



Preliminary Generic Quantitative Environmental Risk Assessment

Preliminary Ground Investigation, New Settlement Area, Heyford Park

May 2012

Waterman Energy, Environment & Design Limited

Pickfords Wharf, Clink Street, London SE1 9DG, www.watermangroup.com



Preliminary Generic Quantitative Environmental Risk

Preliminary Ground Investigation, New Settlement Area, Heyford Park

Client Name: Dorchester Heyford Park Limited

Document Reference: EED10658-13.2.1_FA

Project Number: EED10658

Quality Assurance – Approval Status

This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2008 and BS EN ISO 14001: 2004)

Issue Date Prepared by Checked and Approved by

13.1.7 May 2012 Freddie Alcock Paul Shelley

Comments

13.1.7 Issued to Client for comment

Our Markets









Property & Buildings

Transport & Infrastructure

Energy & Utilities

Environment



Disclaimer

This report has been prepared by Waterman Energy, Environment & Design Ltd, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporation of our General Terms and Condition of Business and taking account of the resources devoted to us by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.



Content

Executive Summary

1.	Introduct	ion	1
	1.1 0	bjectives	1
	1.2 Si	te Specific Nomenclature	1
	1.3 Ba	ackground information	1
	1.4 O	utline of Proposed redevelopment	3
	1.5 R	egulatory Context	3
		onstraints	
2.	Procedur	'es	5
3.	Outline C	onceptual Model	6
	3.1.1	•	
	3.1.2		
	3.1.3	•	
4.	Rationale	and Specific Objectives	8
		haracterisation of near surface contamination	
	4.2 SI	hallow Groundwater Characterisation and targeting USTs	8
		eep Groundwater Characterisation	
		ccessing and sampling ASTs and USTs	
	4.5 Se	oils Analysis	8
	4.6 G	roundwater Quality Monitoring	8
5.	Methodo	logy	10
	5.1 D	esign of Investigation	10
6.		stigation	
7.	Results		20
	7.1 G	eological Strata	20
		hemical Analysis of Soil Samples	
		esults of monitoring and analysis of Groundwater	
	7.3.1		
	7.3.2		
	7.3.3		
		round Gas	
		ank Survey	
		esults of geotechnical analysis	
8.	Generic /	Assessment Criteria	23
9.	Quantitat	tive Environmental Risk Assessment	24
	9.1 R	isk to Human Health	24
	9.1.1		
	9.1.2	·	
	9.1.3		
	9.1.4		
	9.1.5		
		isk to Structures	
		isk to Water Supply Pipes	
		isk to groundwater	
	9.4.1 9.4.2		
	9.4.2	·	
	9.4.4		
	9.4.5		
	9.4.6		



10.	Conc	lusions	38
11.	Reco	mmendations	41
	11.1	Remediation Strategy	41
	11.2	Buried Services	
	11.3	Buried Structure	41
	11.4	Health and Safety	
	11.5	Environmental Management	
Tabl	les		
Tabl	le 1:	Reports Pertaining to the Site	2
Tabl	le 2:	Ground investigation strategy for phase of SI undertaken in October 2011	
Tabl	le 3:	Ground investigation strategy for phase of SI undertaken in February 2012	
Tabl	le 4:	Geological strata encountered during Site Investigation	
Tabl	le 5:	Summary of results of permeability tests carried out on Site	
Tabl	le 6:	Generic assessment criteria	23
Tabl	le 7:	Summary of Generic Quantitative Risk Assessment for Human Health from inorganic contaminants in NDA.	24
Tabl	le 8:	Summary of Generic Quantitative Risk Assessment for Human Health in the NDA from organic contaminants	25
Tabl	le 9:	Summary of Generic Quantitative Risk Assessment for Human Health from speciated PAHs in NDA	
Tabl	le 10:	Summary of gas monitoring results	27
Tabl	le 11:	Borehole where GSV is above 0.0/l.hr Error! Bookmark not define	
Tabl	le 12:	Summary of nickel, lead and magnesium and total PAH concentrations in groundwater samples	30
Tabl	le 13:	Summary of Phenol and TPH concentrations in groundwater samples	31
Tabl	le 14:	USTs causing a consistent impact on groundwater quality	35
Tabl	le 15:	Summary of TPH concentration boreholes at Site boundary or down gradient of impacted area	36
Tabl	le 16:	Estimation of environmental risks associated with the subject Site in terms of its proposed future use.	39

Appendices

Appendix A Site Plans

Appendix B Site Photographs

Appendix C Jomas Associates Limited Factual Report

Appendix D Groundwater level monitoring results

Appendix E Results of chemical analysis on groundwater

Appendix F Results of ground gas monitoring

Appendix G Risk Rating Matrix

Appendix H Environmental Receptors

Appendix I Generic Assessment Criteria





Executive Summary

Objectives

Waterman Energy, Environment & Design Limited ("Waterman") was instructed by Chris Knott Consulting on behalf of Dorchester (Upper Heyford) LLP to undertake a Preliminary Generic Environmental Risk Assessment of the Intrusive Works in the New Settlement Area, a large portion of which will be redeveloped for residential and commercial uses.

	Site Works
Site Investigation	Site investigation company Jomas Associates Limited was instructed to undertake the site investigation works. The site investigation, was split in to two phases and carried out between the 26 September and 27 October 2011 and 26 January and 24 February 2012. Works comprised the completion of 41No. boreholes and 96No. trial pits. A survey was also undertaken of the above and below ground tanks that are known to exist on the site. Factual reports detailing the activities undertaken during the investigation are presented in Appendix C.
Ground Conditions	Made ground was encountered throughout the site and comprised a sandy gravelly material with intermixed fragments of ash, clinker, brick, tarmac, concrete and glass in varying quantities to a maximum depth 2.6m bgs. Natural underlying soil comprised sand gravel and clay in varying proportions. Analysis of soil samples collected from trial pits and boreholes indicated that inorganic and organic contamination was associated with made ground but underlying natural material was not significantly impacted.
Controlled Waters	Groundwater level monitoring and sampling was carried as part of the site investigation. The results of chemical analysis confirmed that the presence of underground storage tanks on the site has locally impacted groundwater quality, although the groundwater quality across the much of the site remains relatively good.
Ground Gas Regime	Ground gas monitoring has indicted that elevated concentrations of ground gas are not being generated on site.
	Conceptual Model

The presence of the USTs and the site's history has impacted the sites groundwater quality. Elevated concentrations of both organic and inorganic compounds were also detected in some samples collected from made ground.

Conclusions

As part of the redevelopment of the site all USTs will be removed and excavations backfilled with material deemed suitable for use. Areas of hard standing and built development will act as a break layer between elevated contaminants detected in made ground. In areas of soft landscaping and gardens a suitable cover layer will be put in place. A Detailed Qualitative Risk Assessment will also be undertaken to generate threshold values in relation to material to be reused on site.

Recommendations

A Detailed Quantitative Environmental Risk Assessment (DQRA) should be undertaken to define acceptable criteria This document and the completed DQRA should then be used to update to the preliminary for residual soils. remedial strategy previously developed for the site.

All reports should then be passed to the Local authority and Environmental Agency for approval.

All services should be constructed in inert backfill.

Drinking water supply pipes should be constructed of materials which are capable of withstanding the concentrations of both inorganic and organic contamination encountered on site.

Buried concrete should be suitably designed to limit the potential for chemical attack.

An Environmental Management Plan (EMP) should be developed that covers environmental management of the site during the enabling and construction works.

Construction/maintenance workers should adopt good hygiene and safe working practices. Appropriate Personal Protective Equipment (PPE) should be provided to, and used by, all site personnel.





1. Introduction

1.1 Objectives

Waterman Energy, Environment & Design Limited ("Waterman") was instructed by Chris Knott Consulting on behalf of Dorchester (Upper Heyford) LLP to undertake a Preliminary Generic Environmental Risk Assessment of the Intrusive Works in the New Settlement Area (NSA).

Works were undertaken in accordance with the NSA site investigation strategy document EED10658-109/R/8.2.1/FA dated October 2011.

Scopes of works for the NSA were developed in accordance with the NSA site investigation strategy and reported within EED10658-109_S_7.1.5_FA dated September 2011 and EED10658-109_S_9.1.2_FA dated April 2012. The intrusive works were sub contracted to Jomas Associates Limited (JAL) and managed by Chris Knott Consulting. For the purpose of this document the area of the investigation will be referred to as "the Site". A Site location plan is presented in Figure 1, Appendix A.

1.2 Site Specific Nomenclature

For the purposes of this document and subsequent works to be undertaken the following nomenclature will be used.

- Heyford Park, comprises the whole of the former airbase including all residential and commercial areas and the entire Flying Field.
- The New Settlement Area (NSA), comprising an area of Heyford Park to the north of Camp Road and
 to the south of the Flying Field currently occupied by warehouses and some residential properties, the
 residential area to the south of Camp Road and various disused buildings and structures associated
 with the past uses of the base.
- The Retained Settlement Area (RSA), this comprises occupied housing located to the south and north of Camp Road and forms part of the NSA.
- The Retained Commercial Area, (RCA), this comprises a combination of offices, former works buildings and warehouses and forms part of the NSA.
- The Flying Field (FF), comprising the runway, taxiways, aircraft shelters, other buildings and large areas of undeveloped grassland forms the majority of the area of Heyford Park. A Petroleum Oil and Lubricant (POL) system is by in large present on the FF and consists of an above and below ground fuel storage and delivery system and was previously connected to the national fuel pipe line. Vertase FLI Limited were instructed to undertake clean and make safe works relating to the POL system and standalone heating fuel tanks also present on the FF. This works included emptying, cleaning and filling of the majority of the network of tanks and pipes with grout or foam and were completed by the end of February 2012.
- The New Development Area (NDA), comprising the area within in the NSA where buildings will be demolished and redevelopment for a mixed residential and commercial end use will take place.

A plan showing the various areas as described above is presented in Figure 2, Appendix A

1.3 Background information

Heyford Park is centred at national grid reference 451185 226775 and comprises the former RAF and USAF Upper Heyford airbase now known as Heyford Park. The town of Bicester, Oxfordshire, is located approximately 8 km to the south east whilst the village of Upper Heyford lies immediately to the west. Heyford Park is located on a plateau at approximately 130m Above Ordnance Datum (AOD), although at



its western end the elevation reduces to 115m AOD. This reduction in elevation is associated with the valley of the River Cherwell which at its closest point is located approximately 1km to the west of the Site and flows alongside the Oxford Canal. A public road named 'Camp Road' traverses Heyford Park running east west.

The northern portion of Heyford Park is occupied by the FF comprising associated taxi ways, hardened aircraft shelters, fuel storage tanks, maintenance areas, offices, warehouses and undeveloped grassed areas, whilst the southern area of the Heyford Park comprises the NSA which consists of former residential area of the base and is occupied by various types of residential units ranging from dormitories to semidetached housing. This area also contains the former base shop, petrol filling station, hospital, school and sports ground along with other recreational facilities such as the base restaurant and bar. Some of the former base housing is currently occupied; this portion of the NSA is referred to as the RSA.

The NSA also includes, former works buildings warehouses and administrative buildings, this area is referred to as the RCA. Many of these buildings are currently leased out for a variety of uses. A previous base vehicle fuel filling station is also present in the NSA to the north of Camp Road, while an additional redundant fuel filling station is also located adjacent to the south side of Camp Road. Numerous clusters of redundant heating oil and underground storage tanks (USTs) are also present across the NSA. A portion of the north of the NSA is leased out to a Paragon, a vehicle fleet management company. This area includes POL19 which is currently used as a vehicle refuelling station by Paragon. It should be noted at this point that Paragon has recently signed a new lease agreement regarding their tenancy at Heyford Park. Under the terms of this lease agreement they are required to decommission POL 19 and meet the relevant requirements as out lined in the planning permission APP/C3105/A/08/2080594.

Documents that should be read in conjunction with this report are presented in Table 1.

Table 1: Reports Pertaining to the Site

Author	Title	Date and Reference
Waterman Group	Heyford Park Flying Field Hydrogeological Characterisation and Groundwater Quality Assessment	EED10658-109_R_9.2.1.FA
Waterman Group	Preliminary Environmental Risk Assessment Heyford Park – Existing Commercial Properties	EED10658-109_R_6.2.1_FA
Waterman Group	Preliminary environmental Risk Assessment Heyford Park – Existing Retained Residential Properties	EED10658-101-5.2.3_PDS
Waterman Group	NSA site investigation strategy	EED10658-R-8.2.1-PDS
Waterman Group	Specification for Ground Investigation Works, Areas 1 3 & 7 New Settlement Area Park	EED10658-109_S_7.1.5_FA
Waterman Group	Specification for Ground Investigation Works New Settlement Area, Heyford Park (Excluding Areas 1, 3, & 7)	EED10658-109_S_9.1.2_FA
Vertase FLI Limited	POL System – Clean and Make Safe Upper Heyford, Oxfordshire, Contract Completion Report	1245DOR



1.4 Outline of Proposed redevelopment

Currently it is proposed to redevelop a NDA for a mixed residential and community end use. This will comprise the demolition of numerous buildings across the NSA. As part of the redevelopment and in parallel with the demolition, all USTs and associated contamination will be removed or remediated. Other areas of contamination identified as a result of the intrusive investigation will also be remediated during redevelopment.

1.5 Regulatory Context

The identified contaminated land issues for Heyford Park are to be addressed via the planning process by virtue of conditions attached to outline planning permission with reference APP/C3105/A/08/2080594, dated 27 October 2010. A copy of the planning conditions relating to (ground) contamination is contained with Appendix B.

The condition relevant to the NSA is presented below.

Condition 11 states that

Contamination in the New Settlement Area: No operational development shall be undertaken and no building shall be occupied (other than those in use at the date of this application) in relation to a phase or sub-phase within the New Settlement Area as shown on Plan Ref: N.0111_58-1 until such time as a scheme to deal with the risks associated with contamination of the site (excluding the scheme in relation to the POL system), including a programme of proposed delivery, has been submitted to and approved in writing by the local planning authority. The scheme shall include:

- A site investigation scheme, based on the preliminary risk assessment included in the Environmental Statement associated with the outline planning permission (and as supplemented in September 2008) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.
- The site investigation results and the detailed risk assessment and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
- A verification plan providing details of the data that will be collected in order to demonstrate
 that the works set out in (iii) are complete and identifying any requirements for longer-term
 monitoring of pollutant linkages, maintenance and arrangements for contingency action. Any
 changes to these components require the express consent of the local planning authority.

The scheme shall be implemented as approved.

Therefore in order to assess the contamination status of the Site, with respect to the proposed end use, it is necessary to assess whether the Site could potentially be classified as "Contaminated Land", as defined in Part IIA of the Environmental Protection Act 1990 and the Contaminated Land Regulations 2006. This is assessed by the identification and assessment of potential pollutant linkages. The linkage between the potential sources and potential receptors identified needs to be established and evaluated.

To fall within this definition, it is necessary that, as a result of the condition of the land, substances may be present on or under the land such that:

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

1.6 Constraints

This work was undertaken in accordance with the Deed of appointment between Waterman and Dorchester Heyford Park Limited.



The benefit of this report is made to Dorchester Heyford Park Limited.

Waterman has endeavoured to assess all information provided to them during this investigation, but makes no guarantees or warranties as to the accuracy or completeness of this information.

The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the Site.

The information contained in this report is based on the findings of the factual report reports produced by JAL, referenced P8219J107 Final v0.1 (December 2011) and P8251J128 Final V1.1 (April 2012). Waterman has endeavoured to assess all information provided to them during the investigation, but makes no guarantees or warranties as to the accuracy or completeness of information provided by third parties.

The scope of this investigation does not include an assessment for the presence of asbestos containing materials within or below buildings at the Site. Should there be a requirement under Regulation 4 of the Control of Asbestos Regulations 2006 for any part of the Site to be deemed 'non-domestic premises' (including, inter alia, outbuildings, external pipework, under-floor service ducts, bridges, fixed and mobile plant), the dutyholder(s) should prepare an asbestos risk management plan and this may require technical survey works as described in the relevant HSE Guidance Note HSG 264.

The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the Site.



2. Procedures

This Preliminary Generic Quantitative Environmental Risk Assessment has been undertaken in general accordance with the Model Procedures for Management of Land Contamination (Contaminated Land Report 11 – Environment Agency, September 2004).

The report includes the following:

- outline Conceptual Model for the Site;
- · results of Intrusive Ground Investigation;
- confirmation of Generic Assessment Criteria used to assess risks;
- assessment of results against Generic Assessment Criteria;
- · formulation of a new Conceptual Model for the Site;
- identification of potentially unacceptable risks; and
- · recommendations for further action.

This report forms a decision record for the pollutant linkages identified, the generic assessment criteria used to assess risks, the unacceptable risks identified and the proposed next steps in relation to the Site. The report also provides an explanation of the refinement of the outline conceptual model following the ground investigation, the selection of criteria and assumptions, the evaluation of potential risks and the basis for the decision on what happens next.



3. Outline Conceptual Model

The outline conceptual model of the Site, developed in the Preliminary Environmental Risk Assessment, is reproduced below.

3.1.1 Potential Sources of Contamination

Following a review of the information pertaining to the NSA and the completion of a walk over a number of potential current and historic sources of contamination have been identified. Current and historical sources of contamination include:

- 12No. separate locations where at least one underground storage tank is present on the Site to the
 north and south of Camp Road. These were associated with the storage of heating fuel oil for the
 district heating system and heating several other buildings on the NSA. Contamination could have
 arisen from this activity due to leaks from tanks and ancillary pipe work, accidental spillages during
 refilling and/or maintenance and poor housekeeping practices;
- Road vehicle refuelling stations were historically located to the north and south of Camp Road.
 Contamination could have arisen due to the possibility of leaks from tanks and ancillary pipe work, accidental spillages during refilling and/or during maintenance and poor housekeeping practices;
- Numerous electrical substations are present on the Site, which contain transformers and various
 quantities of mineral oil, some of which could have contained Polychlorinated Biphenyls (PCBs).
 Contamination can arise as a result of leakage from the substations during servicing or as a result of
 vandalism. Two substation transformers are known to have leaked as a result of vandalism causing
 transformer oil to be discharged to ground surface in the immediate vicinity;
- the presence of workshops and maintenance facilities associated with the current and historical
 activities on Site, particularly to the north of Camp Road, for example those operated by Paragon (a
 fleet solutions company) with respect to the maintenance of vehicles. Contamination can arise as a
 result of these activities due to spillage and leaks of maintenance and lubricating oils, chemicals and
 poor housekeeping practices;
- the presence of made ground across the Site containing varying quantities of foreign material including concrete, brick, glass wire, timber and ash. Buried organic matter could also have the capability to generate ground gas including carbon dioxide, methane and hydrogen sulphide;
- the presence to the north of the Site of the Petroleum Oil and Lubrication (POL) storage and delivery system associated with the FF. Several leaks are known to have occurred from the POL system during its lifetime. In particular, POL 21 located close to the western boundary of the Site, which was the former fuel entry compound from the National Fuel Pipe Line. POL 21 is known to have leaked in 1990. POL19 and POL 23 also known to have leaked historically. It is possible that contamination from the POL has migrated on to the Site;
- Paragon currently use POL19 for the storage of fuels for use in their operation, contamination may
 have arisen from this activity due to leaks from tanks and ancillary pipe work, accidental spillages
 during refilling and/or maintenance and poor housekeeping practices;
- the fuel entry pipe leading from the National Fuel Pipe Line passes close to the west of the Site. Any leaks from this pipe or spillages as a result of maintenance could have caused contamination in this area:
- asbestos is known to be present in the fabric of buildings on the Site and could also be associated
 with buried pipes and tanks. Given the unknown consistency of made ground on the Site, including
 materials used to backfill quarries, asbestos could also be present in made ground;



3.1.2 Potential Receptors

Relevant potential receptors, that could be affected by contamination, identified for the Site as required by Part 2A of the Environmental Protection Act 1990, are set out below:

- human health (future users of the Site including visitors, construction and maintenance workers, residents and off Site land users including residential occupants);
- controlled waters including underlying groundwater, tributaries springs that drain the Site, including Gallos Brook, the River Cherwell, and The Oxford Canal;
- property (building structures including foundations and buried services) and;
- Although flora is not defined as a receptor under Part 2A of the Environmental Protection Act 1990, flora is identified as a potential receptor for this Site as the Development would include large areas of green infrastructure and tree planting.

3.1.3 Potential Pathways

Potential pathways, which could exist on-Site, or could be established during and/or once the proposed Development is completed, are as follows:

- potential pathways relating to human health impacts include: ingestion of home grown produce (in private garden areas); ingestion of, or dermal contact with contaminated soils, dust, surface water and groundwater; and inhalation of dust, indoor gases and vapours;
- potential pathways via which contamination could cause pollution of controlled waters include downward and lateral migration through soils and shallow rock head into groundwater, downward and lateral migration along foundation paths/service trenches, surface runoff, flowing through leaking and damaged drains, flow via smaller tributaries and direct spills and soakaways; and
- potential pathways relating building structures include: direct contact with contaminated soils and groundwater; and ingress of ground gases in confined spaces.



4. Rationale and Specific Objectives

In accordance with the NSA site investigation strategy documents (Report References EED10659-109_S_7.1.5._FA and EED10658-109_S_9.1.2_FA) works were designed to enable the evaluation of the following ground and groundwater regimes.

4.1 Characterisation of near surface contamination

Trial pits were positioned to target near surface contamination arising from historical activities including plant rooms and above ground storage tanks (ASTs). Information from these trial pits would then be used to determine the extent of contamination as a result of these activities and to detail the requirements for further investigation at these locations. Information gained from the trial pits will also be used to provide information with respect to the proposed end use of the NDA.

4.2 Shallow Groundwater Characterisation and targeting USTs

A series of boreholes targeting fuel storage tanks were be drilled to a depth of 10m bgs up and down groundwater gradient of the identified tanks and were installed to target groundwater at shallow depth. Information gained from these boreholes would then be used to define the potential impact the USTs on identified receptors and to target any further investigation that may be required. These boreholes will also be used to further increase the understanding of the groundwater regime underlying the NSA including the potential impact of offsite activities. The installation design for each well was confirmed following completion of the well, being influenced by the geological sequence and any contamination encountered.

4.3 Deep Groundwater Characterisation

An additional series of boreholes was drilled to a depth of approximately 30m bgs to investigate the presence of a confined aquifer at depth on the NSA. Information gained from these boreholes would then be used to assess the potential impact of historic and current on site and off site activities on this water body. The installation design for each well was confirmed following completion of the well, being influenced by the geological sequence and any contamination encountered.

4.4 Accessing and sampling ASTs and USTs

The identified ASTs and USTs were accessed and sampled to assess their contents and to make an estimation of their volume. This information would then be used to inform activities surrounding emptying and decommissioning the tanks and any potential remedial activities that may follow.

4.5 Soils Analysis

Samples of the soil horizons encountered during the investigation were collected. These were obtained at points of visual or olfactory signs of contamination, change in strata or at 1m centres to a depth of 5m. All samples were visually inspected and analysed with a PID. Where visual or olfactory signs of contamination were present the sample was be tested for an appropriate suite of analysis.

Where no visual or olfactory signs of contamination are present and there is no significant elevated PID results the sample will not be analysed.

4.6 Groundwater Quality Monitoring

Groundwater monitoring and sampling was carried out on five occasions between 10 January and 05 April 2011 by Waterman EED staff. Prior to monitoring being undertaken, each well was developed by purging out three times the well volume three times or until dry.



The presence of hydrocarbon free product on the groundwater was investigated by retrieving a surface sample of groundwater using a disposable bailer.

A broad suite of analysis was undertaken for the initial two rounds of sampling including metals speciated hydrocarbons, BTEX, VOC and SVOC.

Duplicate samples were collected during each monitoring visit these are denoted with an "X" in the sample ID. A sample of mineral water was also submitted as part of each sampling round these are identified with a "MW" in the sample ID.

All collected water samples were sealed into bottles with pre-measured fixatives where necessary, as supplied by the specialist laboratory and transported in cool boxes or refrigerated for 24hrs prior to despatch to the testing laboratory.



5. Methodology

Jomas undertook the intrusive Site Investigation work in general accordance with the Code of Practice for Site Investigation BS 5930 (1999) and the Code of Practice for the Investigation of Potentially Contaminated Sites and its Investigation BS 10175 (2001). An investigation location plan is presented in Figure 3 Appendix A, this plan also shows the location of USTs and ASTs.

5.1 Design of Investigation

Sampling locations were selected in order to characterise hydrogeology the Site and to target, as far as possible, potentially contaminated areas identified conceptual model. A summary of the investigation locations and features investigated is presented in Table 2 and Table 3



Table 2: Ground investigation strategy for phase of SI undertaken in October 2011

Investigation position	Building	Building type	Trial pit	Borehole	Location	Depth (m bgs)
TPNSA 201	Building 492	Plant room	Υ	N	Adjacent to the east of building	3.0 (or rock head)
TPNSA 202	Building 492	AST	Υ	N	Adjacent location of AST	3.0 (or rock head)
TPNSA 203	Building 466	Plant room	Υ	N	Adjacent to the north of building	3.0 (or rock head)
TPNSA 204	Building 440	Fuel fill point	Y	N	Adjacent to north western corner of building	3.0 (or rock head)
TPNSA 205	Building 440B	Boiler house	Y	N	Adjacent to north eastern corner of building	3.0 (or rock head)
TPNSA 206	Building 400	AST	Υ	N	Adjacent to north end of bund	3.0 (or rock head)
TPNSA 207	Building 402	Boiler house	Y	N	Adjacent to the south west corner of building	3.0 (or rock head)
TPNSA 208	Building 410	Boiler house	Y	N	Adjacent to the western edge of building	3.0 (or rock head)
TPNSA 209	Building 471	Plant room	Y	N	Adjacent to the north end of building	3.0 (or rock head)
TPNSA 210	Building 481	Plant room	Υ	N	Adjacent to the south east corner of building	3.0 (or rock head)
TPNSA 211	Building 483	Plant room	Υ	N	Adjacent to the east side of the building	3.0 (or rock head)
TPNSA 212	Building 489	Plant room	Υ	N	Adjacent to south side of building	3.0 (or rock head)
TPNSA 213	Building 488	Plant room	Υ	N	Adjacent to the north of building	3.0 (or rock head)
TPNSA 214	Building 594	Plant room	Y	N	Adjacent to the north east corner of building	3.0 (or rock head)
TPNSA 215	Building 593	Plant room	Υ	N	Adjacent to the south west corner of building	3.0 (or rock head)
TPNSA 216	Building 502	Plant room	Υ	N	Adjacent to the southern corner of building	3.0 (or rock head)
TPNSA 217	Building 445	Plant room	Υ	N	Adjacent to the south west corner	3.0 (or rock head)



					of building	
TPNSA 218	Building 446	Plant room	Y	N	Adjacent to the south west corner of building	3.0 (or rock head)
TPNSA 219	Building 598	Plant room	Y	N	Adjacent to the south west corner of building	3.0 (or rock head)
TPNSA 220	Building 596	Plant room	Υ	N	Adjacent to the north west corner of building	3.0 (or rock head)
TPNSA 221	Building 527	Plant room	Υ	N	Trial pit adjacent to south of building	3.0 (or rock head)
TPNSA 222	Building 527	Suspected AST	Υ	N	Trial pit adjacent to suspected AST	3.0 (or rock head)
TPNSA 223	North west corner of area	Shallow geotechnical	Y	N	Shallow geotechnical assessment	3.0 (or rock head)
TPNSA 224	Western portion of area	Shallow geotechnical	Y	N	Shallow geotechnical assessment	3.0 (or rock head)
TPNSA 225	Southern portion of area	Shallow geotechnical	Y	N	Shallow geotechnical assessment	3.0 (or rock head)
TPNSA 226	Building 295	Plant room / boiler house with fill point	Y	N	Trial pit adjacent to location of fill point	3.0 (or rock head)
TPNSA 227	Building 293 A	Plant room	Y	N	Trial pit adjacent to south of building	3.0 (or rock head)
TPNSA 228	Building 293	Plant room	Y	N	Trial pit adjacent to south of building	3.0 (or rock head)
TPNSA 294	SW of building 492	UST	Y	N	Adjacent to location of AST	3.0 (or rock head)
TPNSA 295	SW of building 492	UST	Y	N	Adjacent to location of AST	3.0 (or rock head)
BHNSA 001	Building 493	former petrol	N	Υ	Borehole upstream of filling	10



		station with USTs			station	
BHNSA 002	Building 493	former petrol station with USTs	N	Y	Borehole downstream of filling station	10
BHNSA 003	Building 493	former petrol station with USTs	N	Y	Borehole downstream of filling station	10
BHNSA 004	Building 467	UST and boiler house	N	Υ	Upstream of USTs	10
BHNSA 005	Building 467	UST and boiler house	N	Υ	Downstream of USTs	10
BHNSA 006	Building 467	UST and boiler house	N	Υ	Downstream of USTs	10
BHNSA 007	Building UH 10	Area impacted by transformer oil spill	N	Y	Downstream of spill area	10
BHNSA 008	Building 476	Area impacted by transformer oil spill	N	Y	Downstream of spill area	10
BHNSA 009	Building 441	USTs and boilers house	N	Υ	Upstream of USTs	10
BHNSA 010	Building 441	USTs and boilers house	N	Υ	Downstream of USTs	10
BHNSA 011	Building 441	USTs and boilers house	N	Υ	Downstream of USTs	10
BHNSA 012	SW Perimeter well	Deep aquifer	N	Y	Perimeter groundwater quality of deep aquifer	30
BHNSA 013	SE Perimeter well	Deep aquifer	N	Υ	Perimeter groundwater quality of deep aquifer	30
BHNSA 014	E Perimeter	Deep aquifer	N	Υ	Perimeter groundwater quality of	30



	well				deep aquifer	
BHNSA 015	E Perimeter	Shallow aquifer	N	Υ	Perimeter groundwater quality of	10
	well				shallow aquifer	
BHNSA 016	N Perimeter	Deep aquifer	N	Υ	Perimeter groundwater quality of	30
	well				Deep aquifer	
BHNSA 017	Building 579	Boiler house	N	Υ	Upstream of USTs	10
		and USTs				
BHNSA 018	Building 579	Boiler house	N	Υ	Downstream of USTs	10
		and USTs				
BHNSA 019	Building 579	Boiler house	N	Υ	Downstream of UST	10
		and USTs				
BHNSA 020	South of	Shallow Aquifer	N	Υ	Perimeter groundwater quality of	10
	building 582				shallow aquifer	
BHNSA 021	Building 581	Plant room and	N	Υ	Downstream of suspected USTs	10
		suspected USTs				
BHNSA 022	Building 295	Suspected tanks	N	Υ	Downstream borehole	10
BHNSA 037	Building UH8	AST	N	Υ	Down gradient of AST	10
BHNSA 038	Building UH8	AST	N	Υ	Up gradient of AST	10

Table 3: Ground investigation strategy for phase of SI undertaken in February 2012

Investigation position	Building	Building type	Trial pit	Borehole	Location	Depth (m bgs)
TPNSA 229	Building 32–34	Plant room	Υ	N	North side of building	3.0 (or rock head)
TPNSA 230	Building 32-34	Plant room	Υ	N	North side of building	3.0 (or rock head)
TPNSA 231	Building 32–34	Plant room	Υ	N	West side of building	3.0 (or rock head)
TPNSA 232	Building 32-34	Plant room	Υ	N	West side of building	3.0 (or rock head)
TPNSA 233	Building 32-34	Plant room	Υ	N	West side of building	3.0 (or rock head)
TPNSA 234	Building 77	Plant room	Υ	N	North side of building	3.0 (or rock head)



TPNSA 235	Building 78	Plant room	Y	N	North side of building	3.0 (or rock head)
TPNSA 236	Building 86	Suspected AST	Υ	N	South west corner of building	3.0 (or rock head)
TPNSA 237	Building 62/69	AST	Y	N	West side of building	3.0 (or rock head)
TPNSA 238	Building 72	Plant storage and maintenance	Y	N	West side of building	3.0 (or rock head)
TPNSA 239	Building 74	Suspected AST	Υ	N	West side of building	3.0 (or rock head)
TPNSA 240	Building 74	Plant room	Υ	N	West side of building	3.0 (or rock head)
TPNSA 241	Building 66	Plant room	Υ	N	Northern corner of building	3.0 (or rock head)
TPNSA 242	Building 56	Plant room	Υ	N	West side of building	3.0 (or rock head)
TPNSA 244	Building 133	Plant room	Υ	N	North of building	3.0 (or rock head)
TPNSA 245	Building 151	Suspected AST	Υ	N	South of building	3.0 (or rock head)
TPNSA 246	Building 151	Plant room	Υ	N	South side of building	3.0 (or rock head)
TPNSA 247	Building 151	Plant room	Υ	N	South side of building	3.0 (or rock head)
TPNSA 248	Building 151	Plant room	Υ	N	North side of building	3.0 (or rock head)
TPNSA 249	Building 151	Plant room	Υ	N	North side of building	3.0 (or rock head)
TPNSA 250	Building 151	Plant room	Υ	N	North side of building	3.0 (or rock head)
TPNSA 251	Building 151	Plant room	Υ	N	North side of building	3.0 (or rock head)
TPNSA 252	Building 131	Boiler house	Υ	N	West side of building	3.0 (or rock head)
TPNSA 253	Building 113A	Fill point of ASTs and covered tanks	Υ	N	South western corner of tank bund	3.0 (or rock head)
TPNSA 254	Building 113	Plant room	Y	N	South side of building	3.0 (or rock head



TPNSA 257	Building 345	Plant room	Y	N	South side of building	3.0 (or rock head)
TPNSA 258	Building 345	Plant room	Y	N	South side of building	3.0 (or rock head)
TPNSA 259	Building 345	Plant room	Y	N	South side of building	3.0 (or rock head)
TPNSA 261	Building 318	Plant room	Y	N	East side of building	3.0 (or rock head)
TPNSA 262	Building 350	Suspected AST	Y	N	West side of building	3.0 (or rock head)
TPNSA 263	Building 350	Plant room	Υ	N	South side of building	3.0 (or rock head)
TPNSA 264	Building 350	Plant room	Y	N	South side of building	3.0 (or rock head)
TPNSA 265	Building 130	Plant room	Υ	N	South side of building	3.0 (or rock head)
TPNSA 266	Building 117	AST	Y	N	North side of building	3.0 (or rock head)
TPNSA 267	Building 123	Plant room	Υ	N	North corner of building	3.0 (or rock head)
TPNSA 268	Building 315	Plant room	Y	N	West side of building	3.0 (or rock head)
TPNSA 269	Building 315	Plant room	Y	N	West side of building	3.0 (or rock head)
TPNSA 270	Building 316	Plant room	Y	N	North west corner of building	3.0 (or rock head)
TPNSA 271	Building 313	Plant room	Y	N	South side of building	3.0 (or rock head)
TPNSA 272	Building 313	AST	Y	N	South west corner of building	3.0 (or rock head)
TPNSA 274	Building 320	Plant room	Y	N	East side of building	3.0 (or rock head)
TPNSA 275	Building 320	Plant room	Υ	N	South side of building	3.0 (or rock head)
TPNSA 276	Building 320	Suspected AST	Y	N	South corner of building	3.0 (or rock head)
TPNSA 277	Building 101	Workshop	Y	N	South side of building	3.0 (or rock head)
TPNSA 278	Building 102	Workshop	Y	N	South side of building	3.0 (or rock head)



TPNSA 279	Building 103	Workshop	Υ	N	South side of building	3.0 (or rock head)
TPNSA 280	Building 301	AST	Y	N	Adjacent to tanks bund	3.0 (or rock head)
TPNSA 281	Building 281	Plant room	Υ	N	South east corner	3.0 (or rock head)
TPNSA 282	Building 80	Car wash tunnel	Υ	N	South side of building	3.0 (or rock head)
TPNSA 283	Building 80	Car wash tunnel	Υ	N	South side of building	3.0 (or rock head)
TPNSA 284	Building 80	Car wash tunnel	Υ	N	South side of building	3.0 (or rock head)
TPNSA 285	Building 172	Switch room	Υ	N	South side of building	3.0 (or rock head)
TPNSA 286	Building 172	Boiler House	Υ	N	South side of building	3.0 (or rock head)
TPNSA 288	Building 350	Plant room	Υ	N	North side of building	3.0 (or rock head)
TPNSA 289	Building 350	Plant room	Υ	N	North side of building	3.0 (or rock head)
TPNSA 290	Building 350	Plant room	Υ	N	North side of building	3.0 (or rock head)
TPNSA291	Building	Paragon refuel area	Y	N	North east of Paragon fuel storage tank	3.0 (or rock head)
TPNSA292	Building	Paragon refuel area	Y	N	North east of Paragon fuel storage tank	3.0 (or rock head)
BHNSA 023	Building 88	UST	N	Υ	Downstream of UST	10
BHNSA 024	Building 84	Fuel filling station	N	Y	Borehole up stream of filling station	10
BHNSA 025	Building 84	Fuel filling station	N	Υ	Borehole downstream of filling station	10
BHNSA 026	Building 84	Fuel station	N	Y	Borehole downstream of filling station	10
BHNSA 027	South of building 133	Suspected UST	N	Y	Borehole upstream of USTs	10
BHNSA 028	South of	Suspected UST	N	Υ	Borehole downstream of UST	10



	building 133					
BHNSA 029	South of building 350	USTs	N	Y	Borehole upstream of USTs	10
BHNSA 030	South of building 350	USTs	N	Y	Borehole downstream of USTs	10
BHNSA 031	South of building 350	USTs	N	Y	Borehole downstream of USTs	10
BHNSA 032	South of building 113A	AST	N	Y	Borehole Downstream of AST	10
BHNSA 039	South of UG NSA22 and 23	UST	N	Y	Borehole Downstream of UST	10
BHNSA 042	South of BHNSA6	Contamination BHNSA6	N	Y	Borehole Downstream of BHNSA6	10
BH NSA 043	South of BHNSA6	Contamination in BHNSA6	N	Y	Borehole downstream of BHNSA6	10
BHNSA 044	South of BHNSA6	Contamination in BHNSA6	N	Y	Borehole downstream of BHNSA6	10
BHNSA 045	Adjacent to the building 492	To determine depth of fill in this area	N	Y	Close to southeast corner of building 492	4



6. Site Investigation

JAL was instructed by Chris Knot Consulting, acting on behalf of Dorchester Heyford Park Limited, to undertake the site investigation works. The site investigation was carried out between the 26 September and 27 October 2011 and the 26 January and 24 February 2012. The works comprised the completion of 41No. Boreholes and 96No. trial pits. A survey was also undertaken of the above and below ground tanks that are known to exist on the Site. Factual reports detailing the activities undertaken during the site investigation are presented JAL Reports P8219J107 and P8251J128 both of which are included in Appendix C.



7. Results

Detailed logs of the strata encountered, together with records of the samples taken during both trial pitting and borehole installation and PID readings, are provided in the JAL Factual Reports contained within Appendix C. A summary of the geological strata and manmade underground structures encountered is presented below.

7.1 Geological Strata

The exploratory holes revealed that the NSA is underlain by a series of inter bedded limestones, sandstones, mudstones and siltstones of varying thickness which is underlain at depth by a significant deposit of mudstone. Generally, across the NSA the topsoil and underlying drift material was found to be underlain by fractured limestone or sandstone, which was weathered in its upper reaches across the Site. This was generally underlain by deposits of siltstone, mudstone or clay bands. The maximum thickness of these deposits which acts as a potentially impermeable layer with respect to the underlying horizons was found to be 17.8m, encountered in borehole BHNSA12. Permeability tests carried out on two samples collected from in mudstone in boreholes BHSNA12 and BHNSA16 showed the permeability of this material to be 1.0X10⁻⁴ m/day and 3x10⁻⁶ m/day respectively.

These layers of mudstone clay were found to be underlain by sand deposits or weakly cemented sandstone in boreholes BHNSA12, BHNSA13, BHNSA14, BHNSA16, although it should be noted that in borehole BH13 this horizon of mudstones, siltstones and clay is interbedded with limestone horizons of significant thickness implying that leakage occurs between the aquifers.

This confirms the anticipated geology, as shown on the British Geological Survey map for the area and also matches with the geology encountered underlying the FF as reported in Report Reference EED10658-109_R_9.2.1.FA. A summary of the geological strata encountered is shown Table 4.

Table 4: Geological strata encountered during Site Investigation

	ioa onata onocamenoa aaning ono invocagation	
Soil Type	Typical Description	
Made Ground	Brown/black/yellow/ clayey sandy gravel with gravel comprising fragments of limestone, concrete, brick, tarmac underlying covering of turf, tarmac or concrete. Made ground in trial pits TPNSA 201 and TPNSA 202 comprised a black/brown sandy gravel of concrete, ash, clinker metal and ceramic. A faint hydrocarbon odour was noted at a depth of 2.7m in trial pit TPNSA 207	
Sandy gravel	Sandy gravel with limestone cobbles becoming increasingly dense with depth	
Limestone	Pale grey crystalline limestone with occasional shell fragments, weathered at top of strata	
Sandstone	Yellow and pale grey calcareous sandstone with occasional shell fragments	
Siltstone/mudstone deposits	Grey Siltstone and pale grey mudstone occasional bands of coarse shelly limestone	
Sand and weak sandstone	Dark grey silty sand weakly cemented sandstone	

Additional information regarding the trial pitting and borehole operation, including copies of trial pit and borehole logs is presented in JAL Reports P8219J107 and P8251J128, Appendix C. Cross sections of the Site geology based on what was encountered in boreholes are presented in Appendix A.



7.2 Chemical Analysis of Soil Samples

The laboratory test results are presented in JAL Reports contained within Appendix C.

7.3 Results of monitoring and analysis of Groundwater

7.3.1 Groundwater monitoring and flow direction

Groundwater monitoring has taken place in all boreholes drilled on the Site, The results of the groundwater level monitoring are presented in Appendix D. Groundwater levels on Site varied from 107.6mAOD to 123.82mAOD. The results of groundwater monitoring have indicated that groundwater flow is towards the southeast. A graphical representation of groundwater flow direction in the shallow aquifer underlying the Site is provided in Appendix A. It should be noted that some anomalies with respect to groundwater level on Site were noted in BHNSA4 and BHNSA8. Groundwater levels in these boreholes appeared to be low in relation to their position on the Site.

Four boreholes only were drilled targeting the deeper aquifer with drilling methodologies and installations appropriate to prevent the potential for creating a pathway for contamination between the upper and lower aquifer. BHNSA12 was installed to target the deep aquifer below the mudstone and siltstone deposits however the groundwater level in this borehole corresponds with that of the shallower aquifer. Surfer plots were not drawn up to represent ground water flow in the deep aquifer as it was deemed four boreholes over such a wide area was insufficient to produce a robust plot, also given what is known about groundwater flow in the area, in view of the works undertaken on the FF, flow in the deep aquifer is also assumed to flow in a south easterly direction.

During the second round of groundwater sampling LNAPL was noted in borehole NSABH6. Efforts to measure the thickness proved unsuccessful using an interface probe and a disposable bailer therefore it is thought the LNAPL layer is less than 2mm in thickness. Following discovering the LNAPL layer an additional three boreholes BHNSA42, BHNSA43 and BHNSA44 were drilled in an effort to further characterise any potential LNAPL plume. In subsequent rounds of ground water monitoring LNAPL has not been detected in any of the-afore mentioned delineation boreholes.

A total of 15 falling head tests were carried out on 5 boreholes on the Site the results of the falling head tests are presented in Table 5.

Table 5: Summary of results of permeability tests carried out on Site

Borehole	Date of test	Average Permeability (K) for the borehole m/day	Groundwater flow m/day
BHNSA4	24/02/2012	0.03	0.00042
BHNSA7	24/02/2012	0.14	0.002
BHNSA16 (Deep borehole)	24/02/2012	286	>4.0*
BHSNA27	24/02/2012	0.7	0.01
BHNSA29	24/02/2012	0.14	0.002

^{*}For this test a head could not be built up in the well therefore the value presumes a constant head was maintained during the test at the original groundwater dip level therefore this result is indicative only and is likely to be exaggerated.

Given that groundwater flow on Site is flowing in a south easterly direction the difference between the water level (mAOD) between BHNSA39 (118.35mAOD) and BHNSA11 (117.9mAOD) was chosen to represent the typical groundwater gradient across the Site. The distance between BHNSA39 and



BHNSA11 is 704m therefore the approximate groundwater gradient on the site is 0.014. The corresponding groundwater flow rates have been included in Table 5.

The results for permeability and flow rate are generally in line with what was seen during the investigation of the FF as reported in report Reference EED10658-109.R.9.2.1_FA. The wide variation in K values is typical of a fractured limestone and sandstone geology where the presence of fissures of varying thickness can significantly impact on the hydraulic conductivity of the geological formation, whilst the rock in its self has a relatively low hydraulic conductivity (K).

7.3.2 Site Hydrogeology

Following a review of the of the geological and hydrological information produced during the site investigation the hydrogeology for the Site can be described as a two aquifer system separated by a mudstone/siltstone layer of significantly lower permeability, evidence for leakage between the aquifers is present. Groundwater flow direction is towards the south and southeast in the upper aquifer with a wide variation in flow rate present due to fissured nature of the limestone and sandstone rock. Flow direction in the deep aquifer is assumed similar, where encountered the deeper aquifer comprised weakly cemented sandstone.

7.3.3 Results of Groundwater Analysis

Results of groundwater analysis are presented in Appendix E.

7.4 Ground Gas

Ground gas monitoring has been carried out in all boreholes on Site the results of the monitoring are presented in Appendix F. Gas monitoring was carried out on the following dates 07-02-2012, 05-03-2012, 25-03-2012 and 02-04-2012.

7.5 Tank Survey

The results of the tanks survey carried out during the works is presented in the JAL Report contained in Appendix C

7.6 Results of geotechnical analysis

Results of the ex-situ geotechnical analysis undertaken on a selection of samples are presented in JAL reports contained within Appendix C.



8. Generic Assessment Criteria

The information requirements for generic quantitative risk assessment will depend on:

- The substance being assessed
- The receptors being considered
- The pathways being considered
- · The complexity of the Site

The outline conceptual model developed for the Site has identified a number of potential pollutant linkages. These potential pollutant linkages have been investigated and the results assessed against generic assessment criteria. The generic assessment criteria selected for each potential pollutant linkage are summarised in Table 6 below:

Table 6: Generic assessment criteria

Source	Pathway	Receptor	Generic Assessment Criteria
Contaminated Soils	Direct contact, inhalation, injection	Future users of the proposed Development	Waterman Generic Assessment Criteria
Leaking Fuel Tanks	Direct contact with groundwater, migration through bed rock	Principal Aquifer	UK Drinking Water Standards
Ground gas	Production in made ground and migration through soil matrix	Future users of the proposed Development	Gas Screening Value determination and assessment in accordance with CIRIA C665
Contaminated Soils	Direct Contact	New water supply pipes	Water Regulations Advisory Scheme Information and Guidance Note

The generic assessment criteria used in this report are included in Appendix G.



9. Quantitative Environmental Risk Assessment

The potential pollutant linkages identified in Section 3.2 have been evaluated using the Generic Assessment Criteria (GAC) described in Section 8 and Appendix G. Results of soil analysis were separated into two groups, those collected form the RCA where redevelopment is not proposed and those samples collected from the NDA. Results were then compared to their relevant threshold concentrations. The results of this evaluation are reported below.

9.1 Risk to Human Health NDA

The results of the soil analysis were compared against the Generic Assessment Criteria for a residential end use (Appendix I) for inorganic and organic contaminants the outcome of which are presented in Table 7 to Table 9 for samples collected from the NDA. Some area within the NDA may be developed for commercial use however contaminant concentrations in these are well below commercial GACs.

Table 7: Summary of Generic Quantitative Risk Assessment for residential end use for Human Health from inorganic contaminants in NDA.

morganic contaminante in 1457.					
Contaminant	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Number of Exceedances	Generic Assessment Criteria (mg/kg)	
Arsenic	5	56.28	7	32	
Barium	1.00	2096.66	1	1300	
Beryllium	<0.5	6.51	None	51	
Boron (Water Soluble)	<0.5	3.14	None	291	
Cadmium	<0.5	23.57	1	10	
Chromium (total)	4.29	94.96	None	3000	
Chromium VI	<2	<2	None	4.30	
Copper	2.40	4096.05	1	2330	
Cobalt	1.82	23.86	None	240	
Lead	2.85	2658.19	2	450	
Mercury	<0.50	<0.50	None	1	
Molybdenum	5.0	8.67	None	670	
Nickel	3.77	78.41	None	130	
Selenium	0.5	3.43	None	350	
Vanadium	15.66	233.0	13	75	
Zinc	3.75	2440.65	None	3750	
Cyanide (Free)	<1	1.14	None	26	
Total Cyanide	<1	1.14	None	26	
Thiocyanate	<2	<2	None	230	
Elemental Sulphur	10	477.75	n/a	n/a	
Water Soluble Sulphate (mg/l)	10	868	n/a	n/a	

^{*} exceedances are written in bold



Table 8: Summary of Generic Quantitative Risk Assessment for Human Health in the NDA from organic contaminants

Contaminant	Minimum Concentration (mg/kg)	Maximum Concentration	Number of Exceedances	Generic Assessment Criteria (mg/kg)
Aliphatic EC5 -EC6	0.01	0.02	None	30.00
Aliphatic EC6 -EC8	0.01	1.01	None	73.00
Aliphatic EC8-EC10	5.00	22.39	1	19.00
Aliphatic EC10-EC12	0.19	67.24	None	93.00
Aliphatic EC12-EC16	0.26	90.33	None	740.00
Aliphatic EC16-EC35	0.11	83.28	None	45000.00
Aliphatic EC35-EC44	0.11	467.87	None	45000.00
Aromatic EC5-EC7	0.01	0.01	None	0.08
Aromatic EC7-EC8	0.01	0.01	None	120.00
Aromatic EC8-EC10	0.66	5.00	None	27.00
Aromatic EC10-EC12	0.17	28.12	None	69.00
Aromatic EC12-EC16	0.10	93.41	None	140.00
Aromatic EC16-EC21	0.13	293.86	1	250.00
Aromatic EC21-EC35	0.16	973.93	1	890.00
Aromatic EC35-EC44	0.00	0.00	n/a	No value
Benzene	0.01	0.012	None	0.08
Toluene	0.01	0.02	None	120.00
Ethyl Benzene	0.011	0.04	None	65.00
Xylene- m	0.022	0.07	None	45.00
Phenols	1	1	None	210

Table 9: Summary of Generic Quantitative Risk Assessment for Human Health from speciated PAHs in NDA

Contaminant	Minimum Concentration (mg/kg)	Maximum Concentration	Number of Exceedances	Generic Assessment Criteria (mg/kg)
Naphthalene	<0.10	11.88	2	1.50
Acenaphthylene	<0.10	14.26	None	170.00
Acenaphthene	<0.10	23.70	None	210.00
Fluorene	<0.10	23.21	None	160.00
Phenanthrene	<0.10	238.38	2	92.00
Anthracene	<0.10	79.19	None	2300.00
Fluoranthene	<0.10	312.13	1	260.00
Pyrene	<0.10	248.45	None	560.00
Benz(a)anthracene	<0.10	133.02	9	3.10
Chrysene	<0.10	127.74	9	6.00
Benzo(b)fluoranthene	<0.10	124.17	9	5.60
Benzo(k)fluoranthene	<0.10	140.67	5	8.50
Benzo(a)pyrene	<0.10	144.05	18	0.83



Indeno(123-cd)pyrene	<0.10	130.93	9	3.20
Dibenz(ah)anthracene	<0.10	27.06	9	0.76
Benzo(ghi)perylene	<0.10	115.99	2	44.00

9.1.1 Risk to future Site users in residential area

Inorganic contaminants

A number of inorganic compounds were detected above their respective threshold concentrations for land intended to be developed for residential use.

Arsenic was detected above the threshold concentration of 32mg/kg in trial pits TPNSA201 (2.0 mbgs), TPNSA204A (0.50m bgs), TPNSA211 (0.3m bgs), TPNSA215 (0.30m), TPNSA224 (0.5m bgs), BHNSA22 (0.50m bgs) and BHNSA22 (2.0m bgs). Barium was detected above the threshold concentration of 1300mg/kg in one sample, TPNSA 201 (2.0m bgs). Cadmium was detected above the threshold value of 10mg/kg in one sample TPNSA 201 (2.0m bgs). Copper was detected above the threshold value of 2330mg/kg in one sample TPNSA 201 (2.0m bgs). Lead was detected above the relevant threshold value of 450mg/kg in 2 samples, TPNSA 201 (0.5m bgs) and TPNSA 201 (2.0m bgs). Vanadium was detected above the threshold concentration of 75mg/kg in 13 samples TPNSA202 (2.5 mbgs), TPNSA204A (0.50m bgs), TPNSA205 (0.20m bgs) TPNSA211 (0.3m bgs), TPNSA213 (0.5m bgs), TPNSA214 (0.5m bgs), TPNSA215 (0.30m), TPNSA 218 (0.15m bgs) BHNSA4 (1.0m bgs), BHNSA5 (0.50m bgs), BHNSA7 (0.5m bgs), BHNSA2 (0.5m bgs) and BHNSA22 (2.0m bgs).

With the exception of sample BHNSA22 (2.0m bgs) all these sample were collected from made ground which was recorded as having fragments of ash, clinker, brick, and concrete and as such these concentrations of contaminants are not untypical. Sample BHNSA22 2.0 was collected from natural material however this is considered not representative of natural material on the Site and may have become contaminated with made ground during the drilling process.

Organic contaminants

Two samples (TPNSA 204A, 0.5m bgs and TPNSA 209 0.3m bgs) collected from made ground were found to contain concentrations of aromatic compounds above the relevant threshold criteria. Following inspection of the trial pit logs the material from which the samples were collected was found to contain fragments of tarmac which may have contributed to the detected concentrations of these compounds. The PID readings for the samples were 1.4ppm and 0.4ppm respectively and hydrocarbon odours were not noted.

A total of eighteen samples were found to have concentrations of at least one speciated PAH compound above the relevant threshold concentration for the particular compound. All samples were collected from made ground which was described as containing fragments of clinker, ash and tarmac in varying quantities which undoubtedly contributed to the concentrations detected.

9.1.2 Proposed Redevelopment Works and Soil Contamination in the NDA

Although final development levels are not currently available it is expected that the Site will be re-profiled as part of the proposed development. In areas of the Site where levels are required to be reduced, material being removed will be sampled and subsequently segregated according the results of chemical analysis. According to these results material will either be one of the following;

- reused at surface
- reused below a cleaning capping layer as excavation backfill



require disposal from Site

The threshold criteria for material to be used at surface will be GACs for a residential development as used in Section 9.1. For material proposed to be used beneath a clean capping layer a Detailed Quantitative Risk Assessment (DQRA) will be undertaken to determine threshold concentrations at which this material is suitable for reuse beneath a clean capping layer. The DQRA is discussed further in Section 9.4.6

In areas of the Site not proposed to be re-levelled and where the elevated concentrations of contaminants have been confirmed present these areas will be reassessed in terms of the proposed development. Areas where the potential pollutant receptor linkage has not been broken by paving, hard-standing or the built development will be reassessed to determine the required thickness of cover layer in gardens and areas of soft landscaping. This reassessment will be take place once the final development scheme has been confirmed and will include the targeted collection of additional near surface soil samples where necessary.

Therefore risk posed to future Site users as a result of contamination within the soil is considered not significant for the following reasons

- roads, paving, hard standing and built development will break the source receptor linkage between contaminated made ground and future Site users
- although details of the final Site levels are not currently available it is likely that some of the made
 ground on the Site will be removed in the course of the development thereby removing some of
 the source of contamination. Material intended to be removed will segregated based on
 suitability for reuse as described above
- in areas of soft landscaping or gardens additional targeted sampling of soil will be carried out following confirmation of the development layout, the results of which be used to determine the design of the cover layer in gardens and areas of soft landscaping.

9.2 Risk to future Site users in RCA

The results of analysis of soil samples collected from the retained commercial area were compared with the relevant GACs for a commercial end use. Only sample TPNSA20 (20.76mg/l) was found to contain benzo(a)pyrene (BAP) in exceedance of the relevant threshold of 14.0mg/kg. This exceedance is not representative of BAP concentration on the Site. As a result the RCA is considered suitable for continued use without the requirement for further investigation or remedial works with respect to contamination in the soil.

9.2.1 Ground Gas

A complete set of ground gas results is included within Appendix F. Table 10 summarises the peak carbon dioxide and methane gas results recorded on the Site.

Table 10: Summary of gas monitoring results

Gas Type	Concentration Range
Oxygen (%) 14.4 (BHNSA6) – 21.2 (BHNSA24)	
Carbon dioxide (%)	<0.1 – 3.7(BHNSA45)
Methane (%)	<0.1
Carbon Monoxide (ppm)	<1



Hydrogen sulphide (ppm)	<1	
VOCs (ppm)	<0.1 - 75.3 (BHNSA11)	
Flow (I/hr)	<0.13.7(BHNSA6)	

The results of the ground gas monitoring undertaken to date have indicated concentrations of oxygen between 14.4% and 21.2% and carbon dioxide between <0.1% and 3.7%. Methane was not recorded above the 0.1% limit of detection of the instrument used. A flow rate of -3.7l/hr was recorded in borehole BHNSA6.

