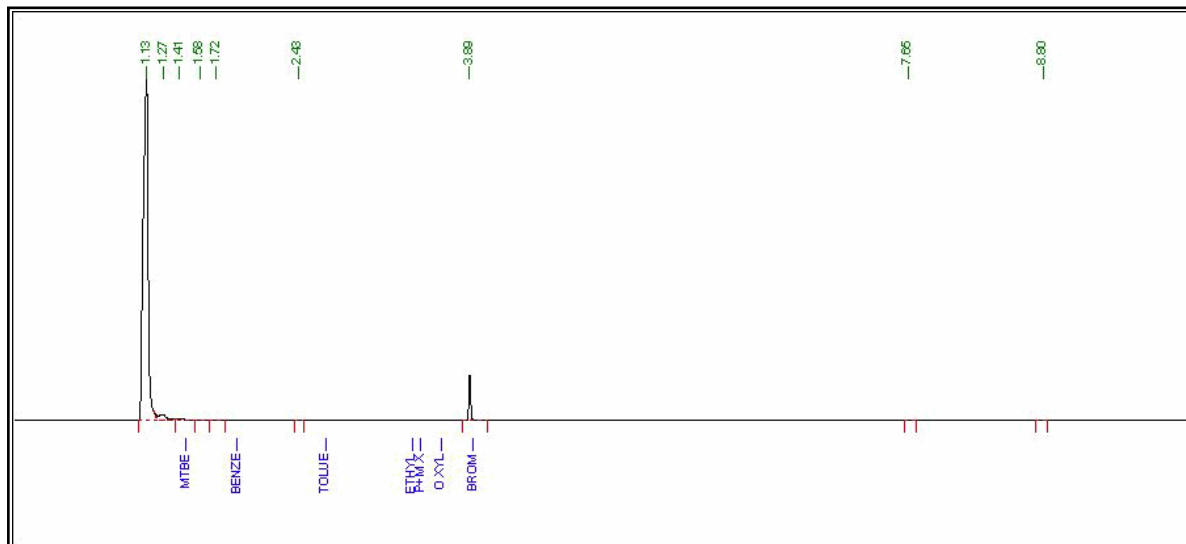
Gas Chromatogram for Sample

Individual Sample Results

BTEX By Headspace - Soil

Sample Location	TP3/3	Results Reported As	Dry Weight
Sample	sIn12963.005008	Reporting Units	mg/kg
Depth(m)	2.30	Date Received	14/10/2013
Chain of Custody No.	7672	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	15/10/2013

Moisture Content (%)	Results								
	Benzene	Ethyl-Benzene	Toluene	m+p Xylene	o Xylene	C6-C8	>C8-C10	>C10-C12	>C12-C15
21.16	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5



Gas Chromatogram for Sample

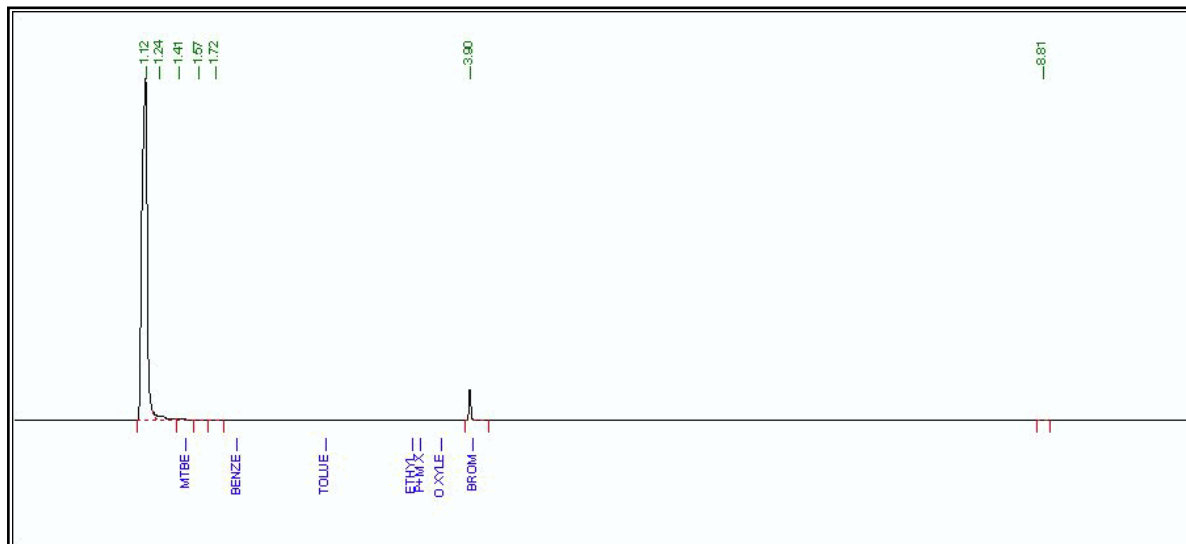
Retail Trade Park

Individual Sample Results

BTEX By Headspace - Soil

Sample Location	TP4/3	Results Reported As	Dry Weight
Sample	sIn12963.005011	Reporting Units	mg/kg
Depth(m)	2.20	Date Received	14/10/2013
Chain of Custody No.	7672	Date of Sampling	10/10/2013
Accreditation	UKAS	Date of Analysis	15/10/2013