To assess the likely risk posed by ground gases a Gas Screening Value (GSV) is calculated using the peak recorded gas flow (I/hr) multiplied by the maximum gas concentration (%). Depending on the type of building proposed to be constructed the GSVs, calculated for both carbon dioxide and methane, are then compared against the threshold values as presented in Appendix I.

Given that the development will include buildings for residential, commercial and community end use the gas risk assessment has been carried to for both "Situation A" and "Situation B" type development. "Situation A" comprises all development except low rise house with a ventilated floor void. "Situation B" development comprises low rise house with a ventilated floor void. Further explanation of gas risk assessment is provided in Appendix I.

When the maximum flow rate recorded is a minus value the guidance recommends that the positive of the number is used in calculations. Therefore the GSV for the Site is 0.137. For a "Situation A" development this corresponds with a Characteristic Situation 2 meaning low risk, whilst for "Situation B" development the GSV corresponds to Green.

Whilst no additional measures are required for "Situation B" structures, which cover the majority of development proposed for the NDA, the protective measures for a Situation A development are outlined in Table 11

Table 11: Protective measures required for "Situation A" development Characteristic Situation 2

			al building (not those subject BC Classification Method	Office/co	mmercial/industrial development
CS*	Risk Classification	No. of levels of protection	Typical scope of protective measures	No. of levels of protection	Typical scope of protective measures
2	Low risk	2	 a) Reinforced concrete cast in situ floor slab (suspended, non- suspended or raft) with at least 1200g DPM^{2,7} and 	1 to 2	 a) Reinforced concrete cast in situ floor slab (Suspended, non-suspended or raft) with at least 1200g DPM^{2,7}. b) Beam and block or pre-cast
			underfloor venting. b) Beam and block or precast concrete and 2000g		concrete slab and minimum 2000g DPM / reinforced gas membrane.
			DPM ⁷ / reinforced gas membrane and underfloor venting.		c) Possibly underfloor venting or pressurisation in combination with a) and b) depending on
			All joints and penetrations sealed		use. All joints and penetrations sealed

Based on the results to date the risk posed to future Site users as a result of asphyxiation and/or explosion is considered not to be significant.



Hydrocarbon vapours

Hydrocarbon vapours were found to be present above the limit of detection of 0.1ppm in 5No. boreholes, listed as follows; BHNSA6, BHNSA10, BHNSA11, BHNSA26 and BHNSA42. In these boreholes concentrations varied from 1.7ppm (BHNSA10 and BHNSA11) to 62.9 in BHNSA6. BHNSA6 was the only borehole where VOCs were consistently detected. This is expected given the extent of hydrocarbon contamination encountered in the BHNSA6. The risks to the future development posed by hydrocarbon vapours are considered not significant for the large majority of the Site. Following remedial work intended to take place as part of the redevelopment VOC concentrations will be reassessed at this location in relation to the proposed development.

9.2.2 Risk to Construction Workers

A qualitative assessment of the risk to construction workers has been undertaken as part of this assessment, given that there are no specific threshold criteria currently available for contamination risks to this receptor.

It is considered that Site construction and maintenance workers should wear appropriate Personal Protective Equipment (PPE) and clothing during any below ground works in order to reduce direct contact, dermal absorption, ingestion and inhalation of any potential contaminants.

9.3 Risk to Structures

A total of 38 samples were submitted for BRE SD1 suite of analysis. Water soluble sulphate concentrations were found to range from <10 to 595mg/l however for the soil samples subject to the general suite of analysis a maximum concentration of 868mg/kg was detected. Concentrations of total sulphate ranged from a concentration of 0.05% to 1.1%. pH ranged from 7.9 to 11.8.

Using the guidance in BRE Special Digest 1 (2005), the design sulphate concentration for the Site is normally calculated using the mean of the highest two total sulphate results, which in this case is 0.67%. Using Table C2 of the BRE guidance, this equates to a design sulphate class of DS-2. The pH of the soil is in excess of 6.5 and groundwater is mobile beneath the Site, so the Aggressive Chemical Environment for Concrete (ACEC) class is likely to be AC-2.

9.4 Risk to Water Supply Pipes

Given that the new water main is to be laid on a brownfield Site it is recommended that "barrier pipe (PE-AL-PE)" is used. This pipe selection is based on the guidance provided in "Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites" (Report Ref. No. 10/WM/03/21, dated 2010). The pipe selection should be confirmed with Thames Water.

9.5 Risk to groundwater

9.5.1 Groundwater Assessment Criteria

The results of water analysis are presented in Appendix E. The results of analysis were compared in the first instance against the UK Drinking Water Standards (DWS) as the aquifer underlying the Site comprises a Principal Aquifer and is used for local extraction. Although the nearest groundwater extraction is located approximately 1km to the south west of Heyford Park.

Where DWS were not available the Environmental Quality Standards (EQS) (freshwater) were used. A copy of the EQS and DWS are presented in Appendix I.



9.5.2 Summary of results of water analysis

Exceedances were noted for several contaminants including Arsenic, Nickel, Magnesium, Total Petroleum Hydrocarbons (TPH), phenol and PAHs. The concentrations for other compounds were not detected above the relevant threshold values and therefore will not be discussed further. A summary of the recorded exceedances are provided in Table 12 and Table 13.

Table 12: Summary of nickel, lead and magnesium and total PAH concentrations in groundwater samples

Contaminant		Samples with rec	orded exceedances	
Nickel	48ug/l (BHNSA 26 20120307)	44.00 ug/l (BHNSA 26 20120323)		
Lead	379ug/l (BHNSA 45 20120327)			
Magnesium	9200ug/l (BHNSA23 20120307)			
Total DALIa	13.1ug/l (BHNSA6 20120323)	4.45ug/l (BHNSA6 20120405)	0.21ug/l (BHNSA7 20120323)	0.23ug/l (BHNSA7 20120405)
Total PAHs	0.26ug/l (BHNSA21 20120307)	0.17ug/l (BHNSA 20120405)	7.8ug/l (BHNSA 28A 20120323)	0.11ug/l (BHNSA38 20120323)

Concentrations of nickel, lead and magnesium presented in the above table are not representative of concentrations across the Site as a whole and are therefore considered not significant in terms of groundwater quality. Total PAH exceedances in BHNSA6 reflect the significant hydrocarbon contamination present in this borehole. For remaining samples where total PAH concentrations exceeded the relevant threshold concentration exceedances were marginal or not consistent for all samples collected from the borehole.



Table 13: Summary of Phenol and TPH concentrations in groundwater samples

			BH-NSA-1					BH-NSA-2					BH-NS	A-3	
	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405
Phenol ug/l	2.70	<0.5	<0.5	<20	20	3.90	2.40	<0.5	<20	<20	3.30	1.10	<0.5	<20	<20
Aliphatics >C8 - C40 ug/l	5.39	0.27	0.03	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.01	2.27	0.42	0.04	0.07	0.04
Aromatics >C8 - C40	1.62	0.09	0.01	<0.01	<0.01	0.01	0.03	<0.01	<0.01	<0.01	0.63	0.12	0.02	<0.01	0.02
TPH	7.01	0.36	0.05	<0.01	<0.01	0.01	0.04	<0.01	<0.01	0.01	2.90	0.53	0.06	0.07	0.05

			BH-NSA-	4				BH-NSA-5	5				BH-NS	SA-6	
	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405
Phenol	<0.5	1.0	<0.5	<0.5	<0.5	3.20	<0.5	<0.5	<0.5	<0.5	4.20	<0.5	<0.5	<20	<20
Aliphatics >C8 - C40	0.02	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	1.16	16.60	0.97	6.93	2.31
Aromatics >C8 - C40	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.97	11.60	0.66	4.54	1.59
TPH	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	2.13	28.20	1.63	11.47	3.90

			BH-NSA-7	7				BH-NSA-8	3				BH-NS	6A-9	
	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405
Phenol	2.70	0.7	0.6	<20	<20	1.30	<0.5	<20	<20	<0.5	<0.5	<0.5	<0.5	<20	<20
Aliphatics >C8 - C40	0.05	0.05	0.01	<0.01	0.01	0.01	0.02	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01
Aromatics >C8 - C40	<0.01	<0.01	0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.01
TPH	0.05	0.05	0.02	0.01	0.02	0.01	0.02	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.02



			BH-NSA-1	0				BH-NSA-1	1				BH-NS	A-12		BHNS A12X
	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405	0.00
Phenol	1.70	<0.5	<0.5	<0.5	<0.5	2.80	<0.5	<0.5	<0.5	<0.5	2.10	<0.5	<0.5	<0.5	<0.5	<0.5
Aliphatics >C8 - C40	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.01	0.01	<0.01	0.02	0.35	0.02	<0.01	<0.01	<0.01	<0.01
Aromatics >C8 - C40	<0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	0.01	0.06	<0.01	0.01	<0.01	<0.01	0.01
TPH	<0.01	<0.01	0.01	<0.01	0.03	<0.01	0.01	0.02	<0.01	0.03	0.41	0.02	0.01	<0.01	<0.01	0.01

			BH-NSA-1	3			BH-NSA-1	4	BH-NSA- 14X	BH-N	SA-14			BH-NSA-15		
	201201	201202	20120307	20120323	20120405	201201	201202	20120307	201201	20120323	20120405	201201	201202	20120307	20120323	20120 405
Phenol	2.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aliphatics >C8 - C40	0.02	<0.01	<0.01	<0.01	<0.01	0.07	0.07	0.01	0.07	<0.01	<0.01	0.03	0.04	<0.01	<0.01	<0.01
Aromatics >C8 - C40	<0.01	<0.01	0.01	<0.01	<0.01	0.02	0.02	0.01	0.03	<0.01	<0.01	<0.01	0.01	0.02	<0.01	<0.01
TPH	0.02	<0.01	0.01	<0.01	<0.01	0.09	0.09	0.02	0.10	<0.01	<0.01	0.03	0.05	0.03	<0.01	<0.01

	BH-NS	A-16	BH-NSA 16X		BH-NSA 16				BH-NSA-17	7				BH-NSA-18		
	201201	201202	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120307	20120 405
Phenol	3.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aliphatics >C8 - C40	0.03	0.03	0.04	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.01	0.02	0.01
Aromatics >C8 - C40	<0.01	0.01	0.01	<0.01	<0.01	<0.01	0.49	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01
TPH	0.03	0.04	0.06	<0.01	<0.01	<0.01	0.52	0.00	0.01	<0.01	0.03	<0.01	<0.01	0.02	0.02	0.01



		BH-NSA-19		BH-NSA-19X	BH-N	SA-19			BH-NSA-20)				BH-NSA-2	21	
	201201	201202	20120307	20120323	20120323	20120405	201201	201202	20120307	20120323	20120405	201201	201202	20120307	20120323	20120405
Phenol	0.80	<0.50	<0.05	<20	<20	<20	<0.5	<0.5	<0.5	<20	<20	<0.5	<0.5	<0.5	<20	<20
Aliphatics >C8 - C40	0.11	0.01	0.01	<0.01	<0.01	0.01	1.00	0.06	0.02	<0.01	<0.01	0.72	0.02	0.03	0.02	<0.01
Aromatics >C8 - C40	0.04	<0.01	<0.01	<0.01	<0.01	0.01	0.29	0.02	<0.01	<0.01	<0.01	0.22	0.03	0.09	0.10	0.05
TPH	0.14	0.01	0.01	<0.01	<0.01	0.03	1.29	0.08	0.02	<0.01	<0.01	0.94	0.05	0.11	0.11	0.05

			BH-NSA-2	2			BH-NFA-23		BH-NFA- 24	BH-NFA- 24X	BH- NSA-24	BH- NSA-24X	BHNSA24	BHNSA24X
	201201	201202	20120307	20120323	20120405	20120307	20120323	20120405	20120307	20120307	20120323	20120323	20120405	20120405
Phenol	<0.5	<0.5	<0.5	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aliphatics >C8 - C40	0.85	0.18	0.13	<0.01	0.01	<0.01	<0.01	<0.01	0.01	0.04	0.03	<0.01	<0.01	<0.01
Aromatics >C8 - C40	0.20	0.07	0.08	0.01	0.01	<0.01	<0.01	<0.01	0.01	0.05	<0.01	<0.01	0.01	0.01
TPH	1.06	0.25	0.22	0.01	0.03	<0.01	<0.01	<0.01	0.02	0.10	0.03	<0.01	0.01	0.01

		BH-NFA-25		В	H-NFA-26			BH-NSA 27			BH-NSA 28A	4		BH-NFA-29	
	20120307	20120323	20120405	0.00	20120323	20120405	0.00	0.00	0.00	0.00	20120323	0.00	20120307	20120323	201204050
Phenol	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aliphatics >C8 - C40	0.07	0.01	<0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01
Aromatics >C8 - C40	0.04	0.02	<0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPH	0.11	0.03	<0.01	0.05	0.03	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01



	BH-NSA 30			В	H-NFA-31			BH-NSA 32		BH-NSA 37		
	20120323	0.00	0.00	20120307	20120323	20120405	20120307	20120323	20120405	20120307	20120323	20120405
Phenol	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aliphatics >C8 - C40	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01	0.02
Aromatics >C8 - C40	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
TPH	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01	0.02	0.02

	BH-NSA-38					BH-NFA-39			BH-NSA 42			BH-NSA 43		
	201201	201202	20120307	20120323	20120405	20120307	20120323	20120405	20120307	20120323	20120405	20120307	20120323	20120405
Phenol	1.7	0.6	<0.5	<20	<20	<0.5	<0.5	<20	<0.5	<0.5	<0.20	<0.5	<0.5	<20
Aliphatics >C8 - C40	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.05	0.07	<0.01	0.30	0.76	0.27
Aromatics >C8 - C40	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.01	<0.01	0.07	0.15	0.03
TPH	<0.01	0.01	<0.01	0.01	<0.01	0.03	<0.01	<0.01	0.05	0.09	<0.01	0.38	0.90	0.30

	BH-NSA 44			В	H-NSA 45	BH-NSA-MW1					
	20120307	20120327	20120405	20120307	20120327	20120405	201201	201202	20120307	20120323	20120405
Phenol	<0.5	<0.5	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aliphatics >C8 - C40	<0.01	<0.01	<0.01	0.04	0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.01
Aromatics >C8 - C40	<0.01	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPH	<0.01	<0.01	<0.01	0.05	0.03	<0.01	0.02	<0.01	<0.01	<0.01	0.01



9.5.3 Summary of TPH exceedances in groundwater

Of the 170No. samples collected from the boreholes across the NSA a total of 75 (45%) samples had TPH concentrations in excess of the 0.01mg/L threshold value, whilst a total of 147 (86%) samples had concentrations at or below 0.1mg/l. Hydrocarbon contamination detected comprised of compounds with a carbon banding above C8 and in many boreholes higher, reflecting the weathered natured of the contamination detected. BTEX compounds were not detected above the limit of detection in any of the samples analysed with the exception of one sample collected from BHNSA6 where a concentration of 8ug/l was detected.

From a review of the results 5No. boreholes show consistently elevated TPH concentrations indicating groundwater in the vicinity of these locations has been impacted by the presence of USTs which were operational during the life of the base. These boreholes are listed as follows; BHNSA3, BHNSA6, BHNSA21, BHNSA22 and BHNSA43. It should be noted that all these boreholes were positioned down groundwater gradient of a UST to target potential contamination. This is not to imply that other USTs are not causing a measurable impact to groundwater quality, however concentrations detected in the above listed boreholes were generally elevated in comparison to other boreholes and/or elevated TPH concentrations were detected consistently during all groundwater sampling rounds.

TPH exceedances in samples collected from the remainder of the boreholes are often marginal and sporadic, mirroring what was found following the site investigation carried out on the Flying Field.

9.5.4 Summary of Phenol exceedances in groundwater

Phenol was found to exceed the threshold concentration in 17No. samples. Exceedances were generally sporadic and often marginal reflecting the general groundwater quality underlying the Site. Phenol concentrations are not considered to be significant in terms of offsite impact to offsite groundwater and surface water bodies.

At least three rounds of groundwater sampling and level monitoring took place for every borehole whilst boreholes BHNSA1 to BHNSA22 and BHNSA38 were subject to five rounds of sampling and level monitoring.

9.5.5 Assessment of impact to groundwater quality

The results of analysis showed that 4No. clusters of USTs were found to be having a particular consistent impact on groundwater quality in their immediate vicinity. These USTs are detailed in the Table 14.

Table 14: USTs causing a consistent impact on groundwater quality

UST	Boreholes Impacted	Range of TPH concentration	Number of samples where TPH concentration exceeded threshold
UG NSA 17, 18, 19, 20	BHNSA3	0.07 to 2.9mg/l	5 of 5
UG NSA 1, 2, 3	BHNSA6 (BHNSA 43)	1.63 to 28.20mg/l (0.3 to 0.90mg/l)	5 of 5 (3 of 3)
UGNSA 8	BHNSA 21	0.05 to 0.94mg/l	5 of 5
US NDA13, 14, 15	BHNSNA 22	0.01 – 1.06mg/l	4 of 5

The results of chemical analysis from remaining boreholes show that while groundwater quality has been impacted the extent of the impact is considerably less than in the boreholes listed in Table 15. Moreover the results of the chemical analysis has indicated that the groundwater quality in boreholes located at or



close to the Site boundary and therefore down groundwater gradient of the remainder of the Site and impacted areas (including BHNSA7) show that the quality of groundwater leaving the Site is, by in large good considering Site history and then the known impact of USTs. As such the risk to offsite groundwater and surface water receptors is not considered significant.

Groundwater quality in the boreholes at or in the vicinity of the Site boundary or down gradient of an impacted area is summarised in Table 15. Groundwater quality is seen by in large to be good. Surfer plots confirming groundwater flow are presented in Appendix A.

Table 15: Summary of TPH concentration boreholes at Site boundary or down gradient of impacted area

Borehole	Range of TPH concentration mg/l	Number of samples where TPH concentration exceeded threshold
BHNSA12 (deep borehole)	0.01 to 0.41	2 of 5
BHNSA10	<0.01 to 0.03	1 of 5
BHNSA11	<0.01 to 0.02	2 of 5
BHNSA13 (deep borehole)	<0.01 to 0.02	1 of 5
BHNSA8	<0.01 to 0.03	2 of 5
BHNSA7 (down gradient of UG NSA 1, 2, 3)	<0.1 to <0.05	4 of 5
BHNSA 14(deep borehole)	<0.01 to 0.1	3 of 5
BHNSA 15	<0.01 to 0.05	3 of 5

9.5.6 Proposed Redevelopment Works and Groundwater Quality

As described in Section 1.4 of the report the NDA is due to be redeveloped for a mixed residential, commercial and community end use. As part of the redevelopment significant demolition works will take place on the Site. During these works it is intended to remove all USTs and associated ancillary pipe work from the Site.

Prior to the demolition works commencing a Detail Qualitative Risk Assessment (DQRA) will be carried out using the Site specific information gained from the recent site investigation. The DQRA will be undertaken to generate Site specific threshold vales relating to the contaminants of concern encountered during the site investigation.

During the UST removal process, material at the base and sides of the excavation with concentrations above DQRA generated threshold values will also be removed. Following validation of the sides and bases of excavations these will be backfilled with material deemed suitable for use i.e. where contaminant concentrations are below the above mentioned threshold values. It is also proposed to remove any impacted water within the excavations during tank removal. This water will be subject to treatment prior to disposal.

These works will result in a significant betterment of the subsurface environment of the Site. Down gradient boreholes will be sampled on regular interval to assess groundwater quality during and following the removal of the tanks. Although as is seen from the results in the boreholes listed in Table 15 the offsite impact as a results of UST borne contamination appears to be marginal.

Beyond managing impacted water in excavations specific groundwater remedial works are not proposed in light of the following

Sources of contamination will be removed and exaction backfilled with suitable material



- The potential off site impact as result of onsite contamination is considered marginal and sporadic
- A DQRA will be carried out to derive Site specific target concentrations which will ensure removal of impacted material and that material being use to backfill excavations is of suitable quality.
- Contaminated water with excavation will be removed as part of the works, treated and disposed
 of appropriately

It is proposed to present the calculations and findings of the DQRA under a separate cover.



10. Conclusions

Following analysis of the results of the site investigation a Conceptual Site Model (CSM) is presented in Appendix A. The CSM is presented in two parts the Site in its current condition and the Site following redevelopment and associated remedial works.

An updated tabulated version of the CSM is summarised in Table 16 below:



Table 16: Estimation of environmental risks associated with the subject Site in terms of its proposed future use.

Receptor	Current potential sources	Pathways	Risk	Mitigation carried out during redevelopment works	Residual risk
Human Health	ı				
Future Site users	Sporadic elevated concentrations of inorganic and organic contaminants in made ground across the Site	Direct contact, inhalation, ingestion, dermal absorption	Low	The requirement to re-level areas of the Site will result of some made ground being repositioned. This will take place in a controlled manner which will categorise this material in terms of its suitability for reuse in relation to the proposed development. The built development including paved areas and structures will also break the potential source receptor linkage. In landscaped areas and gardens a cover layer of certified clean material will be put in place as a growth medium. This will also break the source receptor link. In areas where excavations are backfilled these will be capped with a cover layer of material certified suitable for reuse. A DQRA will be undertaken to generate Site specific threshold values where required.	Low
	Hydrocarbon vapours in the vicinity BHNSA6	Inhalation	Low	Hydrocarbon vapours were limited to specific areas of the Site and are associated with hydrocarbon contamination arising from the presence of UST. Removal of the UST will remove the source of hydrocarbon contamination and hence source of vapours in the vicinity BHNSA6.	Low
Construction and maintenance workers	Contaminated shallow soils and made ground, ground gas, depleted oxygen concentrations and hydrocarbon vapours	Direct contact, inhalation, ingestion, dermal absorption	Low	Appropriate personal protective equipment, together with other suitable control measures, should be utilised. Any works involving ground excavation and/or entrance into confined spaces will be minimised. Where necessary, such works would be undertaken using normal good hygiene and safe working procedures, and with the Confined Space Regulations. All construction works will be subject to legislative and best practice controls to minimise contaminative risk.	Low
Property					
Site structures	Contaminated shallow soils and Made Ground	Direct contact	low	The potential impact to buried services and water supply pipes on Site should be considered, services should be laid in certified clean material and service trenches should be backfilled with certified clean material. Where the built development comes into contact with made ground concrete of correct classification should be used to resist degradation	Low



Receptor	Current potential sources	Pathways	Risk	Mitigation carried out during redevelopment works	Residual risk
Controlled W	aters				
Groundwater and surface water bodies	Impact as a result of the presence of fuel storage tanks and the Site history	Lateral and vertical migration through made ground and underlying geology	Medium	Groundwater is marginally impacted with several hotspots of contamination associted with USTs, particularly USTs as outlined in Table 14. All USTs and AST are intened to be removed as part of proposed development works. This will include removal of surrounding impacted soil and management of impacted groundwater within excavtions. Resulting excavtions will be backfilled with material deemed suitable according to threshold conconetrations as derived by the DQRA.	Low

The potential pollutant linkages described above can be managed by design of appropriate mitigation measures during the redevelopment of the Site.



11. Recommendations

In view of the findings of the Site investigation works and the proposed redevelopment the following environmental recommendations are made:

11.1 Remediation Strategy

A Detailed Quantitative Environmental Risk Assessment (DQRA) should be undertaken to define acceptable criteria for residual soils.

This document and the completed DQRA should then be used to update to the preliminary remedial strategy previously developed for the site.

All reports should then be passed to the Local authority and Environmental Agency for approval.

Contractor requirements and reporting for this should be stipulated within an addendum employer's requirements document. Supervision and validation of the works should also be undertaken where necessary to ensure the contractors adherence to the detailed remedial design. On completion a validation report specifying the works undertaken should be provided to the Local Authority.

11.2 Buried Services

All services should be constructed in inert backfill.

Drinking water supply pipes should be constructed of materials which are capable of withstanding the concentrations of both inorganic and organic contamination encountered on Site

11.3 Buried Structure

Buried concrete should be suitably designed to limit the potential for chemical attack.

11.4 Health and Safety

Construction/maintenance workers should adopt good hygiene and safe working practices. Appropriate Personal Protective Equipment (PPE) should be provided to, and used by, all Site personnel.

11.5 Environmental Management

An Environmental Management Plan (EMP) should be developed that covers environmental management of the Site during the enabling and construction works. The EMP should include provision for independent third party supervision and monitoring throughout the proposed works.



APPENDICES



Appendix A Site Plans

- Site Location Plan (Fig. A1)
- Areas of NSA (Fig.A2)
- SI Investigation Plan (Fig. A3)
- Geological Sections (Fig A4)
- Geological Sections (Fig A5)
- Surfer Plot Shallow Aquifer 03 March 2012 (Fig A6)
- Surfer Plot Shallow Aquifer 25 March 2012 (Fig A7)
- Surfer Plot Shallow Aquifer 05 April 2012 (Fig A8)
- CSM Current Site condition (Fig A9)
- CSM Site condition following development (Fig A10)

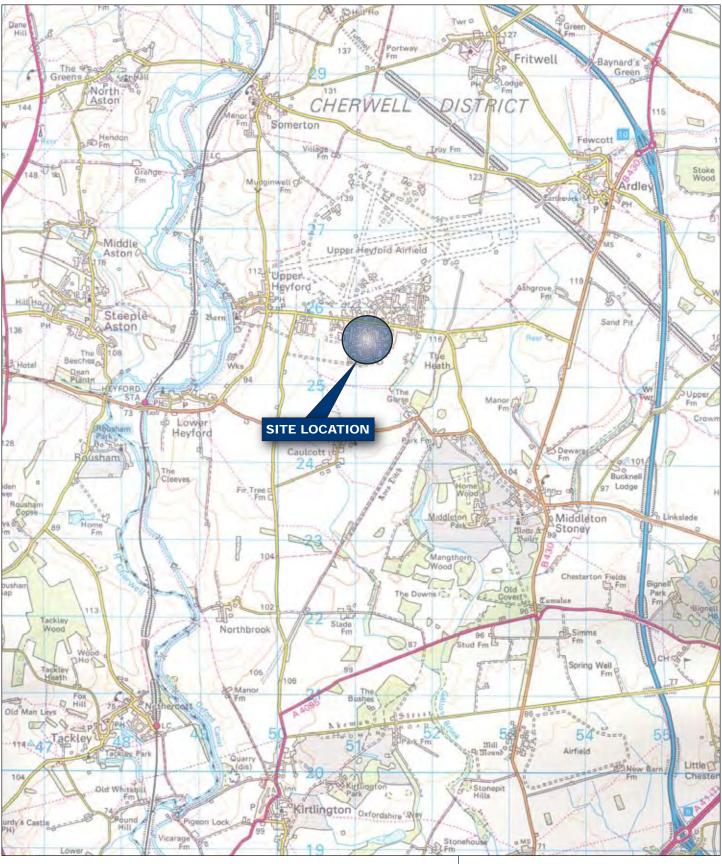


Figure Title

Figure Ref Date

File Location

E10658-109: Upper Heyford

Figure A1: Site Location Plan

E10658-109_CR_SI2_A1A

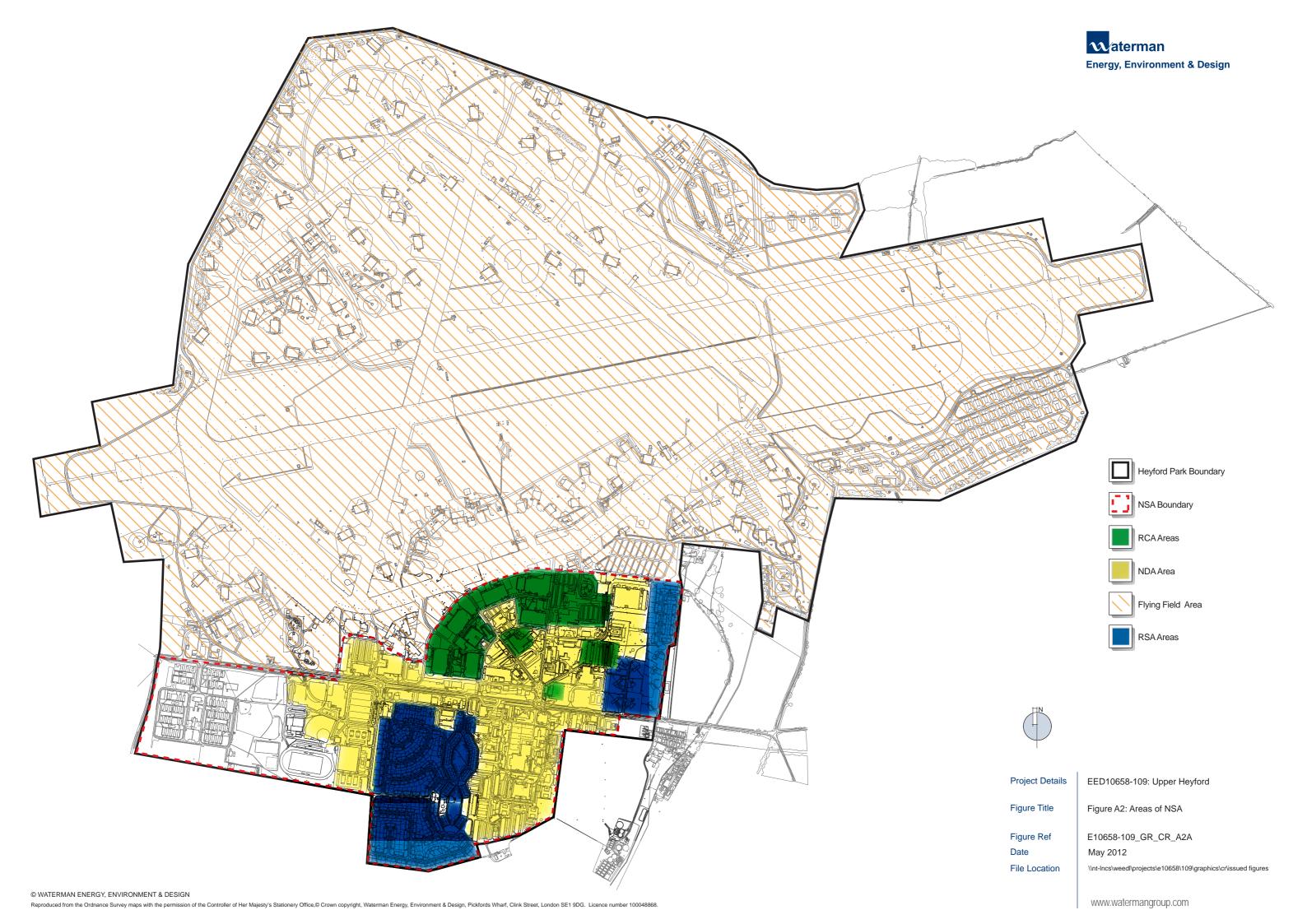
May 2012

 $\label{lem:linesweedlprojects} $$ \prod_{n \in \mathbb{N}} \frac{10658}{109} \right. $$$



Energy, Environment & Design

www.watermangroup.com

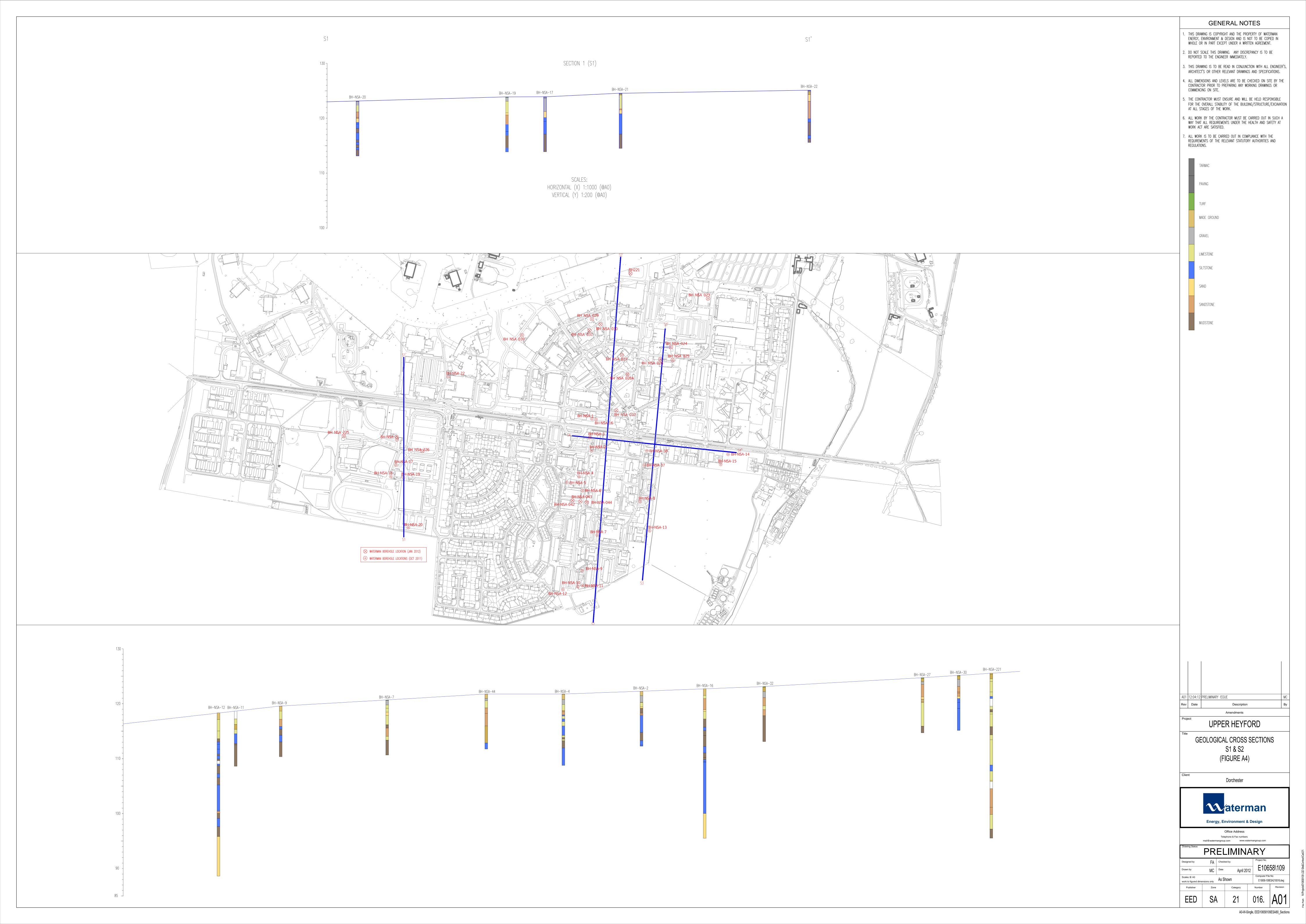


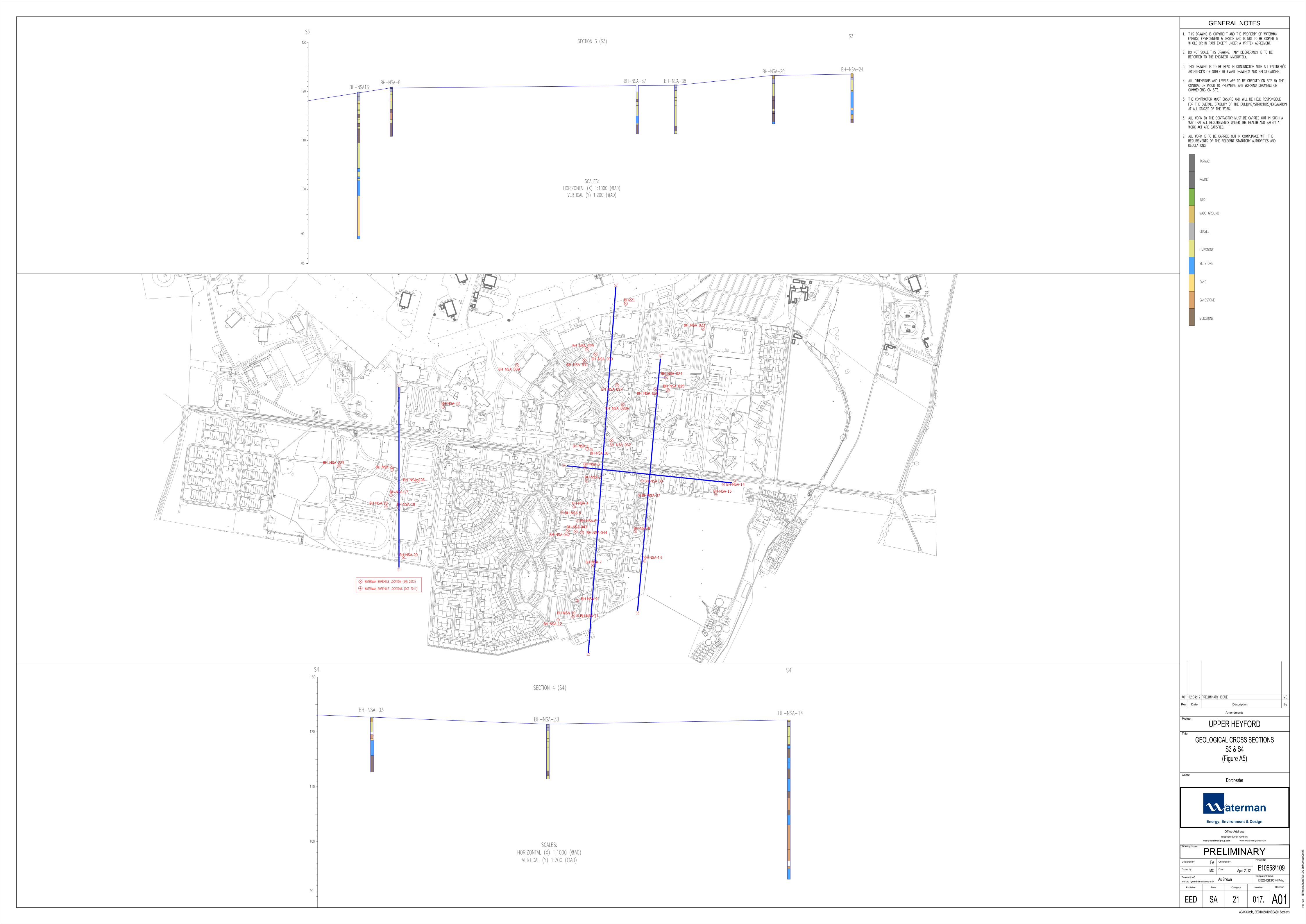




File Location

\\nt-lncs\weedl\projects\e10658\109\graphics\cr\issued figures









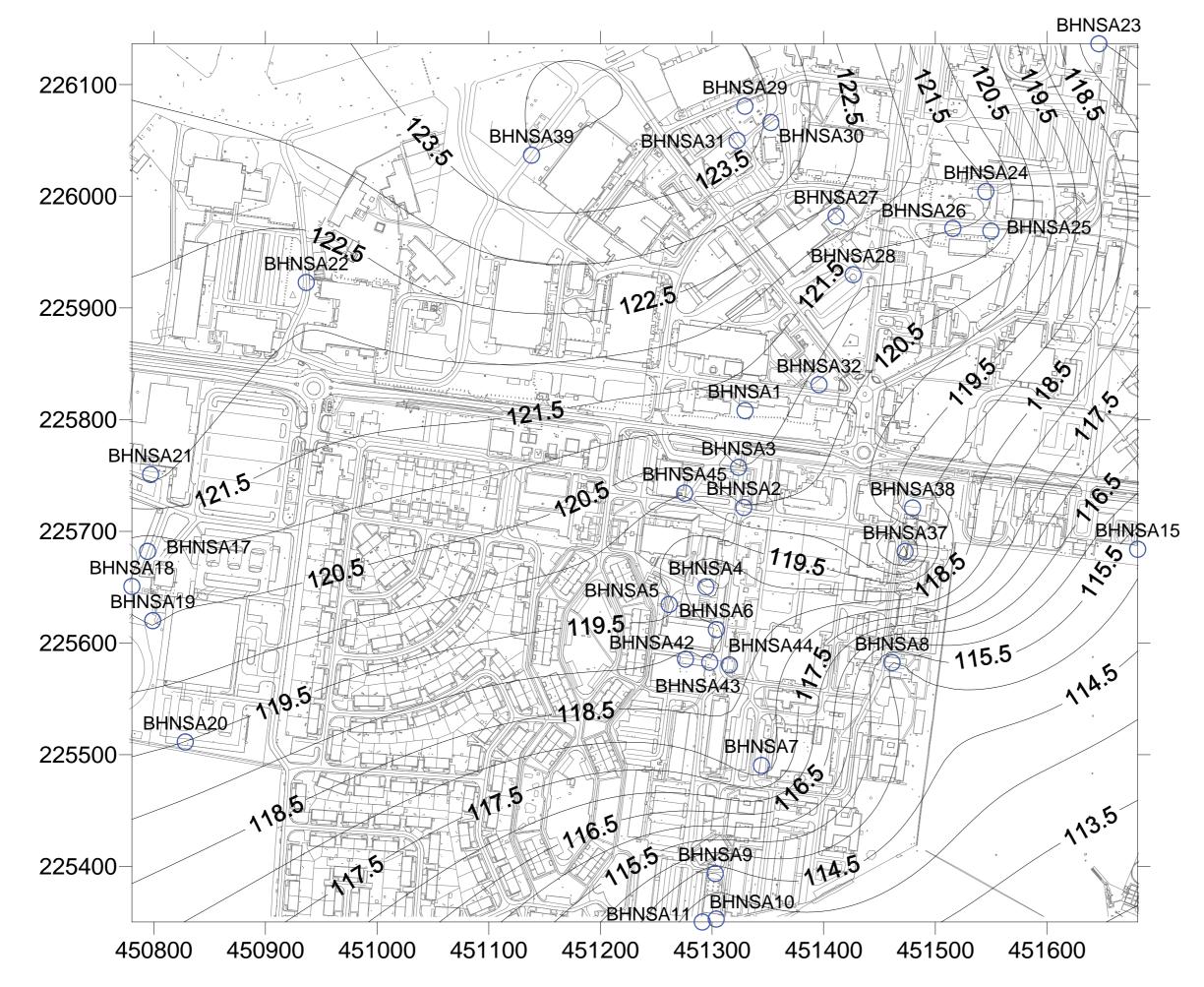




Figure Title

Figure Ref Date

File Location

EED10658-109: Upper Heyford

Figure A6: Surfer Plot Shallow Aquifer March 2012

E10658-109_GR_CR_A6A May 2012

\\nt-lncs\weedl\projects\e10658\109\graphics\cr\issued figures









Figure Title

Figure Ref Date

File Location

EED10658-109: Upper Heyford

Figure A7: Surfer Plot Shallow Aquifer March 2012

E10658-109_GR_CR_A7A May 2012

\\nt-Incs\\weedl\projects\e10658\109\graphics\cr\issued figures





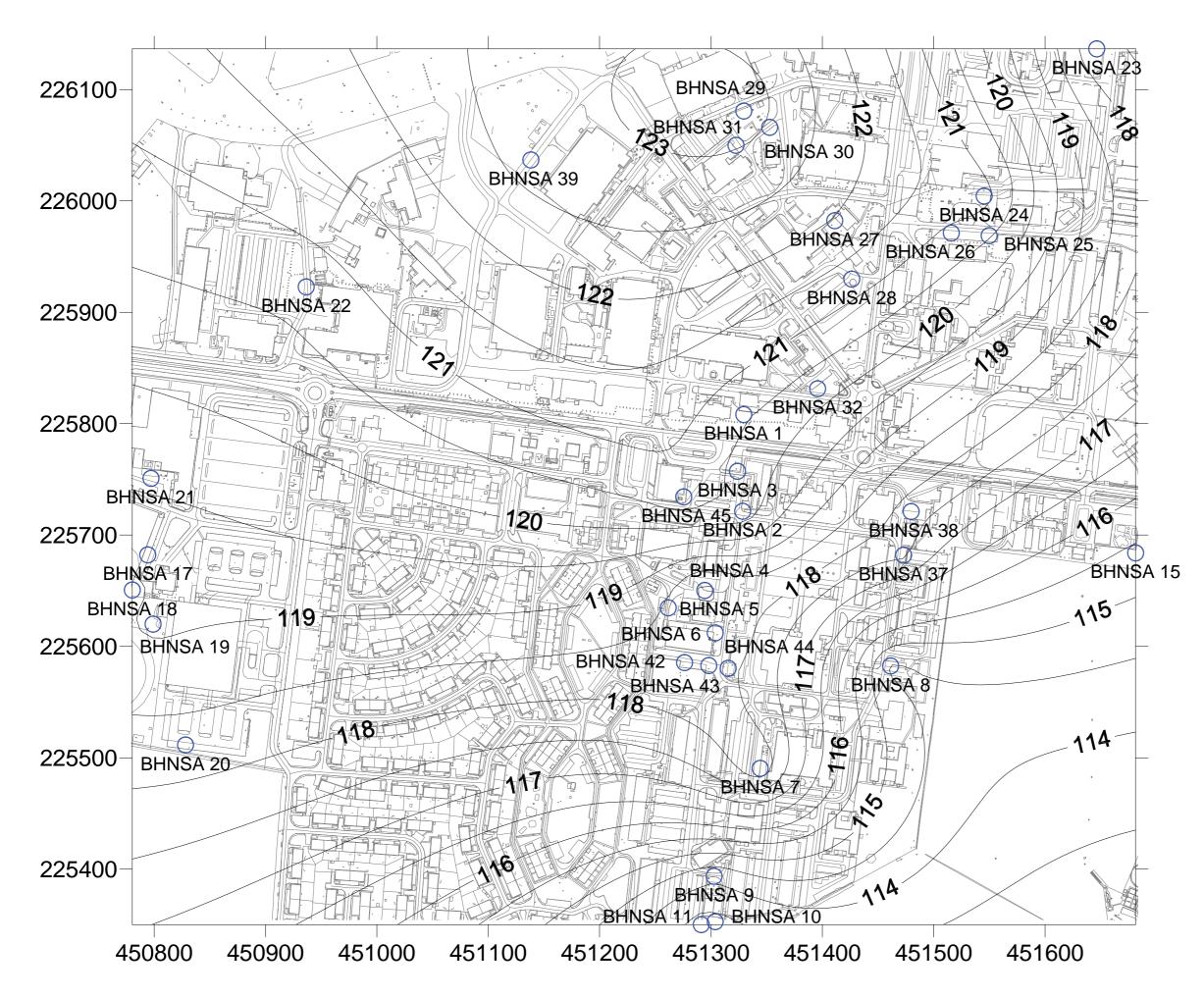




Figure Title

Figure Ref Date

File Location

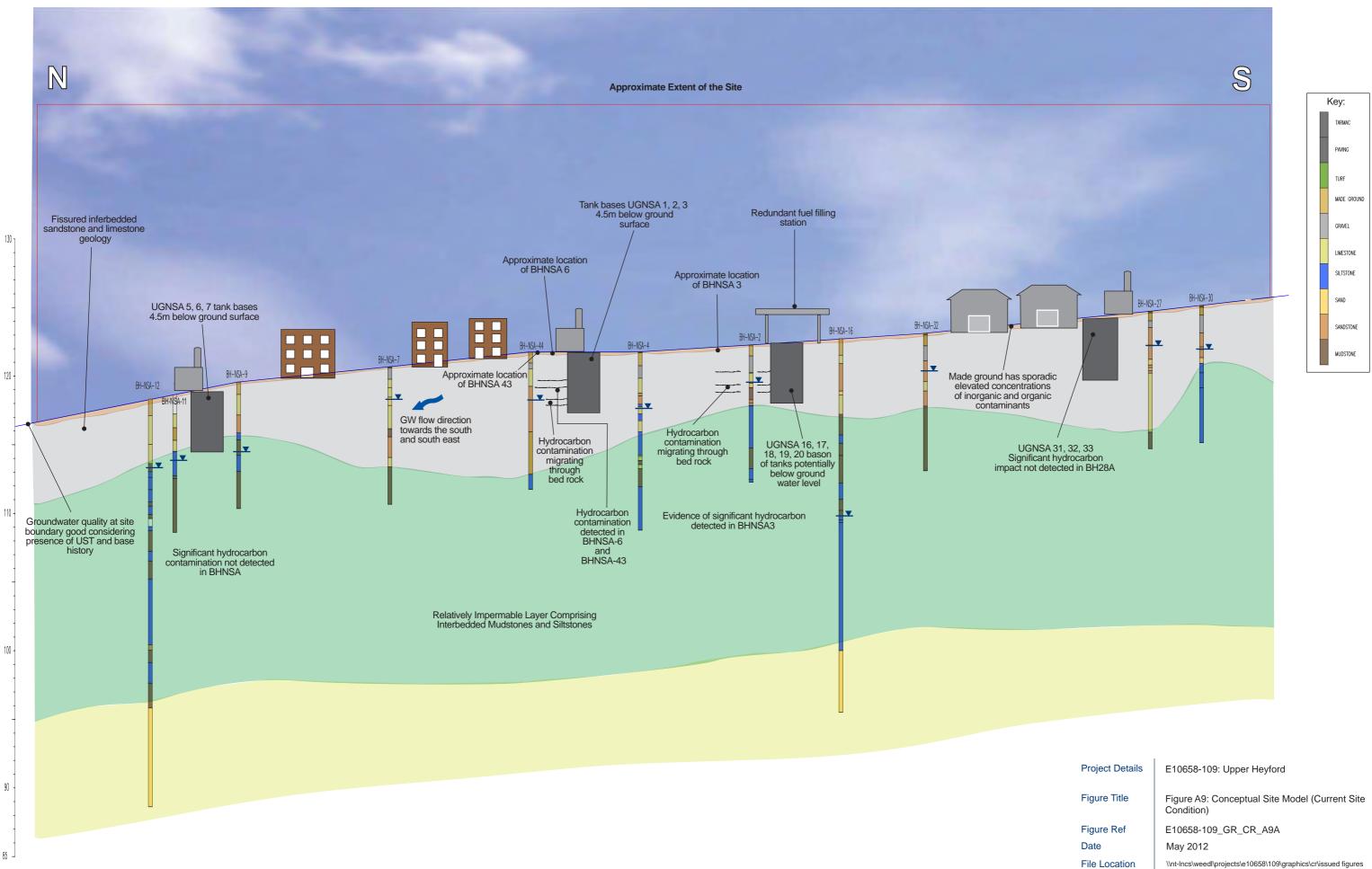
EED10658-109: Upper Heyford

Figure A8: Surfer Plot Shallow Aquifer April 2012

E10658-109_GR_CR_A8A May 2012

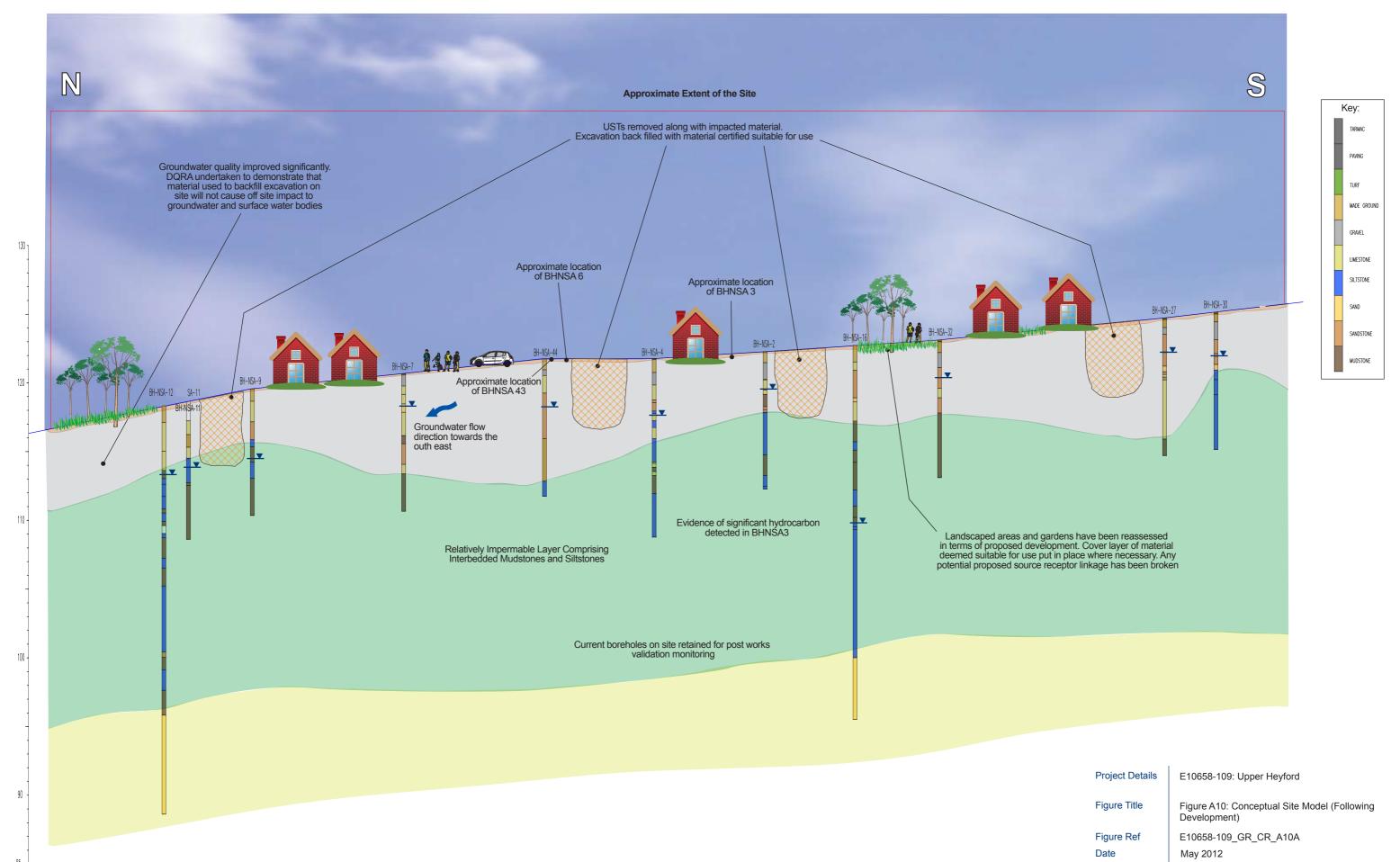
\\nt-lncs\weedl\projects\e10658\109\graphics\cr\issued figures





 $\label{lem:lines} $$ \prod_{projects e10658\109\graphics\cr\sued figures } $$ \cr\sued figure $$ \cr\sued figu$





www.watermangroup.com

 $\label{lem:linesweed} $$ \prod_{projects \in 10658\\109\graphics\cr\sued\ figures \ } $$$

File Location



Appendix B Site Photographs



11 January 2010

Mr Mervyn Dobson Pegasus Planning Group Queens Business Centre Whitworth Road Cirencester GL7 1RT Our Ref: APP/C3105/A/08/2080594 along with Conservation Area Consent appeals: APP/C3105/E/08/2069311; APP/C3105/E/08/2069313; APP/C3105/E/08/2069314; APP/C3105/E/08/2069315; APP/C3105/E/08/2069316; APP/C3105/E/08/2069318; APP/C3105/E/08/2069321; APP/C3105/E/08/2069324; APP/C3105/E/08/2069327; APP/C3105/E/08/2069329; APP/C3105/E/08/2069331; APP/C3105/E/08/2069333; APP/C3105/E/08/2069334; APP/C3105/E/08/2069337; APP/C3105/E/08/2069339; APP/C3105/E/08/2069340; APP/C3105/E/08/2069341; APP/C3105/E/08/2069343; APP/C3105/E/08/2069345; APP/C3105/E/08/2069346; APP/C3105/E/08/2069347; APP/C3105/E/08/2069349; APP/C3105/E/08/2069350.

Dear Sir,

TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 78 AND PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) ACT 1990 – SECTION 20

APPEALS BY NORTH OXFORDSHIRE CONSORTIUM LTD – SITE AT HEYFORD PARK, CAMP ROAD, UPPER HEYFORD, BICESTER, OX25 5HD

APPLICATION REF: 08/00716/OUT (THE LEAD APPEAL), TOGETHER WITH 24 CONSERVATION AREA CONSENT APPEALS

- 1. I am directed by the Secretary of State to say that consideration has been given to the report of the Inspector, Daphne Mair BA(Econ) MPhil MRTPI, assisted by Elizabeth Hill BSc(Hons) BPhil MRTPI, who held a public local inquiry on 20 September to 24 October 2008, 16 and 17 December 2008, 12 January 2009 and 16 March 2009 (when it was adjourned) into:
 - your Clients' appeal under section 78 of the Town and Country Planning Act 1990 ("the lead appeal") against the failure of Cherwell District Council (CDC) to give notice within the prescribed period of a decision on an application for outline planning permission for a new settlement of 1075 dwellings, together with associated works and facilities, including employment uses, community uses, a school, playing fields and other physical and social infrastructure (application ref: 08/00716/OUT dated 3 March 2008);
 - appeals under section 20 of the Planning (Listed Buildings and Conservation Areas) Act 1990 against refusal of Conservation Area Consent for the demolition of buildings (applications Refs 07/: 02287, 02299, 02342, 02346, 02352 54, 02358-60, 02303, 02307, 02332, 02337, 02347 51, 02355, 02357, 02294, 02295 and 02296 (all suffixed CAC) and dated 6 November 2007); and

Jean Nowak, Decision Officer
Planning Central Casework Division
Department for Communities and Local Government
Zone 1/J1, Eland House
Bressenden Place, London, SW1E 5DU

Tel: 0303 444 1626

Email: PCC@communities.gsi.gov.uk

- those appeals listed at Appendix 2 to the Inspector's Report (IR) which were put into abeyance on 16 March 2009.
- 2. In exercise of powers under Section 79 and paragraph 3 of Schedule 6 to the Town and Country Planning Act 1990, all these appeals were recovered for the Secretary of State's own determination by Direction made on 17 July 2008. The reason for recovery was that the lead appeal involves development of more than 150 dwellings which would significantly impact on the Government's objective to secure a better balance between housing demand and supply and create high quality, sustainable, mixed and inclusive communities.

Inspector's recommendation and summary of the decision

3. The Inspector recommended that, subject to the resolution of two matters identified in her conclusions, the lead appeal should be allowed and planning permission granted subject to conditions. She also recommended that, subject to the lead appeal being allowed, all the conservation area appeals should also be allowed and conservation area consent granted. For the reasons given below, the Secretary of State agrees with the Inspector's conclusions and, having pursued with the parties the matters which she identified as needing resolution in relation to the lead appeal as described in paragraphs 6 - 11 below, agrees with her recommendations in respect of all the appeals. For the main parties, a copy of the full 249-page Inspector's Report is enclosed. All references to paragraph numbers, unless otherwise stated, are to that report. For all other parties, a copy of the Inspector's conclusions only is attached. A copy of the full report can be obtained from the address at the foot of the first page of this letter.

Procedural matters

- 4. The Secretary of State has taken account of the Environmental Statement which was submitted under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 and the updates to that Statement made in June 2008 (IR2.19-2.20). Taken together with the further information submitted in September 2008 in response to an Article 19 Direction made on 21 August 2008 (IR2.21-2.23), the Secretary of State is satisfied that the Environmental Statement complies with the above regulations. He agrees with the Inspector (IR19.12) that sufficient information has been provided for him to assess the environmental impact of the application and that the ES as a whole is adequate (IR19.13).
- 5. An application was made by your client for award of costs against CDC. The Secretary of State's decision on this application is the subject of a separate letter.

Matters arising after the close of the inquiry

6. As indicated in paragraph 3 above, the Inspector recommends that, subject to the resolution of two matters identified in her conclusions (IR19.424-19.425), the lead appeal should be allowed and, in order to meet one of her concerns by reducing the harm caused by the ranks of parked vehicles to what she considers would be an acceptable level, a condition should be imposed restricting the extent of such parking as defined in her Report. She acknowledges, though, that as no such

- condition was discussed at the inquiry the parties would need to be consulted on such a possibility before it could reasonably be imposed. The Secretary of State therefore wrote to the main parties on 8 September 2009 inviting submissions on the feasibility of achieving the visual improvement the Inspector suggests.
- 7. In response, your clients replied on 6 October 2009 enclosing two plans and suggesting the text for an appropriate condition. They indicated that they would be prepared to accept the principle of a modification to the car storage area as suggested by the Inspector and indicated on one of the plans enclosed with their response. However, they also said that the site operators would find a minor adjustment to the Inspector's proposal (as indicated on the other plan which they enclosed) more practical for operational reasons. In their joint reply of 6 October 2009 to the Secretary of State, CDC and Oxfordshire County Council (jointly referred to below as "the Councils") expressed considerable reservations about the ability of the Inspector's proposed modifications to achieve the aim of minimising the harm caused to the appearance of the Conservation Area; and English Heritage (EH) had already responded on 28 September 2009, expressing the view that the extent to which the car processing operation makes use of taxiways to store cars would be harmful to the character of the Conservation Area and that the Inspector's proposed amendment would not overcome its concerns.
- 8. The Secretary of State then circulated these responses on 15 October 2009 to the main parties, and you replied on 30 October 2009 on behalf of your clients accepting that, if a condition were to be imposed as recommended, they would accept that all external car processing activity would be restricted to the amended defined area. The Councils again responded jointly, on 27 October 2009, maintaining their view that the limited change in area would not mitigate the harm to the appearance of the Conservation Area; and EH confirmed in a letter of 30 October 2009 that it does not consider that either the Inspector's proposed condition or the variation proposed in your clients' letter of 6 October 2009 would overcome the problems of visual intrusion being materially harmful to the character of the conservation area.
- 9. The Inspector's other concern (IR19.425) was that the information put before the Inquiry had cast some doubt on the ability of your clients to be able to honour their commitment in the Unilateral Undertaking as it then stood to fund a primary school and secondary education places. The Secretary of State's letter of 8 September 2009 therefore also indicated that he would require further information from your clients to demonstrate that the funding would available to the local education authority at the right times to ensure that the appropriate number of school places would become available to meet the need as it was generated by the occupation of the proposed housing. The Secretary of State also expressed concerns in that letter about the enforceability of the provisions in the Unilateral Undertaking as it then stood with regard to the arrangements for affordable housing and for the future management of facilities.
- 10. In response, your clients indicated in their letter of 6 October 2009 that, through a supplemental Obligation, they were prepared to offer staged payments to ensure that education contributions could be kept in line with demand. They also said that they would use the supplemental Obligation to provide greater clarity with regard to the provision of affordable housing and other community facilities. The

letter of 6 October 2009 from the Councils indicated that there had not by then been time for them to consider the matter of the education contributions; whilst a joint response of the same date from your clients and CDC confirmed that new arrangements were being prepared in the proposed supplemental Obligation with regard to the affordable housing provisions. Your letter of 30 October 2009 enclosed a final draft of the supplemental Obligation which had been discussed with the Councils and which included arrangements for the staged payment of education contributions and amended provisions relating to affordable housing and other community facilities. Your clients' solicitors then sent an executed and dated version of that supplemental Undertaking to the Secretary of State on 13 November 2009.

11. Annex A sets out the full list of the representations received by the Secretary of State following the close of the inquiry. The Secretary of State has taken account of all this correspondence in considering these appeals, including correspondence from the Oxford Trust for Contemporary History and the Environment Agency which he is satisfied does not raise any relevant new matters not considered at the Inquiry. Copies of all the correspondence can be made available upon written request to the address at the foot of the first page of this letter.

Policy considerations

- 12. In determining these appeals, the Secretary of State has had regard to section 38(6) of the Planning and Compulsory Purchase Act 2004 which requires that proposals be determined in accordance with the development plan unless material considerations indicate otherwise.
- 13. In this case, the development plan comprises the Regional Spatial Strategy for the South East (the South East Plan (SEP)), which was published on 6 May 2009; the Oxfordshire Structure Plan 2016 (2005) (SP) and the CDC Local Plan 1996. Although, at the time of the inquiry, the SEP had yet to be published in its final form, SP policy H2 had already been saved in September 2008; and the Secretary of State agrees with the Inspector (IR5.2) that that is the key policy in this case as it provides for the appeal site to plan for a new settlement of about 1,000 dwellings as a means of enabling environmental improvements and the conservation of the heritage interest across the whole site. This saved policy also requires proposals for development to reflect a revised comprehensive planning brief and, to this end, CDC adopted the RAF Upper Heyford Revised Comprehensive Planning Brief (RCPB) as a Supplementary Planning Document (SPD) in 2007 setting out the aims for the site in further detail. As this had been subject to public consultation but not to independent scrutiny, the Secretary of State gives it some weight as a material consideration (see paragraph 20 below).
- 14. Other material considerations which the Secretary of State has taken into account include: Planning Policy Statement (PPS) 1: Delivering Sustainable Development, PPS3 (Housing); PPS6 (Planning for Town Centres); PPS7 (Sustainable Development in Rural Areas); Planning Policy Guidance Note (PPG) 4 (Industrial, commercial development and small firms); PPG13 (Transport); PPG15 (Planning and the Historic Environment); PPG16 (Archaeology and

- Planning); Circular 11/95 (Planning Conditions); and Circular 05/2005 (Planning Obligations).
- 15. The Secretary of State has taken into account both the draft PPS4 (*Planning for Prosperous Economies*), published for consultation in May 2009, and the final version of that Statement published on 29 December 2009. However, he does not consider that the contents of PPS4 as published (which replaces not only PPG4 but also PPG5, PPS6 and parts of PPS7) raise any new matters relevant to his determination of these appeals that would either affect his decision, or require him to refer back to the parties for further representations prior to reaching his decision. The Secretary of State has also taken into account draft PPS15: *Planning for the Historic Environment*, published for consultation in July 2009. However, as that document is still at consultation stage and may be subject to change, he affords it little weight.
- 16. In determining these appeals the Secretary of State has had regard to the various listed buildings on the appeal site (IR2.18) and, in accordance with section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990, he has paid special regard to the desirability of preserving the listed structures or their setting or any features of special architectural or historic interest which they may possess. Furthermore, as the lead appeal site is coterminous with the RAF Upper Heyford Conservation Area (except in so far as the appeal site also includes the sewage treatment works (IR2.16)), the Secretary of State has also paid special attention to the desirability of preserving or enhancing the character or appearance of that area, as required by section 72(1) of the same Act.

Main issues

- 17. The Secretary of State considers that the main issues in relation to the lead appeal are:
 - The policy context for the proposal, with particular reference to the development plan and the guidance provided in PPG 15;
 - Design Principles and PPS1:
 - Housing and sustainability of location;
 - Planning Conditions and Planning Obligation.

He has also given careful consideration to the "other matters raised", as reported by the Inspector at IR19.225-19.238, but he is satisfied that these do not raise any additional issues which would affect his decision.

18. The Secretary of State also agrees with the Inspector that the main considerations with regard to the 24 Conservation Area Consent appeals are those which she sets out at IR19.392.

The policy context for the proposal, with particular reference to the development plan and the guidance provided in PPG 15

Structure Plan policy H2

- 19. The Secretary of State agrees with the Inspector (IR19.24) that the main consideration is whether, having regard to the Development Plan and other material considerations, the proposal strikes an acceptable, reasonably sustainable balance between securing the long-term future of the appeal site and its built and natural heritage, achieving high quality design and providing a level of employment that is appropriate within the context of the site's location and limited access to services. The Secretary of State also agrees with the Inspector (IR19.28) that where, as in this case, the SP includes a site-specific policy, other general policies should be regarded as having been complied with, or outweighed by, site specific considerations; and he further agrees with her (IR19.33) that, as the location of the airbase in a rural location cannot be altered, that has to be taken into account in the interpretation of policy. He also agrees with her (IR19.53) that (subject to appropriate conditions and Undertakings see paragraphs 40 43 below) the appeal proposals would provide the necessary infrastructure as required by SP policy H2a.
- 20. The Secretary of State further agrees with the Inspector (IR19.35) that the terms of SP policy H2 do not, in themselves, justify development beyond that required to meet the stated aims of that policy of supporting a settlement of "about 1000 dwellings" and that, for the reasons given in IR19.36-19.50, there is no direct support in Policy H2a for a level of employment beyond that needed to support a community of that size (IR19.52). He also agrees with the Inspector (for the reasons she gives in IR19.140) that, not withstanding the wording used in policy H2b, the SPD should not attract the additional weight that SP policy H2 appears to envisage and it should instead be treated and weighed as a material consideration.
- 21. The Secretary of State therefore concludes that the appeal proposals are in general conformity with SP policy H2 in providing for a new settlement of about 1,000 dwellings as a means of enabling environmental improvements and the conservation of the heritage interest, even though they do not reflect the details of the way in which the SPD envisaged that this should be achieved, including with regard to the appropriate level of employment (which he considers further in paragraph 33 below). He has therefore gone on to consider whether there are sufficient material considerations to justify the appeal proposals, having particular regard to securing the heritage interest of the site in a manner compatible with the guidance in PPG15.

The SPD and its relationship to policy guidance in PPG15

22. The Secretary of State agrees with the Inspector (IR19.56) that the primary reason for designating the site as a Conservation Area was for its Cold War importance and (IR19.60) that buildings that are characteristic of the Cold War landscape can be harmful to other interests. Thus, for the reasons given at IR19.57-19.69, although the Secretary of State agrees with the Inspector's conclusion at IR19.70 that environmental improvements are necessary at the airbase and would accord with the Development Plan, he also agrees with her

conclusion at IR19.71 and IR19.115 that there is very little, or no, support for the scale of demolition proposed in the SPD as a means of securing environmental improvements.

Perimeter fence

23. With specific regard to the perimeter fence, the Secretary of State agrees with the Inspector that, for the reasons which she gives at IR19.72-19.79, the proposals contained in the lead appeal would achieve an appropriate balance between Cold War and wider rural landscape benefits.

Car processing use

- 24. Turning to the car processing use, the Secretary of State notes that it is a matter of fact that some 500 people are currently employed by this enterprise (IR19.204), and that it has become well established during its 13 years on the lead appeal site as a major local employer of importance to the economy of the CDC area (IR19.205). The Secretary of State also notes (IR19.80) that, while the SPD indicates 7ha as the maximum potentially acceptable area for car processing and the associated storage, the Inspector found on her site visits that the enterprise is currently using an area of runways, taxiways and adjacent areas even larger than the 17ha which is proposed in the lead appeal scheme. He also notes that she reported at IR19.206 that the need for a minimum of 17ha of hardstanding area as well as several buildings in order for this enterprise to function effectively was not challenged at the Inquiry.
- 25. For the reasons given at IR19.82-19.100, the Secretary of State agrees with the Inspector's conclusions at IR19.86 and IR19.101 that the proposed area of 17ha for outdoor car staging would not achieve an environmental improvement and would seriously harm the character and appearance of the Conservation Area. He also agrees with her (IR19.102 and IR19.203) that, in accordance with paragraph 4.19 of PPG15, the preservation or enhancement of the character or appearance of a Conservation Area must be given high priority, with a presumption against granting planning permission which would conflict with that objective unless there are exceptional overriding circumstances.
- 26. However, in agreeing with the Inspector on the harm which the car processing activity would cause to the character and appearance of the Conservation Area, the Secretary of State has also taken account of her opinions on the degree of impact. He notes that, although the defined area for outdoor processing is within the Conservation Area, it lies outside the Core Area of National Significance in the SPD (IR19.87) and away from most of the Scheduled and Listed buildings (IR19.88); and he therefore agrees with the Inspector that the lead appeal proposal attempts to minimise the visual impact of parked vehicles by using the least sensitive part of the wider site. He also has no reason to disagree with the Inspector's conclusion at IR19.95 and19.201 that, for the reasons given at IR19.89-IR19.95, the impact of the car processing use and associated open storage would be concealed from public views outside the site and scarcely visible from the reopened Aves Ditch public footpath.
- 27. Against this, the Secretary of State also agrees with the Inspector (IR19.98) that the gateway is of paramount importance to the character and appearance of the Flying Field which was the major reason for the designation of the Conservation

Area as a whole. He therefore gives significant weight to the Inspector's observation that the lead appeal proposal would allow the first and last impressions of visitors to the Flying Field to be dominated by the car processing activity. He has no reason to disagree with her (IR19.202) that the harm arising from this to the appearance of the Conservation Area would be substantial and, in signalling that the Flying Field was principally an area where precedence is given to business uses, would be contrary to the aim of SP policy H2, as well as running counter to PPG15 (IR19.203). The basic issue facing both the Inspector and the Secretary of State is, therefore, the appropriate balance to be struck between the preservation or enhancement of the character or appearance of the Conservation Area and the extent to which there are exceptional circumstances to justify overriding that presumption.

- 28. For the reasons given at IR19.204-19.215, the Secretary of State agrees with the Inspector that the loss of the jobs and other economic benefits which the car processing activity brings to the District (with no realistic prospect of an alternative location in the area IR19.214) is a very weighty material consideration in favour of the proposal. He also agrees (IR19.216) that, without something along the lines of the proposals in the lead appeal, there can be no certainty that the improvements sought in the SPD would materialise although, like the Inspector (IR19.217-19.218), he accepts that there is no evidence that those improvements could not be provided without the car processing use albeit involving further delay.
- 29. Taking all that into account, the Secretary of State agrees with the Inspector's conclusion at IR19.219-19.220 that the economic considerations arising from the likely loss of the car processing enterprise to the District would not outweigh the harm to the character of the Conservation Area and to its appearance from semi-public views, and that that cannot be mitigated <u>fully</u> while accepting the car processing activity as proposed in the lead appeal scheme. However, as described in paragraphs 6-8 above, following receipt of the IR the Secretary of State has pursued with the parties the scope for modifying the extent of the parking area for massed groups of cars with a view to achieving some amelioration, as suggested by the Inspector at IR19.222; and your clients have indicated that they would be willing to accept the Inspector's proposal.
- 30. Your clients also stated that the operators of the car processing enterprise would prefer a small modification to allow for a limited amount of car storage immediately to the north of Building 350 in order to provide access to, and properly support the functions of, that Building as the Body Shop for the whole operation. The Secretary of State accepts that this slight further modification is justified for operational purposes and, while having regard to the views expressed by the Councils and EH that the limited change in area would not mitigate the harm to the appearance of the Conservation Area, he considers that it goes as far as is practical to mitigate the harm to the semi-public views of the Conservation Area while retaining the operational viability of a well-established economic activity. The Secretary of State therefore proposes to impose a condition to that effect (see paragraph 40 below); and he agrees with the Inspector (IR 19.223) that that limitation combined with the weight which he agrees should be given to the economic and employment considerations associated with the car processing use provide the exceptional reasons needed

to outweigh the harm arising to the character and appearance of the Conservation Area.

Other activities on the Flying Field

31. With regard to other activities on the Flying Field, the Secretary of State agrees with the Inspector that, for the reasons given at IR19.103-19.104, it is unlikely that the number of vehicles using the Flying Field as a result of the lead appeal proposals would be harmful to the character or appearance of the Conservation Area as a whole. Similarly, for the reasons given at IR19.105-19.110, he agrees that, with the safeguards to which the Inspector refers, the existing uses which she considers could remain without any unduly harmful impact.

Biodiversity

32. For the reasons given at IR19.111, the Secretary of State agrees with the Inspector that the lead appeal proposals would enhance biodiversity. He also agrees with her that, for the reasons given at IR19.113 and 19.114, the landscaping proposals would achieve an acceptable balance between preserving the Cold War landscape and giving it a softer face.

Other heritage and environmental issues

33. With regard to the other heritage and environmental issues considered by the Inspector at IR 19.116-19.132, the Secretary of State has noted the improvements proposed by the lead appeal scheme and agrees with the Inspector's conclusion at IR19.131 that, with the exception of the outdoor areas of the car processing use, the development proposed would ensure that the character and appearance of the airbase as a whole would be preserved. He also agrees with the Inspector's conclusion at IR19.132 that achieving the preservation of the character and appearance of the Conservation Area through the reuse of buildings, as proposed, would outweigh the harm caused by the resultant breach of the aim of SP policy H2b to limit the number of jobs to those supporting the needs of occupiers of the new settlement. He therefore agrees (IR19.134) that, except in respect of the car processing use, the lead appeal proposal as it stood at the Inquiry reaches an acceptable balance of environmental improvements and securing the heritage interests of the site.

Weight to be accorded to the SPD

34. For the reasons given by the Inspector at IR19.135-19.142, the Secretary of State agrees with her about the weight to be accorded to the SPD. In particular, he agrees (IR19.141-19.142) that there is no direct support in either the SP or PPG15 for the approach adopted in the SPD towards the removal of buildings on the Flying Field and that greater weight should therefore be given to PPG15 than to the SPD where they appear to be at odds.

Other Development Plan policies

35. For the reasons given at IR19.143-19.145, the Secretary of State agrees with the Inspector that Cherwell Local Plan policy EMP4 should be given very little weight. Furthermore, with regard to the other policies referred to by the Inspector at IR19.146-19.155, SP policies EN4, EN6, G1 and T4 have now been replaced by

the SEP and so no longer carry any weight. As the Inspector points out at IR19.146, Local Plan policies C18, C21, C22 and C25 (along with former SP policies EN4 and EN6) echo national guidance in PPGs 15 and 16; and the Secretary of State is also satisfied that improvements to accessibility through the sustainable transport elements in the Undertaking will go some way towards achieving the objectives of Local Plan policy TR4 (IR19.152).

Design Principles and PPS1

36. Like the Inspector, the Secretary of State has had regard to the Design and Access Statement (DAS) dated 12 March 2009 (IR19.157); and he is satisfied that, as this reflects the revisions discussed at the Inquiry, it should be substituted for earlier versions. The Secretary of State agrees with the Inspector (IR19.158) that the DAS has an important role in assessing whether the development would create the "satisfactory living environment" sought by SP policy H2 and the SPD, as well as indicating whether the standard of design expected in PPS1 is likely to be achieved. The Secretary of State also agrees with the Inspector's conclusion at IR19.181 that, for the reasons given at IR19.159-19.180, the proposal can achieve the aims set out in paragraphs 33 to 35 of PPS1 during the period while CDC is developing its up-to-date design policies to ensure their consistency with paragraphs 36 to 39 of that PPS; and that controls over subsequent ancillary operational development on the Flying Field can be addressed through conditions and the Management Plan contained in the Unilateral Undertaking.

Housing and sustainability of location

- 37. For the reasons given at IR19.182-19.186, the Secretary of State agrees with the Inspector's conclusion at IR19.187 that the development is capable of delivering the aims of PPS3. He sees no reason to disagree with her conclusion (IR19.182) that the housing to be delivered will be well designed and built to a high standard and, following the correspondence referred to in paragraphs 9 and 10 above, he is now satisfied that appropriate provisions are in place in the supplemental Undertaking (see paragraph 43 below) to secure an appropriate mix of housing. The Secretary of State also agrees with the Inspector (IR19.184) that the provision of "about 1075" dwellings is consistent with SP policy H2.
- 38. For the reasons given at IR19.188-19.192, the Secretary of State agrees with the Inspector that the measures proposed go as far as is practical to meet the PPG13 objective of promoting sustainable transport choices given that the SP recognises that a small settlement in this relatively isolated area is justified to address the legacy of the airbase.
- 39. The Secretary of State agrees with the Inspector that the new shops would provide a service to the proposed new households and those working nearby (IR19.194-19.196); and that the quantum of office space proposed can be justified as it accords with SP policy H2 and, by diversifying the range of jobs available on the lead appeal site, would reduce the risk of the new settlement becoming dormitory housing (IR19.197). He also agrees that the proposed hotel/conference centre can be justified as making good use of a building that contributes positively to the Conservation Area (IR19.198-19.200).

Planning Conditions and Planning Obligation

Conditions

40. The Secretary of State has considered the proposed conditions relating to the lead appeal and the Inspector's comments and modifications as set out at IR19.239-19.312 and Annex A to the IR. He considers that the conditions which he proposes to impose, as amended by the Inspector and set out with minor proof-reading alterations and textual clarifications at Annex B to this letter, are reasonable and necessary and meet the tests of Circular 11/95. This includes the additional condition which the Secretary of State considers it appropriate to insert (Condition no. 44 at Annex B to this letter) to secure the mitigation, so far as is practical, of the harm to the semi-public views of the Flying Field caused by the open storage associated with the car processing activity (see paragraph 30 above). This replaces condition no. 71 as recommended by the Inspector in Annex A to the IR.

Obligation

- 41. The Secretary of State has considered the Section 106 Unilateral Undertaking dated 23 January 2009 and the Inspector's consideration of it at IR19.313-19.389, including her analysis of the concerns expressed by the Councils, as well as national policy as set out in Circular 05/2005.
- 42. The Secretary of State agrees with the Inspector (IR19.372) that concerns about the enforceability of the Management Plan for the Flying Field are most appropriately dealt with by means of conditions, and he is satisfied that conditions nos. 25-39 at Annex B to this letter should secure that.
- 43. Furthermore, as explained in paragraphs 9 and 10 above, the Secretary of State pursued with the parties the Inspector's concerns about the ability of your clients to honour their commitment in the Unilateral Undertaking as it then stood to fund a primary school and secondary education places and, at the same time, raised his own concerns about the enforceability of the provisions in the Undertaking with regard to the arrangements for affordable housing and for the future management of facilities. In response, your clients submitted a supplemental Undertaking dated 13 November 2009; and the Secretary of State considers that the arrangements set out in the Undertaking dated 23 January 2009 taken together with those in the supplemental Undertaking dated 13 November 2009 would meet the tests contained in Circular 05/2005 and accord with the policy in that Circular. Accordingly, he considers that he has been provided with the additional information requested in his letter of 8 September 2009 and he is satisfied that the original planning obligation, as supplemented, meets the concerns expressed in his letter and its provisions are now acceptable.

Conservation Area consents

44. For the reasons given at IR19.390-19.422, the Secretary of State agrees with the Inspector that, in allowing the lead appeal and granting planning permission for the development specified in the schedule attached to condition no. 5 at Annex B to this letter, the Conservation Area consent appeals should be allowed subject to the conditions at Annex C to this letter.

Overall Conclusions

45. The Secretary of State concludes that, when assessed against SP policy H2, the lead appeal proposals would substantially accord with the development plan. He acknowledges and has given due weight to the extent to which the proposals fail to comply with the SPD. He has carefully considered the requirement in PPS15 for the objective of the preservation or enhancement of the character or appearance of a Conservation Area to be given high priority, with a presumption against granting planning permission which would conflict with that objective unless there are exceptional overriding circumstances. Overall, however, he concludes that the proposals in the lead appeal strike a sustainable and reasonable balance between securing the long-term future of the appeal site and retaining its built and natural heritage. He is satisfied that the proposal will achieve a high quality of design in the New Settlement Area and provide a level of employment that is appropriate and proportionate within the context of the site's location and its limited access to services. He considers that the balance lies in favour of the lead appeal proposals and that there are no material considerations of sufficient weight to justify refusing planning permission. He also concludes that allowing the lead appeal proposals justifies allowing the appeals against the refusal of the 24 Conservation Area Consents.

Formal Decision

- 46. Accordingly, for the reasons given above, the Secretary of State agrees with the Inspector's recommendations. He hereby:
 - allows your Clients' appeal under section 78 of the Town and Country
 Planning Act 1990 against the failure of Cherwell District Council to give
 notice within the prescribed period of a decision on an application for outline
 planning permission for a new settlement of 1075 dwellings, together with
 associated works and facilities, including employment uses, community uses,
 a school, playing fields and other physical and social infrastructure
 (application ref: 08/00716/OUT dated 3 March 2008), subject to the conditions
 set out at Annex B; and
 - allows the appeals under section 20 of the Planning (Listed Buildings and Conservation Areas) Act 1990 against refusal of Conservation Area Consent for the demolition of buildings (applications Refs 07/: 02287, 02299, 02342, 02346, 02352 54, 02358-60, 02303, 02307, 02332, 02337, 02347 51, 02355, 02357, 02294, 02295 and 02296 (all suffixed CAC) and dated 6 November 2007) subject to the conditions set out at Annex C.
- 47. An applicant for any consent, agreement or approval required by a condition of this permission for agreement of reserved matters has a statutory right of appeal to the Secretary of State if consent, agreement or approval is refused or granted conditionally or if the Local Planning Authority fail to give notice of their decision within the prescribed period.
- 48. This letter does not convey any approval or consent which may be required under any enactment, bye-law, order or regulation other than section 57 of the Town and Country Planning Act 1990.

49. This letter serves as the Secretary of State's statement under Regulation 21(2) of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999.

Right to challenge the decision

- 50. A separate note is attached setting out the circumstances in which the validity of the Secretary of State's decision may be challenged by making an application to the High Court within six weeks from the date of this letter.
- 51. A copy of this letter has been sent to Cherwell District Council, Oxfordshire County Council and all parties who appeared at the inquiry.

Yours faithfully

Jean Nowak

Authorised by Secretary of State to sign in that behalf

SCHEDULE OF POST- INQUIRY CORRESPONDENCE RECEIVED:

English Heritage, South East Region, dated 28 September 2009;

The Environment Agency, sent on 5 October 2009;

Cherwell DC, setting out a combined response from Cherwell DC and Oxfordshire CC, dated 6 October 2000;

North Oxfordshire Consortium Ltd, dated 6 October 2009, and with 2 plans attached;

Cherwell DC and North Oxfordshire Consortium Ltd, in a joint response dated 6 October 2009;

Pegasus Planning Group dated 16 October 2009 (informing the Secretary of State that a further application had been submitted for the extension of one of the temporary consents);

Cherwell DC, dated 27 October 2009;

Pegasus Planning Group dated 30 October 2009;

The Oxford Trust for Contemporary History received on:

21 September 2009;

22 September 2009;

23 September 2009;

26 September 2009;

10 October 2009;

11 October 2009;

26 October 2009;

The supplemental Undertaking, dated 13 November 2009.

Conditions to be imposed in respect of application ref: 08/00716/OUT

- Approval of the details of the layout, scale, appearance, the means of access thereto and the landscaping of the site (hereinafter called "the reserved matters") shall be obtained from the local planning authority in writing before any development relating to the New Settlement Area identified on Plan Re: N.0111 58-1 is commenced.
- 2. Plans and particulars of the reserved matters referred to in condition 1 above, relating to the layout, scale, appearance, the means of access to the site and the landscaping of the site, shall be submitted in writing to the local planning authority and shall be carried out as approved.
- 3. Application for approval of the reserved matters shall be made to the local planning authority before the expiration of six years from the date of this permission.
- 4. The development hereby permitted shall be begun before the expiration of two years from the date of approval of the last of the reserved matters to be approved or, in the case of approval on different dates, the final approval of the last of the reserved matters to be approved.
- 5. The permission hereby granted relates to the development as specified in the schedule attached to these conditions.
- 6. **Masterplan Proposals:** The details required in accordance with Condition 2 shall be in general accordance with the provisions of Parameter Plans 1135_060C, 061C, 062D, 063C and 064, Landscape Masterplan L14 and Landscape Plan L10B, the Built Form Masterplan of Settlement Area (Drawing Ref 1135/045N), and with the Environmental Statement as updated in June 2008 and supplemented in September 2008; or with such subsequent amendments to any of the above as have first been submitted to and approved in writing by the Local Planning Authority.
- 7. **Phasing:** No reserved matters applications shall be submitted pursuant to the outline application or occupation of any buildings the subject of change of use, (other than those which are currently occupied) within the New Settlement Area as shown on Plan Ref: N.0111_58-1 on site until such time as a phasing plan (to include demolition, the identification of the general location of affordable housing within each phase, the laying out of open space and play areas in accordance with the open space parameter plan 1135_063C and access proposals) has first been submitted to and approved in writing by the Local Planning Authority; and shall be implemented in accordance with such approved details.
- 8. **Design Codes New Settlement Area:** No reserved matters applications shall be made for any phase until a Design Code for that phase of the New Settlement Area, as identified in Condition 7 above and as shown on Plan Ref: N.0111_58-1 has been submitted to and approved in writing by the Local Planning Authority.

The Design Code shall comprise:

- Land use, density, layout of streets and public spaces and character areas (as indicated on Figure 4.10 of the Design and Access Statement of 12 March 2009);
- Landscape, including for the immediate setting of the new settlement, to include retained trees and vegetation, new planting, public open space, amenity space, children's' play areas, sports facilities, footpaths, public spaces, together with adoption arrangements and extent;
- **Surface water control**, including design standards and methodology for sustainable drainage systems, details of specific features, including appropriate options for Sustainable Urban Drainage, together with adoption arrangements and extent;
- Public realm, including hierarchy of streets and public spaces, characteristics, dimensions, building line and or set backs, materials, means of enclosure, street furniture, including street lighting, and car parking, methods to control traffic speeds and create legibility, together with adoption arrangements and extent;
- **Built form**, including scale, materials, roof treatment, elevational treatment, treatment of landmark and marker buildings, key frontages and gateways;
- Sustainable design, including the measures to be incorporated to ensure
 that the development complies with at least the minimum Code Level required
 by the Building Regulations in the Code for Sustainable Homes and to assess
 the impact this would have on appearance;
- Car and cycle parking, including standards of provision by land use and dwelling type; and
- **Waste recycling,** including how the Councils standards for individual householders' waste and recycling bins are to be accommodated within the dwelling curtilage and refuse vehicle access to these obtained.

The development shall thereafter be carried out in accordance with the approved Design Codes.

- 9. **Maximum Numbers of residential units:** No more than 1075 dwellings in total shall be accommodated on the site, including any existing dwellings which are to be retained.
- 10. **Archaeology:** The developer shall afford access at all reasonable times to any archaeologist nominated by the local planning authority, and shall allow that person to observe the excavations and record items of interest and finds.
- 11. Contamination in the New Settlement Area: No operational development shall be undertaken and no building shall be occupied (other than those in use at the date of this application) in relation to a phase or sub-phase within the New Settlement Area as shown on Plan Ref: N.0111_58-1 until such time as a scheme to deal with the risks associated with contamination of the site

(excluding the scheme in relation to the POL system), including a programme of proposed delivery, has been submitted to and approved in writing by the local planning authority. The scheme shall include:

- A site investigation scheme, based on the preliminary risk assessment included in the Environmental Statement associated with the outline planning permission (and as supplemented in September 2008) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.
- The site investigation results and the detailed risk assessment and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
- A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (iii) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action. Any changes to these components require the express consent of the local planning authority.

The scheme shall be implemented as approved.

- 12. Verification of remediation measures in the New Settlement Area: A verification report shall be submitted to and approved in writing by the Local Planning Authority within 3 months of the completion of the works at each phase as set out in the contamination in 11 above unless otherwise agreed in writing. Such report shall confirm the remediation measures that have been undertaken in accordance with the method statement and also identify measures for future maintenance, further monitoring and reporting which shall be implemented in accordance with a timetable to be included with the report.
- 13. **Hours of operation of new uses:** No new use within Use Classes A3-A5 shall commence within the New Settlement Area as shown on Plan Ref: N.0111_58-1 until such time as details of the hours of opening of such premises have been submitted to and approved in writing by the Local Planning Authority. The use shall thereafter operate only within those hours.
- 14. **Noise:** For each phase or sub phase of the development, no works shall be undertaken until such times as a detailed scheme of noise assessment and possible sound insulation measures for the residential units (including a timetable for its implementation) has first been submitted to and approved in writing by the Local Planning Authority. That scheme shall be implemented in accordance with the approved details.
- 15. Before the change of use of any building within the New Settlement Area or the Flying Field is implemented, a scheme shall be submitted to and approved in writing by the Local Planning Authority which specifies the provisions to be made for the control of noise emanating from the building or its adjacent service area. In the case of uses that would be implemented on grant of this permission such a scheme shall be submitted to the Local Planning Authority within 6 months of the date of the permission.

- 16. Odour: For each phase of the development within the New Settlement Area as shown on Plan Ref: N.0111_58-1, no new occupation of any Class C1 (Hotel) A4 (Public House) and B2 (General Industrial) premises shall take place until such times as a detailed scheme of fume extraction/odour mitigation measures has first been submitted to and approved in writing by the Local Planning Authority; and implemented in accordance with such approved details unless otherwise agreed in writing by the Local Planning Authority. In the case of uses that would be implemented within the New Settlement Area on the grant of permission such a scheme shall be submitted to the Local Planning Authority within 6 months and approval be obtained within 12 months.
- 17. **Landscaping:** No development within any phase of the development within the New Settlement Area as shown on Plan Ref: N.0111_58-1 shall take place, save for existing uses already in occupation at the time planning permission is granted, until there has first been submitted to and approved in writing by the Local planning Authority a scheme of landscaping for that phase which shall include:-
 - details of the proposed tree and shrub planting including species, number, sizes and positions, together with grass seeded/turfed areas;
 - details of the existing trees and hedgerows to be retained as well as those to be felled, including existing and proposed soil levels at the base of each tree/hedgerow and the minimum distance between the base of the tree and the nearest edge of any excavation;
 - details of the soft landscaping, hard surfaced areas, pavements, pedestrian areas, crossing points and steps;
 - details of laying out of Public Open Space;
 - details of boundary treatments to each phase where appropriate (including retained security fencing).
- 18. All planting, seeding or turfing comprised in the approved details of landscaping for each phase within the New Settlement Area as shown on Plan Ref: N.0111_58-1 shall be carried out in the first planting and seeding seasons following the occupation of the final new building of that phase; and that any trees and shrubs which within a period of five years from the completion of the phase die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species, unless the Local Planning Authority gives written consent for any variation.
- 19. Tree/Hedgerow Protection: Before any works are undertaken in connection with each phase or sub phase of the development within the New Settlement Area as shown on Plan Ref: N.0111_58-1, the existing landscape features identified for retention under Condition 17 on the land shall be preserved, fenced around and properly maintained in accordance with a scheme of protection measures which shall have first been submitted to and approved in writing by the Local Planning Authority. Implementation shall be in accordance with the approved scheme unless otherwise agreed in writing by the Local Planning Authority.

- 20. **Levels:** Save for existing uses already in occupation at the time planning permission is granted, before any works are undertaken in respect of each phase of the development within the New Settlement Area as shown on Plan Ref: N.0111_58-1, details of the existing and proposed levels, including finished floor levels, shall first have been submitted to and approved in writing by the Local Planning Authority. Development shall be implemented in accordance with such approved details.
- 21. Drainage: Save for existing uses already in occupation at the time planning permission is granted, no development on any phase shall be undertaken until a scheme for disposal of surface water, including phased works and maintenance thereof, attenuation and storage and on-site balancing arrangements including SUDS arrangements, reflecting current best practice for sustainable urban drainage, have been submitted to and approved in writing by the Local Planning Authority. No development shall take place other than in accordance with the approved scheme.
- 22. **Foul Drainage:** Save for existing uses already in occupation at the time planning permission is granted, no development shall be undertaken on site, including phased works, until a drainage strategy for dealing with foul drainage from the site has been first submitted to and approved in writing by the Local Planning Authority. The foul drainage works shall thereafter be carried out in accordance with the approved scheme prior to the occupation of any new buildings on the site.
- 23. **Place of Worship:** Building 572 shall be used solely for the purposes of a Place of Worship and/or community use for a minimum period of 10 years from the date of this permission. Subsequent to that period it shall not without the express consent of the Local Planning Authority be used for any other purpose within Use Class D1 including any other permitted change within that specific Use Class as identified within Schedule 2, Part 3 of the Town and Country Planning (General Permitted Development) Order 1995.
- 24. **Building 552** (Water Tanks) shall not be removed until such time as a scheme for their relocation (including a timetable for its implementation) has been submitted to and approved by the Local Planning Authority. The relocation shall subsequently be implemented in accordance with the approved scheme.

Conditions applying to the Flying Field only

- 25. **Strategies for parking, lighting, signage, waste and fencing**: Strategies for these matters shall be submitted to the Local Planning Authority for approval in writing and thereafter to be implemented across the Flying Field as follows:
 - (i) the submission for approval of a Parking Strategy for the whole Flying Field within 6 months of the date of this permission. The strategy as approved shall be implemented:- a) in respect of any building which was not occupied on the date of this permission before any part of that building is occupied and b) in respect of all existing occupied buildings within 9 months of the date of this permission.
 - (ii) the submission for approval of an overall Lighting Strategy within 3 months of the date of this permission. The strategy as approved shall be implemented:- a)

in respect of any building which was not occupied on the date of this planning permission before any part of that building is occupied and b) in respect of all existing occupied buildings within 9 months of the date of the approval of the Lighting Strategy.

- (iii) the submission for approval of an overall Signage Strategy within 3 months of the date of this permission. The strategy as approved shall be implemented:
 a) in respect of any building which was not occupied on the date of this planning permission before any part of that building is occupied and b) in respect of all existing occupied buildings within 9 months of the date of the approval of the Signage Strategy.
- (iv) the submission for approval of an overall Waste Management Strategy within 3 months of the date of this permission. The strategy as approved shall be implemented:- a) in respect of any building which was not occupied on the date of this planning permission before any part of that building is occupied and b) in respect of all existing occupied buildings within 9 months of the date of the approval of the Waste Management Strategy.
- (v) the submission for approval of an overall Fencing Strategy within 6 months of the date of this permission. The Strategy shall thereafter be implemented within 18 months for fencing on the periphery of the Flying Field and thereafter prior to occupation of individual buildings on the Flying Field.

In respect of any of the above Strategies, if such approval is withheld or an approved scheme is not implemented within the relevant above timescale, the use of any building otherwise permitted by this permission shall cease within 12 months of the date of refusal or the end of the time period for implementation.

- 26. **Landscaping:** Save for those buildings in occupation at the date of permission, no building shall be occupied within the Flying Field, as shown on Plan Ref: N.0111_58-1, until there has first been submitted to and approved in writing by the Local planning Authority a scheme of landscaping, (based on Plan Ref: L10B) together with a programme for its implementation. This shall include:-
 - a. details and programming of the proposed tree and shrub planting including species, number, sizes and positions, together with grass seeded/turfed areas;
 - details and programming of the existing trees and hedgerows to be retained as well as those to be felled, including existing and proposed soil levels at the base of each tree/hedgerow and the minimum distance between the base of the tree and the nearest edge of any excavation;
 - c. details of management of the Flying Field landscaping;

The scheme shall be implemented in accordance with the approved programme.

27. Before any demolition work or engineering work is undertaken on site, a scheme to ensure the protection of trees intended for retention that are within 20m of those activities shall be submitted to and approved by the Local Planning

- Authority. Such measures shall be implemented before the demolition or engineering works commence and retained until their completion.
- 28. **Grassland areas**: No use of or operation on the grassland areas identified on Map 2 (Habitat Survey in the Ecological Mitigation and Management Plan) shall take place other than those defined within the Landscape Management Plan and the Ecological Mitigation and Management Plan.
- 29. **Runways and Taxiways**: No use of or operation on the runways/taxiways shall take place unless for the purpose of access, including emergency access and heritage tours, or a specified use within the permission, hereby or otherwise approved.
- 30. Aves Ditch and Portway: Within 3 months of the date of this permission, details of the surface treatment of the linking sections across the runway of Aves Ditch "optional route" and of Portway, as indicated on Plan Ref L10B, shall be submitted to and approved in writing by the Local Planning Authority. Within 18 months of the date of the approval of those details the Aves Ditch and Portway sections identified on Plan Ref: L10B and L10A shall be implemented in accordance with such approved details and thereafter made available for use by the general public.
- 31. **Information Boards:** Within 6 months of the permission hereby approved details of the 8 interpretation boards and 2 vantage points and a programme for their implementation shall be submitted to and approved in writing by the Local Planning Authority. Such details shall include:
 - (i) size and location of the interpretation boards
 - (ii) details of information to be included on each board and
 - (iii) location of the 2 vantage points;

These shall be implemented in accordance with the approved details and programme and be thereafter retained for that purpose and made available for use by the general public.

- 32. **Thames Valley Police Authority**: Building 249 shall only be used for police training, or a use falling within use class B2 or B8. It shall not be used by any other use falling within use class D1 without the express consent of the Local Planning Authority in writing.
- 33. **Contamination the Flying Field**: Within 3 months of the grant of outline planning permission, a scheme of investigation to identify and remove contamination that represents a risk to the water environment on the Flying Field as shown on Plan Ref: N.0111_58-1 shall be submitted to and approved in writing by the Local Planning Authority. This shall include:
 - 1) A schedule of time frames for the proposed site investigations
 - 2) The areas to be covered including:
 - The Fire Practice Area building reference nos. 330 to 337.

- Northern bomb store building reference nos. 1001 to 1060.
- Above ground and underground fuel tanks not associated with the POL System where leakage is evident and testing has not already taken place.
- Landfills and waste disposal pits, including the presence of radium 226, where not already tested.

Samples for the assessment of groundwater quality shall be taken directly down hydraulic gradient.

- 3) The site investigation results and the detailed risk assessment and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
- 4) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

Any changes to these components shall require the consent of the local planning authority. The scheme shall be implemented as approved.

- 34. Contamination the Petrol Oil and Lubrication (POL) System: Within 6 months of the grant of outline planning permission a site investigation and remediation scheme for the POL system shall be submitted for approval in writing by the local planning authority. It shall include:
 - 1) A schedule of time frames for the proposed site investigations.
 - Assessment of levels of residual fuel contamination within all tanks and pipe work of the POL System (aviation fuel ring main structures and isolated vehicle fuelling stations and waste oil storage facilities).
 - 3) Assessment of groundwater quality (in addition to the current site-wide monitoring scheme) by monitoring boreholes placed down hydraulic gradient of all POL structures where recorded and suspected fuel leaks have occurred.
 - 4) Assessment of groundwater quality (additional to current site wide monitoring scheme) by monitoring boreholes placed down hydraulic gradient of the fuel entry compound.
 - 5) Assessment of contamination within soils and groundwater:-
 - soil samples at the sides of tanks and groundwater quality samples shall be taken directly down hydraulic gradient of all fuel tanks at POL structures 3, 6, 7, 8, 9, 10, 11, 13, 14, 16, 21A; 21B, 21C, 22, 23A, 23B; 24, 25A and 25B.
 - along the length of POL aviation fuel distribution mains around the former airfield (13 km) including equivalent pipe work left in situ following replacement of the ring main in 1987-9;
 - along the length of the POL supply pipeline to investigate integrity failure;

- soil samples at the sides of tanks and groundwater quality samples shall be taken directly down hydraulic gradient of all fuel tanks and associated pipe work at POL 5;
- soil samples at the sides of tanks and groundwater quality samples shall be taken directly down hydraulic gradient of all fuel tanks and associated pipe work at POL 2, 4 and 12 if it is confirmed that they were linked to the aviation fuel pipe line;
- soil samples at the sides of tanks and groundwater quality samples shall be taken directly down hydraulic gradient of all fuel tanks and associated pipe work at POL 17 – tanks 1, 2, 3, 4, 5 and 6 used for hazardous waste/waste oil and decommissioned later than 1996;
- soil samples at the sides of tanks and groundwater quality samples shall be taken directly down hydraulic gradient of all fuel tanks and associated pipe work at POL 19;
- soil samples at the sides of tanks and groundwater quality samples should be taken directly down hydraulic gradient of tanks and associated pipe work at POL 20;
- soil samples at the sides of tanks and groundwater quality samples directly down hydraulic gradient of all pipe work or structures in the fuel entry compound.

The approved scheme shall be implemented in accordance with such time frames and other approved details.

- 35. The POL system Remediation: Within 3 months of the completion of the approved site investigations (to include laboratory analysis, data assessment and reporting), a method statement giving full details of the remediation measures required and how they are to be undertaken, based upon the results of the site investigation and risk assessment (Condition 34), shall be submitted to and approved in writing by the Local Planning Authority. Such method statement shall include a schedule of delivery of such remediation which shall be completed prior to occupation of 75% of the residential dwellings permitted within the New Settlement Area by this planning permission. The remediation measures shall involve removal of pollutant sources or breaking of pollution pathways and shall include but not be limited to:-
 - either tank removal (and replacement where in current use) in the case of gross contamination or removal of water and internal cleaning of tanks and pipe work including those on the POL system including all historic redundant ring mains;
 - removal (and replacement where in current use) of pipe work in cases of gross contamination or disconnection of all pipe work from tanks (closure of existing valves may be permitted);
 - where not in current use underground pipe work left in situ shall either be broken into appropriate lengths or in-filled after cleaning in order to remove potential pollutant pathways.

The method statement shall be implemented as approved.

- 36. **Verification Flying Field and POL system**: Following completion of those remediation works identified in Conditions 34 and 35, a separate verification report for the works carried out in respect of each condition shall be submitted within 3 months of the completion of the works for the approval in writing of the Local Planning Authority. The report shall confirm the remediation measures that have been undertaken in accordance with the method statement and also identify measures for future maintenance, further monitoring and reporting which shall be implemented in accordance with such approved details.
- 37. **Unidentified Contamination**: If during development contamination not previously identified is found to be present at the site then no further development within 20m of the contamination shall be carried out until the developer has submitted to and obtained written approval from the local planning authority for an addendum to the method statement. This addendum to the method statement shall detail how this unsuspected contamination will be remediated (if necessary) and thereafter this will be carried out as approved before any development within 20m recommences. Following completion of any such additional remediation, a verification report shall be submitted within 3 months of the completion of the works for the approval of the Local Planning Authority in writing.
- 38. **Ecology**: Within 9 months of the date of this permission a programme for implementation of the ecological objectives set out in the Ecological Mitigation and Management Plan shall be submitted to the Local Planning Authority for approval. Failing such approval such implementation shall be completed by 5 years from the date of this permission.
- 39. Cat Proof Fence: No operational development shall be undertaken on site, or within such other period to be agreed in writing with the Local Planning Authority, until such time as a scheme for the provision and maintenance of cat proof and dog proof fencing, including details of the specification, height, position and extent of fencing along the boundary of the new settlement and the Flying Field has been submitted to and approved in writing by the Local Planning Authority. The fencing shall be erected in accordance with the approved details prior to the first occupancy of the new housing and the first public use of the reinstated public right of way.

Restriction of Permitted Development:

- 40. The construction of the new development shall be carried out in such a manner as to ensure that the structural integrity of existing buildings in the vicinity of the construction works is preserved.
- 41. With the exception of vehicles parked in defined areas pursuant to Condition 25 in respect of Parking Schemes and identified car processing areas as shown on Drawing N.011 22-1L (as amended by plan N.0111_22-MB), no goods, materials, plant or machinery shall be stored, repaired, operated or displayed in the open in connection with any commercial premises, other than those agreed in respect of the transitional arrangements or approved as part of the waste management strategy, without the prior express planning consent of the Local Planning Authority.

42. That the buildings identified within the schedule of change of use Plan No. N.0111_22-1L for B2 (General Industrial) use shall be used only for the defined purpose and for no other purpose whatsoever, including any other permitted change within that specific use class as identified within Schedule 2, Part 3 of the Town and Country Planning (General Permitted Development) Order 1995.

Car Processing

- 43. Operation: The area of the application site comprising open hardstanding identified for car processing (defined so as to comprise the inspection, valeting, washing, repairing, tyre replacement, processing and delivery of cars and other car processing activities as may be required from time to time) shall only be used for activity which is related to car processing, and specifically shall not be used for the parking of any other vehicle associated with any other use or activity present on the application site.
- 44. Not withstanding the details shown on the Change of Use Plan (Reference No: Plan N.0111_22-1L), forming part of this planning permission, no vehicles shall be parked, stored or staged as part of the vehicle preparation and car processing use to the west of the "dog-leg" line drawn from the south-east corner of Building 337 to the north-west corner of Building 350 as plotted on the plan attached to these conditions (Reference No: N.0111_22-MB).
- 45. Car rental: No car rental or related activities for use by members of the public shall be permitted from the identified car processing area as shown on Drawing N.0111_22-1L (as amended by plan N.0111_22-MB).
- 46. Ground water protection: Within 3 months of the date of this permission, details of measures to prevent the pollution of groundwater associated with the operation of car processing on the hardstanding and a programme for their implementation shall be submitted to and approved in writing by the Local Planning Authority. Such measures shall be implemented in accordance with the approved details.
- 47. HGV parking and unloading: Car transporters associated with the car processing use shall only be operated or parked at the western end of the car processing site within the area identified on drawing no N.0111_84-1.
- 48. Height restriction: Any vehicle within the car processing area over 1.45 metres in height shall be parked on the former tanker parking area identified on drawing no. N.0111_85-1 and in no other location within the car processing area when not required for specific processing activities.
- 49. A scheme and programme for the provision of security for the car processing area including below ground pressure sensors and infra red cameras and the removal of the existing concrete rings shall be submitted for approval to the Local Planning Authority within 3 months of the grant of planning permission and approved in writing. Thereafter the approved scheme shall be implemented in accordance with the approved timescale and details and in any event no later than when the former tanker parking area comes first into use for car processing.

Construction Conditions

- 50. **Demolition:** Prior to any demolition within the New Settlement Area or the Flying Field as shown on Plan Ref: N.0111_58-1, a scheme of demolition for those buildings to be removed shall have been first submitted to and approved in writing by the Local Planning Authority. Such a scheme shall include;
 - (a) the demolition techniques to be employed in respect of each building to be removed;
 - (b) proposed hours of operation in respect of the proposed demolition works and demolition material processing/treatment;
 - (c) dust and noise mitigation measures to be employed in respect of the demolition;
 - (d) details of the treatment of the demolition material including whether it is to be removed from the site or re-used in connection with the development;
 - (e) If demolition spoil is to be processed on site details of the method of processing shall be submitted, including dust and noise mitigation measures to be employed;

and shall be implemented in accordance with such approved details.

- 51. **Wheel Washing:** No works in relation to any phase or sub phase shall be undertaken until such time as wheel washing facilities have been provided in accordance with details that have first been submitted to and approved in writing by the Local Planning Authority.
- 52. **Site Servicing**: No works in relation to any phase or sub phase of the development shall be undertaken on site until details of the location of all site compound and the associated areas for plant storage and access thereto, as well as a scheme for their subsequent removal and restoration of the land, have been submitted to and approved in writing by the Local Planning Authority prior to their establishment. The compounds and accesses shall be located and subsequently removed in accordance with the approved details.
- 53. **Importation of Waste:** No imported waste material whatsoever shall be imported and deposited onto the site.
- 54. **Pollution Protection Measures:** All chemicals, oils, fuels and other potential contaminants that are stored in tanks or structures shall be stored in bunded tanks or structures with a minimum capacity of 110% of the maximum volume stored. The location of any tanks or structures shall be submitted to and approved in writing by the Local Planning Authority prior to their establishment.
- 55. **Commercial Noise Assessment:** Within 6 months of the permission hereby approved detailed noise assessment shall be undertaken of the existing commercial premises within the site as shown on Plan Ref: N.0111_58-1 along with an appraisal of the likely receptors within the proposed development, having regard to the details within the Settlement Masterplan Drawing Ref 1135/045N. The scope of that assessment shall first have been submitted to and approved by the Local Planning Authority in writing. The details of such steps as are

necessary to mitigate any undue potential impact upon the identified receptors (including a timetable for their implementation) shall then be submitted to and approved in writing by the Local Planning Authority and shall then be implemented within the approved timetable before occupation of any identified receptor takes place.

- 56. Landscaping outside of New Settlement Area: Before the occupation of the 500th dwelling within the New Settlement Area, on Plan Ref: N.0111_58-1, a scheme of landscaping for the area identified and shown green on Plan Ref: N.0111_58-1 as outside both the Flying Field and the New Settlement Area shall be submitted to and approved in writing by the Local Planning Authority. This shall include:
 - a. details of the proposed tree and shrub planting including species, number, sizes and positions, together with grass seeded/turfed areas;
 - details of the existing trees and hedgerows to be retained as well as those to be felled, including existing and proposed soil levels at the base of each tree/hedgerow and the minimum distance between the base of the tree and the nearest edge of any excavation;
 - c. Details of the provision of sports pitches;
 - d. Details of fencing and boundary enclosures.
- 57. All planting, seeding or turfing comprised in the approved details of landscaping for the Flying Field and for the area outside the FF and NSA both as shown on Plan Ref: N.0111_58-1 shall be carried out in the first planting and seeding seasons following the approval of such details. Any trees and shrubs which within a period of five years from the completion of the phase die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species, unless the Local Planning Authority gives written consent for any variation.

Highways conditions

- 58. Save for existing uses already in occupation at the time of planning permission being granted, prior to commencement of new development, an access phasing strategy shall be submitted to and approved in writing by the Local Planning Authority, including a phased approach to the closure of access points. The provision and closure of accesses shall be carried out in accordance with the approved details.
- 59. Before the Local Centre facilities, as indicated on Drawing 1135-045N, other than those currently in use at the time of the permission, are occupied, the footpaths, roads and parking areas serving them shall be constructed, surfaced to base course level, drained and temporary or permanent traffic calming completed in accordance with specification details to be submitted to and approved in writing by the Local Planning Authority prior to the commencement of that phase of the development.
- 60. Turning area: Save for existing uses already in occupation at the time of planning permission being granted, before any new building is first occupied

within the New Settlement Area as shown on Plan Ref: N.0111_58-1, any temporary or permanent turning areas shall be provided within the curtilage of the site so that buses may turn around and leave in a forward direction. Any such turning area shall be constructed, laid out, surfaced, drained and completed in accordance with specification details to be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development and shall thereafter be retained and kept unobstructed for the manoeuvring of motor vehicles at all times.