Moisture Content (%)	Results								
	Benzene	Ethyl-Benzene	Toluene	m+p Xylene	o Xylene	C6-C8	>C8-C10	>C10-C12	>C12-C15
12.68	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5



Gas Chromatogram for Sample

Retail Trade Park

End of Report



James Skinner
Subadra Consulting Ltd
Unit 13
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HP22 5BL



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ME17 2JN
t: 01622 850410
russell.jarvis@qtsenvironmental.com

QTS Environmental Report No: 13-17156

Site Reference: Retail Trade Park

Project / Job Ref: IN12963

Order No: 12670

Sample Receipt Date: 14/10/2013

Sample Scheduled Date: 14/10/2013

Report Issue Number: 1

Reporting Date: 18/10/2013

Authorised by:

Russell Jarvis
Director

On behalf of QTS Environmental Ltd

Authorised by:

Kevin Old
Director

On behalf of QTS Environmental Ltd



QTS Environmental Ltd
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Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate						
QTS Environmental Report No: 13-17156	Date Sampled	10/10/13	10/10/13	10/10/13		
Subadra Consulting Ltd	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: Retail Trade Park	TP / BH No	TP 2	TP 3	TP 4		
Project / Job Ref: IN12963	Additional Refs	1	1	1		
Order No: 12670	Depth (m)	0.60	0.70	0.60		
Reporting Date: 18/10/2013	QTSE Sample No	82502	82503	82504		

Determinand	Unit	MDL	Accreditation					
Arsenic (As)	mg/kg	< 2	MCERTS	4	7	7		
Barium (Ba)	mg/kg	< 5	NONE	52	85	91		
Beryllium (Be)	mg/kg	< 0.5	NONE	0.8	1.3	1.3		
W/S Boron	mg/kg	< 1	NONE	1.2	2.4	2.4		
Cadmium (Cd)	mg/kg	< 0.5	MCERTS	< 0.5	< 0.5	< 0.5		
Chromium (Cr)	mg/kg	< 2	MCERTS	14	23	22		
Copper (Cu)	mg/kg	< 4	MCERTS	6	15	18		
Lead (Pb)	mg/kg	< 3	MCERTS	14	19	36		
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1		
Nickel (Ni)	mg/kg	< 3	MCERTS	12	24	21		
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3		
Vanadium (V)	mg/kg	< 2	NONE	21	37	34		
Zinc (Zn)	mg/kg	< 3	MCERTS	32	45	59		

Analytical results are expressed on a dry weight basis where samples are dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

Subcontracted analysis ⁽⁵⁾



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Soil Analysis Certificate - Speciated PAHs						
QTS Environmental Report No: 13-17156	Date Sampled	10/10/13	10/10/13	10/10/13		
Subadra Consulting Ltd	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: Retail Trade Park	TP / BH No	TP 2	TP 3	TP 4		
Project / Job Ref: IN12963	Additional Refs	1	1	1		
Order No: 12670	Depth (m)	0.60	0.70	0.60		
Reporting Date: 18/10/2013	QTSE Sample No	82502	82503	82504		

Determinand	Unit	MDL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6		

Analytical results are expressed on a dry weight basis where samples are dried at less than 30°C



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Soil Analysis Certificate - Sample Descriptions

QTS Environmental Report No: 13-17156

Subadra Consulting Ltd

Site Reference: Retail Trade Park

Project / Job Ref: IN12963

Order No: 12670

Reporting Date: 18/10/2013

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
82502	TP 2	1	0.60	13.6	Light brown clay with stones and chalk
82503	TP 3	1	0.70	3	Light brown clay with chalk
82504	TP 4	1	0.60	16	Light brown clay with chalk

Insufficient sample ^{I/S}

Unsuitable Sample ^{U/S}



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Soil Analysis Certificate - Methodology & Miscellaneous Information	
QTS Environmental Report No: 13-17156	
Subadra Consulting Ltd	
Site Reference: Retail Trade Park	
Project / Job Ref: IN12963	
Order No: 12670	
Reporting Date: 18/10/2013	

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenvicarbazide followed by colorimetry	E016
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E021
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by turbidimeter	E020
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E023
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E011
Soil	D	Loss on Ignition @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	D	Phosphorus	Determination of phosphorus by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	AR	Sulphide	Determination of sulphide by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia, potassium iodide/iodate followed by ICP-OES	E002
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E011
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E009
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E009
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E010
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E009
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	VPH (C6 - C10)	Determination of hydrocarbons C6-C10 by headspace GC-MS	E001
Soil	AR	EPH TEXAS	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	TPH CWG	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	TPH LQM	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	EPH (with florilil cleanup)	Determination of acetone/hexane extractable hydrocarbons with florilil cleanup step by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	VOCS	Determination of volatile organic compounds by headspace GC-MS	E001

Key

D Dried
AR As Received