- 61. Parking and manoeuvring areas: Save for existing uses on the site, before the development is first occupied within the New Settlement Area as shown on Plan Ref: N.0111_58-1, the parking and manoeuvring areas shall be provided in accordance with plans approved in writing by the Local Planning Authority in consultation with the Highway Authority and shall be constructed, laid out, surfaced in bound material, drained and completed, and shall be retained unobstructed except for the parking of vehicles at all times.
- 62. Parking for existing uses in the New Settlement Area: Details of parking provision within the NSA (as shown on Plan Ref: N.0111_58-1) for the existing uses shall be submitted to and approved in writing by the Local Planning Authority at the same time as the reserved matters application for the phase of the development in which the existing use/s are located. The approved parking shall thereafter be implemented within 3 months of the completion of that phase and thereafter be retained in accordance with such approved details.
- 63. Construction Period Parking: Save for existing uses already in occupation at the time of planning permission being granted, the development hereby permitted shall not commence until arrangements for the off-highway parking provision of construction vehicles have been implemented in accordance with a scheme to be submitted to and approved in writing by the Local Planning Authority.
- 64. Surface Water Drainage to the Highway: Before any demolition or building operations begin, a scheme to prevent the discharge of surface water to the highway shall be submitted to and approved in writing by the Local Planning Authority and this scheme shall be implemented before such works commence.
- 65. Save for existing uses already in occupation at the time of planning permission being granted, the development hereby permitted shall not commence until such time as a detailed Travel Plan covering the construction phases (including a timetable for its implementation) has been submitted to and agreed in writing by the Local Planning Authority. The Travel Plan shall be implemented in accordance with those details.
- 66. Camp Road and Middleton Stoney highway works: Occupation of the 300th new dwelling or occupation of more than 25% increased floor area of commercial use above that existing at the grant of this permission (whichever is the earlier), shall not take place until such time as the improvement works to the junction at Middleton Stoney have been submitted to and approved by the Local Planning Authority in writing and shall thereafter be implemented in accordance with those details.
- 67. Junction 10 of the M40: Occupation of the 500th or subsequent net additional dwellings or occupation of more than 50% increased floor area of commercial

- use above existing (whichever is the earlier) shall not take place until such time as the works shown on "Figure 36 Junction 10 proposed carriageway marking alterations" (Arup Job no. 120669-00) have been implemented in accordance with that drawing.
- 68. The developer shall use a minimum of 30% recycled material for the construction of on-site highways.

Other conditions

- 69. Before construction work on any phase within the New Settlement Area as shown on Plan Ref: N.0111_58-1 is begun, details of fire hydrant provision shall have first been submitted to and approved in writing by the Local Planning Authority. Such provision shall be installed in accordance with such approved details before any new dwelling is first occupied.
- 70. Where any condition requires approval and subsequent implementation of any details or scheme then, in the case of any building where its continued use would be authorised by this permission, that use shall cease within 3 months of failure to submit details of the relevant matters (including a programme for their implementation) to the Local Planning Authority for approval in writing within 9 months of the date of this permission. If such approval is withheld or an approved scheme is not implemented within the approved timescale, that use shall cease within 12 months of the date of refusal or non-implementation.
- 71. Notwithstanding the area shown buff on plan N.001_22-1L for car processing, that part of the use requiring vehicles to be parked in close rows, ranks or echelons, shall be confined to the area to the east of a straight line drawn to join the south east corner of building 337 and the north east corner of building 350.

Schedule of development permitted (as referred to in Condition 5):

The proposed **New Settlement Area** includes the following uses and development:-

- 1. Class C3 (residential dwelling houses): up to 1,075 new dwellings (including the retention of some existing military housing), to be erected in 2 and 3 storey buildings, together with change of use of Building 455 (1177 sq.m);
- 2. Class D1 (non residential institutions): change of use of building 457 (224 sq.m) to a nursery/crèche, building 549 (580 sq.m) to provide accommodation for a Community Hall and building 572 (680 sq.m) to provide accommodation for a Chapel; Buildings 126 (869 sq.m), 129 (241 sq.m) and 315 (3,100 sq.m) to provide a Heritage Centre up to 4,200 sq.m, together with associated car parking.
- 3. Change of Use of Building 74 (4,020 sq.m) to Class C1/D1 use as a hotel / conference centre of up to 4,150 sq. metres.
- 4. Class A1 retail provision of up to 743 sq.metres floorspace, and change of use of Building 459 (270 sq.m) to Class A1 retail.
- 5. Change of Use of Building 103 (312 sq.m) to Class A4 Public House, provision of up to 340 sq.metres of Class A4 floorspace in total.
- 6. Provision of 1 no. Primary School on 2.2 hectares.
- 7. Erection of 6 no. Class B1 (a), (b) and (c) buildings comprising up to 7,800 sq.metres of floorspace, together with change of use of Buildings 100 (557 sq.m) and 125 (897 sq.m) to Class B1.
- 8. Change of Use of Buildings 80 (2198 sq.m), 151 (3,100 sq.m), 172 (5,135 sq.m), 320 (3,600 sq.m), 345 (3,600 sq.m), 350 (3,200 sq.m) to mixed Class B2/Class B8 use.
- 9. Change of Use of Building 158 (50 sq.m) to Class B8 use.
- 10. Change of use of Structure 89a (10 sq.m) to a petrol pump station (sui generis use)
- 11. Provision of playing pitches and courts, sports pavilion plus incidental open space including NEAPS and LEAPS.
- 12. Provision of all infrastructure to serve the above development including the provision of the requisite access roads and car parking to District Council standards.
- 13. Removal of boundary fence to the south of Camp Road.
- 14. Removal of buildings and structures within New Settlement Area as detailed in separate schedule (Demolitions Schedule Table RD 4bd).
- 15. Landscaping alterations including the removal of identified trees within the Conservation Area (see separate schedule) and planting of new trees and offsite hedgerows and access track.

The proposed **Flying Field** area will include the following uses and development:

- 1. Change of Use for vehicle preparation and car processing comprising 17 hectares.
- 2. Change of Use of Buildings 205 (111 sq.m), 234 (1195 sq.m), 1109 (200 sq.m), 3205 (142 sq.m), 3208 (142 sq.m), 3209 (142 sq.m), 3210 (142 sq.m) to Class B1 (Business) use.
- 3. Change of Use of Building 350A (10 sq.m) to mixed Class B1 (Business)/B8 (Storage) use.
- 4. Change of Use of Buildings 259 (372 sq.m), 260 (372 sq.m), 336 (800 sq.m), 337 (1388 sq.m), 354 (336 sq.m) and 1011 (239 sq.m) to Class B2 use.
- 5. Change of Use of Buildings 209 (1624 sq.m), 324 (397 sq.m), 3140 (408 sq.m) to mixed Class B1/Class B2 use.
- Change of Use of Buildings 221 (2391 sq.m), 325 (692 sq.m), 327 (702 sq.m), 328 (725 sq.m), 335 (769 sq.m), 366 (1656 sq.m) to mixed Class B2/Class B8 use.
- 7. Change of Use of Building 249 (3259 sq.m) to Class D1/Class B2/Class B8 use.
- 8. Change of Use of Buildings 210 (177 sq.m), 211 (378 sq.m), 212 (271 sq.m), 226 (169 sq.m), 237 373 sq.m), 238 (119 sq.m), 239 (178 sq.m), 279 (169 sq.m), 292 (2070 sq.m), 1001-1005 (193 sq.m each), 1006 (524 sq.m), 1007 (524 sq.m), 1008 (318 sq.m), 1009 (24 sq.m), 1023 (372 sq.m), 1026-1038 (97 sq.m each), 1041-1048 (75 sq.m each), 1050 (144 sq.m), 1100 (34 sq.m), 1102 (138 sq.m), 1103 (177 sq.m), 1104 (89 sq.m), 1105-1106 (138 sq.m each), 1108 (348 sq.m), 1111 (367 sq.m), 1112 (60 sq.m), 1113 (177 sq.m), 1114 (37 sq.m), 1115 (149 sq.m), 1159 (156 sq.m), 1160-1167 (201 sq.m each), 1168-1185 (156 sq.m each), 1372 (600 sq.m), 1601- 1625 (139 sq.m each), 2001-2009 (595 sq.m each), 3001-3035 (930 sq.m each), 3043-3051 (930 sq.m each), 3056 (930 sq.m), 3200-3202 (169 sq.m each), 3203 (60sq.m) to Class B8 use.
- 9. Change of use of Building 299 (2676 sq.m) to a *sui generis* use as computer data storage.
- 10. Demolition of Building 3135 in the north-western corner of Airfield (also subject to Conservation Area Consent application).
- 11. Removal of identified parts of the boundary fence and partial replacement with 1.5 metre fencing in locations as identified on the Landscape Master Plan (also subject to Conservation Area Consent applications).
- 12. Provision of all infrastructure to serve the above development, including the provision of the defined access arrangements and car parking to Cherwell District Council standards.
- 13. Landscaping alterations including the removal of some trees within the Conservation Area (see separate schedule).
- 14. Reopening of Portway and Aves Ditch as public rights of way across the Airfield.

Conditions to be imposed in respect of Conservation Area consents:

(applications Refs: 07/: 02287, 02299, 02342, 02346, 02352 - 54, 02358-60, 02303, 02307, 02332, 02337, 02347 - 51, 02355, 02357, 02294, 02295 and 02296 (all suffixed CAC)

- 1. The works to which this consent relates shall be begun not later than the expiration of six years beginning with the date of this consent.
- 2. With the exception of those buildings located within the identified primary school site indicated on Parameter Plan 1135_061 C as amended by Plan N.0111_77-2a (or such other site as has been identified and agreed between the appellant and Local Planning Authority in writing), the works to which this consent relates shall not be carried out until a scheme for the phased demolition has been approved by the Local Planning Authority in writing and a contract has been let for the redevelopment of that phase in accordance with details to be approved by the Local Planning Authority in writing.
- 3. The demolition of buildings within the primary school site shall not be carried out prior to the issue of a determination further to the Education and Inspections Act 2006 (and related regulations) approving a proposal for the provision of a primary school on the site.
- 4. No works shall commence on the demolition of buildings until the applicant, or their agent or successor in title has arranged for a scheme of recording of the buildings to be submitted to and approved in writing by the Local Planning Authority.

The submitted scheme shall include, but not be limited to:

- (a) The identification and qualifications of the person/body that will undertake the recording
- (b) Methodology
- (c) Timetable
- (d) The form of the completed document

The buildings shall be recorded and the record shall be completed in accordance with the approved scheme.

A copy of the record shall be submitted to the Local Planning Authority, the National Monuments Record and the County Record Office within 1 month of the completion of the record.

5. Debris associated with the demolition of the buildings shall be removed from the site immediately, unless it is to be re-used within the construction programme, in which case details of the processing and storage of such material on site shall be submitted to and approved by the Local Planning Authority in advance of commencement of demolition.



Appendix C Jomas Associates Limited Factual Report

FACTUAL REPORT ON GROUND INVESTIGATION

FOR

UPPER HEYFORD NEW SETTLEMENT AREA, UPPER HEYFORD





Report Title : Factual Report on Ground Investigation at Upper Heyford New Settlement

Area, Upper Heyford

Report Status : Final v1.0

Job No : P8219J107

Date : December 2011

Quality Control: Previous Release

Version	Date	Issued By
V0.1	November 2011	RS

Prepared by: JOMAS ASSOCIATES LTD For: HEYFORD PARK SETTLEMENT LTD

Mary

Prepared by Marc Williams BSc (Hons), AIEMA, FGS
Principal Consultant

Malebage

Approved by Roni Savage BEng (hons), MSc, SiLC, CGeol, MCIWM, FGS Technical Director

Should you have any queries relating to this report, please contact

Roni Savage

Jomas Associates Ltd

• www.jomasassociates.com

2 0843 289 2187

⋈ info@jomasassociates.com

i



Page

CONTENTS

1	INTRODUCTION	4
1.1	Terms of Reference	4
1.2	Scope of Works	.4
1.3	Limitations	.4
2	GROUND INVESTIGATION	5
2.1	Rationale for Ground Investigation	.5
2.2	Scope of Ground Investigation	.5
2.3	Standard Penetration Tests (SPTs)	.5
3	TRIAL PITS	6
3.1	Overview	.6
3.2	Sampling and Testing	.6
3.3	Conditions Encountered	.6
3.4	Hydrology	.6
3.5	Physical and Olfactory Evidence of Contamination	6
4	BOREHOLES	8
4.1	Overview	.8
4.2	Inspection Pits	.8
4.3	Testing and Sampling	.8
4.4	Installations	.8
4.5	Conditions Encountered	.9
4.6	Hydrogeology	.9
4.7	Physical and Olfactory Evidence of Contamination	.9



5	IN SITU CALIFORNIA BEARING RATIO (CBR) TESTING10
5.1	Overview
5.2	Methodology10
5.3	Results
6	TANK SURVEY11
6.1	Overview11
6.2	Above Ground Storage Tanks11
6.3	Below Ground Storage Tanks11
7	LABORATORY CHEMICAL TESTING13
7.1	Overview
7.2	Analysis Scheduled
8	LABORATORY GEOTECHNICAL TESTING15
AP	PENDICES
AP	PENDIX 1 - FIGURES
AP	PENDIX 2 - TRIAL PIT LOGS
AP	PENDIX 3 - BOREHOLE LOGS
AP	PENDIX 4 - IN SITU CBR TEST RECORDS
AP	PENDIX 5 – TANK SURVEY SHEETS
AP	PENDIX 6 - CHEMICAL LABORATORY TEST RESULTS
AP	PENDIX 7 - GEOTECHNICAL LABORATORY TEST RESULTS
AP	PENDIX 8 -LABORATORY PERMEABILITY TEST RESULTS



1 INTRODUCTION

1.1 Terms of Reference

- 1.1.1 Heyford Park Settlement Ltd ("The Client") has commissioned Jomas Associates Ltd ('JAL'), to undertake an intrusive ground investigation at Upper Heyford New Settlement Area, Upper Heyford, Bicester, Oxfordshire.
- 1.1.2 This factual report details the works undertaken and ground conditions encountered, and provides raw data only.

1.2 Scope of Works

- 1.2.1 The scope of the ground investigation works are set out in the Specification for Ground Investigation document produced by Waterman Group (document ref EED 10658 S 7.1.5 FA) dated September 2011.
- 1.2.2 Works have been carried out in accordance with the specification detailed within this document. Further instructions were provided by Waterman as the site works progressed.

1.3 Limitations

- 1.3.1 Jomas Associates Ltd ('JAL') has prepared this report for the sole use of Heyford Park Settlements Ltd, in accordance with the generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon by any other party without the explicit written agreement of JAL. No other third party warranty, expressed or implied, is made as to the professional advice included in this report. This report must be used in its entirety.
- 1.3.2 Whilst every effort has been made to ensure the accuracy of the data supplied, and any analysis derived from it, there may be conditions at the site that have not been disclosed by the investigation, and could not therefore be taken into account. As with any site, there may be differences in soil conditions between exploratory hole positions. Furthermore, it should be noted that groundwater conditions may vary due to seasonal and other effects and may at times be significantly different from those measured by the investigation. No liability can be accepted for any such variations in these conditions.



2 **GROUND INVESTIGATION** 2.1 **Rationale for Ground Investigation** 2.1.1 The site investigation has been undertaken in accordance with Contaminated Land Report 11, BS10175, NHBC Standards Chapter 4.1, and other associated Statutory Guidance. 2.1.2 The soil sampling rationale for the site investigation was prescribed in the scope of works specification for the site, produced by Watermans. Scope of Ground Investigation 2.2 The ground investigation was undertaken from the 26th September 2011 until the 27th 2.2.1 October 2011. 2.2.2 The work was undertaken in accordance with BS5930 'Code of Practice for Site Investigation' and BS10175 'Investigation of Potentially Contaminated Sites'. works were completed without incident. 2.2.3 Works comprised a total of 24 No. rotary boreholes and 35 No. trial pits (machine and hand excavated). A survey was also undertaken of above and below ground storage tanks, with tanks dipped using an interface probe to identify the presence of any free product. Where possible, samples of liquid contents were obtained from the tanks. 2.2.4 Exploratory hole and tank positions were surveyed using a GPS survey, as shown in Figure 2. The trial pit and borehole records are included in Appendix 2 and 3 respectively. 2.2.5 The trial pits were backfilled with the arisings (in the reverse order in which they were drilled) and the ground surface was reinstated so that no depression was left. The surrounding areas were left clean and clear of any debris. 2.2.6 Boreholes were installed with combined gas and groundwater monitoring wells, with the installation depth specified by the Watermans' site engineer for each borehole. **Standard Penetration Tests (SPTs)** 2.3 2.3.1 In-situ standard/cone penetration tests were undertaken in the boreholes in accordance with BS EN ISO 22476-2 'Methods of Test on Soils for Engineering Purposes (Part 9)'; to determine the relative density of the underlying, and therefore give an indication of soil 'strength'.

2.3.2

The results are presented on the individual exploratory hole records in Appendix 3.



3 TRIAL PITS

3.1 Overview

- 3.1.1 A total of 32 No. trial pits were undertaken in accordance with the Specification for Ground Investigation. 25 No. of the trial pits were excavated using a 7.5 tonne tracked swing shovel excavator. 7 No. of the trial pits were hand excavated due to access constraints and the presence of buried services.
- 3.1.2 The depth of trial pits was severely curtailed by the presence of shallow bedrock horizons. Machine excavated trial pits were excavated to depths of between 1.1m and 2.6m bgl. 4 No. machine excavated trial pits were terminated prior to full depth due to the presence of buried services in the form of suspected water mains encountered at 1.1m bgl (encountered within trial pits TPNSA 212, 213 and 228). A horizon of concrete was encountered within Trial Pit TPNSA 204 at 0.9m bgl depth, resulting in termination and relocation of the trial pit.
- 3.1.3 Hand excavated trial pits were excavated to depths of between 0.6m and 1.1m.
- 3.1.4 Full trial pit logs are presented as Appendix 2.

3.2 Sampling and Testing

- 3.2.1 In accordance with the Specification for Ground Investigation, environmental samples were obtained at 0.5m depth intervals and at changes in strata. Samples were also obtained where evidence of contamination was observed.
- 3.2.2 Additionally, headspace testing was undertaken at all sampling intervals using a photo ionisation detector, with the results included within the trial pit logs.

3.3 Conditions Encountered

- 3.3.1 Ground conditions typically comprised a variable covering of Made Ground (typically 0.2m to 1.4m thickness, comprising brown/grey/black/yellow clayey sandy gravel, with gravel typically comprising limestone, concrete, brick and tarmac, underlying a covering of turf, tarmac or concrete), overlying white/cream/yellow sandy gravel. The gravel was observed to comprise weathered limestone, with the horizon becoming a thickly bedded limestone bedrock containing a small amount of yellow interstitial sand.
- 3.3.2 Within trial pits TPNSA 201 and 202 Made Ground was encountered to depths of 2.4m bgl and 2.6m bgl respectively, and was observed to comprise a black/brown sandy gravel of concrete, ash, clinker, metal and ceramic. Evidence of hydrocarbon contamination was observed within the deposits underlying this horizon.

3.4 Hydrology

3.4.1 Groundwater was not encountered during the trial pitting investigation, with the exception of seepage encountered at the base of trial pits TPNSA 201 and 202, resulting in instability of these trial pits.

3.5 Physical and Olfactory Evidence of Contamination

3.5.1 Faint hydrocarbon odour was reported below 2.3m in TPNSA 202.

SECTION 3 TRIAL PITS



3.5.2 No other visual or olfactory evidence of significant contamination was observed during the trial pitting investigation



4 BOREHOLES

4.1 Overview

- 4.1.1 A total of 24 No. boreholes were undertaken by rotary drilling techniques. Rotary core drilling was undertaken on 15 No. of the boreholes, with the remaining 9 No. advanced by open hole drilling techniques.
- 4.1.2 In accordance with the Specification for Ground Investigation (Waterman, 2011), 4
 No. boreholes were advanced towards a depth of 30m bgl, with the remaining boreholes advanced towards a depth of 10m bgl. The final depth of the individual boreholes was determined by the site engineer from Waterman. The terminal depths of individual boreholes are recorded on the individual borehole logs, presented as Appendix 3.

4.2 Inspection Pits

- 4.2.1 With the exception of boreholes BHNSA 37 and 11 (which were advanced through previously excavated trial pits), a hand dug inspection pit was undertaken at each location to ensure any buried services were avoided. Buried services were encountered within the inspection pits for BHNSA 14, 19 and 7, necessitating the relocating of these boreholes and excavation of additional inspection pits at the new location.
- 4.2.2 Ground conditions comprising near surface weathered limestone resulted in difficult conditions for the undertaking of hand excavated inspection pits. Inspection pits were excavated to a depth of 1.2m bgl, or until the commencement of a recognisable bedrock horizon (depending upon which was encountered first). The inspection pit was then logged in accordance with BS5930:1999 incorporating Amendment 2 and an environmental sample obtained from a depth of 0.5m bgl and 1.0m bgl (where depth was achieved).

4.3 Testing and Sampling

- 4.3.1 A standard penetration test was undertaken at the base of each inspection pit prior to the commencement of drilling. With the exception of borehole BHNSA 22 (SPT N Value of 4 at 1.2m depth) all boreholes recorded refusal upon the underlying bedrock. A second SPT undertaken at a depth of 2m bgl within borehole BHNSA 22 recorded refusal upon the underlying bedrock.
- 4.3.2 Within bedrock deposits readings were taken using a photo ionisation detector (PID) at 1 metre intervals, or changes in strata, and when suspect hydrocarbon contamination was observed. Where olfactory evidence of hydrocarbon contamination or elevated PID readings were encountered, environmental samples were obtained.

4.4 Installations

4.4.1 Upon completion of drilling operations, boreholes were installed with combined gas and groundwater monitoring wells. The installation details of individual boreholes were specified by the Watermans' site engineer upon receipt of groundwater information, and are included within the individual borehole logs. All monitoring wells were finished with plain pipe surrounded by a bentonite seal. 500mm of sand was included at the base of the bentonite seal to act as a fines screen, separating the bentonite from the borehole response zone.



4.5 Conditions Encountered

- 4.5.1 Ground conditions were logged in accordance with the requirements of BS5930:1999, incorporating Amendment 1. The following presents a brief summary of the conditions encountered. Reference should be made to the borehole logs presented as Appendix 3 for detailed information.
- 4.5.2 Ground conditions typically comprised a horizon of Made Ground below a covering of turf, tarmac or concrete. The Made Ground typically comprised brown/yellow/grey/orange sandy clayey gravel, with the gravel comprising limestone, concrete, brick and occasionally tarmac. The Made Ground was typically encountered to depths of between 0.25m and 1.2m bgl.
- 4.5.3 Underlying this horizon, a weathered yellow to structured pale grey crystalline limestone/occasionally calcareous sandstone, was frequently encountered. This horizon was typically observed to a depth of between 2.6m bgl and 8.5m bgl.
- 4.5.4 Below this, an interbedded complex of pale grey to dark grey siltstone and pale grey to dark grey mudstone with occasional bands of coarse grained shelly limestone, was observed. The siltstone horizon was observed to vary in grain size, with occasional sandy siltstone horizons containing shell fragments.
- 4.5.5 This horizon persisted to the base of the 10m depth boreholes. Within the 4 No. 30m depth boreholes, this horizon was observed to a depth of between 21.2m and 25.3m bgl, where a dark grey silty sand was observed. Within borehole BHNSA 14 this horizon was present as a dark grey weakly cemented silty sandstone.

4.6 Hydrogeology

The large quantities of water utilised during the drilling process made accurate monitoring of water strikes impractical. Upon completion of drilling the 10m depth boreholes water levels were typically between 4.3m and 9.8m bgl. Within the 30m depth boreholes groundwater levels typically stood at between 19.1m and 14m depth. All boreholes were then re-dipped after a period of twenty minutes from completion of drilling to monitor for rise or fall in water levels. Records of water levels upon completion of drilling and after 20 minutes monitoring are included within the borehole logs presented as Appendix 3 of this report.

4.7 Physical and Olfactory Evidence of Contamination

4.7.1 Visual and olfactory evidence of hydrocarbon contamination was observed within boreholes BHNSA 02, 03, 06, 10, 21 and 22 (boreholes located down gradient of storage tanks). Evidence typically comprised black staining with a hydrocarbon odour where fractures occurred within the bedrock.



5 IN SITU CALIFORNIA BEARING RATIO (CBR) TESTING 5.1 Overview 5.1.1 A total of 11 No. in situ CBR tests were undertaken in accordance with the Specification for Ground Investigation provided by Waterman. The CBR tests were carried out at locations specified by Waterman. 5.2 Methodology 5.2.1 In situ CBR tests were undertaken using a 4X4 mounted test rig. Prior to the undertaking of assessment, test holes were hand excavated to depths of between 0.3m bgl and 0.7m bgl (final depth dependent upon soil conditions encountered due to shallow bedrock horizon). The tests were undertaken by a suitably qualified engineer in accordance with 5.2.2 BS1377 Part 9. 5.2.3 Prior to undertaking CBR testing, test holes were logged in accordance with BS5930:1999 incorporating Amendment 2. 5.3 Results 5.3.1 The results of CBR testing varied between 8% and >30% (i.e., refusal). Of the 11 No. CBR tests undertaken, 7 No. tests recorded values in excess of 30%. The results of moisture content analysis varied between 6.3% and 19%. 5.3.2 5.3.3 Detailed CBR test results and associated data sheets are presented as Appendix 4 of this report.



6 TANK SURVEY

6.1 Overview

- 6.1.1 In addition to the trial pitting and borehole works undertaken at the site, a survey was carried out of existing above and below ground storage tanks. The purpose of the survey was to establish the size, volume and number of above and below ground storage tanks present within the site, in addition to providing an indication of their condition and contents.
- Where tanks could be opened safely and were identified to contain liquids, the tanks were dipped with an oil/water interface probe to establish the presence of any free product within the tanks. Samples of the fluid contents of the tanks were obtained using a vacuum transfer pump and placed within sealed glass bottles for transport to the laboratory.
- 6.1.3 Records of the tank survey are presented as Appendix 5 of this report.

6.2 Above Ground Storage Tanks

- 6.2.1 A total of 3 No. above ground storage tanks were located and surveyed. These have been labelled as AGNSA 01, 02 and 03.
- 6.2.2 AGNSA 01 comprised a metal tank of 0.9m x 1.4m dimensions, and in rusted condition. When opened the tank was found to be empty. Partially obscured lettering upon the side of the tank indicated it to have likely contained Kerosene.
- 6.2.3 AGNSA 02 comprised a metal tank of 2m x 4m dimensions, and in slightly rusted condition. The fill gauge of the tank indicated a capacity of 18,000 litres. The tank could not be opened safely, but appeared to be empty, with lettering upon the side of the tank stating it to have been drained in May 1994.
- 6.2.4 AGNSA 03 comprised a metal tank of 1.2m x 2.2m dimensions and in a slightly rusted condition. The tank was observed to be empty, with partially obscured lettering upon the side indicating a capacity of 750 gallons.

6.3 Below Ground Storage Tanks

- 6.3.1 A total of 21 No. below ground storage tanks were located and surveyed. These have been labelled as UGNSA 01 21
- 6.3.2 UGNSA 01, 02 and 03 comprised 3 No. below ground tanks associated with a boiler house. The fill gauges of the tanks indicated a capacity of 12,000 gallons each. Access points to tanks UGNSA 01 and 02 were flooded. Tank UGNSA could not be opened safely due to the presence of gas observed while attempting to open inspection point. Free product was observed within the filler necks of 2 No. tanks above an obstruction at 1m bgl. The filler neck of 1 No. tank was observed to be dry to an unidentified obstruction at 1m bgl
- 6.3.3 UGNSA 04 comprised a single tank associated with an accommodation building. No surface evidence/inspection points etc were observed for this tank beyond the fill point. The tank gauge indicated a capacity of 28,000 litres, with a sign indicating the tank to be water filled



- 6.3.4 UGNSA 05, 06 and 07 comprised 3 No. below ground tanks associated with a boiler house. The fill gauges of the tanks indicated a capacity of 12,000 gallons each. Where the tops of the tanks were visible they appeared to be in a rusted condition. Tanks 05 and 07 were rusted shut and could not be opened. Tank 06 was opened and dipped, with no free product indicated and a sample of the contents obtained. The depth to the base of the tank was indicated to be 4.5m bgl.
- 6.3.5 UGNSA 08 comprises 1 No. below ground tank associated with a former supermarket building. The fill gauge of the tank indicated a capacity of 4900 litres. Where the top of the tank was observed it appeared to be in a rusted condition. The tank was opened and dipped, with 0.15m of free product indicated over water. A sample of the liquid was obtained. The depth to the base of the tank was indicated to be 4.5m bgl.
- 6.3.6 UGNSA 09, 10, 11 and 12 comprise 4 No. below ground tanks associated with a former hospital. The fill gauges of the tanks indicated a capacity of 50,000 gallons each. The tanks were opened and dipped, with 0.05m of free product over water indicated within tank 12. No free product was indicated within the remaining tanks. Samples of liquid were obtained from each tank. The depth to the base of the tanks was indicated to be 4.0m bgl.
- 6.3.7 UGNSA 13, 14 and 15 comprised 3 No. below ground tanks associated with a boiler house. The fill gauges of the tanks indicated a capacity of 11,000 litres each. The tanks were dipped, with no free product indicated. Samples of the liquid contents were obtained from each tank. The depth to the base of the tanks was indicated to be 3.5m bgl.
- 6.3.8 UGNSA 16 20 comprised 5 No. buried tanks associated with a former petrol filling station. No dipping or inspection points were observed. Filler necks of the tanks were opened and were revealed to be dry, with an unidentified obstruction at 1m depth, suggesting the tanks to be concrete filled. Signage upon each filler neck indicated the tanks to be of 5000 litre capacity.
- 6.3.9 UGNSA 21 comprised 1 No. buried tank associated with a community building. The fill gauge of the tank indicated an 8000 litre capacity. When opened the inspection chamber of the tank was found to be flooded and access was not possible.



7 LABORATORY CHEMICAL TESTING

7.1 Overview

7.1.1 Samples were transported in cool boxes to UKAS and MCERTS accredited laboratory The Environmental Laboratory. The requirements for chemical testing were defined within the Specification for Ground Investigation, with the final testing schedule determined by Waterman.

7.2 Analysis Scheduled

- 7.2.1 Samples from the boreholes and trial pits were scheduled for the following analysis:
 - 66 No. samples for a wide range of determinands Dry Soils Suite S4.
 - 69 No. samples for total petroleum hydrocarbon assessment speciated in accordance with Criterion Working Group protocols.
 - 67 No. samples for asbestos screening.
 - 69 No. samples for total organic carbon analysis
 - 17 No. samples for polychlorinated biphenols (PCB) analysis
 - 18 No. samples for volatile and semivolatile organic compound analysis.
 - 23 No. samples for BRE SD1 suite, concrete in aggressive ground determination.
 - 11 No. liquid samples obtained from within storage tanks were also scheduled for speciated polyaromatic hydrocarbons and total petroleum hydrocarbons speciated in accordance with Criterion Working Group protocols
- 7.2.2 The results of the laboratory testing are presented in Appendix 6 of this report. Limits of Detection utilised are presented overleaf.



JAL Extended Suite - S4		
Determinand	LOD mg/kg	Accreditation (UKAS / MCERTS)
Antimony	0.5	N
Arsenic	1	Y (MCERTS)
Barium	1	Υ
Beryllium	0.5	Υ
Boron (Water Soluble)	0.1	N
Cadmium	0.5	Y (MCERTS)
Chromium (Total)	1	Y (MCERTS)
Chromium (VI)	2	N
Cobalt	1	Y (MCERTS)
Copper	1	Y (MCERTS)
Lead	1	Y (MCERTS)
Mercury	1	Y (MCERTS)
Molybdenum	1	N
Nickel	1	Y (MCERTS)
Selenium	0.5	Y (MCERTS)
Vanadium	1	Y (MCERTS)
Zinc	1	Y (MCERTS)
Cyanide (Free)	1	N
Complex Cyanide	1	N
Total Cyanide	1	Y (MCERTS)
Thiocyanate	2	N
рН	0.1 units	Y (MCERTS)
Sulphur	10	Y (MCERTS)
Water soluble sulphate	1 mg/l	Y (MCERTS)
Total Sulphate	0.01%	Υ
Speciated PAH 16 + Total PAH	0.1	Y (MCERTS)
Total phenols	1	Y (MCERTS)
TPH C6 - C40	5	Y (MCERTS)
Moisture content – Included	0.10%	Y (MCERTS)

14

Others		
Determinand	LOD mg/kg	Accreditation (UKAS / MCERTS)
TPH CWG &		
BTEX & MTBE	0.1 /0.01	N / Y(MCERTS)
TOC	0.10%	N
Total PCBs	0.01	Y (MCERTS)
VOCs	0.01	Y (MCERTS)
SVOCs	0.01	N
Asbestos	Presence	Υ

BRESD1 Suite		
Sulphate (Total)	0.01%	Y
Sulphate (Water soluble)	1 mg/l	Y (MCERTS)
Sulphur (Total)	0.01%	N
pH Value	0.1 Units	Y (MCERTS)
Chloride (Water soluble)	5 mg/l	N
Nitrate (Water soluble)	1 mg/l	N
Magnesium	0.1 mg/l	Υ
Ammonia	5	N



8 LABORATORY GEOTECHNICAL TESTING

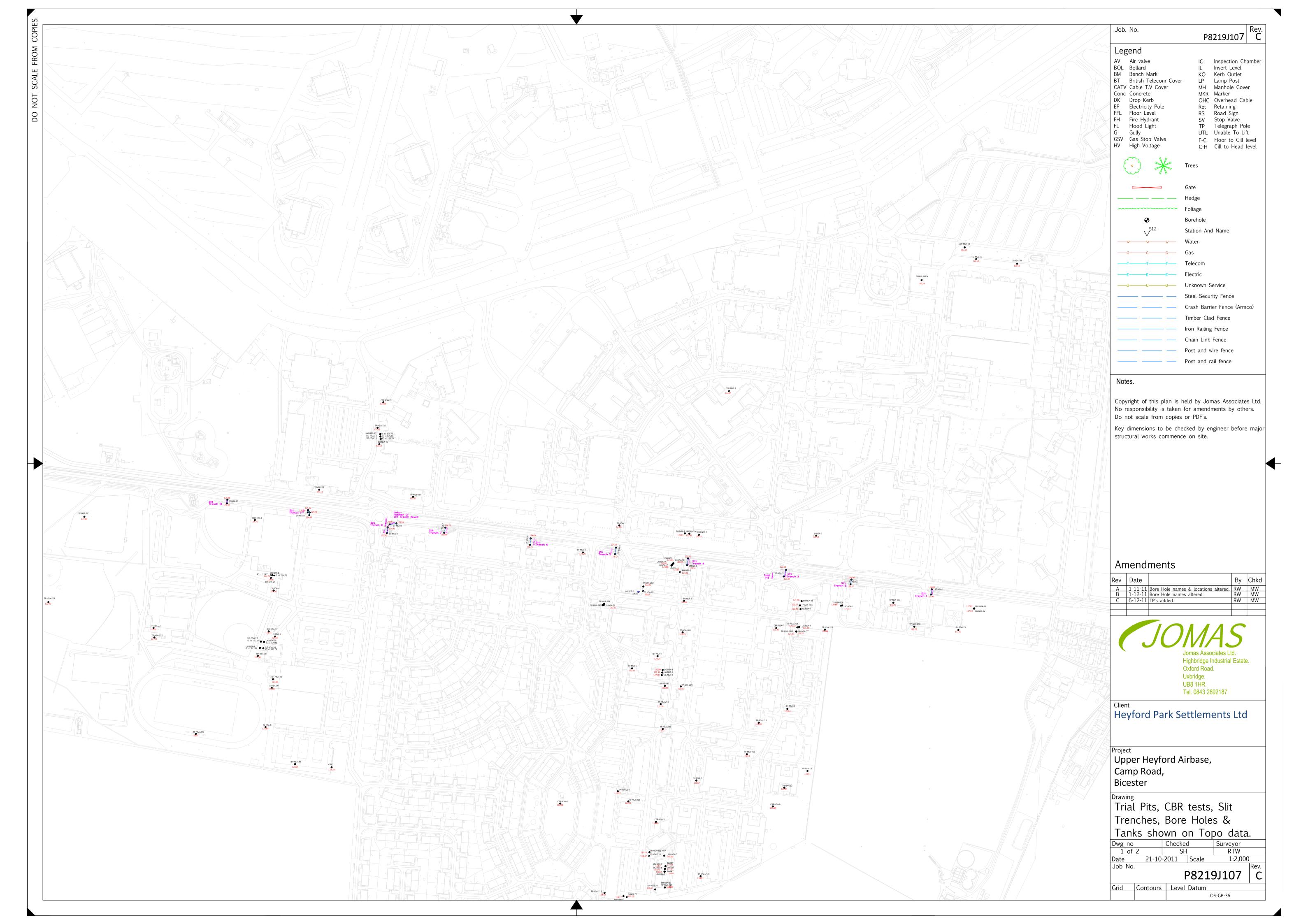
- 8.1.1 Laboratory Geotechnical Testing was also scheduled by Waterman. The tests were carried out by UKAS accredited K4 Soils Ltd, and comprised;
 - 2 Nr samples for Triaxial Permeability Testing
 - 1 Nr sample for Atterberg Limits
 - 7 Nr samples for Particle Size Distribution Analysis
 - 7 Nr samples for 2.5kg compaction tests.
 - 11 Nr samples for water soluble sulphate and pH analysis
- 8.1.2 The results of the laboratory testing are presented in Appendix 7 and 8 of this report.



APPENDICES



APPENDIX 1 - FIGURES







APPENDIX 2 – TRIAL PIT LOGS

			E		7		Tri	al Pit N	lumbei	r	TPNSA 201	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Site	e:		Upper Heyfor	d, Oxfor	dshire
	TF	RIAL PI	T RE	CORD				Dat			04/10/2011	,	
	Sam	ple	Т	est	Seat D	rive		Test D				Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10													TARMAC
0.10												<i>7777</i>	MADE GROUND - Yellow/grey/brown sandy slightly clayey gravel.
	0.20	D	PID	0.2							0		Gravel is of concrete, brick and limestone
													1
0.45													1
0.45													MADE GROUND - Black/brown sandy gravel. Gravel is of concrete, ash,
	0.50	D + B	PID	0.5							0		clinker, metal and ceramic
													1
											_		1
	1.00	D	PID	1							0		1
													1 I
	1.50	D	PID	1.5							0.7		
													1
	2.00	D	PID	2							0.3		1
2.40													
Client:	Heyford I		Remai		er Ohserved	as mode	erate see	nage a	t 2.2m	denth	. Trial nit term	ninated a	t 2.4m depth due to instability.
	2,70701		1. 5.0	a a vv a cc	353Ci VCU	35 mode	300	.pubc a		acpui	ai pic ceiiii	accu a	t depth due to motionity.
Driller: Engineer:	MW												
	····•		<u> </u>										

	11						Tri	al Pit N	Numbei	r	TPNSA 202	Job No:	P8219J107
Sp	pecialists in th	ne investigation	on & recla	mation of bi	ownfield sites			Site	٠.		Upper Heyfor	d Oxfor	dshire
	TF	RIAL PI	T RE	CORD				Dat			04/10/2011	u, Oxioit	usime
Donath (ms)	Sam Depth	nple	Т	est	Seat D	rive		Test D				Legend	Description
Depth (m)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
													TARMAC
0.15													CONCRETE
0.40													MADE GROUND - Brown/black sandy slightly clayey gravel. Gravel is of brick,
	0.50	D + B	PID	0.5							0		concrete, ash and clinker with occasional pieces of metal
	1.00	D	PID	1							0		
	1.00	D	110	1							Ü		
	1.50	D	PID	1.5							0		
	2.00	D	PID	2							0		
2.30													MADE GROUND/RE-WORKED NATURAL GROUND - brown/grey/black sandy
2.50	2.50	D	PID	2.5							2.7		clay with occasional fragments of wood. Faint hydrocarbon odour
2.60												(////	
Client:	Heyford I		Remai		er was not o	hserved	. Trial ni	t collar	sed at	 2.6m <i>i</i>	denth		
	,		1. 010	and wate	was not 0	JULI VEU	ιαι μι	ι συπαμ	.scu at	0111 (acpuii.		
Driller: Engineer:	MW												

	11						Tr	ial Pit N	Numbei	ŕ	TPNSA 203	Job No:	P8219J107
s	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Site			Upper Heyfor	d Ovfor	dehira
		RIAL PI						Dat			05/10/2011	u, Oxioit	usilile
	Sam	ple		est	Seat D	rive		Test D				Legend	Description
Depth (m)	Depth (m)	Туре	Type	Depth	75	75	75	75	75	75	PID Reading		
	()	.,,,,	.,,,,	э орин		,,,	70	, ,	70		TID Housing	7777	MADE GROUND - Brown sandy gravel. Gravel is of brick, concrete and limestone
													Geotextile membrane encountered at 0.5m depth over rubble filled void - possible
0.50	0.50	D	PID	0.5							0		soakaway pit
												-	
Clicate	Ha. E I		Rema						1				
Client:	Heyford I	rark LLP	1: Gro	undwate	er was not o	bserved	. Hand e	excavat	ed				
Driller:													
Engineer:	IVIVV												
					Jomas Ass	sociates	Ltd - Hig	ghbridg	e Indus	strial I	Estate, Oxford	Road, U	xbridge, UBB 1 HR

T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com

							Tr	ial Pit I	Numbe	r	TPNSA 204A	Job No:	P8219J107
S _i	pecialists in the	ne investigation	on & recla	amation of b	rownfield sites			Sit		_	Llanor Houfor	- Ovfor	المادادات
		RIAL PI									Upper Heyfor	d, Oxford	asnire
	Sam			est	Seat D	rive		Dat Test D			30/09/2011	Legend	Description
Depth (m)	Depth												
	(m)	Туре	Туре	Depth	75	75	75	75	75	/5	PID Reading	////	TARMAC
0.20													
													CONCRETE
0.35													
0.00												HH	MADE GROUND - Brown/orange/black sandy slightly clayey gravel. Gravel is of tarmac, concrete and limestone with occasional fragments of brick
	0.50	D . D	PID	0.5							1.4		tarriat, concrete and infestorie with occasional magnificials of blick
	0.50	D + B	110	0.5							1.4		
0.80													Brown/orange/yellow sandy GRAVEL. Gravel is angular to subrounded of limestone.
	1.00	D	PID	1							0		Becoming thickly bedded limestone bedrock with a moderate amount of orange/brown interstitial sand at 1.4m depth. End hole.
]
1.40													
			Rema										
Client:	Heyford I	Park LLP	1: Hol	e Remaii	ned dry and	d stable							
Driller:													
Engineer:	MW												

							Tı	ial Pit	Numbe	r	TPNSA 204	Job No:	P8219J107
Sı	pecialists in th	ne investigati	on & recla	amation of b	rownfield sites			Sit	٠۵٠		Upper Heyfoi	rd NSA O	Nyfordshira
	TF	RIAL PI	T RE	CORD)			Da			28/09/2011	iu NSA, O	onorustiire
Death (a)	Sam	ple		est	Seat D	rive		Test I					Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	Legend	
													Tarmac
0.15	0.20	6	DID	0.2							0		MADE GROUND - White/grey coarse sandy gravel. Gravel is of concreye with
	0.20	D	PID	0.2							0		occaisonal cobbles to boulders of flint
0.45	0.50	D + B	PID	0.5							0		MADE GROUND - Brown sandy gravel. Gravel is of flint. Concrete obstruction
	0.50	5 . 5											encountered at 0.9m bgl. End hole and relocate
	0.80	D	PID	0.8							0		
0.90													
Client:	Heyford I		Rema 1: Hol		ned dry and	stable							
	, -, -, -,			semail	ary uno								
Driller: Engineer:	MW												

Driller:								Tı	ial Pit	Numbe	er	TPNSA 205	Job No:	P8219J107
Depth (m) Depth (m) Test Seat Drive Test Drive	sı	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Sit	:e:		Upper Heyfor	d NSA, O	Oxfordshire
Column Test		TE	RIAL PI	T RE	CORD	1			Da	te:				
(a) Type Type Depth 75 75 75 75 75 75 75 7	5 ()		ple	Т	est	Seat D	rive		Test I	Drive	1			
0.35 0.50 D Fig. 0.2	Depth (m)		Туре	Туре	Depth	75	75	75	75	75	75			
0.50 D Fig. 0.5														MADE GROUND - brown sandy slightly clayey gravel. Gravel is of limestone, brick and concrete
0.50 D Fig. 0.5														I
0.50 D PIO 0.5 D D PIO 0.5 D D D PIO 0.5 D D D D D D D D D D D D D D D D D D D		0.20	D	PID	0.2							0]
0.50 D PIO 0.5 D D PIO 0.5 D D D PIO 0.5 D D D D D D D D D D D D D D D D D D D														
0.50 0	0.35													
0.50 0 FID 0.5														Becoming densely packed limestone cobbles below 0.9m depth, likely start of
0.90 Remarks: Heyford Park LLP Remarks: Heyford Park LL		0.50	D	PID	0.5							0		bedrock horizon
		0.00												
	0.90													
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated Priller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Client: Heyford Park LLP Driller: 1: Hole Remained dry and stable. Hand excavated														
Driller:	Client:	Heyford I				ned dry and	stable.	Hand ex	cavate	d				
	Driller:													
		MW												

	TE						Tr	ial Pit I	Numbei	r	TPNSA 206	Job No:	P8219J107
S	pecialists in the	he investigation	on & recla	amation of t	prownfield sites			Site					
		RIAL PI						Dat			Upper Heyfor 30/09/2011	u, Oxiore	ushire
	San	nple		Test	Seat Di	rive		Test D				Legend	Description
Depth (m)	Depth (m)	Туре	Type	Depth	75	75	75	75	75	75			
		71	71									////	TARMAC
0.12			\vdash				 	\square	 	 	-		1
	0.15	D	PID	0.15							0.5		MADE GROUND - Brown/red/orange/black sandy slightly clayey gravel. Gravel is of tarmac, brick and concrete
			$\mid \longrightarrow \mid$				 	\square		 	+		
								\square]
0.48				 		\vdash	\vdash		+		-		,
		D + B	PID	0.5	<u> </u>						0		Yellow/brown sandy slightly clayey GRAVEL. Gravel is angular to subrounded of limestone. Becoming thinly bedded limestone bedrock with a moderate amount of
			\vdash				 	$\vdash \vdash \vdash$	 	 	+		yellow/orange interstitial sand at 1.3m depth. End hole
]
	1.00	ח	PID	1			 	 '	 !	 	0]
			1.5								Ü]
1 20				 !	<u> </u>		 	<u>'</u>	<u> </u>	<u> </u>]
1.30											<u> </u>	······	
								'	<u> </u>				
						<u> </u>				<u> </u>	 		
				 			 	\square	 	 	-		
				 			 	\square	 		-		
						<u> </u>				<u> </u>			
						<u> </u>				<u> </u>			
								<u> </u>	<u> </u>				
										<u> </u>			
				 			 	\square	 		+		
			Remai	rks:									
Client:	Heyford I				ned dry and	stable							
Driller:													
	MW		<u> </u>										
					Jomas As	sociates	Ltd - Hi	ghbrida	ge Indu	strial	Estate, Oxford	l Road, U	Jxbridge, UBB 1 HR

T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com

	33		-	4					٠ . ا		77101 207		
			F		•		Iri	ial Pit r	Numbei	<u>r </u>	TPNSA 207	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites	ļ		Site	e:		Upper Heyfor	d, <u>Oxfor</u>	dshire
	TF	RIAL PI	T RE	CORD) 			Dat	te:		05/10/2011		
Donath (m)	Sam Depth	ple	T	est	Seat Di	rive		Test D)rive			Legend	Description
Depth (m)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
												IIII	MADE GROUND - brown/grey sandy gravel. Gravel is of limestone, brick and concrete with occasional fragments of tarmac.
													\
	0.20	D	PID	0.2							0		
						\vdash			 			11111	
						$\vdash \vdash \vdash$	\vdash			 			
	0.50	D	PID	0.5							0		
0.60										<u> </u>			Becoming densely packed limestone cobbles with a small amount of yellow interstitial sand at 0.6m depth. Likely start of bedrock horizon
0.60						\vdash						/////	
						<u> </u>	$\overline{\square}$			<u> </u>			
						\vdash			-				
						$\vdash \vdash \vdash$	\longmapsto		 	<u> </u>	-		
							\vdash		 				
						$\vdash \vdash \vdash$	\longmapsto		 	<u> </u>			
						\vdash							
						\vdash	\vdash		 				
						\vdash	$\overline{\longmapsto}$						
						\vdash	\vdash		 				
						<u> </u>	\vdash			<u> </u>			
						\vdash	\vdash		-				
						$\vdash \vdash \vdash$	\vdash	<u> </u>	 	<u> </u>			
			Remai	rks									
Client:	Heyford F				ned dry and	stable.	Hand ex	cavated	d				
Driller:													
	MW												

					-		1				1		I
			F				Tri	ial Pit N	Numbe	r	TPNSA 208	Job No:	P8219J107
Sı	pecialists in th	ne investigatio	on & recla	mation of b	rownfield sites			Sit	e:		Upper Heyfoi	rd, Oxford	dshire
	TF	RIAL PI	T RE	CORD				Dat			05/10/2011		
Depth (m)	Sam Depth	nple	Т	est	Seat D	rive		Test D	Prive			Legend	Description
Deptii (iii)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
													MADE GROUND - brown/grey sandy gravel. Gravel is of limestone and brick with occasional fragments of concrete and tarmac.
	0.20	D	PID	0.2							0]
													1
	0.50	D	PID	0.5							0		
													Becoming densely packed limestone cobbles with a small amount of yellow interstitial sand at 0.6m depth. Likely start of bedrock horizon
0.60													moralitation at the application of a source in the source
			Remai	rke									
Client:	Heyford I				ned dry and	stable.	Hand ex	cavated	H				
					,								
Driller: Engineer:	MW												
J													

							Tri	al Pit N	Numbe	r	TPNSA 209	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Site	e:		Upper Heyfor	d, Oxford	dshire
	TF	RIAL PI	T RE	CORD				Dat	:e:		04/10/2011		
Danath (m)	Sam	nple	Т	est	Seat D	rive		Test D	Prive			Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10													TARMAC
0.10													CONCRETE
0.20													MADE GROUND - Brown/red/grey/black sandy gravel. Gravel is of brick, concrete,
	0.30	D	PID	0.3							0.4		tarmac and limestone.
0.45													
51.15		D + B	PID	0.5							0		Yellow/brown sandy slightly clayey GRAVEL. Gravel is angular to subrounded of limestone. Becoming thinly bedded limestone bedrock with a moderate amount of
													orange interstitial sand at 1.2m depth. End hole
	4.00	,	210										
	1.00	ט	PID	1							0		
1.20													
			Remai	rks·									
Client:	Heyford I				ned dry and	stable							
Driller:													
	MW												

							Tı	ial Pit I	Numbe	r	TPNSA 210	Job No:	P8219J107
Sp	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Sit	٥.		Upper Hoyfor	·4 NCV O)vfordshiro
		RIAL PI						Daf			Upper Heyfor 27/09/2011	u NSA, U	oxiorastiire
	Sam			est	Seat D	rive		Test [27/09/2011		Description
Depth (m)	Depth (m)	Туре	Type	Depth	75	75	75	75	75	75	PID Reading	Legend	
0.05					70	70							Tarmac
	0.10	D	PID	0.1							5.1		MADE GROUND - black/brown sandy gravel. Gravel is fine to coarse, of tarmac and limestone with occasional cobbles of limestone.
0.20													
	0.25	D	PID	0.25							0		Brown/yellow/grey sandy CLAY with occasional fragments of limestone. Becoming thickly bedded limestone bedrock with a small amount of yellow interstitial sand.
	0.50	D + B	PID	0.5							0		
	0.50	5 . 5	110	0.5									
	1.00	D	PID	1							0		
	1.50	D	PID	1.5							0		
1.60		D	ווט	1.5							0		
													Hole terminated at 1.6m bgl
													noie terminateu at 1.611 bgi
Client:	Heyford I		Remai		er was not o	been see							
Chent.	riegiora i	aik LLY	1. Gro	undwate	er was not o	userved							
Driller:	MW												
Engineer:	IVIVV												

							Tı	ial Pit I	Numbe	r	TPNSA 211	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Sit			Upper Heyfor	-4 NCV O)yfardchira
		RIAL PI						Daf			28/09/2011	u NSA, O	Alorustine
	Sam			est	Seat D	rive		Test [Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
	0.10	D	PID	0.1							0		MADE GROUND - Brown sandy topsoil with occsional fragments of brick and concrete
0.25													I
	0.30	D	PID	0.3							0	1111	MADE GROUND - Brown/orange sandy gravel. Gravel is of limestone, brick, concrete, plastic and ceramic
													ouriorete, plactic and ceramic
	0.50	В	PID	0.5							0		
	0.80	D	PID	0.8							0		l
													
1.20	1.30	D	PID	1.3							0		Medium dense to dense, yellow/brown sandy GRAVEL. Gravel is angular to
1.50											-		subrounded of limestone. Becoming thickly bedded limestone bedrock with a yellow interstitial sand at 1.5m depth
Client:	Heyford I		Remai 1. Gro		er was not o	bserved							
Driller:													
	MW												

	11						Tr	ial Pit I	Numbe	r	TPNSA 212	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Sit	٥٠		Upper Heyfor	-4 NSV O	Nyfordshira
		RIAL PI						Dat			28/09/2011	u NSA, O	DATOTUSTIITE
D	San			est	Seat D	rive		Test [Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75		Legend	
	0.10	D	PID	0.1							0		MADE GROUND - Brown/grey sandy slightly clayey gravel. Gravel is of brick and concrete
0.20													
0.20	0.25	D	PID	0.25							0	1111	MADE GROUND - brown/grey/orange sandy gravel. Gravel is of brick, concrete and
													limestone
	0.50	D + B	PID	0.5							0		
	0.50												
											_		
1.10	1.00	D	PID	1							0		
													Water Main encountered at 1.1m depth - hole terminated
			Remar	·ks:									
Client:	Heyford I	Park LLP	1. Gro	undwate	er was not o	bserved							
Driller:													
Engineer:	MW												

	11				7		Tı	ial Pit	Numbe	r	TPNSA 213	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			C:+			Unnar Haufar	4 NCV O)vfordshiro
		RIAL PI						Sit			Upper Heyfor 28/09/2011	a NSA, O	oxiorasnire
	Sam			est	Seat D	rive		Da ⁻ Test I			28/09/2011		Description
Depth (m)	Depth (m)		Type	Depth	75	75	75	75	75	75	PID Reading	Legend	
	(111)	туре	Туре	Берип	73	73	73	73	73	73	FID Reading	////	, Tarmac
0.15													I
0.13	0.20	D	PID	0.2							0	$\nearrow \nearrow$	MADE GROUND - Brown/orange/grey sandy gravel. Gravel is of brick, concrete,
													limestone and tarmac
	0.50	D + B	PID	0.5							0	/////	
0.70	0.80	D	PID	0.8							0		Made Ground/re-worked natural ground - yellow/brown sandy, clayey gravel. Gravel
	0.80	U	PID	0.8							U		is angular to subrounded of limestone with occasional pockets of soft to firm brown clay
4.40													
1.10												7////	Water Main encountered at 1.1m depth - hole terminated
			Remai	rks:	I						<u> </u>		
Client:	Heyford I	Park LLP	1. Gro	undwate	er was not o	bserved							
Driller:													
Engineer:	MW												

	T		E				Tı	ial Pit	Numbe	r	TPNSA 214	Job No:	P8219J107
Sp	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Sit	e:		Upper Heyfor	d NSA, O	Oxfordshire
	TF	RIAL PI	T RE	CORD	1			Da			05/10/2011	•	
	Sam	ple	Т	est	Seat D	rive		Test I					Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
													MADE GROUND - brown/orange slightly clayey sandy gravel. Gravel is of brick, concrete and limestone with occasional fragments of tarmac.
	0.20	D	PID	0.2							0		
													l
													Electrical cable (0.03m dia) encountered at 0.5m depth
	0.50	D	PID	0.5							0		
	0.50	D	110	0.5							Ŭ		
0.55												77777	Densely packed limestone cobbles with a small amount of yellow interestitial sand.
0.60													Possible start of bedrock horizon
			Rema						<u> </u>	<u> </u>	<u> </u>		<u> </u>
Client:	Heyford I	Park LLP	1. Gro	undwate	er was not c	bserved	. Hand	excavat	ed				
Driller:													
Engineer:	MW												

	1						Tr	ial Pit I	Numbe	r	TPNSA 215	Job No:	P8219J107
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites			Sit	٥.		Upper Heyfor	rd NSV O	Nyfordshira
	TI	RIAL PI	T RE	CORD				Dat			27/09/2011	u NSA, O	onorustiire
Donath (m)	San	nple		est	Seat D	rive		Test [Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	Legend	
0.10													Tarmac
0.10	0.15	D	PID	0.15							0		MADE GROUND - White/yellow/cream sandy gravelly clay. Gravel is of brick, concrete, limestone and tarmac
0.25													
	0.30	D	PID	0.3							0		MADE GROUND - Brown/grey/orange sandy gravelly clay. Gravel is of brick, concrete, limestone and tarmac
0.52													
0.52		D + B	PID	0.6							0		Brown/orange/yellow clayey GRAVEL. Gravel is angular to subrounded of limestone. Becoming thickly bedded limestone bedrock with fine to coarse
													orange/yellow interstitial sand at 1.7m depth
	1.00	D	PID	1							0		
	1.50	D	PID	1.5							0		
1.70													
			Domo	rke									
Client:	Heyford		Remai 1. Gro		er was not c	bserved							
Driller:													
	MW												

			F				Tı	ial Pit	Numbe	r	TPNSA 216	Job No:	P8219J107
Sı	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Sit	e:		Upper Heyfor	rd NSA. O)xfordshire
	TF	RIAL PI	T RE	CORD)			Da			05/10/2011	4 110/19	, and the state of
Donth (m)	Sam Depth	ple	T	est	Seat D	rive		Test I				Lagand	Description
Depth (m)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
	0.10	D	PID	0.1							0		MADE GROUND - Black/grey sandy gravel. Gravel is of concrete, clinker, brick and ash
				0.2							0		
	0.20	U	PID	0.2							0		
0.45	0.50	D	PID	0.5							0	7////	Brown/yellow sandy GRAVEL. Gravel is subangular to rounded of limestone.
													Becoming densely packed limestone cobbles at 0.75m depth, possible start of limestone bedrock horizon
0.80													
	11. 6 11		Remai		<u> </u>							1	<u> </u>
Client:	Heyford I	Park LLP	1. Gro	undwate	er was not c	bserved	. Hand	excavat	ted				
Driller:	MW												
Engineer:	IVIVV												

	T		F				Tr	ial Pit I	Numbe	r	TPNSA 217	Job No:	P8219J107
Sp	pecialists in th	e investigation	on & recla	mation of b	rownfield sites			Sit	٥.		Upper Heyfoi	ANSA C)vfordshiro
		RIAL PI						Dat			27/09/2011	u NSA, C	oxiorustiire
5 11 ()	Sam			est	Seat D	rive		Test [2.70072022		Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	Legend	
0.10													Tarmac
	0.15	D	PID	0.15							0		MADE GROUND - Grey/yellow snady gravel. Gravel is fine to coarse of limestone and concrete
		ŀ											
0.45		D + B	PID	0.5							0		White/cream/yellow sandy GRAVEL. Gravel is angular to subrounded of limestone.
													Becoming thickly bedded limestone bedrock with a fine to coarse, yellow interstitial sand at 1.2m bgl
	1.00	D	PID	1							0		
1 20		ļ											
1.20												:.:.: <u>:</u>	
		ŀ											
		ļ											
		ŀ											
Clicate	د د د د د د د د د د د د د د د د د د د		Remai			1						1	<u>'</u>
	Heyford F	ark LLP	1. Gro	undwate	er was not o	oserved							
Driller: Engineer:	MW												
J	<u> </u>												

	11						Tr	ial Pit	Numbe	r	TPNSA 218	Job No:	P8219J107
s	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Sit	٥.		Upper Houfer	-4 NCV O)vfordshiro
		RIAL PI						Da			Upper Heyfor 28/09/2011	u NSA, O	oxiorusiiire
	Sam			est	Seat D	rive		Test I					Description
Depth (m)	Depth (m)	Туре	Tyne	Depth	75	75	75	75	75	75	PID Reading	Legend	
	(,	1,460	Type	Берин	7.5	7.5	73	7.5	7.5	,,,	The neuring	////	Tarmac
0.12													
	0.15	D	PID	0.15							7.4	\mathcal{M}	MADE GROUND - Black/grey sandy gravel. Gravel is of tarmac, coal, clinker and flint
0.30													Yellow/cream sandy GRAVEL. Gravel is angular to subrounded of limestone.
													Becoming thickly bedded limestone bedrock with a small amount of yellow interstitial sand at 1.4m depth. End hole
	0.50	D + B	PID	0.5							0		
	0.50			0.0									
	1.00	D	PID	1							0		
1.30													
Client:	Heyford I		Remai		er was not c	heeried							
	ricyioiu I	UIN LLT	1. Gr0	นานพลิโ	: wd5 110t C	יחיהו הפמ							
Driller: Engineer:	MW												
-ingilieer.	141 44		<u> </u>										
					Jomas Ass	ociates	Ltd - Hi	ghbrid	ge Indu	strial	Estate, Oxford	l Road, U	Jxbridge, UBB 1 HR

T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com

	1						Tı	ial Pit	Numbe	er	TPNSA 219	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	mation of b	prownfield sites			Sit	:e:		Upper Heyfor	d NSA, O	Oxfordshire
	TE	RIAL PI	T RE	CORD				Da			05/10/2011	<u> </u>	
Danth (m)	Sam	ple	Т	est	Seat D	rive		Test I	Drive	1			Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.05	0.10	<u> </u>	PID	0.1							0		Walkway surface of sand and gravel. Gravel is of flint MADE GROUND - brown/orange sandy gravelly clay. Gravel is of brick, tile,
	0.10	U	110	0.1							Ŭ		concrete, metal and plastic.
	0.20	D	PID	0.2							0		
													Cable encountered at 0.2m depth
	0.50	D	PID	0.5							0		
													Becoming densely packed gravel of concrete at 0.9m depth. Possible building base
0.90													or top of drain pipe.
			Remai	rks:									
Client:	Heyford I				er was not c	bserved	. Hand	excavat	ted				
Driller:													
	MW												

	11						Tr	ial Pit I	Numbe	r	TPNSA 220	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Sit			Upper Heyfor	4 NCV O)yfardshira
		RIAL PI						Dat			04/10/2011	u NSA, O	oxiorustiire
5 11 ()	San			est	Seat D	rive		Test [0 1/ 10/ 2011		Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	Legend	
0.10													TARMAC
0.10													CONCRETE containing steel reinforcement
													1
													1 I
0.45													
	0.50	D + B	PID	0.5							0		Brown/yellow sandy slightly clayey GRAVEL. Gravel is subrounded to angular of limestone. Becoming thickly bedded limestone bedrock with a small amount of
													yellow interstitial sand at 1.4m depth. End hole
	1.00	D	PID	1							0		
1.40													
Client:	Heyford I		Remai 1. Gro		er was not c	bserved							
Driller: Engineer:	MW												
					Jomas Ass	ociates	Ltd - Hi	ghbrid	ge Indu	strial I	Estate, Oxford	d Road, U	Jxbridge, UBB 1 HR

T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com

				7		Trial Pit Number				TPNSA 221	Job No:	P8219J107			
S	pecialists in th	ne investigation	on & recla	amation of b	rownfield sites		Site:				Upper Heyford NSA, Oxfordshire				
		RIAL PI										ra NSA, C	DXTOrdsnire		
	Sam			est	Seat D	rive		Da ⁻ Test I			29/09/2011		Description		
Depth (m)	Depth (m)	Туре	Tyne	Depth	75	75	75	75	75	75	PID Reading	Legend			
		1,460	Турс	Берин	,,,	,,,	75	75	75	,,,	Tib Redding		Tarmac		
0.10													CONCRETE		
0.30															
0.30	0.35	D	PID	0.35							0	7777	Brown/yellow/orange sandy slightly clayey GRAVEL. Gravel is subrounded to angular of limestone. Becoming thickly bedded limestone bedrock with a small		
													amount of yellow interstitial sand at 1.3m depth. End hole		
	0.50	D + B	PID	0.5							0				
	1.00	D	PID	1							0				
1.30															
						-									
			Rema										•		
Client:	Heyford F	ark LLP	1. Gro	undwate	er was not o	observed									
Driller:															
Engineer:	MW														

	11						Trial Pit Number				TPNSA 222	Job No:	P8219J107
Si	pecialists in the investigation & reclamation of brownfield sites				Site:				Upper Heyford NSA, Oxfordshire				
		TRIAL PIT RECORD						29/09/2011	u NSA, O	oxiorasnire			
	Sample			est	Seat Drive			Test [29/09/2011		Description
Depth (m)	Depth (m)			Depth		75	75		75	75	PID Reading	Legend	
												IIII	MADE GROUND - brown sandy slightly clayey topsoil containing fragments of brick and concrete
	0.10	D	PID	0.1							0		and consider
	0.20	D	PID	0.2							0		
0.40													White/cream/yellow sandy slightly clayey GRAVEL. Gravel is subrounded to angular
	0.50	D + B	PID	0.5							0		of limestone. Becoming thickly bedded limestone bedrock with a small amount of yellow interstitial sand at 1.2m depth. End hole
													yellow ilitersutial sand at 1.211 deptil. Life hole
	1.00	D	PID	1							0		
1.20													
			Remai	rks:	<u> </u>			ļ					
Client:	Heyford I				er was not o	bserved							
Driller:													
Engineer:	MW												

							Trial Pit Number				TPNSA 223	Job No:	P8219J107		
Sı	Specialists in the investigation & reclamation of brownfield sites							Sit	۵۰		Upper Heyford NSA, Oxfordshire				
	TE	RIAL PI	T RE	CORD				Dat			30/09/2011	u 113A, O	ATOTUSTITE.		
5 H ()	Sample			est		Seat Drive		Test Drive					Description		
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	Legend			
	0.10	ח	PID	0.1							0		MADE GROUND - brown sandy slightly clayey gravel. Gravel is of brick, concrete, limestone, metal and plastic		
	0.20	D	PID	0.2							0				
			DID	0.5							0				
	0.50	D + B	PID	0.5							0				
	1.00	D	PID	1							0				
1.40	1.50		PID	1.5							0	<u> </u>	White/cream/yellow sandy slightly clayey GRAVEL. Gravel is subrounded to angular		
4.70													of limestone. Suspected water main of 0.2m diameter encountered at 1.7m depth. End hole		
1.70															
			Remai	rks:				ļ					<u>l</u>		
Client:	Heyford I				er was not o	bserved									
Driller:															
Engineer:	MW														

							Trial Pit Number				TPNSA 224	Job No:	P8219J107	
S	pecialists in th	e investigation	amation of b	rownfield sites		Site:				Upper Heyford NSA, Oxfordshire				
	TRIAL PIT RECORD					Da			30/09/2011	,				
Depth (m)	Sam Depth	ple	Т	est	Seat D	rive		Test [Orive			Legend	Description	
, , ,	(m)	Type	Туре	Depth	75	75	75	75	75	75	PID Reading	5	MADE GROUND - brown sandy slightly clayey gravel. Gravel is of brick, concrete,	
	0.10	D	PID	0.1							0		limestone and occasional tarmac	
	0.20	D	PID	0.2							0			
	0.50	D + B	PID	0.5							0			
	1.00	D	PID	1							0			
1.20														
													White/cream/yellow sandy slightly clayey GRAVEL. Gravel is subrounded to angular of limestone. Becoming thickly bedded limestone bedrock at 1.6m depth with a small amount of yellow interstitial sand	
1.60	1.50		PID	1.5							0		Small amount or yellow interstitial sand	
1.00												· · · · · · · · ·		
Client:	Heyford F		Rema		er was not o	bserved	_ 							
Driller:	-			- /-										
	MW													

										r	TPNSA 225	Job No:	P8219J107
Sp	pecialists in th	mation of b	rownfield sites		Site:				Upper Heyford NSA, Oxfordshire				
		RIAL PI						Daf			29/09/2011	u NSA, O	onorustiire
5 11 ()	Sam			est	Seat D	rive		Test D			23, 63, 2622		Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	Legend	
	0.10	D	PID	0.1							0		MADE GROUND - brown sandy slightly clayey topsoil containing fragments of brick and concrete
			210	0.2							0		
	0.20	ט	PID	0.2							0		
0.30													White/cream/yellow sandy slightly clayey GRAVEL. Gravel is subrounded to angular
													of limestone. Becoming thickly bedded limestone bedrock with a small amount of yellow interstitial sand at 1.1m depth. End hole
	0.50	D + B	PID	0.5							0		
	0.50												
	4.00	,	210										
1.10	1.00	D	PID	1							0		
			Remai	·ks:									
Client:	Heyford I	Park LLP	1. Gro	undwate	er was not o	bserved							
Driller:													
Engineer:	MW												

							Trial Pit Number				TPNSA 226	Job No:	P8219J107		
S	Specialists in the investigation & reclamation of brownfield sites							Çi+	٥٠		Upper Heyford, Oxfordshire				
	TRIAL PIT RECORD								03/10/2011	u, Oxion	ustille				
				Test Seat Drive			Test Drive				Legend		Description		
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading				
				-									TARMAC		
0.15															
	0.20	2	DID	0.2							0		MADE GROUND - grey sandy gravel. Gravel is of concrete		
	0.30	D	PID	0.3							0				
0.40													Brown/orange sandy slightly gravelly CLAY. Gravel is subrounded of limestone		
	0.50	D + B	PID	0.5							0		Blown rotatige sandy slightly gravelly SEAT. Graver is subrounded or infrestorie		
0.90															
	1.00	D	PID	1							0		Yellow/brown/orange sandy GRAVEL. Gravel is angular to subrounded of limestone. Becoming thickly bedded limestone bedrock with a small amount of yellow intersitial		
													sand at 1.8m depth. End hole		
]		
	1.50	D + B	PID	1.5							0		1		
											-]		
1.80													;		
Client:	Heyford I		Remai		and dry and	ctable									
	riegiora I	ain LLY	T: HOI6	e remair	ned dry and	วเสมเย									
Driller: Engineer:	MW														
			l												

					7		Tri	ial Pit N	Numbei	r	TPNSA 227	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	amation of b	rownfield sites			Site	a•		Upper Heyfor	rd. Oxford	dshire
	TF	RIAL PI	T RE	CORD				Dat			03/10/2011	<u>u, exior</u>	
Depth (m)	Sam Depth	ple	Т	est	Seat Dr	ive		Test D	rive			Legend	Description
Deptii (iii)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		MADE ODOLIND. David and a field to decrease of Countries of Franchise
	0.10	D	PID	0.1							0		MADE GROUND - Brown sandy slightly clayey gravel. Gravel is of limestone, concrete and brick
	0.50	D + B	PID	0.5							0		
	0.50												
0.80													
													Brown sandy GRAVEL. Gravel is angular to subrounded of limestone. Becoming thickly bedded limestone bedrock with a small amount of yellow interstitial sand at
	1.00	D + B	PID	1							0		1.35m depth. End hole
1.35													
			Remai										
Client:	Heyford F	Park LLP	1: Hole	e remain	ed dry and s	stable							
Driller:													
Engineer:	MW												

	TE		Ē		7		Tr	ial Pit N	Numbe	r	TPNSA 228	Job No:	P8219J107
S	pecialists in th	ne investigati	on & recla	amation of b	prownfield sites			Site	<u> </u>		Upper Heyfor		
		RIAL PI						Dat			03/10/2011	u, Oxion	ustille
	Sam			est	Seat D	rive		Test D			03/10/2011	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10													TARMAC
0.10													CONCRETE
0.40													
0.40													MADE GROUND - brown/black sandy slightly clayey gravel. Gravel is of limestone
	0.50	D + B	PID	0.5							1.4		and concrete with occasional fragments of brick and tarmac. Faint hydrocarbon odour
0.70													
		D + B	PID	0.8							0		Brown sandy GRAVEL. Gravel is angular to subrounded of limestone. Suspected water main encountered at 1.1m depth 0.2m diameter. End hole
1.10]
												-	
			Rema	rks:						<u>I</u>			
Client:	Heyford I	Park LLP	1: Hol	e remair	ned dry and	stable							
Driller:													
Engineer:	MW												

	11						Tr	ial Pit I	Numbe	r	TPNSA 293	Job No:	P8219J107
S	pecialists in the	ne investigation	on & recla	amation of b	rownfield sites			Sit	٥.		Upper Heyfor	d Ovfor	dshira
		RIAL PI						Dat			30/09/2011	u, Oxion	ustille
	Sam			est	Seat D	rive		Test D			30/03/2011	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10													TARMAC
													CONCRETE
0.20												$\langle\!\langle\!\langle\!\langle$	MADE GROUND - Brown/yellow/grey slightly sandy gravelly clay. Gravel is of
	0.30	D	PID	0.3							0		limestone, concrete and brick with occasional fragments of tarmac
0.60		D + B	PID	0.6							0		Brown/orange/yellow sandy GRAVEL. Gravel is angular to subrounded of limestone.
	0.00	D+0	FID	0.0							U		Becoming thinly bedded limestone bedrock with a small amount of yellow interstitial sand at 1.6m depth. End hole
	1.00	D	PID	1							0		
	1.00										Ü		
1.60	1.50	D+B	PID	1.5							0		
			Poma	rke									
Client:	Heyford I		Rema 1: Hol		ned dry and	stable							
Driller:													
	MW		†										

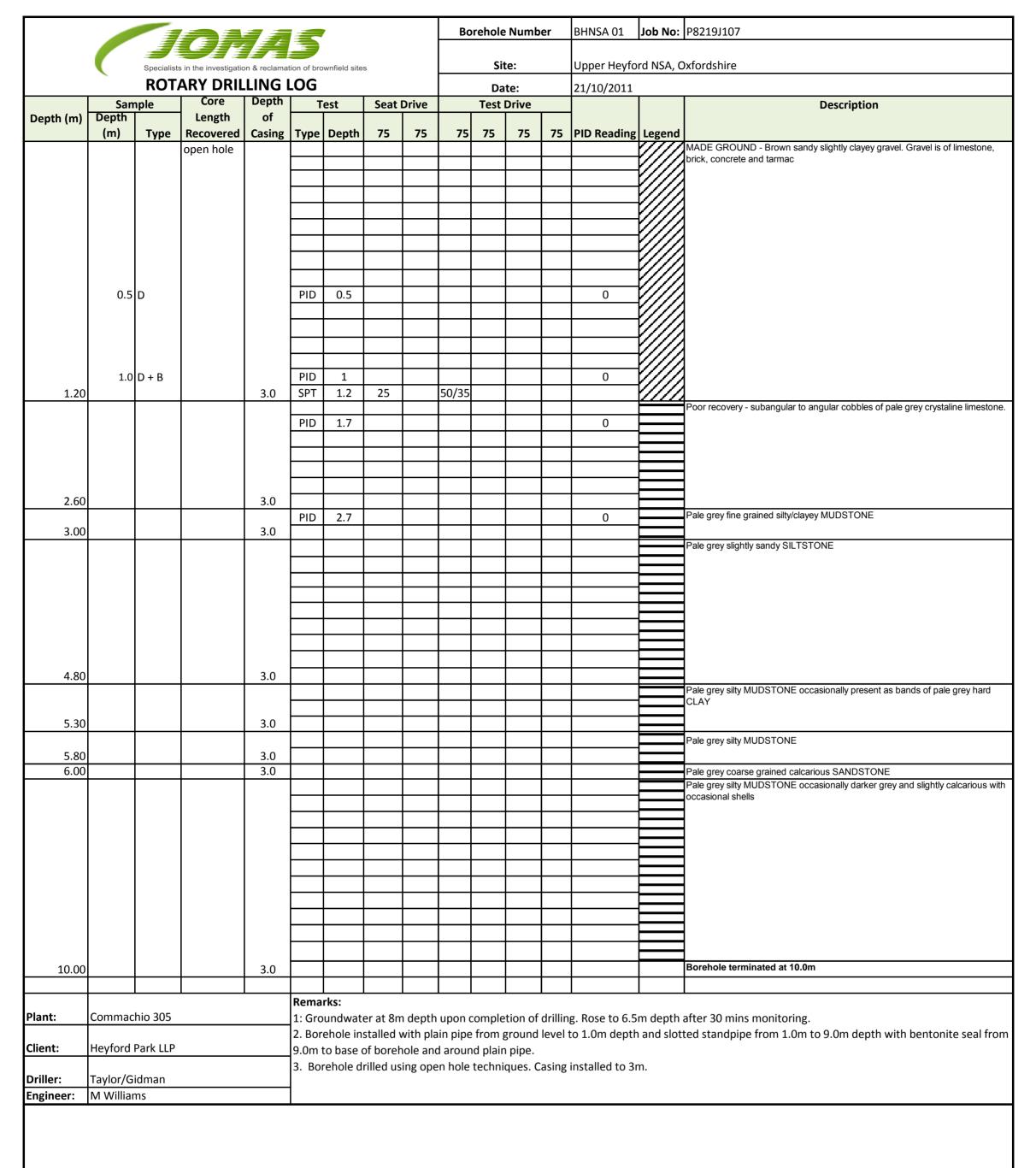
	11						Tr	ial Pit I	Numbe	r	TPNSA 94	Job No:	P8219J107
S	pecialists in th	ne investigati	on & recla	amation of b	rownfield sites			Sit	٥.		Upper Heyfoi	rd Ovfor	dehira
	TF	RIAL PI	IT RE	CORD)			Dat			27/10/2011	u, Oxion	ustille
Death (a)	Sam			est	Seat D	rive		Test D		ı		Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10													TURF
													Brown/orange sandy GRAVEL. Gravel is angular to subrounded of limestone
	0.50	D	PID	0.5							0		
0.60													
0.00													Yellow/grey sandy GRAVEL. Gravel is angular to subangular of limestone. Becoming thinly bedded limestone bedrock with a small amount of yellow interstitial
													sand at 1.6m depth. End hole
	1.00	D	PID	1							0		
	1.50	D	PID	1.5							0		
1.60													
												-	
												-	
			Dame	rke									
Client:	Heyford I		Rema 1: Hol		ned dry and	l stable v	vith no v	isual o	r olfact	ory ev	idence of hydi	rocarbon	contamination
Driller:													
	MW		<u> </u>										

			F				Tr	ial Pit N	Numbe	r	TPNSA 95	Job No:	P8219J107
S	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Site	۵.		Upper Heyfor	d Oxford	dchira
	TE	RIAL PI	T RE	CORD				Dat			27/10/2011	u, Oxioic	asime
5 11 ()	Sam			est	Seat Dr	ive		Test D			, , ,	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10													TURF
0.10													Brown/orange sandy GRAVEL. Gravel is angular to subrounded of limestone
	0.50	D	PID	0.5							0		Yellow/grey sandy GRAVEL. Gravel is angular to subangular of limestone.
													Becoming thinly bedded limestone bedrock with a small amount of yellow interstitial sand at 1.4m depth. End hole
	1.00	D	PID	1							0		
1.40													
			Remai					_					<u> </u>
Client:	Heyford I	ark LLP	1: Hole	e Remair	ned dry and	stable v	vith no v	isual o	r olfact	ory ev	idence of hydr	ocarbon	contamination
Driller:													
Engineer:	MW												

							Tri	ial Pit N	Numbe	r	SI01 A	Job No:	P8219J107
Sp	pecialists in th	ne investigation	on & recla	amation of b	rownfield sites			Site	۵٠		Upper Heyfor	d Oxfor	dshire
	TF	RIAL PI	T RE	CORD)			Dat			03/10/2011	u, Oxford	usiiii C
Donth (m)	Sam Depth	nple	Т	est	Seat D	rive		Test D				Legend	Description
Depth (m)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
													TARMAC
0.20													
0.20												////	CONCRETE with occasional gravel of crushed concrete sub-base
0.55													
0.55													Brown/black sandy CLAY with occasional relic roots. Strong hydrocarbon odour
			0.6	PID PID							17.3 24.1		
			0.7										
	0.90	D	0.9	PID							76.3		
1.10													
	1.20	D	1.2	PID							158.3		Blue/yellow/grey sandy clayey GRAVEL. Gravel is of limestone. Strong hydrocarbon odour.
1.50													
			D	ulas :									
Client:	Heyford I		Remai 1: Hole		/ damp at ba	ase. Stro	ng hydro	ocarboi	n odour	with	maximum PID	readings	s recorded in open air.
Driller:			2. Tria	l hole te	rminated at								concerns regarding contamination and possible fumes affecting
	MW		surrol	inuing D	uildings.								



APPENDIX 3 - BOREHOLE LOGS



					5	7			Во	rehole	Numbe	er	BHNSA 02	Job No:	P8219J107
			s in the investigation				3			Sit	e:		Upper Heyfo	rd NSA, C	Oxfordshire
		ROT	ARY DRIL		LOG					Dat	e:		17/10/2011		
Depth (m)			Core Length	Depth of		est Depth	Seat I			Test D				Legend	Description
	(m)	Туре	open hole	Casing	Туре	(m)	75	75	75	75	75	75	PID Reading		MADE GROUND - Yellow/brown/orange sandy gravel. Gravel is of limestone,
															concrete and brick
	0.50	C													
	0.50	D													
0.80														////	Yellow/brown sandy GRAVEL. Gravel is angular to subangular of limestone.
															Gradually becoming white/grey limestone bedrock
	1.20	D			SPT	1.2	8	11	29	21/30					
										,					
2.00		<u> </u>			DID								2.4	·:·:·:·	Black/grey sandy LIMESTONE. Faint hydrocarbon odour
2.05	2.00	U	-		PID	2							2.4		White/grey LIMESTONE. Faint nydrocarbon odour White/grey LIMESTONE
2.80	2.80	D		3.0	PID	2.8							3.8	1+1+1+1+1+1	Yellow/brown slightly clayey SAND. Faint hydrocarbon odour
3.10		J		3.5	FID	2.0							3.6		Tonombrown singrity diayey ordivo. I aint flydrocarboll oddul
	3.10	D			PID	3.1							1.7		Black/grey slightly clayey silty MUDSTONE
4.00				4.0											
4.20				4.0	PID	4.0							0		Pale grey, coarse grained SANDSTONE
4.40				4.0	PID	4.2							0		Pale yellow coarse grained SANDSTONE
					PID	4.4							0		Pale grey slightly clayey SILTSTONE
5.10				4.0											
3.10					PID	5.1							0		Dark grey SILTSTONE
					PID	6.0							0		
					110	0.0							0		
					PID	7.0							0		
7.50				4.0											
															Dark grey slightly silty MUDSTONE
													_		
					PID	8.0							0		
9.00				4.0											D. I
					PID	9.0							0		Pale grey SILTSTONE
0.00				4.0											
9.80 10.00				4.0											Dark grey SILTSTONE
10.00															Borehole terminated at 10.0m
					Rema										
lant:	Commac	hio 305			7										after 30 mins monitoring.
lient:	Heyford I	Park II P			1	ehole ins ehole an				from gr	ound le	evel to	1.0m depth,	with slot	ted standpipe from 1.0m to 9.75m, with bentonite seal to bas
	. icyioiu i	GIR LEF			1			-		echnia	ues. Ca	sing ir	nstalled to 4m		
	Taylor/Gi				1	nding tin						יי סיייי	3.230 to HIII		
naina T	M Willian	ns													
ingineer:															

		J							80	enoie	Numbe	=1	BHNSA 03	טאו מטרן:	P8219J107
			in the investigation			prownfield s	ites			Site	e:		Upper Heyfo	rd NSA, (Oxfordshire
			ARY DRIL							Dat			27/10/2011		
epth (m)	Sam Depth	nple	Core Length	Depth of	Т	est	Seat	Drive		Test D	rive		1	Legend	Description
	(m)	Туре	Recovered	Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10			PWF Liner												TURF Brown/orange sandy gravelly CLAY. Gravel is angular to subangular of
	0.50	D			PID	0.5							0		limestone.
0.90															
					PID SPT	1.0	25	30	20//10			-	0		Poor recovery - pale grey sandy LIMESTONE recovered as limestone cobble with a yellow interstitial sand
					31 1	1.2	23	30	20//10						
															}
					PID	2.0							0		
2.70			2.70-4.2m	3.0											
			(1.0m core)												No recovery
3.20				3.0											
															Yellow/grey calcarious SANDSTONE. Weak and fractured, fractures filled w pale yellow silty sand. In places visually impacted by hydrocarbons with fract
2.00					PID	3.5							7.8		stained black and moderate hydrocarbon odour
3.90	4.00	D		3.0	PID	4.0							14.2		Yellow/brown silty SAND. Moderate hydrocarbon odour
4.20			4.20-5.7m	3.0	110	4.0							14.2		
			(1.5m core)												Pale grey SILTSTONE interbedded with occasional bands of darker calcario SILTSTONE containing shell fragments
					PID	5.0							0		
					110	3.0									
			F 70 7 2m												
			5.70-7.2m (1.5m core)		PID	6.0							0		
			ĺ ,]
7.00			7.20-8.7m	3.0	DID	7.0							0		Grey silty MUDSTONE interbedded with occasional bands of darker grey
			(1.5m core)		PID	7.0							0		calcarious SILTSTONE containing shell fragments
			ì												
					PID	8.0						_	0		
					FID	0.0									1
8.50				3.0											Cross of the MILIDSTONE
			8.70-10.0m (1.0m core)		PID	9.0							0		Grey silty MUDSTONE
			(2.5.11 6016)			3.0									1
												<u> </u>			}
10.00				3.0									1		1
															Borehole terminated at 10.0m
					Rema	rks:						<u> </u>	L		
nt:	Commac	hio 305			1		er at 5.	.8m dep	oth upon	compl	etion o	f drilli	ng. Rose to 5.0	Om depth	n after 20 mins monitoring.
	Houfe	Dorletto			2. Ins	talled fr	om gro								h slotted standpipe, with bentonite seal to base of borehole a
ent:	Heyford	Park LLP				d plain p nding/Da		(s - 50m	nins						
iller:	Taylor/G				J. 31a	. rairig/ Di	a y vv OI K	.5 5011	3						
gineer:	M Williar	ns													

						5			Вс	rehole I	Numbe	er	BHNSA 04	Job No:	P8219J107
			alists in the inves			n of brownfi	eld sites			Site	:		Upper Heyfo	ord NSA, (Oxfordshire
		ROT	ARY DRI	LLING	LOG					Date	e:		17/10/2011		
	San	nple	Core	Depth	Т	est	Seat	Drive		Test D				Legend	Description
Depth (m)	Depth	T	Length	of	Tuna	Danath	75	75	75	75	75	75			·
0.05	(m)	Туре	Recovered open hole	Casing	Туре	Depth	75	75	75	75	75	/5	PID Reading		TURF
0.03			Орен поле											HH	MADE GROUND - yellow/brown/orange sandy gravel. Gravel is of limestone,
														IIIII	concrete and brick
														IIII	
	0.50	D			PID	0.5							0	/////	
														IIIII	
															}
1.00	1.00	D + B			PID	1							0		}
					SPT	1.2	15	10//40	36	14//10					Brown sandy slightly clayey GRAVEL. Gravel is angular to subangular of limestone
														<u> </u>	
1.90						_							_		Pala gray (vallant IMECTONE
					PID	2							0		Pale grey / yellow LIMESTONE
															1 I
												-			1 I
												-			1 I
3.00				3.0											1
3.20				3.0	PID	3							0		Yellow SANDSTONE
															Yellow SANDSTONE noticably weaker
3.80				2.0											
4.00				3.0	PID	4							0		Pale grey SILTSTONE
													-		Pale grey LIMESTONE
4.50				3.0											
															Pale grey SILTSTONE
5.00				3.0	PID	5							0		Pale grey LIMESTONE
															ale grey Envisore
															1
5.80				3.0											
															Dark grey SILTSTONE with occasional interbedded bands of pale grey LIMESTONE
					PID	6.5							0		1
					110	0.5							0		1
															1
															1
7.50				3.0											
7.60				3.0	PID	7.6						<u> </u>	0		Dark grey LIMESTONE Pale grey LIMESTONE
7.90				3.0	-							1			raie gieg Liivies i ONE
7.50			 	3.0											Dark grey MUDSTONE
8.20		<u> </u>	<u>L</u> _	3.0											
															Pale grey LIMESTONE
8.50			1	3.0	<u> </u>										Dody grov MUDSTONE
0.00				2.0	PID	8.6							0		Dark grey MUDSTONE
9.80			1	3.0				-				-			Dark grey SILTSTONE
					-							1			
13.00				3.0	}							1			<u> </u>
15.00			 	3.0											Borehole terminated at 13.0m
		<u> </u>	1	<u> </u>	Rema	rks:		1	<u> </u>	1			1	1	1
Plant:	Commac	hio 305			1: Bor	ehole dr		-		_		-			depth upon request of Watermans engineer. Groundwater at
		D. 1.11=					•						•		s monitoring.
Client:	Heyford	Park LLP						pipe fro	m grour	nd level t	to 1.5m	n deptl	h, slotted sta	ndpipe fro	om 1.5m to 12.8m with bentonite seal to base of borehole and
Driller:	Taylor/G	idman				d plain p		. 70'	25						
	M Williar					_	-	s - 70mii		chniaue	s. Casii	ng inst	alled to 3m.		
	_				50						,. J aon	.,,			

						3			Вог	rehole	Numbe	er	BHNSA 05	Job No:	P8219J107
			alists in the inves				eld sites			Sit	e:		Upper Heyfo	rd NSA, C	Oxfordshire
		ROT	ARY DRIL	LING I	LOG					Dat			17/10/2011	,	
5 11 ()		nple	Core	Depth	Т	est	Seat	Drive		Test [Prive			Legend	Description
Depth (m)	Depth (m)	Туре	Length Recovered	of Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		Tups
0.05			open hole												TURF MADE GROUND - yellow/brown/orange sandy gravel. Gravel is of limestone,
					DID	0.5							0		concrete and brick
0.60	0.50	D			PID	0.5							0		
															Yellow/brown sandy GRAVEL. Gravel is angular to subangular of sandstone
	1.00	D . D			DID	1							0		
	1.00	D + B			PID SPT	1.2	25		50/45				U		
1.80															
					PID	2							0		Pale grey, medium grained LIMESTONE
2 90				2.0											
2.80				3.0	PID	3			\vdash				0		Yellow/brown, slightly clayey SAND
3.70				3.0							<u> </u>				
															Pale grey slightly clayey SILTSTONE
4.00				3.0	PID	4							0	1+1+1+1+1	Yellow, slightly clayey SAND
4.10				3.0										111111111	Dark grey SILTSTONE
4.90				3.0	PID	5							0		Pale grey LIMESTONE with occasional shell fragments
					110	3							Ŭ		
5.30				3.0											
															Pale grey SILTSTONE
6.00				3.0	PID	6							0		
															Dark grey SILTSTONE
7.10				3.0	PID	7.2							0		
7.40				3.0											Pale grey LIMESTONE with a small amount of yellow intersitial sand
7.40				3.0											Pale grey MUDSTONE interbedded with occasional bands of hard, dark grey
7.90				3.0	DID	0.4									LIMESTONE
8.20				3.0	PID	8.1							0		Dark grey slightly clayey SILTSTONE
					PID	8.4							0		Dark grey MUDSTONE
9.00				3.0											
2.00					PID	9.1							0		Dark grey SILTSTONE
9.80				3.0					\vdash						
					PID	9.8							0		Dark brown, slightly clayey SAND
10.20				3.0											Dada sassasilla MUDOTCUT
10.50				3.0											Dark grey silty MUDSTONE Borehole terminated at 10.5m
			l .	<u> </u>	Rema	rks:		<u> </u>		<u> </u>	<u> </u>	<u> </u>	I		1
Plant:	Commac	hio 305			1										after 20 mins monitoring.
Client:	Heyford	Park LLP				ehole ins d plain p		with pla	ain pipe f	from gi	round le	evel to	1.0m depth,	with slot	ted standpipe from 1.0m to base of hole. Bentonite seal installed
					1	น piairi p inding/D	-	s - 30m	nins						
Driller:	Taylor/G				1	_	-			echniq	ues. Ca	sing ir	nstalled to 3m		
Engineer:	M Williar	112			<u> </u>										
					Jom	as Assoc	iates Lt	td - Hig	hbridge	Indust	rial Est	ate, O	xford Road, U	Jxbridge	, UBB 1 HR

					<u> </u>	₹			Во	rehole	Numbe	er	BHNSA 06	Job No:	P8219J107
							l citoo			6:1				l.NICA	2 Could be
			SARY DRIL			browniieid	sites			Sit			Upper Heyfor	ra NSA, C	Oxfordshire
	Sam	nple	ANTUNIL	Depth		est	Seat	Drive		Dat Test D			12/10/2011	Legend	Description
Depth (m)	Depth	іріс	Core Length	of	•		Jeac	Dilve		1636 2	71100		•	Legena	Description
0.0=	(m)	Туре	Recovered	Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		TURF
0.05			PWF Liner											77777	Brown sandy slightly clayey GRAVEL. Gravel is of angular to subangular limestone
	0.50	D			PID	0.5							0	• • • • • • • • • • • • • • • • • • • •	
0.90															
	1.00	В			PID	1							0		Yellow/grey sandy GRAVEL. Gravel is angular of limestone
			1.20-2.70m	1.0m	SPT	1.2	15	10	33	17/25					
			(1.4m core)												
1.70															
															Pale grey LIMESTONE
					DID								0.2		
					PID	2							0.2	ı	
2.50															
	2 = 2	_			5.5								-0-	1	Pale grey LIMESTONE with visual indications of hydrocarbon contamination - black staining following fissures within the limestone
	2.70	D	2.70-4.20m (1.50m core)		PID	2.7							50.7		Scaling following fiscarcs warms are infrestoric
			(1.50111 0010)												
	3.20	D			PID	3.2							6.1	1	
3.50															Brown/grey silty SANDSTONE with visual indications of hydrocarbon contamination
	4.20	D	4.20 - 5.70m	3.0m	PID	4.2							0.1		
			(1.50m core)		SPT	4.2							Ref		
4.80															
					PID	5							0		Pale grey/yellow sandy LIMESTONE interbedded with thin bands of grey MUDSTONE
															MODSTONE
			5.70-7.20m	3.0m											
			(1.50m core)	3.0											
6.00					PID	6							0		
															Dark grey silty MUDSTONE
														ı	
7.00					DID	7							0		Dark grey shelly LIMESTONE
			7.20-8.70m	3.0m	PID	/							0		Built grey shelly Elivice 1010
7.50			(1.50m core)												
						_							_	i	Dark grey silty MUDSTONE
					PID	8							0	1	
			8.70-10.0m	3.0m											
			(1.10m core)												
														ı	
10.00															Bouch ale town-instead at 10 Omited
		<u> </u>	<u> </u>	<u> </u>	Rema	rks:	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>			Borehole terminated at 10.0mbgl
Plant:	Commac	hio 305			1: Gro	undwat) minutes monitoring.
Cl: t		Davida I I D					stalled v	with pla	in pipe 1	from gr	ound le	evel to	1.0m, slotted	l pipe fro	om 1.0m to 9.5m, with bentonite seal to base of hole and around
Client:	Heyford	rark LLP			plain p	oipe. nding/Da	avwork	: - 1hr							
Driller:	Taylor/G				J. J.a.	Turing/ De	ay WOINS	, 1111							
Engineer:	M Williar	ns													

						7			Во	rehole	Numbe	er	BHNSA 07	Job No:	P8219J107
'			in the investigation			wnfield site	S			Sit	e:		Upper Heyfo	rd NSA, C	Oxfordshire
			ARY DRIL							Dat			13/10/2011		
Depth (m)	San Depth	nple	Core Length	Depth of	Т	est	Seat	Drive		Test [Orive 		_	Legend	Description
	(m)	Туре	Recovered	Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.05			PWF Liner												TURF Brown/yellow sandy slightly clayey GRAVEL. Gravel is of angular to subangular
															limestone
	0.50	D			PID	0.5							0		
0.90															
	1.00	В			PID	1							0		Pale yellow/grey slightly sandy LIMESTONE
				3.0m	SPT	1.2	5	20	39	11//5					
1.50			(1.40m core)												Pale grey LIMESTONE
					PID	2							0		
2.20															No construction of the state of AND
			2.70-4.20m	3.0m											V poor recovery - yellow slightly clayey SAND
2.80			(1.50m core)	3.0111											
															Dark grey to pale grey LIMESTONE with occasional shell bands
					PID	3							0		
				3.0m											
			(1.5m core)												
4.50					PID	4							0		
4.50			5.70-7.20m	3.0m											Pale grey silty MUDSTONE
			(1.5m core)												
5.10					PID	5							0		Pale grey/yellow SANDSTONE
					PID	6							0		
6.60															
			7.20-8.70m	3.0m											Dark grey coarse grained shelly LIMESTONE
			(1.5m core)		PID	7							0		
7.30															
7.50															Dark grey silty MUDSTONE
					PID	8									
					PID	8							0		
40.00															
10.00															Borehole terminated at 10.0mbgl
			<u> </u>	!	Rema	rks:		<u> </u>		<u> </u>	1	I .	I	<u> </u>	
Plant:	Commac	hio 305													minutes monitoring.
Cliont	Houtord	Dowle I I D						rom gro	ound lev	el to 1	.0m de	pth wi	ith plain pipe,	with slot	ted standpipe from 1.0m to base of hole, with bentonite seal
Client:	Heyford	raik LLP				d plain p ble enco		l in nit a	nt 1m na	osition	moved	l.			
Driller:	Taylor/G				J. Ca	J.C C1100	J. 16C1 CU	pic c		55161011		•			
Engineer:	M Williar	ns													

											Numbe	er	BHNSA 08	Job No:	P8219J107
			in the investigation				ites			C:L				l NCA . C	Note and all the
			ARY DRIL			TOWTHIOLG 5	1100			Sit			Upper Heyfor	ra NSA, C	oxfordsnire
	San		Core	Depth		est	Seat	Drive		Dat Test D			13/10/2011	Legend	Description
Depth (m)	Depth		Length	of											Description
	(m)	Туре	Recovered	Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		TARMAC
0.10			PWF Liner												TAIWAO
														IIII	CONCRETE with occasional gravel of crushed concrete
0.35															
0.25														77777	Brown/yellow sandy slightly clayey GRAVEL. Gravel is of angular to subangular
															limestone
					DID	0.5									
	0.50	D			PID	0.5							0		
0.90		_			515										Pale yellow/grey slightly sandy LIMESTONE
	1.00	C	1.20-2.70m	1 2m	PID SPT	1.2	6	19	24	26			0		Fale yellow/grey slightly sarity Lilvies FONE
1.50			(1m core)	1.2	<u> </u>	1.2		13	2-7	20					
			, , ,												Pale grey LIMESTONE
					DID	_									
2.20					PID	2							0		
2.20															V poor recovery - yellow slightly clayey SAND
2.00		С	2.70-4.20m	1.2m											
2.80			(1.5m core)												Dark grey to pale grey LIMESTONE with occasional shell bands
					PID	3							0		
		С	4.20-5.70m	3.0m											
			(1.5m core)												
4.50					PID	4							0		
4.50		С	5.70-7.20m	3.0m											Pale grey silty MUDSTONE
			(1.5m core)												
5.10					PID	5							0		Pale grey/yellow SANDSTONE
															r die grey, yeilen er nieer er ne
					PID	6							0		
6.60															
		С	7.20-8.70m												Dark grey coarse grained shelly LIMESTONE
7.30			(1.5m core)		PID	7							0		
7.50															Dark grey silty MUDSTONE
		С	8.70-10m	3.0m	PID	8							0		
		C	(1.3m core)	3.0111											
10.00															Borehole terminated at 10.0m
					Rema	rks:					l				
Plant:	Commac	hio 305			1										minutes monitoring.
Client:	Heyford	Dark II D						rom gro	ound lev	el to 1	.0m de	pth wi	th plain pipe,	from 1.0	m to base of hole with slotted standpipe, with bentonite seal
Chefft.	ricytolu	UIN LLF				d plain p nding/D		s - 1.25	hrs						
Driller:	Taylor/G						, o i N								
Engineer:	M Williar	ns													

									Во	rehole	Numbe	er	BHNSA 09	Job No:	P8219J107
			in the investigation				ites			Site			Linnar Houfa	rd NCA C) wfordshire
			ARY DRIL							Dat			Upper Heyfo 24/10/2011	ru ivsa, c	oxiorusiille
	Sam		Core	Depth		est	Seat I	Orive		Test D			24/10/2011	Legend	Description
Depth (m)	Depth		Length	of	T	Danish	75	75	75	75	75		NID December		·
	(m)	Туре	Recovered PWF Liner	Casing	Туре	Depth	75	75	75	75	75	/5	PID Reading		MADE GROUND - Brown/orange sandy gravel. Gravel is of concrete, limestone,
															brick and metal
	0.50	D			PID	0.5							0		
0.90					PID	1							0	7////	Poor recovery - pale grey LIMESTONE present as cobbles of weathered
					PID	1							U		LIMESTONE with a small amount of yellow interstitial sand
		С	1.20-2.70m	1.2m	SPT	1.2	12	13	19	31/40					
			(1.4m core)												
					PID	2							0		
2.40															Valley/orange/brown fine grained calcarious CANDCTONE with accessoral
		С	2.70-3.20m	2.7m											Yellow/orange/brown fine grained calcarious SANDSTONE with occasional fractures
		C	(0.5m core)	2.7111	PID	3							0		
3.70		С	3.20-4.70m (1.5m core)	3.0m											
3.70	4.00	D	(1.5111 6616)		PID	4							2.2		Dark grey slightly sandy SILTSTONE with occasional fractures containing dark
4.20															grey silty SAND
4.20					PID	4.4							0		Dark grey to light grey silty MUDSTONE
		С	4.70-6.20m	3.0m	110								Ů		
			(1.5m core)												
5.30															
					PID	5.4							0		Pale grey slightly sandy SILTSTONE interbedded with occasional thin bands of light brown SILTSTONE
6.50		С	6.20-7.70m	3.0m											
6.50			(1.5m core)		PID	6.6							0		Pale grey silty MUDSTONE interbedded with occasional thin bands of dark grey
						0.0									occasionally calcarious SILTSTONE
		С	7.70-9.20m	3.0m											
			(0.9m core)		PID	8							0		
9.20															
9.20															Borehole terminated at 9.2m
	_				Rema										
Plant:	Commac	hio 305			7										after 20 mins monitoring. In slotted standpipe, with bentonite seal from 8.0m to base of
Client:	Heyford	Park LLP				nd aroui	_		1 (0 1.0)	ii depti	ı witii j	piaiii p	лре, 1.0111 to а	s.uiii witi	3.
	T 1 /0				Obstr	uction er	ncounte	red in p			ition m	noved	- 1.5hrs dayw	orks	
Driller: Engineer:	Taylor/G M Williar				4. Otl	ner Stand	ding tim	e/dayw	vorks - 5	0mins					
<u>J</u>															
					Jom	as Assoc	ciates Lt	d - Higl	hbridge	Indust	rial Est	ate, O	xford Road, L	Jxbridge,	UBB 1 HR

									Воі	rehole	Numbe	er	BHNSA 10	Job No:	P8219J107
l		Specialists	in the investigati	ion & reclam	ation of b	rownfield s	ites			Site	e:		Upper Heyfo	rd NSA, C	Oxfordshire
		ROTA	ARY DRIL	LING I	LOG					Dat			21/10/2011	,	
	Sam	ple	Core	Depth	Т	est	Seat	Drive		Test D		•		Legend	Description
Depth (m)	Depth (m)	Туре	Length Recovered	of Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.05			open hole												TURF MADE GROUND - Brown sandy gravel. Gravel is of concrete and limestone wit
															occasional fragments of brick and tarmac
	0.50	D			PID	0.5							0		
	0.50	D			110	0.5								MM	
0.90															
0.50		D + B			PID	1							0		Yellow/white sandy GRAVEL. Gravel is angular to subangular of limestone
1.20				1.0	SPT	1.2	25		50/50						
					PID	1.4							0		Pale grey to pale yellow slightly sandy LIMESTONE
1.80				1.0											
2.00					PID	2							0		Pale grey LIMESTONE
_															1
2.70	2.80	D		1.0	PID	2.8							2.3		Yellow/brown fine silty slightly clayey SAND with faint hydrocarbon odour
3.10				3.0		2.0							2.3		
2.22															Poor return - Silty grey CLAY
3.30 3.70		D		3.0	PID	3.4							0		Pale grey SILTSTONE
3.70	3.10			3.0		3.1							Ů		Pale yellow SILTSTONE
3.90				3.0	DID	4							0		Pale grey SILTSTONE with occasional thin bands of pale yellow/brown
					PID	4							0		SILTSTONE With occasional trill bands of pale yellow/brown
					PID	5							0		
					PID	6							0		
6.60				2.0											
6.60 6.80				3.0											Pale yellow SILTSTONE
															Pale grey SILTSTONE containing occasional harder layers of slightly calcariou SILTSTONE
					PID	7							0		OILTOTONE
								-							
7.80				3.0											
					חום	0							0		Dark grey hard silty CLAY/fine grained SILTSTONE
					PID	8		-					0		
															1
								-							
10.00				3.0				-							
lant:	Comme	hio 205			Rema							٠٠٠٠ الم			
lant:	Commac	1110 303			1										after 30 mins monitoring. ted standpipe from 1.0m to 9.0m depth, with bentonite seal to
lient:	Heyford I	Park LLP				of hole a				. J	24.10 K		2.0111 depti1,		1.2.2.2.3.3.4. Delite Stant Co Stant Geptil, With Bellionite Stall to
rillor	Taylor/C	dman			1	ınding tir									
	Taylor/Gi M Williar				1										
					•										

				Воі	rehole	Numbe	er	BHNSA 11	Job No:	P8219J107					
		Specialists	in the investigation	on & reclama	ation of b	rownfield si	ites			Site	•		Upper Heyfo	rd NSA C	Nyfordshira
			ARY DRIL							Dat			21/10/2011	iu NSA, C	Midiasilie
	Sam		Core	Depth		est	Seat I	Drive		Test D			21/10/2011	Legend	Description
Depth (m)	Depth (m)	Туре	Length Recovered	of Casing	Type	Denth	75	75	75	75	75	75	PID Reading		
0.10	(,	. , , , ,		Cuomig	. , , ,	Эсри	, ,	,,,	70	, ,	70	,,,	. is iteauing	11111	TURF
															MADE GROUND - brown/grey sandy gravel. Gravel is of brick, concrete, limestone, tarmac and plastic. Hand dug pit terminated at 0.9m on concrete
															obstruction
	0.50	D			PID	0.5							0		
0.90															
0.50															
	_				Rema			<u> </u>				l	ı		
Plant:	Commacl	hio 305			1: Han	d dug pi	t termir	nated a	t 0.9m o	n conc	rete ob	struct	ion and boreh	nole mov	red due to concerns of possible buried services
Client:	Heyford F	Park LLP													
Driller:	Taylor/Gi	dman													
	M Willian														
							_ _								
	Jomas Associates Ltd - Highbridge Industrial Estate, Oxfo T: 01895 77 2187 E: info@jomasassociates.com W: w														

									Во	rehole I	Numbe	r	BHNSA 11A	Job No:	P8219J107
			in the investigation				ites			Site	··		Upper Heyfo	rd NSA ()vfordshira
			ARY DRIL							Date			24/10/2011	iu NSA, C	DXIOIUSIIIIE
	Sam		Core	Depth		est	Seat	Drive		Test D			2-1/10/2011	Legend	Description
Depth (m)	Depth (m)	Туре	Length Recovered	of Casing	Type	Depth	75	75	75	75	75	75	PID Reading		
	,	7,00	open hole		7,60										Borehole undertaken through base of trial pit TPNSA 217
1.40					SPT PID	1.4 1.5	10	15	37	13//10			0		Pale yellow LIMESTONE
1.80															Pale grey LIMESTONE
															Fale grey LiviL310NL
2.40															
2.70				3.0	PID	2.5							0		Brown silty slightly sandy CLAY
2.70				3.0											Grey silty CLAY
3.30				3.0	PID	3.5							0		Pale grey LIMESTONE
3.70				3.0	PID	3.5							U		ale grey Livico Torve
3.90				3.0											Pale yellow LIMESTONE Pale grey to pale yellow LIMESTONE
4.10				3.0											
					PID	4.5							0		Pale grey to dark grey SILTSTONE
													-		
5.90				3.0											
					PID	6							0		Dark grey to black MUDSTONE in places slightly calcarious
6.10				3.0											Pale grey silty MUDSTONE
					PID	7							0		
8.10				3.0											Grey silty MUDSTONE
					PID	8.5							0		
10.00				3.0											Parabala tarresinata dat 40 Ora
															Borehole terminated at 10.0m
					Rema	rks.									
Plant:	Commac	hio 305			1: Gro	undwate									after 20 minutes monitoring.
Client:	Heyford I	Park LLP													pase of former trial pit at 1.4m depth), slotted standpipe from round plain pipe.
					1.0	.0 0.0111	acptii, i	ociitoiii	te sear i	10111 0.0	т асре		ase of solene	ne ana ai	ound plain pipe.
Driller: Engineer:	Taylor/Gi M Williar														
	·				1										
					lom	ias Asso	ciates I	td - Lia	hhridaa	Indust	rial Fcta	ite O	xford Road, U	yhridge	LIBR 1 HR

							ites			C ''	٥.		Uppor Use C	rd NCA	Ovfordshire
			s in the investigation			orownfield s	ites			Site Dat			Upper Heyfo 19/10/2011	ra NSA, C	DXTOrdsnire
oth (m)	Sam Depth	ple	Core Length	Depth of	Т	est	Seat	Drive		Test [13/10/2011	Legend	Description
pen (m)	(m)	Type	Recovered	Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		MADE CROUND Proving conducting the closest ground Cround in of brink concerns
	0.5	D	PWF Liner		PID	0.5							0		MADE GROUND - Brown sandy slightly clayey gravel. Gravel is of brick, conci and limestone with occasional fragments of tarmac
	1.0	D + B			PID	1							0		
1.20		C	1.20-2.50m (1.50m core)	SPT	1.2	3	4	4	9	18	19			Poor recovery - Yellow to pale grey sandy LIMESTONE. Limestone is weak an
					PID	2							0		
			2.70-5.70m (3.0m core)	5.0m	PID	3							0		
3.30			(3.3 33)												Pale grey fine grained calcarious LIMESTONE with frequent shell fragments a
4.70					PID	3.5							0		occasional coarser grained dark grey layers
4.70					PID	4.8							0		Pale grey silty MUDSTONE
5.30					PID	5.4							0		Pale grey medium to coarse grained slightly sandy SILTSTONE containing
5.70			5.70-8.70m	5.0m											occasional shell fragments
6.60			(3.4m core)		PID	5.8							0		Poor recovery - cobbles of pale grey slightly sandy weak SILTSTONE
					PID	6.7							0		Pale grey fine grained SILTSTONE
7.50					PID	7.6							0		Pale grey slightly silty MUDSTONE
7.80															Dark grey shelly SILTSTONE
					PID	7.9							0		Zank groy onony ore roll orde
8.40					PID	8.5							0		Dark grey silty MUDSTONE
8.70			8.70-11.7m (2.4m core)	5.0m											No Recovery
9.30			(2.411 6016)												•
9.60					PID	9.4							0		Dark grey coarse grained slightly sandy SILTSTONE containing occasional sh fragments
					PID	9.7							0		Dark grey silty MUDSTONE
44.40															
11.10					PID	11.2							0		Pale grey fine grained SILTSTONE
11.80			11.7-14.7m (3.0m core)	5.0m	PID	11.9							0		Dark grey silty MUDSTONE with occasional shell fragments
			(3.3 33.3)												
13.10															
13.10					PID	13.2							0		Pale grey to dark grey fine to coarse grained SILTSTONE containing occasion shell fragments where coarse grained
			14.7-17.7m	5.0m											
			(3.0m core)		PID	14.5							0		
					PID	16.5							0		
17.90			17.7-20.7m	5.0m									_		Dark grey coarse grained calacarious SANDSTONE
			(3.0m core)		PID	18							0		Dark grey coarse grained calacarlous SANDS LONE
18.30					DID	40.4							0		Dark grey silty MUDSTONE
					PID	18.4							0		
19.20															Pale grey fine grained SILTSTONE
20.70			20 7 22 7	F 0	PID	19.4							0		
20.70			20.7-23.7m (3.0m core)	5.0m	PID	21							0		Dark grey silty MUDSTONE
33.50															
22.50					PID	22.6							0		Poor recovery - Dark grey silty SAND
			23.7-26.7m (3.0m core)	5.0m											
			(313 55, 6)												
20.70			26.7-29.7m												
29.70			(3.0m core)	•		<u> </u>		<u> </u>				<u> </u>		1-:::::::	Borehole terminated at 29.7m
nt:	Commac	hio 305			Rema 1: Gro		er at 17	 .1m upa	on comn	letion	of drilli	ng, ros	se to 15.6 afte	r 20 mins	S.
nt:	Heyford I	Park LLP			2. Bor	ehole ins	stalled v	with pla	in pipe			_			standpipe from 22.7m to 29.2m depth with bentonite seal to
ller:										i					
gineer:	M Williar	ns													

	JOMAS									rehole	Numbe	er	BHNSA 13	log No:	P8219J107
		Specialist	s in the investigati	ion & reclam	ation of b		ites			Sit			Upper Heyfo	rd NSA, C	Oxfordshire
	Sam		ARY DRIL	Depth		est	Seat	Drive		Dat Test D			11/10/2011	Legend	Description
epth (m) 0.05	Depth (m)	•	Length Recovered PWF Liner	of Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		TURF
0.90					PID	0.5							0		Brown sandy clayey GRAVEL. Gravel is angular to subangular of limestone
1.80		D + B	1.20-2.70m (1.4m core)		SPT	1.2	2	4	26	24/40			0		Pale yellow sandy GRAVEL. Gravel is angular of Limestone
2.30					PID	1.8							0		Pale grey LIMESTONE containing a small amount of yellow interstitial sand with occasional bands of shell fragments
2.50					PID	2.3							0		Brown/yellow/orange slightly sandy CLAY containing shell fragments
3.60			2.70-4.20m (1.4m core)		PID	3							0		Pale yellow/grey coarse grained slightly sandy LIMESTONE containing occasiona
3.80			4.20-7.20m		PID PID	3.6							0		Dark grey fine to medium grained LIMESTONE with frequent shell fragments Pale yellow coarse grained LIMESTONE with occasional bands of finer grained d grey LIMESTONE
4.50 4.60			(3.0m core)		PID	4.5							0		Dark grey coarse grained LIMESTONE Pale grey silty MUDSTONE with shell bands
5.20					PID	5							0		Tale grey stity WODOT ONE With shell baileds
5.60					PID	5.2							0		Pale grey fine grained LIMESTONE
6.40					PID	5.6							0		Light brown/yellow/grey fine grained LIMESTONE with occasional bands of coars grained grey LIMESTONE
6.70					PID	6.4							0		Pale grey, clayey slightly silty MUDSTONE
7.10			7 20 40 2	F 0	PID	6.7							0		Dark grey coarse grained LIMESTONE Dark grey coarse grained LIMESTONE containing shell fragments
7.50			7.20-10.2m (2.8m core)	5.0m											Pale grey MUDSTONE
7.70					PID	7.7							0		Dark grey slightly silty MUDSTONE
9.20															
10.10			10.2-13.2m		PID	9.2							0		Pale grey fine to medium grained LIMESTONE
10.40			(3.0m core)		PID	10.4							0		Dark grey silty MUDSTONE
11.40					PID	11.4							0		Dark grey to pale grey coarse grained slightly sandy LIMESTONE with occasiona shell fragments
			13.2-16.2m (3.0m core)		PID	14.2							0		
15.60															
					PID	15.6							0		Dark grey slightly clayey SILTSTONE
16.30			16.2-19.2m (3.0m core)		PID	16.3							0		Pale grey LIMESTONE with frequent shell fragments
17.20															
17.30 17.70					PID	17.3							0		Dark grey SILTSTONE
					PID	17.7							0		Dark grey coarse grained shelly LIMESTONE
18.10					PID	18.1							0		Dark grey coarse grained shelly SILTSTONE
			19.2-21.2m												
			(2.6m core)												
21.20			21.2-24.2m		Din	24.4									Pale grey coarse SAND - v poor recovery
			(0.5m core)		PID	21.4							0		The grey coarse ontrib - v pour recovery
			24.2-27.2m (1.6m core)		PID SPT	24 24.2	10	15	50/40				0		
			27.2-30m												
29.40			(2.5m core)		PID	29.4							0		Dark grey SILTSTONE
30.00															Borehole terminated at 30m
nt:	Commacl	nio 305			Rema 1: Gro		er strike	at 24m	n denth	Rose to	o 17m (depth	after 20 mins	monitori	ng.
nt:	Heyford F	stalled v	vith pla		from gr					pipe, from 21m to 29m with slotted standpipe with bentonite					
i.		dman							- 30mins						

						7			Во	rehole	Numbe	er	BHNSA 14	Job No:	P8219J107
		Specialists	in the investigati	on & reclama	ation of b	rownfield s	ites			Site	۵۰		Upper Heyfor	rd NSA C)xfordshire
		ROTA	ARY DRIL	LING I	.OG					Dat			14/10/2011	1411371, 0	ANOTUS III C
Depth (m)	Sam Depth	ple	Core Length	Depth of	Т	est	Seat	Drive		Test D	rive			Legend	Description
	(m)	Туре	Recovered		Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10														HH	TURF MADE GROUND - brown/grey sandy gravel. Gravel is of limestone and concrete
															with occasional fragments of brick
	0.50	D			PID	0.5							0		
0.90														444	Pea gravel surround over possible buried service encountered at 1.1m depth -
1.10															end hole
Plant:	Commac	hio 305			Rema		it termiı	nated a	t 1.1m c	n noss	ihle hu	ried se	rvice/ohstruc	tion - bo	rehole moved
					1.1101	ia aag p	ic cerriii	iatea a	. 1.1111	/11 poss	ibic bui	ilea se	i vice, obsti de		renote moved
Client:	Heyford I	Park LLP													
	Taylor/Gi	idman													
Engineer:	M Williar	ns													
					Jom	as Assoc	ciates Lt	d - Higl	hbridge	Indust	rial Est	ate, O	xford Road, U	Jxbridge,	UBB 1 HR

						7			Во	rehole	Numbe	er	BHNSA 14A	Job No:	P8219J107
		Specialists	in the investigati		ation of b	rownfield s	ites			Site	۵۰		Upper Heyfoi	rd NSA O)xfordshire
		ROTA	ARY DRIL	LING L	.OG					Dat			14/10/2011	1411571, 0	Alorasime
Depth (m)	Sam Depth	ple	Core Length	Depth of	Т	est	Seat I	Drive		Test D	rive			Legend	Description
	(m)	Туре	Recovered		Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10														HH	TURF MADE GROUND - brown/grey sandy gravel. Gravel is of limestone and concrete
															with occasional fragments of brick
	0.50	D			PID	0.5							0		
0.90														444	Pea gravel surround over possible buried service encountered at 1.1m depth -
														/////	end hole
51	0			·	Rema										
Plant:	Commac	nio 305			1: Han	id dug pi	it termir	nated a	t 0.9m c	n poss	ible bui	ried se	ervice/ cable -	borehole	e moved
Client:	Heyford I	Park LLP													
Driller:	Taylor/Gi	dman													
	M Willian	ns													
					Jom	as Assoc	ciates Lt	d - Higl	hbridge	Indust	rial Est	ate, O	xford Road, U	Ixbridge,	UBB 1 HR

						7			Во	rehole	Numbe	er	BHNSA 14B	Job No:	P8219J107
			in the investigation			rownfield s	ites			Site	۵٠		Upper Heyfo	rd NSA C	Nyfordshire
			ARY DRIL							Dat			14/10/2011	14 143/1, C	ATOTUSTITE C
	Sam		Core	Depth		est	Seat I	Drive		Test D			- 1, - 3, - 5 - 5	Legend	Description
Depth (m)	Depth (m)	Туре	Length Recovered	of Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10														11111	TURF MADE GROUND - brown/grey sandy gravel. Gravel is of limestone and concrete
															with occasional fragments of brick
					DID	0.5							0		
					PID	0.5							U		
0.00															
0.80														1111	Pea gravel surround over possible buried service - end hole
Plant:	Commacl	hio 305			Rema		it tarmi	nated a	t 0 2m s	n nocc	ihla h	ried co	prvice/cable	horeholo	moved
					ıı: man	iu dug þ	ic termii	iated a	t O.SIN C	ııı poss	וטופ טעו	ileu se	ervice/cable -	noi eliole	moveu
Client:	Heyford I	Park LLP													
	Taylor/Gi														
Engineer:	M Willian	ns													
													xford Road, U		
													: www.jomas		

									ВО	rehole	Numbe	er	BHNSA 14	JOD NO:	P8219J107
		Specialis	ts in the investigat	tion & reclam	ation of b		sites			Sit	e:		Upper Heyfo	rd NSA, C	Oxfordshire
	San	ROT nple	ARY DRII	LLING Depth		est	Seat	Drive		Dat Test D			20/10/2011	Legend	Description
pth (m)	Depth		Length	of											Description
0.05	(m)	Туре	Recovered PWF Liner	Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		TURF
0.20															MADE GROUND - Brown sandy gravel. Gravel is of concrete and limestone will occasional fragments of brick
0.30					010	0.5									Brown/grey sandy GRAVEL. Gravel is angular to subangular of limestone
	0.5	D			PID	0.5							0		
1.20		D + B	1.20-2.70m	1.0m	PID SPT	1.2	12	13	29	21			0		
1.20		<u> </u>	(1.1m core)		PID	1.5							0		Poor recovery - Pale yellow LIMESTONE present as weathered cobbles with a vellow intersitial sand
2.00															
					PID	2.2							0		Yellow to pale grey fine grained LIMESTONE with occasional fragments of she
3.00		С	2.70-4.70m (2.0m core)												Pale grey fine grained LIMESTONE with occasional fragments of shell
			(2.011 core)		PID	3.4							0		r de grey inte grantes Emilione Williams et en
4.40															
4.40					PID	4.5							0		Dark grey silty MUDSTONE
4.70		С	4.70-7.70m		DID	4.0							0		Dala see dishtho and Oll TOTONE and sining accessional shall for severe
5.20			(2.5m core)		PID	4.8							0		Pale grey slightly sandy SILTSTONE containing occasional shell fragments
					PID	5.3							0		Dark grey silty MUDSTONE
					PID	6.3							0		
6.90					FID	0.5							U		
					210	7.2							0		Pale grey SILTSTONE
7.70	L	С	7.70-10.7m	5.0m	PID	7.2							0		
			(3.0m core)		PID	8.2							0		Dark grey silty MUDSTONE containing occasional shells
8.90					PID	0.2							0		
					DID	0.2							0		Dark grey sandy SILTSTONE containing occasional shell fragments
					PID	9.2							0		
10.70		С	10.7-13.7m		515	10.0									
			(3.0m core)		PID	10.8							0		Pale grey coarse grained calcarious SANDSTONE, occasionally fractured and containing shell fragments
					PID	11.8							0		
					PID	12.8							0		
						12.0							Ů		
13.70		С	13.7-16.7m (3.0m core)		PID	13.8							0		Poor recovery - Pale grey silty MUDSTONE
14.20			(3.0111 0010)		- 1.0	13.0							Ů		
					PID	14.8							0		Pale grey to dark grey SILTSTONE, occasionally coarse grained and calacaric containing frequent shell fragments
					PID	14.8							U		
46.40					PID	15.8							0		
16.40		С	16.7-19.7m	5.0m											Dark grey silty MUDSTONE
47.00			(3.0m core)		PID	16.8							0		
17.30															Dark grey slightly sandy SILTSTONE containing occasional shell fragments
					PID	17.8							0		
					PID	18.8							0		
19.10						10.0									
		С	19.7-22.7m (2.5m core)	5.0m	PID	20							0		Dark grey slightly clayey loosely cemented silty SANDSTONE
			(2.5111 core)		110	20							U		
					PID	21							0		
					PID	22							0		
		С	22.7-25.7m	5.0m									<u> </u>		
3 3.60			(2.6m core)		PID	23							0		
23.60															Becomes dark grey coarse grained calacarious SANDSTONE containing occa
25.55					PID	24							0		shell fragments. Often weakly cemented and containing occasional thin bands dark grey SILTSTONE
25.30		С	25.7-27.7m	5.0m	PID	25.4							0		Dark grey to pale grey weakly cemented silty SANDSTONE
- -			(2.0m core)												
25.70			+									-			No recovery
26.70			1		PID	26.8						<u> </u>	0		Dark grey silty SANDSTONE weakly cemented and interbedded with thin band
					שוי	20.0							U U		dark grey SILTSTONE
27.10		6	27.7.20.0	F 0											Dark grey SILTSTONE
		С	27.7-29.0m (0.5m core)	5.0m	PID	27.4							0		San gray Siciototic
29.00			(3.3111 (018)		שוי	27.4							U		
.+.	Com	hic 205			D	wlee:									Borehole terminated at 29m
nt:	Commac	nio 305			Rema 1: Wa		e within	weak s	andstor	ne (exad	t depth	n unce	rtain), rose to	14m afte	er 30 mins monitoring.
nt:	Heyford	Park LLP			2. Bor	ehole ins	stalled f	rom gr	ound lev	el to 1	9m dep				to 28m depth with slotted standpipe, with bentonite seal to
ler:	Taylor/G	idman				of hole at t moved		•							
-	M Willian				1	her Stan			_						
ineer:	IVI VVIIIIai					_									

				FE					Во	rehole	Numbe	er	BHNSA 15	Job No:	P8219J107
			ts in the investiga				eitee								
						browniicia	Sites		-	Sit			Upper Heyfo	rd NSA, C	Oxfordshire
	Com		ARY DRIL	Depth		o a t	Seat	Duite		Dat			14/10/2011	Langua	Description
Depth (m)	Depth	nple	Length	of	<u>'</u>	est	Seat	Drive		Test D	rive		1	Legend	Description
	(m)		Recovered	Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		TUDE
0.05			PWF Liner											\dots	TURF MADE GROUND - yellow/brown/orange sandy gravel. Gravel is of limestone,
															concrete and brick
	0.50	D			PID	0.5							0		
0.80									-						
0.80									-			-		77777	Brown sandy slightly clayey GRAVEL. Gravel is angular to subangular of
	1.00	В			PID	1							0		limestone
					SPT	1.2	2	2	3	2	3	3			
1.30															
1 00	1.50	D			PID	1.5							0		Yellow/white gravelly CLAY. Gravel is angular to subangular of limestone
1.80		С	2.0-3.0m	1.5m	SPT	2	25//10		50//25						Pale grey medium grained LIMESTONE
			(0.5m core)		0		23// 23		30//23						
					PID	2.5							0		
		С	3.0-4.5m	3.0m	PID	3.5							0		
3.80			(1.5m core)												
3.00															Dark grey coarse grained shelly LIMESTONE
4.30		С	4.5-5.5m	3.0m											Dark grey silty MUDSTONE
			(1.5m core)	3.0	PID	4.5							0		
												-			
		С	5.5-7.0m	3.0m	PID	5.5							0		
			(1.5m core)												
					PID	6.5							0		
		С	7.0-8.5m (0.5m core)	3.0m	PID	7.5							0		
			(0.5iii core)		PID	7.5							0		
8.70		С	8.5-9.0m	3.0m	PID	8.5							0		Delegan and the MEOTONE with a second and the latest and the second and the secon
			(1.5m core)									-	_		Dark grey coarse grained LIMESTONE with occasional shelly bands
10.00		С	9.0-10.0m	3.0m	PID	9							0		
10.00		<u> </u>	(1.0m core)												Borehole terminated at 10.0m
			,		Rema	rks:			•			•			
Plant:	Commac	hio 305			1										minutes monitoring.
Client:	Heyford	Park IIP							ound lev	el to 1	.0m de	pth wi	ith plain pipe,	from 1.0	m to 8.0m with slotted standpipe with bentonite seal to base of
<u> </u>	110,1010					nd arou			ng obstr	uction.					
	Taylor/G					her Stan									
Engineer:	M Williar	ns													

									Во	rehole	Numbe	er	r BHNSA 16 Job No : P8219J107		
	Specialists in the investigation & reclamation of brownfield sites ROTARY DRILLING LOG									Sit	e:		Upper Heyfo	rd NSA, (Oxfordshire
	Sam		ARY DRIL	LING Depth		est	Seat I	Drive		Dat Test D			18/10/2011	Legend	Description
epth (m)	Depth (m)	Туре	Length Recovered	of Casing			75	75	75		75	75	PID Reading		Description
	0.5		Recovered	Casing	PID	0.5	73	75	73	/3	/3	73	0		MADE GROUND - Brown sandy slightly clayey gravel. Gravel is of limestone, br concrete and tarmac
					PID								0		
1.20		D + B C	1.20-2.70m		SPT	1.2	25		50/45				U		
			(1.5m core)		PID	1.6							0		Poor recovery - aubangular to angular cobbles of pale grey crystaline limestone
1.80					PID	2							0		Yellow/pale grey weakly cemented coarse grained SANDSTONE containing
		С	2.70-5.70m (3.0m core)		PID	3							0		occasional shell fragments
3.80					PID	4							0		Yellow/brown slightly clayey SAND
4.10					PID	4.2							0		Dark grey medium to coarse grained LIMESTONE with occasional fissures
г оо		C	F 70 9 70m	4.000											containing yellow/brown intersitial sand and with occasional bands of shells
5.80		С	5.70-8.70m (3.0m core)		PID	6							0		Dark grey silty MUDSTONE with occasional fragments of shell
7.00						7.4									Pale grey medium to coarse grained SILTSTONE containing occasional bands
					PID	7.1							0		pale brown coarse grained SILTSTONE
7.60					DID	7.0							0		Pale grey silty MUDSTONE
					PID	7.8							0		3.5, 5, 5, 5, 5, 5, 5, 5
8.50		C	8.70-11.7m	4.0m	PID	8.6							0		Dark grey silty MUDSTONE containing occasional fissures containing dark grey
			(3.0m core)			0.0							, ,		clay
10.50															
					PID	10.6							0		Pale grey medium to fine grained SILTSTONE containing occasional shell fragments
11.70															
11.70	11.8	С	11.7-14.7m	4.0m	PID	11.8							5.1		Black silty MUDSTONE containing shell fragments with an organic odour
			(3.0m core)												
12.50					PID	12.6							0		Dark grey fine grained silty MUDSTONE
					PID	12.6							U		Durk groy and grained only MODO FONE
12.90					PID	13							0		Dark grey medium to coarse grained SILTSTONE containing occasional fragme
13.20															of shell Pale grey coarse grained SILTSTONE containing a large amount of shell fragme
13.40					PID	13.3							0		
					PID	13.5							0		Pale grey fine to medium grained SILTSTONE occasionally becoming coargrained with shell fragments
		С	14.7-17.7m	4.0m											
		C	(3.0m core)		PID	15							0		
					PID	16							0		
					PID	17							0		
		С	17.7-19.7m (1.5m core)	4.0m	PID	18.5							0		
			(1.5m core)		PID	16.5							U		
		С	19.7-22.7m	4.0m											
		Č	(3.0m core)		PID	20							0		
						24.5							0		
					PID	21.5							0		
22.70		С	22.7-25.7m	4.0m											
22.70			(3.0m core)		PID	22.8							0		Dark grey silty SAND
					PID	24							0		
		С	25.7-28.7m	4.0m									_		
			(3.0m core)		PID	26							0		
27.20					חום	27.2							0		Dark grey silty MUDSTONE
					PID	27.3						<u> </u>	0		<u> </u>
28.70															Borehole terminated at 28.7m
nt:	Commac	hio 305			Rema										1
ent:										_				2.7m to base of hole (28.7) with slotted standpipe and with	
	bentonite seal around plain p Taylor/Gidman Standing time/dayworks - 30						oipe.			, ,	. 1. 1. 1.		3.		
iller:		uniall			Joranai	ing time/	uayW0l	v2 - 30	1111115						

										Borehole Number				er BHNSA 17 Job No : P8219J107			
	Specialists in the investigation & reclamation of brownfield sites									Sit	۵.		Upper Heyfo	rd NSA C	Oxfordshire		
			ARY DRIL							Dat			26/10/2011	14 14571, C	Morasime		
	San		Core	Depth		est	Seat	Drive		Test [20/10/2011	Legend	Description		
Depth (m)	Depth (m)	Туре	Length Recovered	Of	Type	Depth	75	75	75	75	75	75	PID Reading				
0.10		Турс	open hole	Casing	Турс	Берип	73	73	,,	73	/3	73	T ID Redding	1111	TARMAC		
0.30															Sub-base of crushed concrete gravel Yellow/grey/cream sandy GRAVEL. Gravel is angular to subangular of limestone		
	0.50	D			PID	0.5							0		Tellow/grey/cream sandy GRAVEL. Graver is angular to subangular of limestone		
												-					
					PID	1							0				
					PID	2							0				
2.70				3.0m	DID								0	:	Yellow/brown silty SAND		
					PID	3						-	0		Tellow/blowit silty SAND		
3.80				3.0m											Yellow/pale grey SILTSTONE		
					PID	4						-	0		Tellow/pale grey SILTSTONE		
					110	-											
4.50				3.0m													
					DID										Yellow SILTSTONE		
					PID	5							0				
					PID	6							0				
6.80				3.0m													
					PID	7							0		Pale grey silty MUDSTONE		
												-					
												-					
					PID	8							0				
					PID	9							0				
10.00				3.0m											Borehole terminated at 10.0m		
															Borenole terminated at 10.011		
		<u> </u>	<u> </u>	1	Rema	rks:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>			<u> </u>			
Plant:	Commac	hio 305			1: Gro	undwat	er at 9.0	m dep	th upon	comple	etion of	f drillir	ng. Rose to 8.6	m depth	after 20 mins monitoring.		
Clicate	2. Installed from ground level to 1.0m d around plain pipe.											plain p	oipe, 1.0m to 9	9.5m with	n slotted standpipe, with bentonite seal to base of borehole and		
Client:	Heytord	Park LLP			aroun	d plain p	oipe.										
Driller:	Taylor/G	idman															
	M Williar	ns															
•																	

	JOHA5									Borehole Number				Job No:	P8219J107
		Specialists	in the investigati	on & reclama	ation of b	rownfield s	ites			Site	e:		Upper Heyfo	rd NSA, C	Oxfordshire
		ROT	ARY DRIL	LING I	LOG					Dat			25/10/2011		
		ple	Core	Depth	Т	est	Seat	Drive		Test D				Legend	Description
Depth (m)	Depth (m)	Туре	Length Recovered	of Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10			PWF Liner											77777	TURF Pale grey/yellow sandy GRAVEL. Gravel is angular to subangular of limestone
	0.50	D			PID	0.5							0		
0.80															
		C	1.20-2.70m	1.2m	PID SPT	1.2	25	50/50					0		Poor recovery - pale grey LIMESTONE present as cobbles of weathered LIMESTONE with a small amount of yellow interstitial sand
		C	(1.5m core)	1.2111	<u> </u>	1.2		30/30							
2.00					PID	2							0		
2.20															Pale grey slightly sandy LIMESTONE containing occasional shell fragments
2.70		С	2.70-4.20m	2.7m	PID	2.4							0		Pale brown/yellow slightly silty SANDSTONE
2.70			(1.5m core)	2./111	PID	3							0		Brown/yellow loosely cemented silty SAND
3.20															Dela gravilaravva eligibili egadi. LIMESTONE cantaining abvadant abell
4.00					PID	3.6							0		Pale grey/brown slightly sandy LIMESTONE containing abundant shell fragments
	4.00	D			PID	4							0		Pale grey/yellow sandy SILTSTONE in places fractured with joints and fractu filled with pale brown silty SAND. Slightly calcarious in places
		С	4.20-5.70m (1.5m core)	I											mar pale storm sity of the congress calculated in places
			(1.5111 core)		PID	4.4							0		
					PID	5.4							0		
		С	5.70-7.20m (1.5m core)	3.0m											
6.40			(1.5111 core)												
					PID	6.6							0		Pale grey silty MUDSTONE
6.80					DID								0		Pale grey to dark grey calacarious SILTSTONE with occasional shell fragmer
7.20					PID	7							0		
		С	7.20-8.70m	3.0m											Pale grey to dark grey silty MUDSTONE
			(1.5m core)		PID	8							0		
						3									
		С	8.70-10.0m	3.0m											
			(1.3m core)												
10.00															
10.00															Borehole terminated at 10.0m
			<u>I</u>	<u> </u>	Rema	rks:		<u> </u>	I		<u> </u>	<u> </u>	<u> </u>	<u> </u>	
ant:	Commac	hio 305			1										after 20 mins monitoring.
ient:	Heyford Park LLP 2. Installed from ground lev 3. Standing time/dayworks									-	n with	plain p	oipe, 1.0m to 1	10m with	slotted standpipe, with bentonite seal around plain pipe.
					3. 30	III U	c, ua)		55111113	-					
riller: ngineer:	Taylor/Gidman : M Williams														
	.v. vviilidi	. 15			I										

				Во	rehole	Numbe	er	BHNSA 19	Job No:	P8219J107					
			in the investigati				sites			C:L				l NICA . C	No foundables
			ARY DRIL			Towning 5	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Sit			Upper Heyfor	ra NSA, C	oxtorasnire
	Sam		Core	Depth		est	Seat I	Drive		Dat Test D			27/10/2011	Legend	Description
Depth (m)	Depth		Length	of								T	<u> </u>		2 3 3 3 4 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1
0.10	(m)	Type	Recovered open hole	Casing	Туре	Depth	75	75	75	75	75	75	PID Reading		TURF
															Yellow/grey sandy GRAVEL. Gravel is angular to subangular of limestone.
	0.50	D			PID	0.5							0		
0.00				1.0											
0.80				1.0	PID	1							0	<u>. · . · . · . · . · . · . · . · . · . ·</u>	Pale grey sandy LIMESTONE
					SPT	1.2	25/40		50/15				Ů		
					PID	2							0		
2.00				2.0											
2.90				2.0	PID	3							0		Yellow/brown silty SAND
3.30				2.0											Yellow SANDSTONE
					PID	4							0		
					FID	4							0		
5.00				3.0	PID	5							0		
															Yellow SILTSTONE
						<u> </u>									
					PID	6							0		
6.30				3.0											Grey SILTSTONE
															5.5, 5.2.5 . 5.1.2
7.00					- DID	6.0									
7.00				3.0	PID	6.8							0		Pale grey MUDSTONE
					PID	8							0		
															
9.30				3.0		<u> </u>							0		
3.30				3.0	PID	9.5							0		Dark grey SILTSTONE
10.00				3.0											Borehole terminated at 10.0m
						<u> </u>									Borenoie terminated at 10.0m
			•		Rema										
Plant:	Commac	nio 305			1										after 20 mins monitoring. In slotted standpipe, with bentonite seal to base of borehole and
Client:	Heyford I	Park LLP				d plain p		ila icve		iii acpt	ii wicii	piairi	лрс, 1.0m to :	7.5111 W 101	r stotted startapipe, with bentonite sear to base of boreflole and
Driller: Taylor/Gidman 3. Pit moved to avoid obstru															
Engineer: M Williams															
1					Jom	as Asso	ciates Lt	d - Hig	hbridge	Indust	rial Est	ate, O	xford Road, L	Jxbridge,	UBB 1 HR

		1				7			Воі	rehole	Numbe	er	BHNSA 20 Job No : P8219J107			
			in the investigati				tes			Sit	e:		Upper Heyfo	rd NSA, C	Oxfordshire	
		ROTA	ARY DRIL	LING I	LOG					Dat			25/10/2011			
Danth (m)	Sam	ple	Core	Depth of	Т	est	Seat Drive			Test D	rive	I		Legend	Description	
Depth (m) 0.10	(m)	Туре	Recovered PWF Liner		Туре	Depth	75	75	75	75	75	75	PID Reading		BLOCK PAVING	
0.10			FVVFLINEI												Sub-base of crushed concrete gravel	
	0.50	D			PID	0.5							0		Yellow/grey sandy GRAVEL. Gravel is angular to subangular of LIMESTONE	
0.80															Decrease and a second IMECTONIC assessment as each blood of weathers at	
			1.20-2.70m	3.0m	PID SPT	1.2	10	15	26	24			0		Poor recovery - pale grey LIMESTONE present as cobbles of weathered LIMESTONE with a small amount of yellow interstitial sand	
			(1.2m core)	1	3	1.2	10	10	20							
2.00					PID	2							0			
2.00															Pale yellow calacarious SANDSTONE containing occasional shell fragments and	
					PID	2.4							0		fractured in places with fractures filled with yellow sand	
			2.70-4.20m													
3.00 3.20			(1.5m core)		PID	3							0		Pale brown silty SANDSTONE	
3.20					PID	3.6							0		Brown/yellow weakly cemented silty SAND	
3.90															Dala argulhanun aliahttu aandu CII TOTONE	
4.20			4.20-5.70m	3.0m	PID	4							0		Pale grey/brown slightly sandy SILTSTONE	
4.20			(1.5m core)												Pale grey/brown sandy SILTSTONE in places calacarious with occasional shell	
			ĺ		PID	4.4							0		fragments	
5.00																
															Pale grey silty MUDSTONE in places fractured with fractures filled with pale grey silt	
					PID	5.4							0		Siit	
			5.70-7.20m	3.0m												
5.80			(1.4m core)	1											D	
															Pale brown sandy SILTSTONE	
					PID	6.6							0			
7.10					PID	7							0			
7.50			7.20-8.50m												Pale grey silty MUDSTONE	
7.50 8.00			(1.3m core)												Dark grey calacarious SILTSTONE containing frequent shell fragments	
3.00					PID	8							0		Pale grey silty MUDSTONE	
8.50			8.5-10.0m	 											Deduces a leasting Of TOTONS and the first	
8.90			(1.2m core)												Dark grey calacarious SILTSTONE containing frequent shell fragments	
3.30					L										Pale grey silty MUDSTONE	
10.00																
10.00															Borehole terminated at 10.0m	
							_									
							_									
Plant:	Commac	hio 305			Rema 1: Gro		er at 7 A	im dent	th unon	comple	etion of	drillin	ng. Rose to 6 3	Sm denth	after 20 mins monitoring.	
	2. Installed fr									•			•	•	slotted standpipe, with bentonite seal to base of borehole and	
Client:	Heyford I	1	d plain p				-									
Driller:	Taylor/Gidman															
	M Williar			<u></u>												

										Borehole Number				BHNSA 21 Job No : P8219J107		
			in the investigation			rownfield si	ites			C:+			Llaufo	-I NCA O	Contraction	
			ARY DRIL							Site			Upper Heyfor	ra NSA, C	xtorasnire	
	Sam		Core	Depth		est	Seat I	Drive		Test D			26/10/2011	Legend	Description	
Depth (m)	Depth (m)	Туре	Length Recovered	of Casing	Туре	Depth	75	75	75	75	75	75	PID Reading			
0.10			PWF Liner												TARMAC Sub-base of crushed concrete gravel	
0.30	0.50	D			PID	0.5							0		Brown/orange sandy CLAY containing fragments to cobbles of weathered	
															limestone	
0.90																
	1.00	D			PID	1							0		Poor recovery - pale grey LIMESTONE present as cobbles of weathered LIMESTONE with a small amount of yellow interstitial sand	
			1.20-2.70m (1.5m core)	3.0m											·	
			(======================================													
					PID	2							0			
					110											
2.70			2.70-4.20m	3.0m												
3.00			(1.5m core)		PID	2.8							0		Brown/grey calcarious weakly cemented SANDSTONE	
3.00															Brown weakly cemented silty SAND. Visually impacted by hydrocarbons at 3.4m	
3.70	3.40	D			PID	3.4							8.4		depth with black staining and moderate odour	
3.70														1 • 1 • 1 • 1 • 1	Pale grey/brown sandy SILSTONE interbedded with occasional thin bands of	
					PID	4							0		loosely cemented brown silty SAND. Occasionally fissured with fissures filled with brown silty sand	
			4.20-5.70m (1.5m core)	3.0m												
			(1.5111 651 6)													
					PID	5							0			
			5.70-7.20m	3.0m												
			(1.5m core)		PID	6							0			
					PID	7							0			
			7.20-8.70m	3.0m												
7.40			(1.5m core)													
7.40															Pale grey silty MUDSTONE interbedded with occasional thin bands of calcarious	
															SILTSTONE containing shell fragments	
					PID	8							0			
			8.70-10.0m	3.0m	PID	9							0			
			(1m core)		PID	9							0			
10.00															Borehole terminated at 10.0m	
Plant:	Commac	hio 205			Rema		or at 6.7	Im dant	th upon	comple	ation of	drillin	a Poso to 6 1	m donth	after 20 mins monitoring	
riaiit.	Commac	1110 303			1										after 20 mins monitoring. I slotted standpipe, with bentonite seal to base of borehole and	
Client:	Heyford I	Park LLP			aroun	d plain p	ipe.				·		• /			
Driller:	Taylor/Gidman 3. Standing time/daywork						works -	- 30mins	5							

										Borehole Number				Job No:	P8219J107		
			in the investigati			prownfield s	ites			C:			llanor lloufou	ad NCA C)vfordshire		
			ARY DRIL							Sit	te:		Upper Heyfor 25/10/2011	u NSA, C	oxiorustiire		
	San		Core	Depth		est	Seat I	Drive			Drive		23/10/2011	Legend	Description		
Depth (m)	Depth (m)	Tuno	Length	of	Turno	Donth	75	75	75	75	75	75	DID Booding				
0.10	(m)	Туре	Recovered PWF Liner	Casing	Туре	Берип	75	75	75	75	75	75	PID Reading		TARMAC		
0.25	0.50	_			5.5										Sub-base of crushed concrete gravel Brown/grey/green sandy CLAY with faint organic odour		
	0.50	ט			PID	0.5							2.1		Browning leging sandy GLAT with faint organic odour		
0.00																	
0.80	1.00	D			PID	1							1.1		Brown/orange slightly gravelly silty SAND		
			1.20-2.0m	2.0m	SPT	1.2	2	2	1	1	1	1					
			(1.0m core)														
2.00	2.00	D	2.0-3.50m	3.0m	PID	2							0.9		Yellow/orange silty SANDSTONE weak in places and fractured. In places fractures		
			(1.5m core)		SPT	2	2	6	8	15	16	11//20			visibly impacted by hydrocarbons with black staining and faint odour		
					PID	3							0.1				
	3.50	D	3.50-5.0m	3.0m	PID	3.5							17.3				
	3.30		(1.0m core)	3.0111	PID	3.3							17.5				
	4.00				010								7.0				
	4.00	D			PID	4							7.8				
			5.0-6.5m	3.0m	PID	5							2.1				
5.20			(1.5m core)	3.0111	110	,							2.1				
					515										Pale grey SILTSTONE in places calcarious with shell fragments		
					PID	5.4							0				
5.80															Pale grey silty MUDSTONE		
					PID	6							0				
			6.5-8.0m	3.0m													
			(1.5m core)		PID	7							0				
					PID	/							0				
8.20					DID	0							0		Pale grey SILTSTONE		
			8.0-9.5m	3.0m	PID	8							0		rate grey SIL1310NL		
			(1.5m core)														
8.80															Pale grey silty MUDSTONE		
					PID	9							0		3,,		
9.50																	
															Borehole terminated at 9.5m		
					D												
Plant:	Remarks lant: Commachio 305 1: Groun						emarks: : Groundwater at 9.1m depth upon completion of drilling. Rose to 8.8m depth after 20 mins monitoring.										
	2.						2. Installed from ground level to 1.0m depth with plain pipe, 1.0m to 9.0m with slotted standpipe, with bentonite seal to base of borehole and										
Client:	ent: Heyford Park LLP						ipe.										
	Taylor/G]												
	M Williar																

										rehole	Numbe	er	BHNSA 37	Job No:	P8219J107
	Specialists in the investigation & reclamation of brownfield sites											_	l la san Llavefo	-LNCA (S. C. College
	S		TARY DRILL			ield sites		ļ		Site			Upper Heyfor	ra NSA, C	oxtordsnire
	Sam		ANTONIL	Depth		Test .	Seat	Drive		Dat Test D			10/10/2011	Legend	Description
Depth (m)	Depth (m)	Туре	Core Length Recovered	of		Depth		75	75		75	75	PID Reading		Bescription
	()	. , , ,	open hole	3.0m	.,,,,	- CPUII							i i b i i cu u i i g		Borehole position moved at Waterman's request - borehole conducted through base of trial pit TPNSA 204A to avoid possible buried services at new location
					<u> </u>	-	 	-	 			 			Dase of that pit 171904 2044 to avoid possible buried services at new location
	l								<u> </u>			<u> </u>			
l														1	
	l				<u> </u>	-	<u> </u>	 	-	 		 		1	
	l					+		+	+	 		 			
l															
	l				<u> </u>	-	<u> </u>	 	 	 	<u> </u>	 			
l					 			 		-		 	 		
	l														
	l				<u> </u>	<u> </u>		<u> </u>	 	 		<u> </u> '		1	
l					 	-		-		-		 		1	
1.40				3.0m	\vdash	+		 		 		 	-		
															Yellow/pale grey slightly sandy LIMESTONE
l							<u> </u>			 	<u> </u>	ļ ·			<u> </u>
	l				PID	2			 	-		 	0		
	l														1
2.90			ļ	3.0m	210									<u> </u>	Ly II Comment of the NATIONAL CONTRACTOR OF THE
l					PID	3		-				 	0		Yellow/grey silty MUDSTONE
3.40				3.0m											
3.00				2.0											Pale grey/yellow LIMESTONE
3.90 4.10			-	3.0m	PID	4	 	 				 	0		Pale grey LIMESTONE
4.20					 			+							Pale grey MUDSTONE
															Pale grey LIMESTONE
					<u> </u>	-	<u> </u>	 	 		<u> </u>	<u> </u>	ļ!		1
					\vdash	+		 		 		 	-]
				3.0m											
6.30				3.0m	├ ─		<u> </u>					ļ			
				3.0m					 	-					Dark grey SILTSTONE
				3.0											
									 	\vdash					
7.80				3.0m											
															Dark grey LIMESTONE (Note - extremely hard - slow drill progress)
8.10				3.0m					-	 					Pale grey fine grained LIMESTONE / coarse grained MUDSTONE
												<u> </u>			
									1	 					
10.00	ı									+					
															Borehole terminated at 10.0m
Plant:	Commacl	hio 305			Rema		orat E í	Om don	th unon	comple	otion of	f drillir	ng 1 Em dontl	h aftar 20) minutes monitoring
riaiit.	Commaci	1110 303													minutes monitoring. m to 9.5m with slotted standpipe, with bentonite seal to base of
Client:	Heyford F	Park LLP		and aroui						•					
Driller:	Taylor/Gi	idman													

Engineer: M Williams

										rehole	Numbe	er	BHNSA 38 Job No : P8219J107			
		Specialis	sts in the investigation & recla	mation of bro	wnfield s	ites				Sit	٥.		Upper Heyfo	rd NSA (Ovfordshira	
			OTARY DRILLIN							Dat			10/10/2011	iu NSA, C	DXIOIUSIIIIE	
5 H ()	San	nple	Court towards	Depth	T	est	Seat	Drive		Test [1		Legend	Description	
Depth (m)	Depth (m)	Туре	Core Length Recovered	of Casing	Туре	Depth	75	75	75	75	75	75	PID Reading			
0.10			PWF Liner												TARMAC	
0.10														HH	CONCRETE with occasional gravel of crushed concrete	
														MM		
0.60		_												77777	Brown/orange/grey slightly sandy clayey GRAVEL. Gravel is angular to subangular	
	0.70	D													of limestone.	
					PID	1							0			
1.20			1.20-2.70m (0.7m core)	1.2m	SPT	1.2	6	8	15	15	17	3//1			Yellow/grey coarse grained sandy LIMESTONE in weathered blocky state	
			(o.7111 core)													
			2.70-4.20m	1.2m	PID	2							0			
2.60			(1.5m core)	1.2111												
						_							_		Yellow/grey LIMESTONE	
3.20					PID	3							0			
3.20															Dark grey to pale grey shelly LIMESTONE	
			4 20 5 70	2.0	DID	4							0			
4.30			4.20-5.70m (1.5m core)	3.0m	PID	4							0			
			,												Fine grained grey LIMESTONE interbedded with occasional bands of coarser grained grey to yellow shelly limestone and bands of dark grey silty mudstone	
															granica groy to your orion, innoctoric and bands of dark groy only madetoric	
			5.70-7.2m	3.0m												
			(15m core)													
			7.20-8.70m	3.0m												
			(1.5m core)	3.0111												
8.50			8.70-10m	3.0m											Dark grey silty MUDSTONE	
9.35			(1.3m core)	3.0111												
															Coarse grained grey LIMESTONE	
10.00																
															Borehole terminated at 10.0m	
Plant:	Commac	hio 305			Remarks: 1: Groundwater at 5.2m depth upon completion of drilling, 5.3m depth after 20 minutes monitoring.											
					2. Borehole installed from ground level to 1.0m depth with plain pipe, from 1.0 to 8.5m depth with slotted standpipe with bentonite seal to											
Client:	Heyford	Park LLP			base of hole and around plain pipe.											
Driller:	Taylor/G	idman			3. Standing time/dayworks - 30mins											
	M Willian															



APPENDIX 4 – IN SITU CBR TEST RECORDS

	able only when maximum particle size		Rate of Strain :1.00m Mass of Surcharge	nm/min 8.5	kg	
			1		Test No:	-
	Brown Sandy gravery OLAT with	T occasional line	Tools (graver is fine an	a sub angular)	Depth (m):	0.40
Sample descripti	ion: Brown sandy gravelly CLAY with	n occasional fine	roots (gravel is tmc an	TP No:	CBRNSA001	
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
-		Testing Started:	19/10/2011			
Project Name:	Heyford Park House, Heyford Park, Upper H	Project Started:	19/10/2011			

7.17

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on P	lunger										
of Plunger	Dial Reading	Load										
mm	Diai Reading	kN										
0	0	0	4	1.5								
0.25	550	3.94		-								
				4								
				7							*	
				Ŀ								
			3	3.5								
				t								
				3								
			Ž Ž	Ĭ								
] l									
			Force on Plunger (kN)	2.5								
			l la									
			u o	2				_/_				
			93	-								
			Jo.	_								
			- 1	.5								
				-		/						
				1								
				-								
	+			٠, -								
			0).5								
	+											
	+			0								
				0	0	.05	0.1	0.	15 0	.2 0	.25	0.3
	†						Pene	tration of	Plunger (m	m)		
	<u>† </u>											

RESULTS:

Moisture content ((%) 10	Penetration Force kN		Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-Situ CDIT Value /0	-30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials: kp

Date: 21/10/2011

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

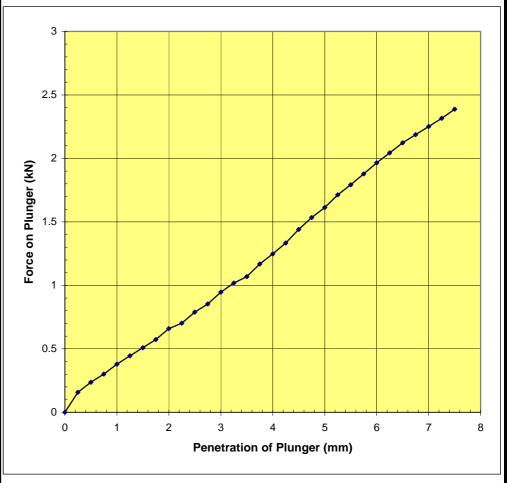
MSF-11/ R10/1

Project Name:	Heyford Park House, Heyford Park, Upper H	Project Started:	19/10/2011			
		Testing Started:	19/10/2011			
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Sample descripti	ion: Brown sandy gravelly CLAY with	n occasional fine	roots (gravel is fmc and	d sub angular)	TP No:	CBRNSA002
	Brown Sandy gravelly CEAT with	1 occasional line	100ts (graver is fine and	a sub arigular)	Depth (m):	0.70
					Test No:	-
Note: Test applica	able only when maximum particle size		Rate of Strain :1.00m	m/min		
beneath plu	inger does not exceed 20mm	Mass of Surcharge	8.5	kg		

RECORDINGS

Penetration	Force on P	lunger							
of Plunger	Dial Reading	Load							
mm	Diai Reading	kN							
0	0	0							
0.25	22	0.16							
0.50	33	0.24							
0.75	42	0.30							
1.00	53	0.38							
1.25	62	0.44							
1.50	71	0.51							
1.75	80	0.57							
2.00	92	0.66							
2.25	98	0.70							
2.50	110	0.79							
2.75	119	0.85							
3.00	132	0.95							
3.25	142	1.02							
3.50	149	1.07							
3.75	163	1.17							
4.00	174	1.25							
4.25	186	1.33							
4.50	201	1.44							
4.75	214	1.53							
5.00	225	1.61							
5.25	239	1.71							
5.50	250	1.79							
5.75	262	1.88							
6.00	274	1.96							
6.25	285	2.04							
6.50	296	2.12							
6.75	305	2.19							
7.00	314	2.25							
7.25	323	2.32							
7.50	333	2.39							

Note: Penetration and force readings after seating load zeroed.



7.17

RESULTS:

Moisture content ((%) 9.4	Penetration mm	Force kN	Standard Force kN	CBR %
		2.5	0.79	13.2	5.98
In-situ CBR value %	8.1	5	1.61	20	8.07
	0.1				

In-situ CBR Test Approved by BS1377 Part 9: 1990: 4.3 kp Initials: Determination of In-situ CBR values Date: 21/10/2011

Remarks:

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

all samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

Project Name:	Heyford Park House, Heyford Park, Upper He	Project Started:	19/10/2011			
,	,					
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Sample descrip	btion: Brown sandy gravelly CLAY with	occasional fine	roots (gravel is fmc and	d sub angular)	TP No:	CBRNSA003
	Blown sailty gravelly OLAT with	occasional inic	100t3 (graver is fille and	a sub arigular)	Depth (m):	0.50
					Test No:	-
Note: Test appli	cable only when maximum particle size		Rate of Strain :1.00m	m/min		
beneath p	lunger does not exceed 20mm	Mass of Surcharge	8.5	kg		

7.17

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on P	lunger								
of Plunger	Dial Reading	Load								
mm		kN								
0	0	0	4.5							
0.25	550	3.94		-						
			4	-						
			4	-					,	Ī
				-						
			3.5							
				-						
			? 3							F
			\ <u>\$</u>	-						
			5 2.5	-						
	+		Force on Plunger (kN)							ĺ
			ੋਂ	-						
			6 2							
			ပို့	-						
			P. P	-						
			╙ 1.5	-						j
				- -						
			1	-						
				-						
			0.5							Ę
·				-						
			0		0.05	0.1	0.15	0.2	0.25	
				U	0.05				0.25	
		-				Penetra	ition of Plung	ger (mm)		

RESULTS:

Moisture content ((%) 11	Penetration Force Standard Forc mm kN kN		Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-3ILU ODIN VAIUE /0	>30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials: kp

Date: 21/10/2011

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

MSF-11/ R10/1

Project Name:	Heyford Park House, Heyford Park, Upper H	Project Started:	19/10/2011			
,	7 7 7 11	Testing Started:	19/10/2011			
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Sample descripti	ion: Brown sandy gravelly CLAY with	occasional fine	roots (gravel is fmc and	d sub angular)	TP No:	CBRNSA004
	Blown Sandy graveny OLAT with	i occasional illic	100t3 (graver is fine and	a sub arigular)	Depth (m):	0.50
					Test No:	-
Note: Test application	able only when maximum particle size		Rate of Strain :1.00m	m/min		
beneath plu	inger does not exceed 20mm	Mass of Surcharge	8.5	kg		

7.17

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on P	lunger									
of Plunger	Dial Reading	Load									
mm		kN									
0	0	0		4.5 -							
0.25	550	3.94									
				4 -							
				4	_						
					-						
				3.5 -							
					-						
				3 -	-						
			Ž Ž	J	-						
) ic		-						
			Force on Plunger (kN)	2.5	_						
			Plu		-						
			uc	2 -	-						
			Ge C		-						
			o.		-						
				1.5 -	-						
					-						
				1 -	-						
					-						
				0.5							
				0 -							,
				(0 0.	.05	0.1	0.15	0.2	0.25	0.3
							Penetration	n of Plung	er (mm)		
								9	` '		

RESULTS:

Moisture content ((%) 11	Penetration Force Standard Forc mm kN kN		Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-3ILU ODIN VAIUE /0	>30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials: kp

Date: 21/10/2011

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

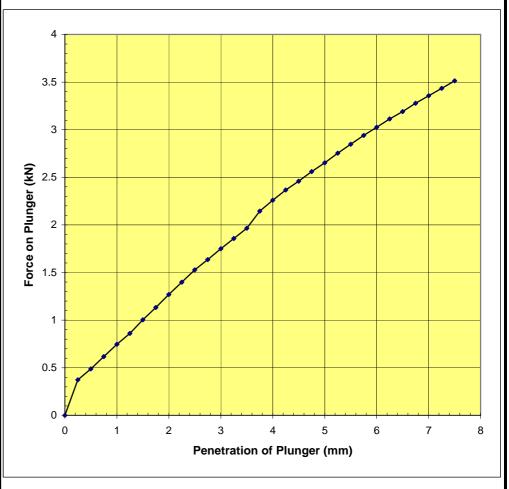
All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

Project Name:	roject Name: Heyford Park House, Heyford Park, Upper Heyford, Bicester		Project Started:	19/10/2011		
.,	.,			19/10/2011		
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Sample descripti	ion: Brown sandy gravelly CLAY with	h occasional fine	roots (gravel is two an	d sub angular)	TP No:	CBRNSA005
	Brown Sandy gravelly CLAT will	ii occasionai iine	Tools (graver is find an	a sub angular)	Depth (m):	0.50
					Test No:	-
Note: Test application	able only when maximum particle size	Rate of Strain :1.00m	m/min			
beneath plu	inger does not exceed 20mm	Mass of Surcharge	8.5	kg		

RECORDINGS

Penetration	Force on P	lunger						
of Plunger	Dial Reading	Load						
mm	Diai Reading	kN						
0	0	0						
0.25	52	0.37						
0.50	68	0.49						
0.75	86	0.62						
1.00	104	0.75						
1.25	120	0.86						
1.50	140	1.00						
1.75	158	1.13						
2.00	177	1.27						
2.25	195	1.40						
2.50	213	1.53						
2.75	228	1.63						
3.00	244	1.75						
3.25	259	1.86						
3.50	274	1.96						
3.75	299	2.14						
4.00	315	2.26						
4.25	330	2.37						
4.50	343	2.46						
4.75	357	2.56						
5.00	370	2.65						
5.25	384	2.75						
5.50	397	2.85						
5.75	410	2.94						
6.00	422	3.03						
6.25	434	3.11						
6.50	445	3.19						
6.75	457	3.28						
7.00	468	3.36						
7.25	479	3.43						
7.50	490	3.51						

Note: Penetration and force readings after seating load zeroed.



7.17

RESULTS:

		Penetration	Force	Standard Force	CBR
Moisture content (%) 6.3	mm	kN	kN	%
		2.5	1.53	13.2	11.57
In-situ CBR value %	13	5	2.65	20	13.26

In-situ CBR Test Approved by BS1377 Part 9: 1990: 4.3 Initials: Determination of In-situ CBR values Date:

Remarks:

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

Il samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

kp

21/10/2011

Project Name:	Heyford Park House, Heyford Park, Upper H	Project Started:	19/10/2011			
riojista rainti ososo, riojista rain, opps. riojista, biossis.			Testing Started:	19/10/2011		
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Sample descript	ion: Brown sandy gravelly CLAY with	d cub angular)	TP No:	CBRNSA006		
	Blown Sandy gravelly GLAT with	i occasional illie	100ts (graver is fille all	u sub angular)	Depth (m):	0.50
					Test No:	-
Note: Test applic	able only when maximum particle size		Rate of Strain :1.00m	m/min		
beneath plu	inger does not exceed 20mm	Mass of Surcharge	8.5	kg		

7.17

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on P										
of Plunger	Dial Reading	Load									
mm		KN									
0	0	0	4.	.5							
0.25	550	3.94		_							
				4							
				7						*	
				-							
			3.	.5							
				t							
		,		3							
			ŝ								
) i	-							
			Force on Plunger (kN)	.5							
			<u> </u>	-			/				
			n I	2							
			e c	-							
			orc	_							
			L 1.	.5							
				-							
				1							
				' <u>-</u>							
				-							
			0.	.5							
				0							
				0	0.0)5 O	.1 0	15 ().2 0).25	0.3
				-				f Plunger (m			
						F.	onetiation o	ı ı ıunger (III	··· <i>i</i>		

RESULTS:

Moisture content ((%) 11	Penetration mm	Force kN	Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-Situ CBR value /6	>30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials: kp

Date: 21/10/2011

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

MSF-11/ R10/1

Note: Test application	able only when maximum particle size	Rate of Strain :1.00m Mass of Surcharge	ım/min			
			_		Test No:	-
	Brown Sandy gravery OLAT with	T occasional line	Tools (graver is fine an	a sab angalar)	Depth (m):	0.45
Sample descripti	ion: Brown sandy gravelly CLAY with	roots (gravel is tmc an	d sub angular)	TP No:	CBRNSA007	
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
-		Testing Started:	19/10/2011			
Project Name:	Heyford Park House, Heyford Park, Upper H	Project Started:	19/10/2011			

7.17

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on P	lunger											
of Plunger	Dial Reading	Load											
mm	Diai Reading	kN											
0	0	0	4	l.5 —									
0.25	550	3.94		E									
				4									
				7								†	
				-									
			3	3.5							-		
				-									
				3						_			
-			Ŝ	_									
			Force on Plunger (kN)	-									
			bu	2.5									
			™	-									
			uo	2				/_					
			ဗ္										
			For	_ [
			1	.5									
				-			_						
				1 —									
	+			-									
).5									
				,.J -									
				0 🖊									
,				0	0	.05	0.		0.15	0.2		.25	0.3
							Pe	netration	of Plunger (mm)			
		·											

RESULTS:

Moisture content (%) 12	Penetration mm	Force kN	Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-Situ CBR value /	>30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials: kp

Date: 21/10/2011

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

MSF-11/ R10/1

Note: Test application	able only when maximum particle size	Rate of Strain :1.00m	ım/min					
Test No: -								
	Brown Sandy gravelly OEAT with o	ocasional inic	Tools (graver is fine an	a sub angular)	Depth (m):	0.50		
Sample descripti	ion: Brown sandy gravelly CLAY with o	occasional fine	roots (gravel is fmc and	d sub angular)	TP No:	CBRNSA008		
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-				
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011				
-		Testing Started:	19/10/2011					
Project Name:	Heyford Park House, Heyford Park, Upper Hey	Project Started:	19/10/2011					

Mass of Surcharge

Proving Ring factor:

8.5

7.17

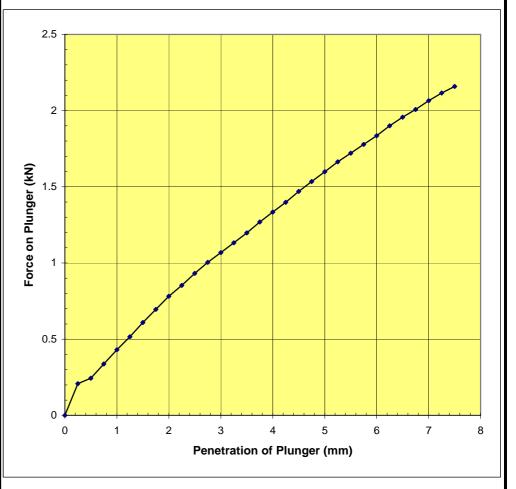
kg

RECORDINGS

Penetration	Force on P	lunger						
of Plunger	Dial Reading	Load						
mm	Diai Reading	kN						
0	0	0						
0.25	29	0.21						
0.50	34	0.24						
0.75	47	0.34						
1.00	60	0.43						
1.25	72	0.52						
1.50	85	0.61						
1.75	97	0.70						
2.00	109	0.78						
2.25	119	0.85						
2.50	130	0.93						
2.75	140	1.00						
3.00	149	1.07						
3.25	158	1.13						
3.50	167	1.20						
3.75	177	1.27						
4.00	186	1.33						
4.25	195	1.40						
4.50	205	1.47						
4.75	214	1.53						
5.00	223	1.60						
5.25	232	1.66						
5.50	240	1.72						
5.75	248	1.78						
6.00	256	1.84						
6.25	265	1.90						
6.50	273	1.96						
6.75	280	2.01						
7.00	288	2.06						
7.25	295	2.12						
7.50	301	2.16						

beneath plunger does not exceed 20mm

Note: Penetration and force readings after seating load zeroed.



RESULTS:

		Penetration	Force	Standard Force	CBR
Moisture content (%) 18	mm	kN	kN	%
		2.5	0.93	13.2	7.06
In-situ CBR value %	8.0	5	1.60	20	7.99
III-SILU CDI Value //	6.0				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials: kp

Date: 21/10/2011

Remarks:

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

Project Name:	Heyford Park House, Heyford Park, Upper H	evford Ricester	Project Started:	19/10/2011		
roject Name.	ricylold r aik riodse, ricylold r aik, opper ri	cylora, biccster	Testing Started:	19/10/2011		
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Sample descripti	ion: Brown sandy gravelly CLAY with	occasional fine	roots (gravel is fmc and	d sub angular)	TP No:	CBRNSA009
	Brown Sandy gravelly CEAT with	1 occasional line	100ts (graver is fine and	a sub angular)	Depth (m):	0.45
					Test No:	-
Note: Test application	able only when maximum particle size		Rate of Strain :1.00m	m/min		
beneath plu	inger does not exceed 20mm		Mass of Surcharge	8.5	kg	

7.17

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on P	lunger							
of Plunger	Dial Reading	Load							
mm	Dial Reading	kN							
0	0	0	4.5						
0.25	290	2.08		-					
0.50	413	2.96	4	-					
0.75	489	3.51	4	-					
1.00	550	3.94		-					
			3.5						
				-					
			_ 3	-					
			∥ ĝ̃	-					
			er (-					
			ම් 2.5	-					
			Force on Plunger (kN)	-					
			5 2	-	1				
			S C		/				
			P P	/	/				
			L 1.5						
				- /					
			1						
			0.5						
			0.5						
			0				1		
				0 0	.2 0			-	1 1.2
					Pe	enetration of	Plunger (m	m)	

RESULTS:

Moisture content ((%) 14	Penetration Force mm kN		Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-Situ CDIX Value /6	/30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials: kp

Date: 21/10/2011

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

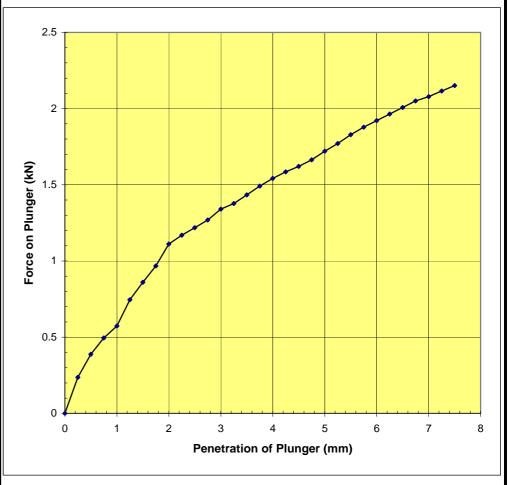
MSF-11/ R10/1

Project Name:	Heyford Park House, Heyford Park, Upper H	Project Started:	19/10/2011			
			Testing Started:	19/10/2011		
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Sample descripti	ion: Brown sandy gravelly CLAY with	n occasional fine	roots (gravel is fmc and	d sub angular)	TP No:	CBRNSA010
	Brown Sandy gravelly CEAT with	1 occasional line	100ts (graver is fine and	a sub angular)	Depth (m):	0.70
					Test No:	-
Note: Test application	able only when maximum particle size		Rate of Strain :1.00m	m/min		
beneath plu	inger does not exceed 20mm		Mass of Surcharge	8.5	kg	

RECORDINGS

Penetration	Force on Plunger								
of Plunger	Dial Reading	Load							
mm	Diai Reading	kN							
0	0	0							
0.25	33	0.24							
0.50	54	0.39							
0.75	69	0.49							
1.00	80	0.57							
1.25	104	0.75							
1.50	120	0.86							
1.75	135	0.97							
2.00	155	1.11							
2.25	163	1.17							
2.50	170	1.22							
2.75	177	1.27							
3.00	187	1.34							
3.25	192	1.38							
3.50	200	1.43							
3.75	208	1.49							
4.00	215	1.54							
4.25	221	1.58							
4.50	226	1.62							
4.75	232	1.66							
5.00	240	1.72							
5.25	247	1.77							
5.50	255	1.83							
5.75	262	1.88							
6.00	268	1.92							
6.25	274	1.96							
6.50	280	2.01							
6.75	286	2.05							
7.00	290	2.08							
7.25	295	2.12							
7.50	300	2.15							

Note: Penetration and force readings after seating load zeroed.



7.17

RESULTS:

CBR %	Standard Force kN	Force kN	Penetration mm	(%) 19	Moisture content (%)	
9.23	13.2	1.22	2.5	. ,		
8.60	20	1.72	5	9.2	In-situ CBR value %	
			2.5 5	9.2	In-situ CBR value %	

In-situ CBR Test Approved by BS1377 Part 9: 1990: 4.3 kp Initials: Determination of In-situ CBR values Date: 21/10/2011

Remarks:

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

all samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

Project Name:	Heyford Park House, Heyford Park, Upper H	eyford, Bicester	Project Started:	19/10/2011		
			Testing Started:	19/10/2011		
Client Name:	Jomas Associates Ltd		Date reported:	21/10/2011		
Project No:	P8219J107.10 Our Job / report no:	11746	Sample no/ type:	-		
Sample descript	ion: Light brown sandy gravelly CLAY v	vith occasional f	ine roots (gravel is fmc	and sub angular)	TP No:	CBRNSA011
	Light brown sandy gravelly OLAT v	vitir occasional ii	ine roots (graver is fine t	and sub angular)	Depth (m):	0.30
					Test No:	-
Note: Test applic	able only when maximum particle size		Rate of Strain :1.00m	m/min		
beneath plu	inger does not exceed 20mm		Mass of Surcharge	8.5	kg	

7.17

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on F	lunger										
of Plunger	Dial Reading	Land										
mm	Diai Reading	kN										
0	0	0	4.5	5								
0.25	550	3.94		-								
				4								
			'	†							<i>/</i>	
				F								
			3.	5								
				-								
				3								
			Force on Plunger (kN)	-								
				-								
			ခို 2.	5 —					/			
			ᆵ	-								
			L L	2								
			e e									
			o.	-								
			L 1.5	5								
				-		/						
				1								
				-								
			0.9	5								
												, ,
				0	0.	05	0.1	0.1	5 0	.2	0.25	0.3
									Plunger (m			
							· Clicti	u.ioii 01 1	i idiigoi (iiii	··· <i>,</i>		

к	ES	υ	L	ı	S:	

Moisture content ((%) 6.3	Penetration mm	Force kN	Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-Situ CDI Value /6	/30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Date: 21/10/2011

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

MSF-11/ R10/1



APPENDIX 5 - TANK SURVEY SHEETS

Project Ref:		P8219J107		Project N	ame:	Uppe	er Heyford NS	er Heyford NSA			
Lead Engineer	:	Marc William	ıs	Title: Tan		Tank	Data		1	(Join	145
Version:		0.1		Date:		12/1	0/11		-		
Tank ID	Type of Tank (UST/AST)	Tank construction details – metal, plastic		n of tank – amaged, adition	Depti base tank (mbg	of	Tank dimensions	Estimated volume of contents/dry	Results of interface probe dipping? Any free product noted?	ID of samples taken.	Any other observations made, leaks, local staining, Photograph ID etc
AGNSA 01	AST	Metal	Rusted				0.9m x 1.4m	Dry	Dry	-	Partially obscured inscription indicates tank likely contained kerosene
AGNSA 02	AST	Metal	Slightly generall		2.0m		2.0m x 4.0m	Appears to be dry – access point on elevated platform in poor condition	-	-	Gauge indicates tank to have contained fuel oil and be of 18,000 litre capacity. Partially obscured writing on side of tank indicates it to have been drained May 1994
AGNSA 03	AST	Metallic	Slightly generall		1.2		1.2 x 2.2	Dry	Dry	-	Writing on side indicates tank capacity of 750 gallons
UGNSA 01,02,03	UST	Appears to be metallic	Rusted		-			Gauges indicate 12,000 gallons each	Tank access points below water/flooded. Filler necks inspected indicating tanks to possibly be filled with concrete. Free product observed within filler necks of tanks 01 and	UGNSA 01, UGNSA 02	

02, overlying

Project Ref:		P8219J107		Project N	ame:	Uppe	er Heyford NS	SA					
Lead Engineer:		Marc William	ıS	Title:		Tank	Data		4	(Joh	145		
Version:		0.1		Date:		12/10	2/10/11						
Tank ID	Type of Tank (UST/AST)	Tank construction details – metal, plastic		n of tank – lamaged, ndition	Depti base tank (mbg	of	Tank dimensions	Estimated volume of contents/dry	Results of interface probe dipping? Any free product noted?	ID of samples taken.	Any other observations made, leaks, local staining, Photograph ID etc		
									obstruction at approx 1m bgl. Filler neck of 03 appears to be empty to obstruction at 1m bgl				
UGNSA 04	UST	?	?		?				?	Gauge indicates 28,000 litre capacity.	-	-	Fill point located within car parking area, although no other evidence (signage, manhole etc) within the immediate area. Site personnel have no knowledge of tank location but believe it to possibly be located below building. Sign over filling point indicates tank to be water filled.
UGNSA 05, 06, 07	UST	Metal	Rusted		4.5		Unknown – buried	Gauges indicate 12,000 gallons to each tank	No free product observed – Tank UGNSA06 dipped, tanks 05 and 07 rusted shut (attempting at moment to open with chain	UGNSA 06			

wrench)

Project Ref:		P8219J107		Project N	ame:	Uppe	er Heyford NS	SA .				
Lead Engineer:		Marc William	ıS	Title:		Tank	Data			JOH	145	
Version:		0.1		Date:		12/1	0/11		1			
Tank ID	Type of Tank (UST/AST)	Tank construction details – metal, plastic	Condition rusted, d good cor etc?	_	base of tank (mbgl)		Tank dimensions	Estimated volume of contents/dry	Results of interface probe dipping? Any free product noted?	ID of samples taken.	Any other observations made, leaks, local staining, Photograph ID etc	
UGNSA 08	UST	Metal	Rusted		4.5		Uncertain – buried	Gauge indicates 4900 gallons	0.15m of free product indicated	UGNSA 08		
UGNSA 09,10, 11, 12	UST	Metallic	Rusted		4.0		Uncertain – buried	Gauges indicate 50,000 gallons each	No free product indicated within tanks 09, 10 and 11. Approx 0.05m free product indicated within tank 12	UGNSA 09, 10, 11, 12		
UGNSA 13, 14, 15	UST	Metallic	Rusted		3.5		Uncertain – buried	Gauges indicate 11,000 litres each	No free product indicated	UGNSA 13, 14, 15		
UGNSA 16, 17, 18, 19, 20	UST	Unknown	Unknow	'n	-		Uncertain - buried	Signage on filler necks indicate 5000 litres each	Sampling points do not appear to be present. Filler necks opened and indicated tanks to be filled with concrete — obstruction recorded at approx 1m bgl	-		



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone (01424) 718618
Facsimile (01424) 729911

THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 27/10/11

ANALYTICAL REPORT No. AR35354

Samples Received By:- Laboratory Courier

Samples Received: 13/10/11

Your Job No: P8219J107.09b
Site Location:- Upper Heyford NSA

No Samples Received:- 11

Report Checked By:-

Steve Knight Director



Mike Varley BSc, CChem, CSci, FRSC Chief Chemist



Fax: 01424 729911 Tel: 01424 718618

ANALYTICAL REPORT No. AR35354

Location: Upper Heyford NSA

Reporting Date: 27/10/2011

Your Job No: P8219J107.09b

F.A.O. Roni Savage **Jomas Associates Limited** Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Waters</u>

	TP/BH	UGNSA01	UGNSA06	UGNSA09	UGNSA10	UGNSA11	UGNSA13	UGNSA14	UGNSA15
	Our ref	16566	16568	16570	16571	16572	16574	16575	16576
Naphthalene	(µg/I)	0.61	1.73	12.98	50.54	85.62	<0.01	0.06	0.04
Acenaphthylene	(µg/I)	0.16	0.15	2.52	3.64	0.17	0.01	0.07	0.06
Acenaphthene	(µg/I)	1.16	1.07	9.93	18.84	0.29	0.14	0.29	0.63
Fluorene	(µg/I)	1.95	1.26	32.04	44.10	43.01	0.37	0.36	0.40
Phenanthrene	(µg/I)	1.59	2.63	43.00	65.63	64.60	0.84	0.84	0.46
Anthracene	(µg/I)	0.40	0.27	5.68	7.79	6.47	0.08	0.28	0.12
Fluoranthene	(µg/I)	0.14	0.12	3.01	3.90	3.39	0.06	0.16	0.05
Pyrene	(µg/I)	0.41	0.41	4.39	9.35	7.16	0.17	0.66	0.43
Benz(a)anthracene	(µg/I)	0.03	0.20	0.18	0.82	0.48	<0.01	0.02	<0.01
Chrysene	(µg/I)	0.09	0.12	1.11	3.21	3.29	<0.01	0.14	<0.01
Benzo(b)fluoranthene	(µg/I)	0.01	<0.01	<0.01	0.03	0.06	<0.01	<0.01	<0.01
Benzo(k)fluoranthene	(µg/I)	0.01	<0.01	<0.01	0.02	0.18	<0.01	<0.01	<0.01
Benzo(a)pyrene	(µg/I)	<0.01	<0.01	<0.01	0.14	0.04	<0.01	<0.01	<0.01
Indeno(123-cd)pyrene	(µg/I)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenz(ah)anthracene	(µg/I)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(ghi)perylene	(µg/I)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total PAH	(µg/I)	6.56	7.96	114.84	208.01	214.76	1.67	2.88	2.19
		See Note 1							

Note 1 - Results are indicative only, due to the nature of the sample.

ELAB

27/10/2011

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35354

Location: Upper Heyford NSA Your Job No: P8219J107.09b

F.A.O. Roni Savage
Jomas Associates Limited
Jomas House
21 Bradenham Road
Middlesex, UB4 8LP

<u>Waters</u>		TP/BH	UGNSA01	UGNSA02	UGNSA06	UGNSA08	UGNSA09	UGNSA10	UGNSA11	UGNSA13	UGNSA14	UGNSA15
		Our ref	16566	16567	16568	16569	16570	16571	16572	16574	16575	16576
	<u>Aromatic</u>			See Note 1		See Note 1						
	Alomatic											
	>C ₅ -C ₇	(µg/I)	<10	335	<10	<10	<10	<10	<10	<10	<10	<10
	>C ₇ -C ₈	(µg/I)	<10	1456	37	919	15	40	44	<10	<10	<10
	>C ₈ -C ₁₀	(mg/l)	0.03	1656	0.03	279	0.20	4.15	1.11	0.01	0.01	0.03
	>C ₁₀ -C ₁₂	(mg/l)	0.05	3098	0.04	644	2.01	20.86	6.35	0.02	0.02	0.05
	>C ₁₂ -C ₁₆	(mg/l)	0.14	15517	0.23	2737	35.55	106.20	38.19	0.10	0.20	0.09
	>C ₁₆ -C ₂₁	(mg/l)	0.15	18746	0.27	3378	49.16	113.38	41.95	0.14	0.57	0.12
	>C ₂₁ -C ₃₅	(mg/l)	0.06	812	0.11	1054	18.57	39.97	15.15	0.08	0.29	0.08
	<u>Aliphatic</u>											
	>C ₅ -C ₆	(µg/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	>C ₆ -C ₈	(µg/I)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	>C ₈ -C ₁₀	(mg/l)	0.04	4348	0.04	932	0.65	16.52	4.59	0.01	<0.01	0.03
	>C ₁₀ -C ₁₂	(mg/I)	0.07	11218	0.05	1702	7.62	66.13	24.96	0.03	0.02	0.05
	>C ₁₂ -C ₁₆	(mg/I)	0.15	64317	0.39	8183	128.00	389.00	137.00	0.22	0.40	0.07
	>C ₁₆ -C ₂₁	(mg/I)	0.14	102648	0.54	11364	186.00	460.00	157.70	0.34	1.36	0.16
	>C ₂₁ -C ₃₅	(mg/l)	0.06	39622	0.19	3313	68.22	148.00	52.38	0.12	0.62	0.09
	TPH (C ₅ - C ₃₅)	(µg/I)	0.88	261982.00	1.89	33586.00	495.97	1364.21	479.38	1.07	3.48	0.77
	Benzene	(µg/l)	<1	335	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	(µg/I)	<1	655	<1	127	15	40	44	<1	<1	<1
	Ethyl Benzene	(µg/I)	<1	800	37	792	<1	<1	<1	<1	<1	<1
	Xylenes	(µg/I)	<1	3813	93	5035	458	884	883	<1	<1	<1
	MTBE	(µg/I)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY

Tel: 01424 718618

Fax: 01424 729911

ANALYTICAL REPORT No. AR35354

Location: Upper Heyford NSA



Your Job No: P8219J107.09b

Reporting Date: 27/10/2011

F.A.O. Roni Savage
Jomas Associates Limited
Jomas House
21 Bradenham Road
Middlesex, UB4 8LP

<u>Waters</u>		TP/BH Our ref	UGNSA12 16573 (AQ)	UGNSA12 16573 (0)
Arc	<u>omatic</u>			
	>C ₅ -C ₇	(µg/I)	n/t	n/t
:	>C ₇ -C ₈	(µg/I)	n/t	n/t
>	C ₈ -C ₁₀	(mg/l)	28	5,352
>(C ₁₀ -C ₁₂	(mg/l)	142	20,258
>(C ₁₂ -C ₁₆	(mg/l)	742	99,575
>(C ₁₆ -C ₂₁	(mg/l)	788	102,459
>(C ₂₁ -C ₃₅	(mg/l)	278	37,727
<u>Ali</u>	<u>phatic</u>			
;	>C ₅ -C ₆	(µg/I)	n/t	n/t
:	>C ₆ -C ₈	(µg/I)	n/t	n/t
>	C ₈ -C ₁₀	(mg/l)	113	16221
>(C ₁₀ -C ₁₂	(mg/l)	510	60940
>(C ₁₂ -C ₁₆	(mg/l)	2463	289889
>(C ₁₆ -C ₂₁	(mg/l)	2658	290365
>(C ₂₁ -C ₃₅	(mg/l)	883	95510
TPH (C	₅ - C ₃₅)	(µg/I)	8,606	1,018,296
Ве	nzene	(µg/I)	<1	n/t
To	oluene	(µg/I)	<1	n/t
Ethyl Be	nzene	(µg/I)	<1	n/t
X	ylenes	(µg/I)	770	n/t
	MTBE	(µg/I)	6	n/t

Note 1 - Results are indicative only, due to the nature of the sample.

(AQ) - Aqueous fraction

(0) - Oil fraction



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone (01424) 718618
Facsimile (01424) 729911

THE ENVIRONMENTAL LABORATORY LTD

WATER SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR35354
Your Ref No: P8219J107.09b
Sample Receipt Date: 13/10/11
Reporting Date: 27/10/11

Registered: 13/10/11Prepared: 14/10/11Analysis complete: 27/10/11

WATER TEST METHOD SUMMARY

PARAMETER	Method Number	Technique
Speciated PAH	135	GCMS
Carbon Banding (TPH CWG)	178	GCFID
BTEX	154	GCMS
MTBE	154	GCMS

 $Any \ \ comments, opinions, or interpretations \ expressed \ herein \ are \ outside \ the \ scope \ of \ UKAS \ accreditation \ (Accreditation \ Number \ 2683)$



APPENDIX 6 – CHEMICAL LABORATORY TEST RESULTS





Unit A2 Windmill Road Ponswood Industrial Estate St Leonards on Sea East Sussex TN38 9BY Telephone (01424) 718618 Facsimile (01424) 729911

THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 02/11/11

ANALYTICAL REPORT No. AR35273

Samples Received By:- Courier
Samples Received:- 10/10/11

Site Location: Upper Heyford

No Samples Received:- 39

Report Checked By:-

Director

Authorised By:-

Mike Varley BSc, CChem, CSci, FRSC Chief Chemist

Any comments, opinions, or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)





02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

ex, UB4 OLF											
Soils	Characteristic Sa	ndy silt loam Sa	ndy silt loam Sa	ndy silt loam San	dy silt loam	Silt Loam	Stones San	dy silt loam	Sandy loam	Silt Loam	Silt Loam
	TP/BH	201	201	202	202	203	204	204A	204A	205	206
	Depth (m)	0.50	2.00	0.50	2.50	0.50	0.50	0.50	1.00	0.20	0.15
	Our ref	16081A	16082A	16083A	16084	16085	16086	16087	16088	16089	16090
Stone Content	(%)	11	12	12	9	12	9	20	12	<1	14
Arsenic**	(mg/kg)	20.8	49.1	25.6	25.7	18.1	n/t	34.2	12.1	31.4	15.6
Cadmium**	(mg/kg)	6.3	23.6	1.1	0.5	<0.5	n/t	<0.5	<0.5	<0.5	<0.5
Chromium**	(mg/kg)	25	48	33	40	29	n/t	77	16	53	32
Lead**	(mg/kg)	1249	2658	114	64	51	n/t	12	5	44	17
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	n/t	< 0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	24	74	30	30	19	n/t	39	10	27	20
Copper**	(mg/kg)	426	4096	107	31	18	n/t	6	6	18	9
Zinc**	(mg/kg)	587	2441	159	122	59	n/t	56	14	104	42
Selenium**	(mg/kg)	0.7	2.0	1.1	1.1	0.9	n/t	0.6	0.5	1.5	0.5
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	n/t	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	0.9	1.5	1.1	3.1	0.6	n/t	0.6	<0.5	1.4	1.0
Barium**	(mg/kg)	446	2097	168	154	87	n/t	108	22	77	103
Beryllium**	(mg/kg)	1	4	2	2	<1	n/t	1	<1	1	<1
Vanadium**	(mg/kg)	43	72	66	86	64	n/t	149	47	87	65
Molybdenum	(mg/kg)	<5	9	<5	<5	<5	n/t	<5	<5	<5	<5
Antimony	(mg/kg)	44	54	4	<2.5	<2.5	n/t	<2.5	<2.5	<2.5	<2.5 7
Cobalt*	(mg/kg)	8	24	12	13	7	n/t	20	4	11	/
pH Value**	(Units)	9.4	8.7	9.4	8.1	8.4	n/t	10.3	9.0	7.9	8.3
Total Sulphate	(% as SO ₄)	0.16	0.18	0.13	0.12	0.07	n/t	< 0.05	0.09	0.16	< 0.05
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	n/t	<1	<1	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	n/t	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	n/t	<1	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	n/t	<1	<1	2.4	<1
Water Soluble Sulphate	(mg/l as SO ₄)	183	80	111	93	29	n/t	68	13	24	51
Total Organic Carbon*	(%)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Elemental Sulphur**	(mg/kg)	11	123	27	252	23	n/t	13	<10	<10	<10

All results expressed on dry weight basis

Moisture Content (%)

Thiocyanate

(%)

(mg/kg)

12.7

<2

23.5

<2

GM

12.2

<2

18.0

<2

6.2

<2

10.0

n/t

6.6

<2

7.8

<2

11.7

<2

11.3

<2

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

•											
Soils	Characteristic	Silt Loam	Silt Loam Sar	ndy silt loam	Sandy loam Sar	ndy silt loam	Loamy sand	Silt Loam	Silt Loam	Silt Loam	Silt Loam
	TP/BH	207	208	209	209	210	210	211	212	213	214
	Depth (m)	0.20	0.50	0.30	1.00	0.10	1.50	0.30	0.25	0.50	0.50
	Our ref	16091	16092	16093	16094	16095	16096	16097	16098	16099	16100
Stone Content	(%)	8	10	14	11	22	11	9	24	8	8
Arsenic**	(mg/kg)	18.9	16.5	18.4	14.7	12.3	9.0	37.3	17.4	24.4	29.5
Cadmium**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8
Chromium**	(mg/kg)	35	31	34	16	13	8	46	25	41	40
Lead**	(mg/kg)	24	31	26	6	7	3	29	228	33	60
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	24	22	21	12	10	7	21	16	26	23
Copper**	(mg/kg)	15	16	12	7	6	5	10	8	12	17
Zinc**	(mg/kg)	60	61	58	12	9	6	57	39	55	110
Selenium**	(mg/kg)	0.9	0.7	0.8	0.6	<0.5	<0.5	0.8	0.5	0.8	1.1
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	0.8	0.8	0.8	0.5	<0.5	<0.5	0.8	0.6	0.6	1.1
Barium**	(mg/kg)	76	70	105	29	22	19	67	62	88	83
Beryllium**	(mg/kg)	1	<1	<1	<1	<1	<1	<1	<1	1	1
Vanadium**	(mg/kg)	66	61	67	52	43	32	95	54	93	77

<5

8

<2.5

7.9

0.15

<1

<1

<1

<1

868

< 0.1

<10

11.3

<2

<5

5

8.5

<1

<1

<1

<1

36

< 0.1

<10

9.0

<2

< 0.05

<2.5

<5

<2.5

4

8.8

0.08

<1

<1

<1

<1

11

<0.1

<10

11.1

<2

<5

3

8.8

0.08

<1

<1

<1

<1

<10

<10

7.0

<2

<2.5

<5

8

<2.5

9.9

<1

<1

<1

<1

53

< 0.1

<10

8.8

<2

< 0.05

<5

7

<2.5

< 0.05

<1

<1

<1

<1

< 0.1

<10

8.8

<2

<5

<2.5

11

8.3

0.08

<1

<1

<1

<1

12

<0.1

<10

15.2

<2

<5

10

8.3

<1

<1

<1

<1

19

<0.1

<10

11.2

<2

< 0.05

<2.5

All results expressed on dry weight basis

(mg/kg)

(mg/kg)

(mg/kg)

(Units)

(mg/kg)

(mg/kg)

(mg/kg)

(mg/kg)

(mg/kg)

(mg/kg)

(%)

(% as SO4)

<5

10

8.2

<1

<1

<1

<1

<10

< 0.1

<10

11.6

<2

0.07

<2.5

<5

9

8.2

<1

<1

<1

<1

<0.1

<10

11.4

<2

0.08

<2.5

Molybdenum

pH Value**

Total Sulphate

Free Cyanide

Water Soluble Sulphate (mg/l as SO4)

Total Cyanide**

Complex Cyanide

Total Monohydric Phenols**

Total Organic Carbon*

Elemental Sulphur**

Moisture Content (%)

Thiocyanate

Antimony

Cobalt

^{** -} MCERTS accredited test

^{* =} UKAS accredited test



ELAB

02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils	Characteristic	Silt Loam San	dy silt loam	Silt Loam	Stones San	dy silt loam	Silt Loam	Sandy loam	Silt Loam San	dy silt loam	Silt Loam
	TP/BH	215	215	216	217	218	219	220	221	222	223
	Depth (m)	0.30	0.60	0.20	0.20(1)	0.15	0.50	0.50	0.35	0.50	0.50
	Our ref	16101	16102	16103	16104	16105	16106	16107	16108	16109	16110
Stone Content	(%)	6	11	20	13	29	12	8	26	10	8
Arsenic**	(mg/kg)	35.0	12.5	28.6	6.8	9.2	26.2	16.4	7.6	9.4	18.6
Cadmium**	(mg/kg)	0.7	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium**	(mg/kg)	50	16	32	9	31	49	18	15	21	30
Lead**	(mg/kg)	62	7	130	7	13	52	7	6	10	34
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	34	12	32	5	7	25	14	9	14	19
Copper**	(mg/kg)	23	5	35	3	19	353	14	5	7	12
Zinc**	(mg/kg)	250	18	89	4	26	199	18	12	20	55
Selenium**	(mg/kg)	1.3	0.6	0.9	<0.5	3.4	1.0	0.6	<0.5	0.7	0.8
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	1.4	0.5	0.9	<0.5	1.8	0.8	0.5	0.6	0.6	0.8
Barium**	(mg/kg)	230	36	254	<1	698	98	38	26	41	63
Beryllium**	(mg/kg)	1	<1	2	<1	7	1	<1	<1	<1	<1
Vanadium**	(mg/kg)	107	46	63	24	114	74	50	33	39	60
Molybdenum	(mg/kg)	<5	<5	<5	<5 0.5	<5	<5	<5	<5	<5	<5
Antimony Cobalt	(mg/kg) (mg/kg)	4 14	<2.5 4	<2.5 11	<2.5 2	<2.5 3	<2.5 10	<2.5 6	<2.5 5	<2.5 6	<2.5 8
Cobait	(mg/kg)	14	7		2	3	10	O	3	U	O
pH Value**	(Units)	8.2	8.6	8.6	8.7	10.7	9.0	9.0	8.7	8.6	8.2
Total Sulphate	(% as SO4)	0.16	< 0.05	< 0.05	< 0.05	1.11	0.09	< 0.05	< 0.05	0.08	0.09
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Soluble Sulphate	(mg/l as SO4)	37	16	39	14	52	75	20	55	<10	<10
Total Organic Carbon*	(%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Elemental Sulphur**	(mg/kg)	34	<10	20	<10	478	<10	<10	<10	<10	<10
Moisture Content (%)	(%)	15.9	8.6	4.7	5.8	5.1	13.6	9.5	11.9	15.7	7.9
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

^{(1) =} Labelled @ 0.15

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* =} UKAS accredited test





02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

-,									
Soils	Characteristic	Silt Loam San	dy silt loam	Stones	Silt Loam	Silty clay loam	Silty clay loam	Silt Loam Sar	ndy silt loam
	TP/BH	224	225	226	227	228	228	S101A	S101A
	Depth (m)	0.50	0.20	0.30	0.50	0.50	0.80	1.00 ⁽²⁾	1.20(3)
	Our ref	16111	16112	16114	16115	16116	16117	16119	16120
Stone Content	(%)	12	14	18	11	15	13	<1	17
Arsenic**	(mg/kg)	41.3	11.8	<5	23.1	13.1	17.3	15.5	n/t
Cadmium**	(mg/kg)	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	n/t
Chromium**	(mg/kg)	25	16	4	34	16	25	25	n/t
Lead**	(mg/kg)	24	20	3	30	10	21	34	n/t
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	n/t
Nickel**	(mg/kg)	20	13	4	24	14	21	16	n/t
Copper**	(mg/kg)	30	10	2	15	8	12	9	n/t
Zinc**	(mg/kg)	85	46	7	62	24	45	61	n/t
Selenium**	(mg/kg)	0.7	0.9	0.6	0.9	0.9	1.5	2.3	n/t
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	n/t
Water Soluble Boron	(mg/kg)	1.0	0.8	0.6	1.0	0.8	1.0	2.0	n/t
Barium**	(mg/kg)	65	271	23	102	51	76	78	n/t
Beryllium**	(mg/kg)	1	<1	<1	1	<1	1	<1	n/t
Vanadium**	(mg/kg)	47	33	16	71	31	44	44	n/t
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	n/t
Antimony Cobalt	(mg/kg)	<2.5 7	<2.5 5	<2.5 2	<2.5 11	<2.5 6	<2.5 9	<2.5 7	n/t n/t
Coball	(mg/kg)	,	5	2	- 11	6	9	,	11/1
pH Value**	(Units)	8.6	8.3	8.3	8.2	8.4	8.4	8.5	n/t
Total Sulphate	(% as SO4)	0.10	< 0.05	0.17	0.08	0.10	< 0.05	0.08	n/t
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	n/t
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	n/t
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	n/t
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	n/t
Water Soluble Sulphate	(mg/l as SO4)	19	57	266	18	20	63	152	n/t
Total Organic Carbon*	(%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Elemental Sulphur**	(mg/kg)	<10	37	<10	<10	83	10	149	n/t
Moisture Content (%)	(%)	8.4	4.1	2.9	10.4	10.9	18.2	25.8	11.7
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	n/t

^{(3) =} Labelled @ 1.30

All results expressed on dry weight basis

^{(2) =} Labelled @ 0.90

^{** -} MCERTS accredited test

^{* =} UKAS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage **Jomas Associates Limited** Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

Soils

	Characteristic Sa	ndy silt loam San	dy silt loam San	dy silt loam	Silt Loam	Silt Loam San	ndy silt loam	Silt Loam	Silt Loam	Silty clay loam	Silty clay loam
	TP/BH	201	204A	210	214	216	218	219	227	228	228
	Depth (m)	0.50	0.50	0.10	0.50	0.20	0.15	0.50	0.50	0.50	0.80
	Our ref	16081A	16087	16095	16100	16103	16105	16106	16115	16116	16117
Stone Content	(%)	11	20	22	8	20	29	12	11	15	13
PCB (7 ICES Congeners)											
PCB 28**	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PCB 52**	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PCB 101**	(µg/kg)	<10	<10	<10	35	<10	<10	<10	<10	<10	<10
PCB 118**	(µg/kg)	<10	<10	<10	24	<10	<10	<10	<10	<10	<10
PCB 138**	(µg/kg)	<10	<10	<10	50	<10	<10	14	<10	<10	<10
PCB 153**	(µg/kg)	<10	<10	<10	30	<10	<10	<10	<10	<10	<10
PCB 180**	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total PCB (7 Congenors)**	(µg/kg)	<10	<10	<10	139	<10	<10	14	<10	<10	<10

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic Sa	ndy silt loam	Sandy silt loam	Sandy loam	Silt Loam	Sandy silt loam	Loamy sand	Silt Loam	Silt Loam San	dy silt loam	Silt Loam
<u>50113</u>	TP/BH Depth (m)	201 0.50	202 2.50	204A 1.00	208 0.50	210 0.10	210 1.50	213 0.50	219 0.50	222 0.50	223 0.50
	Our ref	16081A	16084	16088	16092	16095	16096	16099	16106	16109	16110
Stone Content	(%)	11	9	12	10	22	11	8	12	10	8
pH Value**	(Units)	9.4	8.1	9.0	8.2	8.8	8.8	8.3	9.0	8.6	8.2
Total Sulphate	(% as SO ₄)	0.16	0.12	0.09	0.08	0.08	0.08	0.08	0.09	0.08	0.09
Total Sulphur	(% as S)	0.09	0.14	0.07	0.07	0.06	0.05	0.06	0.06	0.07	0.08
Water Soluble Sulphate**	(mg/l as SO ₄)	183	93	13	10	11	<10	12	75	<10	<10
Water Soluble Chloride	(mg/l)	8	13	6	7	5	6	7	10	6	7
Water Soluble Nitrate	(mg/l)	5	<1	<1	3	<1	<1	3	6	3	4
Water Soluble Magnesium	(mg/l)	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2
Ammonium	(mg/l)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* =} UKAS accredited test





02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

.. ,

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils

	Characteristic	Silt Loam	Silt Loam	Stones	Silt Loam	Silty clay loam
	TP/BH	224	225	226	227	228
	Depth (m)	0.50	0.50	0.30	0.50	0.50
	Our ref	16111	16113	16114	16115	16116
Stone Content	(%)	12	12	18	11	15
pH Value**	(Units)	8.6	8.4	8.3	8.2	8.4
Total Sulphate	(% as SO ₄)	0.10	0.09	0.17	0.08	0.10
Total Sulphur	(% as S)	0.08	0.06	0.09	0.06	0.08
Water Soluble Sulphate**	(mg/l as SO ₄)	19	<10	266	18	20
Water Soluble Chloride	(mg/l)	6	7	8	5	8
Water Soluble Nitrate	(mg/l)	3	1	5	4	<1
Water Soluble Magnesium	(mg/l)	0.2	0.2	0.5	0.2	0.2
Ammonium	(mg/l)	<0.1	<0.1	<0.1	<0.1	<0.1

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* =} UKAS accredited test





02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Characteristic Sandy silt loam Sandy silt loam Sandy silt loam Sandy silt loam Silt Loam Sandy silt loam Sandy loam Silt Loam Silt Loam Silt Loam Soils TP/BH 201 201 202 202 203 204A 204A 205 206 207 Depth (m) 0.50 2.00 0.50 2.50 0.50 0.50 1.00 0.20 0.15 0.20

	Our ref	16081A	16082A	16083A	16084	16085	16087	16088	16089	16090	16091
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	1.1	<0.5	11.9	<0.5	<0.5	<0.5	<0.5
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	0.8	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	1.1	<0.5	23.7	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	19.6	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	<0.5	<0.5	<0.5	3.0	<0.5	125.4	1.3	<0.5	0.7	0.7
Anthracene**	(mg/kg)	<0.5	<0.5	<0.5	1.0	<0.5	40.1	0.5	<0.5	0.7	<0.5
Fluoranthene**	(mg/kg)	<0.5	<0.5	1.3	3.1	0.9	140.2	1.9	<0.5	18.1	2.9
Pyrene**	(mg/kg)	<0.5	<0.5	1.0	2.6	0.6	109.9	1.6	<0.5	25.1	2.6
Benz(a)anthracene**	(mg/kg)	<0.5	<0.5	0.7	1.2	<0.5	53.1	0.7	<0.5	13.9	1.7
Chrysene**	(mg/kg)	<0.5	<0.5	0.8	1.7	<0.5	54.0	0.8	<0.5	12.6	2.0
Benzo(b)fluoranthene**	(mg/kg)	<0.5	<0.5	1.0	1.6	0.5	34.4	2.4	<0.5	15.2	2.7
Benzo(k)fluoranthene**	(mg/kg)	<0.5	<0.5	0.7	1.0	<0.5	40.3	1.6	<0.5	17.9	1.8
Benzo(a)pyrene**	(mg/kg)	<0.5	<0.5	0.8	1.4	<0.5	38.4	0.8	<0.5	17.1	1.7
Indeno(123-cd)pyrene**	(mg/kg)	<0.5	<0.5	0.8	1.2	<0.5	29.6	0.5	<0.5	16.3	1.8
Dibenz(ah)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	6.2	<0.5	<0.5	3.1	<0.5
Benzo(ghi)perylene**	(mg/kg)	<0.5	<0.5	0.9	1.1	<0.5	25.4	<0.5	<0.5	15.5	1.5
Total PAH**	(mg/kg)	<0.5	<0.5	7.9	21.1	2.0	753.5	12.1	<0.5	156.9	19.5

All results expressed on dry weight basis

** - MCERTS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage **Jomas Associates Limited** Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

<u>Soils</u>	Characteristic	Silt Loam Sandy silt loam		Sandy loam Sandy silt loam		Loamy sand	Silt Loam				
, <u> </u>	TP/BH	208	209	209	210	210	211	212	213	214	215
	Depth (m)	0.50	0.30	1.00	0.10	1.50	0.30	0.25	0.50	0.50	0.30
	Our ref	16092	16093	16094	16095	16096	16097	16098	16099	16100	16101
Naphthalene**	(mg/kg)	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene**	(mg/kg)	<0.5	14.3	<0.5	5.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	20.6	<0.5	2.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	23.2	<0.5	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	<0.5	238.4	<0.5	22.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene**	(mg/kg)	<0.5	79.2	<0.5	14.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene**	(mg/kg)	0.7	312.1	0.5	165.8	0.9	<0.5	<0.5	<0.5	0.9	<0.5
Pyrene**	(mg/kg)	0.6	248.5	<0.5	163.3	0.8	<0.5	<0.5	<0.5	0.8	<0.5
Benz(a)anthracene**	(mg/kg)	<0.5	133.0	<0.5	119.8	<0.5	<0.5	<0.5	<0.5	0.6	<0.5
Chrysene**	(mg/kg)	0.6	127.7	<0.5	113.3	<0.5	<0.5	<0.5	<0.5	0.8	<0.5
Benzo(b)fluoranthene**	(mg/kg)	0.7	91.4	<0.5	124.2	1.2	<0.5	<0.5	<0.5	0.9	<0.5
Benzo(k)fluoranthene**	(mg/kg)	<0.5	87.6	<0.5	140.7	0.8	<0.5	<0.5	<0.5	0.9	<0.5
Benzo(a)pyrene**	(mg/kg)	0.7	102.7	0.9	144.1	0.5	<0.5	<0.5	<0.5	1.0	<0.5
Indeno(123-cd)pyrene**	(mg/kg)	0.6	72.7	0.7	130.9	<0.5	<0.5	<0.5	<0.5	1.1	<0.5
Dibenz(ah)anthracene**	(mg/kg)	<0.5	16.1	<0.5	27.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(ghi)perylene**	(mg/kg)	0.7	67.1	0.5	116.0	0.5	<0.5	<0.5	<0.5	0.9	<0.5
Total PAH**	(mg/kg)	4.4	1636.2	2.6	1292.2	4.7	<0.5	<0.5	<0.5	7.9	<0.5

All results expressed on dry weight basis

** - MCERTS accredited test



Jomas House

Middlesex, UB4 8LP

THE ENVIRONMENTAL LABORATORY LTD



02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage **Jomas Associates Limited** 21 Bradenham Road

<u>Soils</u>	Characteristic Sandy silt loam		Silt Loam	Stones Sandy silt loam		Silt Loam	Sandy loam	Silt Loam Sandy silt loam		Silt Loam Si	Silt Loam
	TP/BH	215	216	217	218	219	220	221	222	223	224
	Depth (m)	0.60	0.20	0.20(1)	0.15	0.50	0.50	0.35	0.50	0.50	0.50
	Our ref	16102	16103	16104	16105	16106	16107	16108	16109	16110	16111
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
· '											
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	<0.5	<0.5	<0.5	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene**	(mg/kg)	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	5.4	0.9	<0.5	<0.5	<0.5	0.7	1.0
Pyrene**	(mg/kg)	<0.5	<0.5	<0.5	4.8	8.0	<0.5	<0.5	<0.5	0.5	0.9
Benz(a)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
Chrysene**	(mg/kg)	<0.5	<0.5	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5	8.0
Benzo(b)fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
Benzo(k)fluoranthene**	(mg/kg)	<0.5	0.5	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.7
Benzo(a)pyrene**	(mg/kg)	<0.5	<0.5	<0.5	2.9	<0.5	<0.5	<0.5	<0.5	<0.5	0.7
Indeno(123-cd)pyrene**	(mg/kg)	<0.5	<0.5	<0.5	2.6	0.7	<0.5	<0.5	<0.5	<0.5	0.7
Dibenz(ah)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5
Benzo(ghi)perylene**	(mg/kg)	<0.5	<0.5	<0.5	2.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total PAH**	(mg/kg)	<0.5	0.5	<0.5	33.4	2.4	<0.5	<0.5	<0.5	1.2	5.7

All results expressed on dry weight basis

** - MCERTS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 02/11/11

<u>Soils</u>	Characteristic San	Stones	Silt Loam	Silty clay loam	Silty clay loam	Silt Loam	
	TP/BH	225	226	227	228	228	S101A
	Depth (m)	0.20	0.30	0.50	0.50	0.80	1.00(2)
	Our ref	16112	16114	16115	16116	16117	16119
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	1.4
Acenaphthylene**	(mg/kg)	0.7	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	4.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	3.4	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	39.7	<0.5	1.0	<0.5	<0.5	<0.5
Anthracene**	(mg/kg)	13.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene**	(mg/kg)	73.4	<0.5	4.3	<0.5	<0.5	<0.5
Pyrene**	(mg/kg)	60.7	<0.5	3.9	<0.5	<0.5	<0.5
Benz(a)anthracene**	(mg/kg)	33.9	<0.5	2.6	<0.5	<0.5	<0.5
Chrysene**	(mg/kg)	33.0	<0.5	3.0	<0.5	<0.5	<0.5
Benzo(b)fluoranthene**	(mg/kg)	27.4	<0.5	2.7	<0.5	<0.5	<0.5
Benzo(k)fluoranthene**	(mg/kg)	25.1	<0.5	2.5	<0.5	<0.5	<0.5
Benzo(a)pyrene**	(mg/kg)	29.3	<0.5	2.8	<0.5	<0.5	<0.5
Indeno(123-cd)pyrene**	(mg/kg)	22.4	<0.5	2.6	<0.5	<0.5	<0.5
Dibenz(ah)anthracene**	(mg/kg)	4.7	<0.5	0.6	<0.5	<0.5	<0.5
Benzo(ghi)perylene**	(mg/kg)	18.4	<0.5	2.4	<0.5	<0.5	<0.5
Total PAH**	(mg/kg)	390.2	<0.5	28.3	<0.5	<0.5	1.4

All results expressed on dry weight basis

** - MCERTS accredited test





02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

TPH CWG - Soil

Characteristic Sandy silt loam TP/BH Stones Sandy silt loam Sandy Sandy Sandy Silt loam Sandy	dy loam Silt Loam 204A 205 1.00 0.20 16088 16089	206
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.00 0.20 16088 16089 <0.01 <0.01	0.15 16090
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	16088 16089 <0.01 <0.01	16090
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	<0.01 <0.01	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		-0.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-0.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		<0.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	<0.01 <0.01	<0.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	<5 <5	<5
$>EC_{16}$ - EC_{21} (mg/kg) <5 <5 13 40 <5 <5 236 $>EC_{21}$ - EC_{35} (mg/kg) 9 <5 <5 29 24 <5 974	<5 <5	<5
>EC ₂₁ -EC ₃₅ (mg/kg) 9 <5 <5 29 24 <5 974	<5 <5	<5
	6 <5	25
<u>Aliphatic</u>	10 <5	162
>EC ₅ -EC ₆ (mg/kg) <0.01 <0.01 0.02 <0.01 <0.01 <0.01	<0.01 0.02	<0.01
>EC ₆ -EC ₈ (mg/kg) <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01	<0.01 <0.01	< 0.01
$>$ EC $_8$ -EC $_{10}$ (mg/kg) <5 <5 <5 <5 <5 <5	<5 <5	<5
>EC ₁₀ -EC ₁₂ (mg/kg) <5 <5 <5 7 <5 <5 <5	<5 <5	<5
>EC ₁₂ -EC ₁₆ (mg/kg) <5 <5 <5 66 <5 <5 20	<5 <5	7
>EC ₁₆ -EC ₂₁ (mg/kg) <5 <5 <5 83 13 <5 35	<5 <5	13
>EC ₂₁ -EC ₃₅ (mg/kg) 25 8 7 58 56 7 468	5 5	26
TPH (C ₅ - C ₃₅) (mg/kg) 34 8 19 301 93 7 1835	22 5	234

All results expressed on dry weight basis

** - MCERTS accredited test





02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

TPH CWG - Soil

01-----

	Characteristic	Silt Loam	Silt Loam San	dy silt loam	Sandy loam Sar	ndy silt loam	Loamy sand	Silt Loam	Silt Loam	Silt Loam	Silt Loam
	TP/BH	207	208	209	209	210	210	211	212	213	214
	Depth (m)	0.20	0.50	0.30	1.00	0.10	1.50	0.30	0.25	0.50	0.50
	Our ref	16091	16092	16093	16094	16095	16096	16097	16098	16099	16100
<u>Aromatic</u>											
>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₇ -EC ₈	(mg/kg)	<0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	<0.01
>EC ₈ -EC ₁₀	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC ₁₀ -EC ₁₂	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC ₁₂ -EC ₁₆	(mg/kg)	<5	<5	43	<5	10	<5	<5	<5	<5	<5
>EC ₁₆ -EC ₂₁	(mg/kg)	<5	<5	294	9	126	<5	12	8	<5	<5
>EC ₂₁ -EC ₃₅	(mg/kg)	<5	<5	681	25	662	<5	<5	<5	16	15
Aliphatic											
>EC ₅ -EC ₆	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₆ -EC ₈	(mg/kg)	<0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01
>EC ₈ -EC ₁₀	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC ₁₀ -EC ₁₂	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC ₁₂ -EC ₁₆	(mg/kg)	<5	<5	6	5	9	<5	<5	<5	<5	<5
>EC ₁₆ -EC ₂₁	(mg/kg)	<5	<5	21	<5	26	<5	<5	<5	<5	<5
>EC ₂₁ -EC ₃₅	(mg/kg)	<5	<5	40	7	83	<5	<5	<5	<5	<5
TPH (C ₅ - C ₃₅)	(mg/kg)	<5	<5	1086	47	916	<5	12	8	16	15

All results expressed on dry weight basis

** - MCERTS accredited test





02/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

TPH CWG - Soil

7VVG - 3011											
	Characteristic	Silt Loam	Silt Loam	Stones Sar	ndy silt loam	Silt Loam	Sandy loam	Silt Loam Sar	ndy silt loam	Silt Loam	Silt Loam
	TP/BH	215	216	217	218	219	220	221	222	223	224
	Depth (m)	0.30	0.20	0.20(1)	0.15	0.50	0.50	0.35	0.50	0.50	0.50
	Our ref	16101	16103	16104	16105	16106	16107	16108	16109	16110	16111
<u>Aromatic</u>											
>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₇ -EC ₈	(mg/kg)	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01
>EC ₈ -EC ₁₀	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC ₁₀ -EC ₁₂	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC ₁₂ -EC ₁₆	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC ₁₆ -EC ₂₁	(mg/kg)	<5	<5	<5	32	11	<5	<5	<5	<5	<5
>EC ₂₁ -EC ₃₅	(mg/kg)	<5	27	<5	482	41	<5	<5	<5	10	8
Aliphatic											
>EC ₅ -EC ₆	(mg/kg)	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
>EC ₆ -EC ₈	(mg/kg)	< 0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₈ -EC ₁₀	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC ₁₀ -EC ₁₂	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC ₁₂ -EC ₁₆	(mg/kg)	<5	<5	<5	5	<5	<5	<5	<5	<5	<5
>EC ₁₆ -EC ₂₁	(mg/kg)	<5	<5	<5	24	<5	<5	<5	<5	<5	<5
>EC ₂₁ -EC ₃₅	(mg/kg)	6	18	<5	298	<5	5	<5	<5	<5	<5
TPH (C ₅ - C ₃₅)	(mg/kg)	6	45	<5	842	52	5	<5	<5	10	8

All results expressed on dry weight basis

** - MCERTS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 02/11/11

TPH CWG - Soil

<u> </u>									
	Characteristic San	dy silt loam	Stones	Silt Loam	Silty clay loam	Silty clay loam	Silt Loam Sandy silt loam		
	TP/BH	225	226	227	228	228	S101A	S101A	
	Depth (m)	0.20	0.30	0.50	0.50	0.80	1.00(2)	1.20(3)	
	Our ref	16112	16114	16115	16116	16117	16119	16120	
<u>Aromatic</u>									
>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
>EC ₇ -EC ₈	(mg/kg)	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	
$>EC_8-EC_{10}$	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	
>EC ₁₀ -EC ₁₂	(mg/kg)	<5	<5	<5	<5	<5	<5	28	
>EC ₁₂ -EC ₁₆	(mg/kg)	16	<5	<5	<5	<5	<5	55	
>EC ₁₆ -EC ₂₁	(mg/kg)	194	<5	<5	<5	<5	<5	20	
>EC ₂₁ -EC ₃₅	(mg/kg)	682	<5	<5	<5	<5	<5	19	
Aliphatic									
>EC ₅ -EC ₆	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	
>EC ₆ -EC ₈	(mg/kg)	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	
$>EC_8-EC_{10}$	(mg/kg)	<5	<5	<5	<5	<5	<5	22	
>EC ₁₀ -EC ₁₂	(mg/kg)	<5	<5	<5	<5	<5	<5	67	
>EC ₁₂ -EC ₁₆	(mg/kg)	7	<5	<5	<5	<5	7	90	
>EC ₁₆ -EC ₂₁	(mg/kg)	23	<5	<5	<5	<5	<5	23	
>EC ₂₁ -EC ₃₅	(mg/kg)	44	<5	<5	<5	<5	<5	27	
TPH (C ₅ - C ₃₅)	(mg/kg)	966	<5	<5	<5	<5	7	352	

All results expressed on dry weight basis

** - MCERTS accredited test



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

2683

Reporting Date: 02/11/11

VOC ANALYSIS

	Characteristic		Sandy silt	Sandy silt loam	Silt Loam	Silt Loam	
Soils	TP/BH	201	202	204A	205	210	216
	Depth (m)	2.00	2.50	0.50	0.20	0.10	0.20
	Our ref	16082A	16084	16087	16089	16095	16103
Benzene	e** (μg/kg)	<10	<10	<10	<10	<10	<10
Toluene	(1.3. 3)	<10	<10	<10	<10	<10	<10
Ethyl Benzene	(1.3. 3)	<10	<10	<10	<10	<10	<10
mpXylene	(1 0 0)	<10	<10	<10	<10	<10	<10
oXylene	(1-33)	<10	<10	<10	<10	<10	<10
1, 2-Dichloroethene-cis	(1.5. 5)	132	<10	<10	<10	<10	<10
1, 1-Dichloroethane	(1 0 0)	<10	<10	<10	<10	<10	<10
Chloroform	(1-3, -3)	<10	<10	<10	<10	<10	<10
Carbontetrachloride	(1-33)	<10	<10	<10	<10	<10	<10
1, 1, 1-Trichloroethane		<10	<10	<10	<10	<10	<10
Trichloroethylene	(1.5. 5)	183	<10	<10	<10	<10	<10
Tetrachloroethylene		100	<10	<10	<10	<10	<10
1, 1, 1, 2-Tetrachloroethane	11.0.07	<10	<10	<10	<10	<10	<10
1, 1, 2, 2-Tetrachloroethane	(1.0.0)	<10	<10	<10	<10	<10	<10
Chlorobenzene	(1.5. 5)	<10	<10	<10	<10	<10	<10
Bromobenzene	(1.5. 5)	<10	<10	<10	<10	<10	<10
Bromodichloromethane Mathylathylbanzan	(1-5-5)	<10	<10	<10	<10	<10	<10
Methylethylbenzen 1, 1-Dichloro-1-propene		<10	<10	<10	<10	<10	<10
1, 2-Dichloroethene-tra	(1.5. 5)	<10	<10	<10	<10	<10	<10
	(1.9. 9)	120	<10	<10	<10	<10	<10
2, 2-Dichloropropa Bromochlorometha		<10	<10	<10	<10	<10	<10
1, 2-Dichloroetha	(1.0.0)	<10	<10 <10	<10	<10 <10	<10 <10	<10
Dibromomethane	(1.0.0)	<10		<10			<10
1, 2-Dichloropropane	(1-33)	<10	<10	<10	<10	<10	<10
1, 3-Dichloro1propene		<10 <10	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
1, 3-Dichloro1propene tra	(1.5. 5)	<10	<10	<10	<10	<10	<10
1, 1, 2-Trichloroetha	(1 0 0)	<10	<10	<10	<10	<10	<10
Dibromochlorometha	(1.3. 3)	<10	<10	<10	<10	<10	<10
1, 3-Dichloropropa	(1.0.0)	<10	<10	<10	<10	<10	<10
Dibromoethane	(1 0 0)	<10	<10	<10	<10	<10	<10
Styre	(1.5. 5)	<10	<10	<10	<10	<10	<10
Propylbenze	(1 0 0)	<10	<10	<10	<10	<10	<10
2-Chlorotolue	(1.0.0)	<10	<10	<10	<10	<10	<10
1, 2, 4-Trimethylbenze	(1.3. 3)	<10	<10	<10	<10	<10	<10
4-Chlorotolue	(1 0 0)	<10	<10	<10	<10	<10	<10
t-Butylbenze		<10	<10	<10	<10	<10	<10
Trimethylbenze		<10	<10	<10	<10	<10	<10
1-Methylpropylbenze		<10	<10	<10	<10	<10	<10
o-Cyme		<10	<10	<10	<10	<10	<10
1, 4-Dichlorobenze		<10	<10	<10	<10	<10	<10
Butylbenze		<10	<10	<10	<10	<10	<10
1, 2-Dibromo-3-chloropropa		<10	<10	<10	<10	<10	<10
Hexachlorobutacie		<10	<10	<10	<10	<10	<10
1, 2, 3-Trichlorobenze		<10	<10	<10	<10	<10	<10
1, 2, 4-Trichlorobenze		<10	<10	<10	<10	<10	<10
1, 3-Dichlorobenze		<10	<10	<10	<10	<10	<10
1, 2-Dichlorobenze		<10	<10	<10	<10	<10	<10
Bromofo		<10	<10	<10	<10	<10	<10

^{** -} MCERTS accredited test



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

VOC ANALYSIS

Soils		Characteristic TP/BH	Sandy silt 218	Sandy silt 222	Stones 226	Silty clay loam	Silt Loam S101A
00113		Depth (m)	0.15	0.50	0.30	0.50	1.00 ⁽²⁾
		Our ref	16105	16109	16114	16116	16119
		Our ror	10100	10100	10111	10110	10110
	Benzene**	(µg/kg)	<10	<10	<10	<10	<10
	Toluene**	(µg/kg)	<10	<10	<10	<10	<10
	Ethyl Benzene**	(µg/kg)	<10	<10	<10	<10	<10
	mpXylene**	(µg/kg)	<10	<10	<10	<10	<10
	oXylene**	(µg/kg)	<10	<10	<10	<10	<10
	1, 2-Dichloroethene-cis**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1-Dichloroethane**	(µg/kg)	<10	<10	<10	<10	<10
	Chloroform**	(µg/kg)	<10	<10	<10	<10	<10
	Carbontetrachloride**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1, 1-Trichloroethane**	(µg/kg)	<10	<10	<10	<10	<10
	Trichloroethylene**	(µg/kg)	<10	<10	<10	<10	<10
	Tetrachloroethylene**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1, 1, 2-Tetrachloroethane**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1, 2, 2-Tetrachloroethane**	(µg/kg)	<10	<10	<10	<10	<10
	Chlorobenzene**	(µg/kg)	<10	<10	<10	<10	<10
	Bromobenzene**	(µg/kg)	<10	<10	<10	<10	<10
	Bromodichloromethane**	(µg/kg)	<10	<10	<10	<10	<10
	Methylethylbenzene**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1-Dichloro-1-propene**	(µg/kg)	<10	<10	<10	<10	<10
	1, 2-Dichloroethene-trans	(µg/kg)	<10	<10	<10	<10	<10
	2, 2-Dichloropropane	(µg/kg)	<10	<10	<10	<10	<10
	Bromochloromethane	(µg/kg)	<10	<10	<10	<10	<10
	1, 2-Dichloroethane	(µg/kg)	<10	<10	<10	<10	<10
	Dibromomethane**	(µg/kg)	<10	<10	<10	<10	<10
	1, 2-Dichloropropane**	(µg/kg)	<10	<10	<10	<10	<10
	1, 3-Dichloro1propene**	(µg/kg)	<10	<10	<10	<10	<10
	1, 3-Dichloro1propene trans	(µg/kg)	<10	<10	<10	<10	<10
	1, 1, 2-Trichloroethane	(µg/kg)	<10	<10	<10	<10	<10
	Dibromochloromethane	(µg/kg)	<10	<10	<10	<10	<10
	1, 3-Dichloropropane	(µg/kg)	<10	<10	<10	<10	<10
	Dibromoethane**	(µg/kg)	<10	<10	<10	<10	<10
	Styrene	(µg/kg)	<10	<10	<10	<10	<10
	Propylbenzene	(µg/kg)	<10	<10	<10	<10	<10
	2-Chlorotoluene	(µg/kg)	<10	<10	<10	<10	<10
	1, 2, 4-Trimethylbenzene	(µg/kg)	<10	<10	<10	<10	<10
	4-Chlorotoluene	(µg/kg)	<10	<10	<10	<10	<10
	t-Butylbenzene	(µg/kg)	<10	<10	<10	<10	<10
	Trimethylbenzene	(µg/kg)	<10	<10	<10	<10	<10
	1-Methylpropylbenzene	(µg/kg)	<10	<10	<10	<10	<10
	o-Cymene	(µg/kg)	<10	<10	<10	<10	<10
	1, 4-Dichlorobenzene	(µg/kg)	<10	<10	<10	<10	<10
	Butylbenzene	(µg/kg)	<10	<10	<10	<10	<10
	1, 2-Dibromo-3-chloropropane	(µg/kg)	<10	<10	<10	<10	<10
	Hexachlorobutaciene	(µg/kg)	<10	<10	<10	<10	<10
	1, 2, 3-Trichlorobenzene	(µg/kg)	<10	<10	<10	<10	<10
	1, 2, 4-Trichlorobenzene	(µg/kg)	<10	<10	<10	<10	<10
	1, 3-Dichlorobenzene	(µg/kg)	<10	<10	<10	<10	<10
	1, 2-Dichlorobenzene	(µg/kg)	<10	<10	<10	<10	<10
	Bromoform	(µg/kg)	<10	<10	<10	<10	<10

^{** -} MCERTS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

Asbestos Identification

 Sample ref:
 201

 Depth (m)
 0.50

 Our ref:
 16081A

 #Description of Sample Matrix:
 Sandy silt loam

 *Result
 No asbestos identified

Sample ref:201Depth (m)2.00Our ref:16082A#Description of Sample Matrix:Sandy silt loam*ResultNo asbestos identified

Sample ref:202Depth (m)0.50Our ref:16083A#Description of Sample Matrix:Sandy silt loam*ResultNo asbestos identified

Sample ref: 202
Depth (m) 2.50
Our ref: 16084
#Description of Sample Matrix: Sandy silt loam
*Result No asbestos identified

 Sample ref:
 203

 Depth (m)
 0.50

 Our ref:
 16085

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

Asbestos Identification

 Sample ref:
 204

 Depth (m)
 0.50

 Our ref:
 16086

 #Description of Sample Matrix:
 Stones

 *Result
 No asbestos identified

Sample ref: 204A
Depth (m) 0.50
Our ref: 16087
#Description of Sample Matrix: Sandy silt loam
*Result No asbestos identified

 Sample ref:
 204A

 Depth (m)
 1.00

 Our ref:
 16088

 #Description of Sample Matrix:
 Sandy loam

 *Result
 No asbestos identified

 Sample ref:
 205

 Depth (m)
 0.20

 Our ref:
 16089

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 206

 Depth (m)
 0.15

 Our ref:
 16090

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Hemford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

Asbestos Identification

 Sample ref:
 207

 Depth (m)
 0.20

 Our ref:
 16091

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Sample ref: 208
Depth (m) 0.50
Our ref: 16092
#Description of Sample Matrix: Silt Loam

*Result No asbestos identified

 Sample ref:
 209

 Depth (m)
 0.30

 Our ref:
 16093

 #Description of Sample Matrix:
 Sandy silt loam

 *Result
 No asbestos identified

 Sample ref:
 209

 Depth (m)
 1.00

 Our ref:
 16094

 #Description of Sample Matrix:
 Sandy loam

 *Result
 No asbestos identified

Sample ref: 210
Depth (m) 0.10
Our ref: 16095
#Description of Sample Matrix: Sandy silt loam
*Result No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Hemford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

Asbestos Identification

 Sample ref:
 210

 Depth (m)
 1.50

 Our ref:
 16096

 #Description of Sample Matrix:
 Loamy sand

 *Result
 No asbestos identified

 Sample ref:
 211

 Depth (m)
 0.30

 Our ref:
 16097

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 212

 Depth (m)
 0.25

 Our ref:
 16098

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 213

 Depth (m)
 0.50

 Our ref:
 16099

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 214

 Depth (m)
 0.50

 Our ref:
 16100

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Hemford

F.A.O. Roni Savage **Jomas Associates Limited Jomas House** 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

Asbestos Identification

Sample ref: 215 Depth (m) 0.30 16101 Our ref: Silt Loam **#Description of Sample Matrix:** *Result No asbestos identified

Sample ref: 215 Depth (m) 0.60 Our ref: 16102 #Description of Sample Matrix: Sandy silt loam *Result No asbestos identified

Sample ref: 216 Depth (m) 0.20 Our ref: 16103 **#Description of Sample Matrix:** Silt Loam *Result No asbestos identified

Sample ref: 217 0.20(1) Depth (m) 16104 Our ref: **#Description of Sample Matrix:** Stones No ashestos identified *Result

Sample ref: 218 Depth (m) 0.15 16105 Our ref: Sandy silt loam **#Description of Sample Matrix:** No asbestos identified *Result

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Hemford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

Asbestos Identification

 Sample ref:
 219

 Depth (m)
 0.50

 Our ref:
 16106

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Sample ref: 220
Depth (m) 0.50
Our ref: 16107
#Description of Sample Matrix: Sandy loam
*Result No asbestos identified

 Sample ref:
 221

 Depth (m)
 0.35

 Our ref:
 16108

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Sample ref: 222
Depth (m) 0.50
Our ref: 16109
#Description of Sample Matrix: Sandy silt loam
*Result No asbestos identified

 Sample ref:
 223

 Depth (m)
 0.50

 Our ref:
 16110

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Hemford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

Asbestos Identification

 Sample ref:
 224

 Depth (m)
 0.50

 Our ref:
 16111

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Sample ref: 225
Depth (m) 0.20
Our ref: 16112
#Description of Sample Matrix: Sandy silt loam
*Result No asbestos identified

 Sample ref:
 226

 Depth (m)
 0.30

 Our ref:
 16114

 #Description of Sample Matrix:
 Stones

 *Result
 No asbestos identified

Sample ref: 227
Depth (m) 0.50
Our ref: 16115
#Description of Sample Matrix: Sitt Loam
*Result No asbestos identified

Sample ref: 228
Depth (m) 0.50
Our ref: 16116
#Description of Sample Matrix: Silty clay loam
*Result No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Hemford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 02/11/11

Asbestos Identification

 Sample ref:
 228

 Depth (m)
 0.80

 Our ref:
 16117

 #Description of Sample Matrix:
 Silty clay loam

 *Result
 No asbestos identified

 Sample ref:
 \$101A

 Depth (m)
 1.00⁽²⁾

 Our ref:
 16119

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Sample ref:\$101ADepth (m)1.20(3)Our ref:16120#Description of Sample Matrix:Sandy silt loam*ResultNo asbestos identified

*= UKAS accredited

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date:

02/11/11

SVOC ANALYSIS

		201		00.44		0.40	0.40
Soils	TP/BH	201 2.00	202 2.50	204A 0.50	205 0.20	210 0.10	216 0.20
	Depth (m) Our ref	2.00 16082A	16084	16087	16089	16095	16103
	Our lei	16062A	10004	10007	10009	10095	10103
Pyridine	(µg/kg)	<10	<10	<10	<10	<10	<10
Aniline	(µg/kg)	<10	<10	<10	<10	<10	<10
Phenol	(µg/kg)	<10	<10	<10	<10	<10	<10
Bis(2-chloroethyl) ether	(µg/kg)	<10	<10	<10	<10	<10	<10
Benzene, 1,3-dichloro-	(µg/kg)	<10	<10	<10	<10	<10	<10
Benzene, 1,4-dichloro-	(µg/kg)	<10	<10	<10	<10	<10	<10
Benzene, 1,2-dichloro-	(µg/kg)	<10	<10	<10	<10	<10	<10
Phenol, 2-methyl-	(µg/kg)	<10	<10	<10	<10	<10	<10
Ethane, hexachloro- Phenol, 3-methyl-	(µg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
Nitrobenzene	(µg/kg) (µg/kg)	<10	<10	<10	<10 <10	<10	<10
Isophorone	(μg/kg)	<10	<10	<10	<10	<10	<10
Phenol, 2-nitro-	(μg/kg)	<10	<10	<10	<10	<10	<10
Phenol, 2,4-dimethyl-	(µg/kg)	<10	<10	<10	<10	<10	<10
Methane, bis(2-chloroethoxy)-	(µg/kg)	<10	<10	<10	<10	<10	<10
Phenol, 2,4-dichloro-	(µg/kg)	<10	<10	<10	<10	<10	<10
1,3,4-Trichlorobenzene,	(µg/kg)	<10	<10	<10	<10	<10	<10
Naphthalene	(µg/kg)						
4-Chloroaniline	(µg/kg)	<10	<10	<10	<10	<10	<10
Hexachloro-1,3-butadiene	(µg/kg)	<10	<10	<10	<10	<10	<10
Phenol, 4-chloro-3-methyl-	(µg/kg)	<10	<10	<10	<10	<10	<10
Naphthalene, 2-methyl-	(µg/kg)	<10	728	5627	<10	441	40
Naphthalene, 1-methyl-	(µg/kg)	<10	687	5901	<10	533	25
Hexachlorocyclopentadiene Phenol, 2,4,6-trichloro-	(µg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
Phenol, 2,4,5-trichloro-	(µg/kg) (µg/kg)	<10	<10 <10	<10 <10	<10	<10	<10
Naphthalene, 2-chloro-	(μg/kg)	<10	<10	<10	<10	<10	<10
2-Nitroaniline	(µg/kg)	<10	<10	<10	<10	<10	<10
1,4-Dinitrobenzene,	(µg/kg)	<10	<10	<10	<10	<10	<10
Dimethylphthalate	(µg/kg)	<10	<10	<10	<10	<10	<10
Acenaphthylene	(µg/kg)					8081	
1.3-Dinitrobenzene	(µg/kg)	<10	<10	<10	<10	<10	<10
3-Nitroaniline	(µg/kg)	<10	<10	<10	<10	<10	<10
Acenaphthene	(µg/kg)						
Dibenzofuran	(µg/kg)	<10	<10	19735	<10	1860	<10
2,4-Dinitrotoluene	(µg/kg)	<10	<10	<10	<10	<10	<10
2,3,4,6-Tetrachlorophenol,	(µg/kg)	<10	<10	<10	<10	<10	<10
2,3,5,6-Tetrachlorophenol, Diethylphthalate	(µg/kg)	<10 <10	<10 69	<10 <10	<10 42	<10 <10	<10 <10
Fluorene	(µg/kg) (µg/kg)				4Z 		
Diphenylamine	(µg/kg)	<10	<10	<10	<10	<10	<10
Azobenzene	(µg/kg)	<10	<10	<10	<10	<10	<10
4-Bromophenyl phenyl ether	(µg/kg)	<10	<10	<10	<10	<10	<10
Hexachlorobenzene	(µg/kg)	<10	<10	<10	<10	<10	<10
Pentachlorophenol	(µg/kg)	<10	<10	<10	<10	<10	<10
Phenanthrene	(µg/kg)						
Anthracene	(µg/kg)						
Fluoranthene	(µg/kg)						
Pyrene	(µg/kg)						
Benzylbutylphthalate	(µg/kg)	<10	<10	<10	<10	<10	<10
Bis(2-ethylhexyl)adipate Benzo(a)anthracene	(µg/kg)	<10 	<10 	<10 	<10 	<10 	<10
Chrysene	(µg/kg) (µg/kg)						
Bis(2-ethylhexyl)phthalate	(µg/kg)	<10	<10	<10	<10	<10	<10
Benzo(b)fluoranthene	(µg/kg)						
Benzo(k)fluoranthene	(µg/kg)						
Benzo(a)pyrene	(µg/kg)						
Indeno[1,2,3-cd]pyrene	(µg/kg)						
Dibenz(ah)anthracene	(µg/kg)						
Benzo(ghi)perylene	(µg/kg)						

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35273

Location: Upper Heyford F.A.O. Roni Savage
Jomas Associates Limited
Jomas House

21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 02/11/11

SVOC ANALYSIS

<u>Soils</u>	TP/BH	218	222	226	228	S101A
	Depth (m)	0.15	0.50	0.30	0.50	1.00 ⁽²⁾
	Our ref	16105	16109	16114	16116	16119
Pyridine	(µg/kg)	<10	<10	<10	<10	<10
Aniline	(µg/kg)	<10	<10	<10	<10	<10
Phenol	(µg/kg)	<10	<10	<10	<10	<10
Bis(2-chloroethyl) ether	(µg/kg)	<10	<10	<10	<10	<10
Benzene, 1,3-dichloro-	(µg/kg)	<10	<10	<10	<10	<10
Benzene, 1,4-dichloro-	(µg/kg)	<10	<10	<10	<10	<10
Benzene, 1,2-dichloro-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2-methyl- Ethane, hexachloro-	(µg/kg) (µg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
Phenol, 3-methyl-	(μg/kg)	<10	<10	<10	<10	<10
Nitrobenzene	(µg/kg)	<10	<10	<10	<10	<10
Isophorone	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2-nitro-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2,4-dimethyl-	(µg/kg)	<10	<10	<10	<10	<10
Methane, bis(2-chloroethoxy)-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2,4-dichloro-	(µg/kg)	<10	<10	<10	<10	<10
1,3,4-Trichlorobenzene,	(µg/kg)	<10	<10 	<10 	<10 	<10
Naphthalene 4-Chloroaniline	(μg/kg) (μg/kg)	<10	<10	<10	<10	 <10
Hexachloro-1,3-butadiene	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 4-chloro-3-methyl-	(µg/kg)	<10	<10	<10	<10	<10
Naphthalene, 2-methyl-	(µg/kg)	788	<10	<10	<10	56
Naphthalene, 1-methyl-	(µg/kg)	530	<10	<10	<10	56
Hexachlorocyclopentadiene	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2,4,6-trichloro-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2,4,5-trichloro-	(µg/kg)	<10	<10	<10	<10	<10
Naphthalene, 2-chloro-	(µg/kg)	<10	<10	<10	<10	<10
2-Nitroaniline	(µg/kg)	<10	<10	<10	<10	<10
1,4-Dinitrobenzene, Dimethylphthalate	(μg/kg) (μg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
Acenaphthylene	(µg/kg)					
1.3-Dinitrobenzene	(µg/kg)	<10	<10	<10	<10	<10
3-Nitroaniline	(µg/kg)	<10	<10	<10	<10	<10
Acenaphthene	(µg/kg)			<10		
Dibenzofuran	(µg/kg)	534	<10	<10	<10	<10
2,4-Dinitrotoluene	(µg/kg)	<10	<10	<10	<10	<10
2,3,4,6-Tetrachlorophenol,	(µg/kg)	<10	<10	<10	<10	<10
2,3,5,6-Tetrachlorophenol,	(µg/kg)	<10	<10	<10	<10	<10
Diethylphthalate Fluorene	(µg/kg) (µg/kg)	207	<10 	45 	<10 	<10
Diphenylamine	(μg/kg)	<10	<10	<10	<10	<10
Azobenzene	(µg/kg)	<10	<10	<10	<10	<10
4-Bromophenyl phenyl ether	(µg/kg)	<10	<10	<10	<10	<10
Hexachlorobenzene	(µg/kg)	<10	<10	<10	<10	<10
Pentachlorophenol	(µg/kg)	<10	<10	<10	<10	<10
Phenanthrene	(µg/kg)					
Anthracene	(µg/kg)					
Fluoranthene	(µg/kg)					
Pyrene Benzylbutylphthalate	(μg/kg) (μg/kg)	405	771	<10	<10	<10
Bis(2-ethylhexyl)adipate	(μg/kg)	<10	<10	<10	<10	<10
Benzo(a)anthracene	(µg/kg)					
Chrysene	(µg/kg)					
Bis(2-ethylhexyl)phthalate	(µg/kg)	<10	<10	<10	<10	<10
Benzo(b)fluoranthene	(µg/kg)					
Benzo(k)fluoranthene	(µg/kg)					
Benzo(a)pyrene	(µg/kg)					
Indeno[1,2,3-cd]pyrene Dibenz(ah)anthracene	(µg/kg)					
Benzo(ghi)perylene	(µg/kg) (µg/kg)					
Donizo(grii)poryione	(P9/1/9)					





THE ENVIRONMENTAL LABORATORY LTD

SAMPLE RECEIPT AND TEST DATES

AR35273 Our Analytical Report Number Sample Receipt Date: 10/10/11 Reporting Date: 02/11/11

Registered: 10/10/11 Prepared: 11/10/11 Analysis complete: 02/11/11

TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
Arsenic**	Air dried sample	14/10/11	118	ICPMS
Cadmium**	Air dried sample	14/10/11	118	ICPMS
Chromium**	Air dried sample	14/10/11	118	ICPMS
Lead**	Air dried sample	14/10/11	118	ICPMS
Mercury**	Air dried sample	14/10/11	118	ICPMS
Nickel**	Air dried sample	14/10/11	118	ICPMS
Copper**	Air dried sample	14/10/11	118	ICPMS
Zinc**	Air dried sample	14/10/11	118	ICPMS
Selenium**	Air dried sample	14/10/11	118	ICPMS
Hexavalent Chromium	As submitted sample	13/10/11	110	Colorimetry
Water Soluble Boron	Air dried sample	13/10/11	202	Colorimetry AA3
Barium**	Air dried sample	14/10/11	118	ICPMS
Beryllium**	Air dried sample	14/10/11	118	ICPMS
Vanadium**	Air dried sample	14/10/11	118	ICPMS
Molybdenum	Air dried sample	14/10/11	118	ICPMS
Antimony	Air dried sample	14/10/11	118	ICPMS
Cobalt*	Air dried sample	14/10/11	118	ICPMS
pH Value**	Air dried sample	14/10/11	113	Probe
Total Sulphate	Air dried sample	14/10/11	208	Colorimetry
Total Cyanide**	As submitted sample	14/10/11	204	Automated Flow Digital Colorimetry
Free Cyanide	As submitted sample	14/10/11	107	Colorimetry
Complex Cyanide	As submitted sample	14/10/11	145	Colorimetry
Total Monohydric Phenols**	As submitted sample	14/10/11	121	HPLC
Water Soluble Sulphate	Air dried sample	14/10/11	209	Colorimetry
Total Organic Carbon*	Air dried sample	14/10/11	111	Titration
Elemental Sulphur**	Air dried sample	14/10/11	122	HPLC
Moisture Content (%)	As submitted sample	00/01/00	96	Gravimetric
Thiocyanate	As submitted sample	13/10/11	146	Colorimetry
Speciated PAH**	As submitted sample	14/10/11	133	Gas Chromatography
PCB (7 ICES Congeners)	Air dried sample	18/10/11	178	GCMS
Carbon Banding (TPH CWG)	As submitted sample	19/10/11	214	Gas chromatography
VOC**	As submitted sample	12/10/11	181	GCMS
SVOC	As submitted sample	00/01/00	167	GCMS
Asbestos*	As submitted sample	20/10/11	179	see note

Asbestos analysis qualitative only

Note:- Documented In-house procedure based on HSG 248 2005

Determinands not marked with * or ** are not accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

^{* =} UKAS Accredited test

^{** -} MCERTS Accredited test





THE ENVIRONMENTAL LABORATORY LTD

SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR35273
Sample Receipt Date: 10/10/11
Reporting Date: 02/11/11
Registered: 10/10/11

Prepared: 11/10/11 Analysis complete: 02/11/11

TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
pH Value**	Air dried sample	14/10/11	113	BRE SD1
Total Sulphate	Air dried sample	14/10/11	115	BRE SD1
Total Sulphur	Air dried sample	14/10/11	216	BRE SD1
Water Soluble Sulphate**	Air dried sample	14/10/11	172	BRE SD1
Water Soluble Nitrate	Air dried sample	14/10/11	172	BRE SD1
Water Soluble Chloride	Air dried sample	14/10/11	172	BRE SD1
Water Soluble Magnesium	Air dried sample	14/10/11	101	BRE SD1
Ammonium	As submitted sample	13/10/11	151	BRE SD1

Determinands not marked with * or ** are non accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

^{* =} UKAS Accredited test

^{** -} MCERTS Accredited test





THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

ANALYTICAL REPORT No. AR35737A (Supplementary Report)

Samples Received By:- Courier Samples Received:- 04/11/11

Site Location: Upper Heyford NSA

No Samples Received:- 19

Steve Knight Director Mike Varley BSc, CChem, CSci, FRSC Chief Chemist





18/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

ex, UD4 OLF	Characteristic	Silt Loam	Silt Loam	Oh alli	Silt Loam	0:14.1	0:14.1	O:lhll O-		!:!k 0	
Soils	Characteristic TP/BH	BHNSA2	BHNSA3	Chalk BHNSA4	BHNSA5	Silt Loam BHNSA6	BHNSA7	Silty clay loam Sa BHNSA8	BHNSA9	BHNSA10	BHNSA12
<u></u>	Depth (m)	0.50	0.50	1.00	0.50	0.50	0.50	0.50	0.50	0.50	1.00
	Our ref	19164	19167	19169	19170	19171	19172	19173	19174	19175	19177
Stone Content	(%)	9	13	19	10	11	14	20	8	11	18
Arsenic**	(mg/kg)	15.3	19.7	15.8	27.1	20.8	21.9	13.4	23.0	21.9	16.0
Cadmium**	(mg/kg)	0.7	0.6	0.6	0.8	0.6	0.9	<0.5	0.7	0.8	0.7
Chromium**	(mg/kg)	28	28	22	35	32	34	18	29	24	21
Lead**	(mg/kg)	80	23	20	42	20	48	8	183	45	18
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	16	21	20	27	22	24	14	18	19	16
Copper**	(mg/kg)	19	17	15	24	17	22	11	11	145	13
Zinc**	(mg/kg)	45	44	40	132	45	61	21	51	49	36
Selenium**	(mg/kg)	1.5	1.3	1.4	1.9	1.7	1.7	1.3	1.6	1.4	1.5
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	<0.5	0.5	<0.5	0.7	0.9	0.6	0.5	0.6	0.9	0.7
Barium*	(mg/kg)	57	65	46	111	63	90	36	59	48	39
Beryllium*	(mg/kg)	1	1	1	2	1	1	<1	1	1	<1
Vanadium**	(mg/kg)	57	63	83	87	72	84	55	75	58	50
Antimony	(mg/kg)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	6	<2.5	<2.5
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cobalt	(mg/kg)	7	9	7	11	10	11	6	8	9	7
pH Value**	(Units)	8.9	8.2	8.5	7.9	8.1	7.9	8.4	8.4	8.5	8.3
Total Sulphate	(% as SO ₄)	0.10	0.07	0.07	0.08	0.06	0.07	0.05	0.07	0.10	0.23
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Soluble Sulphate	(mg/l as SO ₄)	<10	23	<10	<10	13	<10	<10	38	<10	595
Total Organic Carbon*	(%)	1.3	0.8	0.9	2.6	0.8	1.4	0.2	1.8	1.2	1.2
Elemental Sulphur**	(mg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Moisture Content**	(%)	6.0	14.4	6.8	8.2	8.1	8.9	8.9	9.2	5.3	10.0
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





18/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

(, UB4 8LP										
Soils	Characteristic TP/BH	Silt Loam BHNSA15	Chalk BHNSA16	Loamy sand BHNSA17	Silt Loam BHNSA18	Silt Loam S BHNSA19	andy silt loam BHNSA20	Silty clay loam BHNSA21	Clay BHNSA22	Silty clay loam BHNSA22
	Depth (m)	0.50	1.00	0.50	0.50	0.50	0.50	0.50	0.50	2.00
	Our ref	19180	19181	19182	19183	19184	19185	19186	19188	19189
Stone Content	(%)	11	15	12	13	4	6	<1	4	<1
Arsenic**	(mg/kg)	17.6	12.2	9.7	7.9	20.2	14.5	23.9	38.9	56.3
Cadmium**	(mg/kg)	0.5	0.5	0.5	0.5	0.8	0.6	0.6	0.7	1.2
Chromium**	(mg/kg)	15	16	11	14	29	17	35	56	79
Lead**	(mg/kg)	17	10	4	12	27	10	18	21	24
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	10	11	8	12	22	14	30	45	78
Copper**	(mg/kg)	6	6	5	9	19	14	15	20	31
Zinc**	(mg/kg)	31	20	18	31	52	26	61	79	147
Selenium**	(mg/kg)	1.3	1.3	1.2	1.5	1.8	1.5	1.6	1.9	2.4
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	0.7	<0.5	<0.5	0.6	0.6	0.6	<0.5	0.5	0.6
Barium*	(mg/kg)	64	32	17	59	63	29	74	112	153
Beryllium*	(mg/kg)	<1	<1	<1	<1	1	<1	2	2	4
Vanadium**	(mg/kg)	35	37	28	24	60	46	64	132	233
Antimony	(mg/kg)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	4
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	7
Cobalt	(mg/kg)	5	5	3	5	9	6	12	17	19
pH Value**	(Units)	8.3	8.4	10.6	7.9	8.5	8.5	8.0	8.1	7.9
Total Sulphate	(% as SO4)	0.07	0.09	0.16	0.09	0.09	0.11	< 0.05	< 0.05	< 0.05
Total Cyanide**	(mg/kg)	<1	<1	1.1	<1	<1	<1	<1	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	1.1	<1	<1	<1	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Soluble Sulphate	,	<10	<10	18	<10	39	<10	<10	46	<10
Total Organic Carbon*	(%)	0.3	0.3	0.4	2.0	1.0	0.3	0.5	0.5	0.5
Elemental Sulphur**	(mg/kg)	<10	<10	<10	<10	<10	<10	19	11	<10
Moisture Content**	(%)	8.3	5.1	7.2	7.6	11.1	8.8	14.0	18.9	24.2
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2

^{** -} MCERTS accredited test

^{* =} UKAS accredited test





18/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt Loam	Silt Loam Sandy silt loam		Sandy silt loam	Silt Loam	Clay	
	TP/BH	BHNSA3	BHNSA6	BHNSA9	BHNSA12	BHNSA19	BHNSA22	
	Depth (m)	0.50	0.50	0.50	1.00	0.50	0.50	
	Our ref	19167	19171	19174	19177	19184	19188	
Stone Content	(%)	13	11	8	18	4	4	
pH Value**	(Units)	8.2	8.1	8.4	8.3	8.5	8.1	
Total Sulphate	(% as SO ₄)	0.07	0.06	0.07	0.23	0.09	< 0.05	
Total Sulphur	(% as S)	< 0.05	< 0.05	0.09	0.19	< 0.05	0.41	
Water Soluble Sulphate**	(mg/l as SO ₄)	23	13	38	595	39	46	
Water Soluble Chloride	(mg/l)	13	12	14	9	15	18	
Water Soluble Nitrate	(mg/l)	5	4	8	10	6	<1	
Water Soluble Magnesium	(mg/l)	0.4	0.5	0.5	0.5	0.6	0.5	
Ammonium	(mg/l)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

^{** -} MCERTS accredited test

^{* =} UKAS accredited test





18/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils	Characteristic	Silt Loam Sa	Silt Loam Sandy silt loam Sandy silt loam						
	TP/BH	BHNSA3	BHNSA9	BHNSA20	BHNSA22				
	Depth (m)	0.50	0.50	0.50	0.50				
	Our ref	19167	19174	19185	19188				
PCB (7 ICES Congeners)									
PCB 28**	(µg/kg)	<10	<10	<10	<10				
PCB 52**	(µg/kg)	<10	<10	<10	<10				
PCB 101**	(µg/kg)	<10	<10	<10	<10				
PCB 118**	(µg/kg)	<10	<10	<10	<10				
PCB 138**	(µg/kg)	<10	<10	<10	<10				
PCB 153**	(µg/kg)	<10	<10	<10	<10				
PCB 180**	(µg/kg)	<10	<10	<10	<10				

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage **Jomas Associates Limited** Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

Soils	Characteristic	Silt Loam	Silt Loam	Chalk	Silt Loam	Silt Loam	Silt Loam	Silty clay loam Sa	andy silt loam Sa	andy silt loam Sa	andy silt loam
	TP/BH	BHNSA2	BHNSA3	BHNSA4	BHNSA5	BHNSA6	BHNSA7	BHNSA8	BHNSA9	BHNSA10	BHNSA12
	Depth (m)	0.50	0.50	1.00	0.50	0.50	0.50	0.50	0.50	0.50	1.00
	Our ref	19164	19167	19169	19170	19171	19172	19173	19174	19175	19177
Naphthalene**	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene**	(mg/kg)	0.4	0.1	<0.1	<0.1	<0.1	0.8	0.2	0.2	<0.1	<0.1
Acenaphthene**	(mg/kg)	0.9	<0.1	<0.1	<0.1	<0.1	0.7	1.6	0.4	<0.1	<0.1
Fluorene**	(mg/kg)	0.7	<0.1	<0.1	<0.1	<0.1	0.7	1.9	0.3	<0.1	<0.1
Phenanthrene**	(mg/kg)	9.3	0.2	0.2	<0.1	<0.1	10.8	16.5	5.6	<0.1	<0.1
Anthracene**	(mg/kg)	3.5	<0.1	<0.1	<0.1	<0.1	3.0	5.3	2.1	0.4	<0.1
Fluoranthene**	(mg/kg)	19.3	0.6	0.8	0.4	0.1	16.9	27.4	14.2	<0.1	<0.1
Pyrene**	(mg/kg)	15.8	0.4	0.6	0.4	0.1	13.7	17.9	11.4	<0.1	<0.1
Benz(a)anthracene**	(mg/kg)	9.4	0.1	0.4	0.2	<0.1	7.6	9.4	7.1	<0.1	<0.1
Chrysene**	(mg/kg)	8.5	0.2	0.5	0.4	0.1	8.0	11.0	6.8	<0.1	<0.1
Benzo(b)fluoranthene**	(mg/kg)	7.6	0.1	0.5	0.3	0.1	6.1	8.9	6.1	<0.1	<0.1
Benzo(k)fluoranthene**	(mg/kg)	7.3	0.1	0.5	0.4	0.1	6.7	6.4	5.8	<0.1	<0.1
Benzo(a)pyrene**	(mg/kg)	7.7	0.2	0.4	0.3	<0.1	7.0	7.6	6.1	<0.1	<0.1
Indeno(123-cd)pyrene**	(mg/kg)	5.7	0.2	0.4	0.3	<0.1	4.9	6.0	4.3	<0.1	<0.1
Dibenz(ah)anthracene**	(mg/kg)	1.5	<0.1	0.1	<0.1	<0.1	1.1	1.3	0.9	<0.1	<0.1
Benzo(ghi)perylene**	(mg/kg)	4.9	0.1	0.4	0.2	<0.1	4.2	5.2	3.8	<0.1	<0.1
Total PAH**	(mg/kg)	102.6	2.4	5.0	3.2	0.5	92.1	126.5	75.2	0.4	<0.1

All results expressed on dry weight basis

** - MCERTS accredited test





18/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt Loam	Chalk	Loamy sand	Silt Loam	Silt Loam Sa	•	Silty clay loam	•	Silty clay loam
	TP/BH	BHNSA15	BHNSA16	BHNSA17	BHNSA18	BHNSA19	BHNSA20	BHNSA21	BHNSA22	BHNSA22
	Depth (m)	0.50	1.00	0.50	0.50	0.50	0.50	0.50	0.50	2.00
	Our ref	19180	19181	19182	19183	19184	19185	19186	19188	19189
Naphthalene**	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene**	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
Acenaphthene**	(mg/kg)	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	0.1	0.4	<0.1
Fluorene**	(mg/kg)	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.1	0.2	<0.1
Phenanthrene**	(mg/kg)	<0.1	<0.1	<0.1	1.4	0.5	<0.1	1.4	1.3	<0.1
Anthracene**	(mg/kg)	<0.1	<0.1	<0.1	0.5	0.2	<0.1	0.6	0.5	<0.1
Fluoranthene**	(mg/kg)	0.2	<0.1	<0.1	2.3	1.4	<0.1	3.2	2.0	<0.1
Pyrene**	(mg/kg)	0.2	<0.1	<0.1	1.8	1.2	<0.1	5.6	1.6	<0.1
Benz(a)anthracene**	(mg/kg)	0.1	<0.1	<0.1	1.0	0.7	<0.1	3.0	1.0	<0.1
Chrysene**	(mg/kg)	0.2	<0.1	<0.1	1.0	0.7	<0.1	3.5	1.0	<0.1
Benzo(b)fluoranthene**	(mg/kg)	0.2	0.1	<0.1	1.0	0.7	<0.1	3.8	0.9	<0.1
Benzo(k)fluoranthene**	(mg/kg)	0.3	<0.1	<0.1	1.1	0.7	<0.1	2.7	1.0	<0.1
Benzo(a)pyrene**	(mg/kg)	0.2	<0.1	<0.1	1.2	0.7	<0.1	3.5	1.0	<0.1
Indeno(123-cd)pyrene**	(mg/kg)	0.2	<0.1	<0.1	1.0	0.6	<0.1	3.2	0.7	<0.1
Dibenz(ah)anthracene**	(mg/kg)	<0.1	<0.1	<0.1	0.3	0.1	<0.1	0.1	0.1	<0.1
Benzo(ghi)perylene**	(mg/kg)	0.2	<0.1	<0.1	0.8	0.5	<0.1	2.9	0.5	<0.1
Total PAH**	(mg/kg)	2.0	0.1	<0.1	13.6	7.7	<0.1	33.9	12.2	<0.1

All results expressed on dry weight basis

** - MCERTS accredited test





18/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

TPH CWG - Soil

CWG - Soil											
	Characteristic	Silt Loam	Silt Loam	Chalk	Silt Loam	Silt Loam	Silt Loam	Silty clay loam S	andy silt loam Sa	andy silt loam S	andy silt loam
	TP/BH	BHNSA2	BHNSA3	BHNSA4	BHNSA5	BHNSA6	BHNSA7	BHNSA8	BHNSA9	BHNSA10	BHNSA12
	Depth (m)	0.50	0.50	1.00	0.50	0.50	0.50	0.50	0.50	0.50	1.00
	Our ref	19164	19167	19169	19170	19171	19172	19173	19174	19175	19177
<u>Aromatic</u>											
>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₇ -EC ₈	(mg/kg)	<0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01
>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	1.4	1.8	0.7	<0.1	<0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	14.4	23.8	8.0	<0.1	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	4.5	1.0	<0.1	<0.1	<0.1	47.3	65.7	40.0	<0.1	<0.1
>EC ₁₆ -EC ₂₁	(mg/kg)	49.7	6.1	1.0	0.4	<0.1	50.5	31.7	31.2	<0.1	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	138.6	3.9	11.4	7.2	1.9	107.6	49.8	65.5	0.2	1.5
Aliphatic											
>EC ₅ -EC ₆	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₆ -EC ₈	(mg/kg)	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01
>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	0.3	1.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₆ -EC ₂₁	(mg/kg)	6.7	9.3	<0.1	<0.1	<0.1	2.9	<0.1	0.1	0.1	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	15.3	0.4	8.5	1.1	2.5	2.1	5.3	1.4	1.0	2.3
TPH (C ₅ - C ₃₅)	(mg/kg)	215.1	21.9	20.9	8.7	4.4	226.3	178.0	146.9	1.2	3.7

All results expressed on dry weight basis

** - MCERTS accredited test





18/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

TPH CWG - Soil

744G - 2011										
	Characteristic	Silt Loam	Chalk	Loamy sand	Silt Loam		,	Silty clay loam	•	Silty clay loam
	TP/BH	BHNSA15	BHNSA16	BHNSA17	BHNSA18	BHNSA19	BHNSA20	BHNSA21	BHNSA22	BHNSA22
	Depth (m)	0.50	1.00	0.50	0.50	0.50	0.50	0.50	0.50	2.00
	Our ref	19180	19181	19182	19183	19184	19185	19186	19188	19189
<u>Aromatic</u>										
>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₇ -EC ₈	(mg/kg)	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	<0.01	< 0.01
>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1	4.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	3.2	<0.1
>EC ₁₆ -EC ₂₁	(mg/kg)	0.2	1.1	<0.1	5.5	1.1	<0.1	8.6	23.4	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	51.9	29.9	72.7	22.7	10.8	<0.1	53.8	61.3	0.4
Aliphatic										
>EC ₅ -EC ₆	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₆ -EC ₈	(mg/kg)	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01	<0.01	<0.01
>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1	7.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1	6.3	<0.1	<0.1	<0.1	<0.1	0.2	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	<0.1	<0.1	11.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₆ -EC ₂₁	(mg/kg)	<0.1	0.6	5.5	0.2	0.1	<0.1	0.2	0.5	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	10.1	57.4	70.9	0.9	0.1	0.4	1.7	5.9	0.4
TPH (C ₅ - C ₃₅)	(mg/kg)	62.1	89.0	179.5	29.5	12.2	0.5	64.4	94.5	0.8

All results expressed on dry weight basis

** - MCERTS accredited test



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

VOC ANALYSIS

Reporting Date:

18/11/11

	Characteristic	Silt Loam	Silt Loam Sa	ndy silt loam Sa	y silt loam Sandy silt loam Sandy s		
Soils	TP/BH	BHNSA3	BHNSA6	BHNSA9	BHNSA12	BHNSA20	
	Depth (m)	0.50	0.50	0.50	1.00	0.50	
	Our ref	19167	19171	19174	19177	19185	
Benzene**	(µg/kg)	<10	<10	<10	<10	<10	
Toluene**	(µg/kg)	<10	<10	<10	<10	<10	
Ethyl Benzene**	(µg/kg)	<10	<10	<10	<10	<10	
mpXylene**	(µg/kg)	<10	<10	<10	<10	<10	
oXylene**	(µg/kg)	<10	<10	<10	<10	<10	
1, 2-Dichloroethene-cis**	(µg/kg)	<10	<10	<10	<10	<10	
1, 1-Dichloroethane**	(µg/kg)	<10	<10	<10	<10	<10	
Chloroform**	(µg/kg)	<10	<10	<10	<10	<10	
Carbontetrachloride**	(µg/kg)	<10	<10	<10	<10	<10	
1, 1, 1-Trichloroethane**	(µg/kg)	<10	<10	<10	<10	<10	
Trichloroethylene**	(µg/kg)	<10	<10	<10	<10	<10	
Tetrachloroethylene**	(µg/kg)	<10	<10	<10	<10	<10	
1, 1, 1, 2-Tetrachloroethane**	(µg/kg)	<10	<10	<10	<10	<10	
1, 1, 2, 2-Tetrachloroethane**	(µg/kg)	<10	<10	<10	<10	<10	
Chlorobenzene**	(µg/kg)	<10	<10	<10	<10	<10	
Bromobenzene**	(µg/kg)	<10	<10	<10	<10	<10	
Bromodichloromethane**	(µg/kg)	<10	<10	<10	<10	<10	
Methylethylbenzene**	(µg/kg)	<10	<10	<10	<10	<10	
1, 1-Dichloro-1-propene**	(µg/kg)	<10	<10	<10	<10	<10	
1, 2-Dichloroethene-trans	(µg/kg)	<10	<10	<10	<10	<10	
2, 2-Dichloropropane	(µg/kg)	<10	<10	<10	<10	<10	
Bromochloromethane	(µg/kg)	<10	<10	<10	<10	<10	
1, 2-Dichloroethane	(µg/kg)	<10	<10	<10	<10	<10	
Dibromomethane**	(µg/kg)	<10	<10	<10	<10	<10	
1, 2-Dichloropropane**	(µg/kg)	<10	<10	<10	<10	<10	
1, 3-Dichloro1propene**	(µg/kg)	<10	<10	<10	<10	<10	
1, 3-Dichloro1propene trans	(µg/kg)	<10	<10	<10	<10	<10	
1, 1, 2-Trichloroethane	(µg/kg)	<10	<10	<10	<10	<10	
Dibromochloromethane	(µg/kg)	<10	<10	<10	<10	<10	
1, 3-Dichloropropane	(µg/kg)	<10	<10	<10	<10	<10	
Dibromoethane**	(µg/kg)	<10	<10	<10	<10	<10	
Styrene	(µg/kg)	<10	<10	<10	<10	<10	
Propylbenzene	(µg/kg)	<10	<10	<10	<10	<10	
2-Chlorotoluene	(µg/kg)	<10	<10	<10	<10	<10	
1, 2, 4-Trimethylbenzene	(µg/kg)	<10	<10	<10	<10	<10	
4-Chlorotoluene	(µg/kg)	<10	<10	<10	<10	<10	
t-Butylbenzene	(µg/kg)	<10	<10	<10	<10	<10	
Trimethylbenzene	(µg/kg)	<10	<10	<10	<10	<10	
1-Methylpropylbenzene	(µg/kg)	<10	<10	<10	<10	<10	
o-Cymene	(µg/kg)	<10	<10	<10	<10	<10	
1, 4-Dichlorobenzene Butylbenzene	(µg/kg)	<10	<10	<10	<10	<10	
•	(µg/kg)	<10	<10	<10	<10	<10	
1, 2-Dibromo-3-chloropropane Hexachlorobutaciene	(µg/kg)	<10	<10	<10	<10	<10	
1, 2, 3-Trichlorobenzene	(µg/kg)	<10	<10	<10	<10	<10	
1, 2, 3-1 richlorobenzene 1, 2, 4-Trichlorobenzene	(µg/kg)	<10	<10	<10	<10	<10	
1, 3-Dichlorobenzene	(µg/kg)	<10	<10	<10	<10	<10	
1, 2-Dichlorobenzene	(µg/kg)	<10	<10	<10	<10	<10	
r, 2-Dichiorobenzene Bromoform	(µg/kg)	<10	<10 <10	<10 <10	<10 <10	<10 <10	
Bronolom	(µg/kg)	<10	<10	<10	<10	<10	

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

SVOC ANALYSIS

Soils	TP/BH	BHNSA3	BHNSA6	BHNSA9	BHNSA12	BHNSA20
<u>50115</u>	Depth (m)	0.50	0.50	0.50	1.00	0.50
	Our ref	19167	19171	19174	19177	19185
Pyridine	(µg/kg)	<10	<10	<10	<10	<10
Aniline	(µg/kg)	<10	<10	<10	<10	<10
Phenol	(µg/kg)	<10	<10	<10	<10	<10
Bis(2-chloroethyl) ether	(µg/kg)	<10	<10	<10	<10	<10
Benzene, 1,3-dichloro- Benzene, 1,4-dichloro-	(μg/kg) (μg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
Benzene, 1,2-dichloro-	(μg/kg)	<10	<10	<10	<10	<10
Phenol, 2-methyl-	(µg/kg)	<10	<10	<10	<10	<10
Ethane, hexachloro-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 3-methyl-	(µg/kg)	<10	<10	<10	<10	<10
Nitrobenzene	(µg/kg)	<10	<10	<10	<10	<10
Isophorone	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2-nitro-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2,4-dimethyl- Methane, bis(2-chloroethoxy)-	(µg/kg) (µg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
Phenol, 2,4-dichloro-	(μg/kg)	<10	<10	<10	<10	<10
1,3,4-Trichlorobenzene,	(µg/kg)	<10	<10	<10	<10	<10
Naphthalene	(µg/kg)					
4-Chloroaniline	(µg/kg)	<10	<10	<10	<10	<10
Hexachloro-1,3-butadiene	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 4-chloro-3-methyl-	(µg/kg)	<10	<10	<10	<10	<10
Naphthalene, 2-methyl-	(µg/kg)	113	<10	<10	<10	<10
Naphthalene, 1-methyl-	(µg/kg)	85	<10	<10	<10	<10
Hexachlorocyclopentadiene Phenol, 2,4,6-trichloro-	(µg/kg) (µg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
Phenol, 2,4,5-trichloro-	(μg/kg)	<10	<10	<10	<10	<10
Naphthalene, 2-chloro-	(µg/kg)	<10	<10	<10	<10	<10
2-Nitroaniline	(µg/kg)	<10	<10	<10	<10	<10
1,4-Dinitrobenzene,	(µg/kg)	<10	<10	<10	<10	<10
Dimethylphthalate	(µg/kg)	<10	<10	<10	<10	<10
Acenaphthylene	(µg/kg)					
1.3-Dinitrobenzene	(µg/kg)	<10	<10	<10	<10	<10
3-Nitroaniline	(µg/kg)	<10	<10	<10	<10	<10
Acenaphthene Dibenzofuran	(μg/kg) (μg/kg)	 <10	 <10	 <10	 <10	 <10
2,4-Dinitrotoluene	(μg/kg)	<10	<10	<10	<10	<10
2,3,4,6-Tetrachlorophenol,	(µg/kg)	<10	<10	<10	<10	<10
2,3,5,6-Tetrachlorophenol,	(µg/kg)	<10	<10	<10	<10	<10
Diethylphthalate	(µg/kg)	<10	<10	<10	<10	<10
Fluorene	(µg/kg)					
Diphenylamine	(µg/kg)	<10	<10	<10	<10	<10
Azobenzene	(µg/kg)	<10	<10	<10	<10	<10
4-Bromophenyl phenyl ether	(µg/kg)	<10	<10	<10	<10	<10
Hexachlorobenzene Pentachlorophenol	(µg/kg) (µg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
Phenanthrene	(μg/kg)					
Anthracene	(µg/kg)					
Fluoranthene	(µg/kg)					
Pyrene	(µg/kg)					
Benzylbutylphthalate	(µg/kg)	<10	<10	<10	<10	<10
Bis(2-ethylhexyl)adipate	(µg/kg)	<10	<10	<10	<10	<10
Benzo(a)anthracene	(µg/kg)					
Chrysene	(µg/kg)	 -10	 -10	 -10	 -10	 -10
Bis(2-ethylhexyl)phthalate Benzo(b)fluoranthene	(µg/kg) (µg/kg)	<10 	<10 	<10 	<10 	<10
Benzo(k)fluoranthene	(μg/kg) (μg/kg)					
Benzo(a)pyrene	(µg/kg)					
Indeno[1,2,3-cd]pyrene	(µg/kg)					
Dibenz(ah)anthracene	(µg/kg)					
Benzo(ghi)perylene	(µg/kg)					

PRB



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

Asbestos Identification

 Sample ref:
 BHNSA2

 Depth (m)
 0.50

 Our ref:
 19164

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 BHNSA3

 Depth (m)
 0.50

 Our ref:
 19167

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 BHNSA4

 Depth (m)
 1.00

 Our ref:
 19169

 #Description of Sample Matrix:
 Chalk

 *Result
 No asbestos identified

 Sample ref:
 BHNSA5

 Depth (m)
 0.50

 Our ref:
 19170

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Sample ref:BHNSA6Depth (m)0.50Our ref:19171#Description of Sample Matrix:Silt Loam*ResultNo asbestos identified

^{*=} UKAS accredited

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

Asbestos Identification

 Sample ref:
 BHNSA7

 Depth (m)
 0.50

 Our ref:
 19172

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 BHNSA8

 Depth (m)
 0.50

 Our ref:
 19173

 #Description of Sample Matrix:
 Silty clay loam

 *Result
 No asbestos identified

Sample ref: BHNSA9
Depth (m) 0.50
Our ref: 19174
#Description of Sample Matrix: Sandy silt loam
*Result No asbestos identified

 Sample ref:
 BHNSA10

 Depth (m)
 0.50

 Our ref:
 19175

 #Description of Sample Matrix:
 Sandy silt loam

 *Result
 Chrysotile (White Asbestos)

Sample ref: BHNSA12
Depth (m) 1.00
Our ref: 19177
#Description of Sample Matrix: Sandy silt loam
*Result No asbestos identified

^{*=} UKAS accredited

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

Asbestos Identification

 Sample ref:
 BHNSA15

 Depth (m)
 0.50

 Our ref:
 19180

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 BHNSA16

 Depth (m)
 1.00

 Our ref:
 19181

 #Description of Sample Matrix:
 Chalk

 *Result
 No asbestos identified

Sample ref: BHNSA17
Depth (m) 0.50
Our ref: 19182
#Description of Sample Matrix: Loamy sand
*Result No asbestos identified

 Sample ref:
 BHNSA18

 Depth (m)
 0.50

 Our ref:
 19183

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 BHNSA19

 Depth (m)
 0.50

 Our ref:
 19184

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

^{*=} UKAS accredited

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

Asbestos Identification

 Sample ref:
 BHNSA20

 Depth (m)
 0.50

 Our ref:
 19185

 #Description of Sample Matrix:
 Sandy silt loam

 *Result
 No asbestos identified

 Sample ref:
 BHNSA21

 Depth (m)
 0.50

 Our ref:
 19186

 #Description of Sample Matrix:
 Silty clay loam

 *Result
 No asbestos identified

Sample ref: BHNSA22
Depth (m) 0.50
Our ref: 19188
#Description of Sample Matrix: Clay
*Result No asbestos identified

 Sample ref:
 BHNSA22

 Depth (m)
 2.00

 Our ref:
 19189

 #Description of Sample Matrix:
 Silty clay loam

 *Result
 No asbestos identified

^{*=} UKAS accredited

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client







THE ENVIRONMENTAL LABORATORY LTD

SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR35737A
Sample Receipt Date: 04/11/11
Reporting Date: 18/11/11

 Registered:
 04/11/11

 Prepared:
 05/11/11

 Analysis complete:
 18/11/11

TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
Arsenic**	Air dried sample	15/11/11	118	ICPMS
Cadmium**	Air dried sample	15/11/11	118	ICPMS
Chromium**	Air dried sample	15/11/11	118	ICPMS
Lead**	Air dried sample	15/11/11	118	ICPMS
Mercury**	Air dried sample	15/11/11	118	ICPMS
Nickel**	Air dried sample	15/11/11	118	ICPMS
Copper**	Air dried sample	15/11/11	118	ICPMS
Zinc**	Air dried sample	15/11/11	118	ICPMS
Selenium**	Air dried sample	15/11/11	118	ICPMS
Hexavalent Chromium	As submitted sample	15/11/11	110	Colorimetry
Water Soluble Boron	Air dried sample	15/11/11	202	Colorimetry AA3
Barium*	Air dried sample	15/11/11	118	ICPMS
Beryllium*	Air dried sample	15/11/11	118	ICPMS
Vanadium**	Air dried sample	15/11/11	118	ICPMS
Antimony	Air dried sample	15/11/11	118	ICPMS
Molybdenum	Air dried sample	15/11/11	118	ICPMS
Cobalt	Air dried sample	15/11/11	118	ICPMS
pH Value**	Air dried sample	15/11/11	113	Probe
Total Sulphate	Air dried sample	16/11/11	208	Colorimetry
Total Cyanide**	As submitted sample	17/11/11	204	Automated Flow Digital Colorimetry
Free Cyanide	As submitted sample	17/11/11	107	Colorimetry
Complex Cyanide	As submitted sample	17/11/11	145	Colorimetry
Total Monohydric Phenols**	As submitted sample	11/11/11	121	HPLC
Water Soluble Sulphate	Air dried sample	15/11/11	209	Colorimetry
Total Organic Carbon	Air dried sample	11/11/11	110	IR Adsorption
Elemental Sulphur**	Air dried sample	15/11/11	122	HPLC
Thiocyanate	As submitted sample	15/11/11	146	Colorimetry
Moisture Content**	As submitted sample	04/11/11	96	Gravimetric
Speciated PAH**	As submitted sample	10/11/11	133	Gas Chromatography
Carbon Banding (TPH CWG)	As submitted sample	10/11/11	214	Gas chromatography
VOC**	As submitted sample	09/11/11	181	GCMS
SVOC	As submitted sample	09/11/11	167	GCMS
PCB (7 ICES Congeners)	Air dried sample	16/11/11	178	GCMS
Asbestos*	As submitted sample	10/11/11	179	see note

Asbestos analysis qualitative only

Note:- Documented In-house procedure based on HSG 248 2005

Determinands not marked with * or ** are not accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

^{* =} UKAS Accredited test

^{** -} MCERTS Accredited test





THE ENVIRONMENTAL LABORATORY LTD

SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR35737A
Sample Receipt Date: 04/11/11
Reporting Date: 18/11/11

 Registered:
 04/11/11

 Prepared:
 05/11/11

 Analysis complete:
 18/11/11

TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique		
pH Value**	Air dried sample	15/11/11	113	BRE SD1		
Total Sulphate	Air dried sample	16/11/11	115	BRE SD1		
Total Sulphur	Air dried sample	11/11/11	216	BRE SD1		
Water Soluble Sulphate**	Air dried sample	16/11/11	172	BRE SD1		
Water Soluble Nitrate	Air dried sample	16/11/11	172	BRE SD1		
Water Soluble Chloride	Air dried sample	16/11/11	172	BRE SD1		
Water Soluble Magnesium	Air dried sample	16/11/11	101	ICPMS		
Ammonium	As submitted sample	11/11/11	151	Colorimetry		

Determinands not marked with * or ** are non accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

^{* =} UKAS Accredited test

^{** -} MCERTS Accredited test





THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 18/11/11

ANALYTICAL REPORT No. AR35899

Samples Received By:- Courier
Samples Received:- 15/11/11

Site Location: Upper Heyford NSA

No Samples Received:- 14

Report Checked By:
Mike Varley BSc, CChem, CSci, FRSC

Director

Chief Chemist





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

2000 2000											
F.A.O. Roni Savage Jomas Associates Limited Jomas House									Repo	rting Date:	18/11/11
21 Bradenham Road	TP/BH	BHNSA2	BHNSA2	BHNSA3	BHNSA10	BHNSA13	BHNSA14	BHNSA21	BHNSA38	TP94	TP95
Middlesex, UB4 8LP	Depth (m)	2.00	3.10	4.00	1.00	1.20	1.20	3.40	1.20	1.50	1.00
	Our ref	20126	20127	20128	20129	20130	20131	20132	20133	20134	20135
<u>Soils</u>											
Stone Content	(%)	<1	8	<1	4	<1	13	5	9	16	6
Arsenic**	(mg/kg)	n/t	8.7	n/t	22.8	<5	<5	<5	<5	14.0	18.4
Cadmium**	(mg/kg)	n/t	0.8	n/t	1.3	0.6	0.5	0.6	0.5	0.6	0.6
Chromium**	(mg/kg)	n/t	18	n/t	95	7	4	15	5	14	20
Lead**	(mg/kg)	n/t	9	n/t	81	2	2	6	1	8	7
Mercury**	(mg/kg)	n/t	<0.5	n/t	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	n/t	16	n/t	27	4	2	10	3	12	15
Copper**	(mg/kg)	n/t	8	n/t	18	3	2	6	2	7	8
Zinc**	(mg/kg)	n/t	21	n/t	98	10	8	16	9	21	26
Selenium**	(mg/kg)	n/t	1.6	n/t	1.3	8.0	0.7	1.2	0.8	0.9	0.9
Hexavalent Chromium	(mg/kg)	n/t	<2	n/t	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	n/t	<0.5	n/t	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium*	(mg/kg)	n/t	19	n/t	166	<10	<10	17	<10	21	32
Beryllium*	(mg/kg)	n/t	<1	n/t	1	<1	<1	<1	<1	<1	<1
Vanadium**	(mg/kg)	n/t	30	n/t	74	26	17	27	21	41	60
Antimony	(mg/kg)	n/t	3.5	n/t	3.4	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Molybdenum	(mg/kg)	n/t	<5	n/t	<5	<5	<5	<5	<5	<5	<5
Cobalt	(mg/kg)	n/t	9	n/t	12	2	1	4	1	5	6.717
pH Value**	(Units)	n/t	7.8	n/t	8.4	8.8	8.9	8.3	8.7	8.5	8.4
Total Sulphate	(% as SO ₄)	n/t	0.05	n/t	<0.05	<0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Total Cyanide**	(mg/kg)	n/t	<1	n/t	<1	<1	<1	<1	<1	<1	<1
Free Cyanide	(mg/kg)	n/t	<1	n/t	<1	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	n/t	<1	n/t	<1	<1	<1	<1	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	n/t	<1	n/t	1.5	<1	<1	1.6	<1	<1	<1
Water Soluble Sulphate	(mg/l as SO ₄)	n/t	801	n/t	32	14	13	11	14	<10	<10
Total Organic Carbon*	(%)	1.6	1.2	0.8	0.6	0.6	1.8	0.8	0.5	8.0	0.2
Elemental Sulphur**	(mg/kg)	n/t	<10	n/t	<10	<10	<10	<10	<10	<10	<10

All results expressed on dry weight basis

Moisture Content**

Thiocyanate

(mg/kg)

8.9

n/t

10.3

<2

15.6

<2

15.6

<2

12.0

<2

9.6

<2

10.3

<2

12.5

n/t

16.6

<2

9.6

<2

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





18/11/11

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils

	TP/BH	BHNSA6	BHNSA6	TP230A	BHNSA10	
	Depth (m)	3.20	4.20	0.50	3.40	
	Our ref	20136	20137	20138	20139	
<u>oils</u>						
Stone Content	(%)	6	5	5	6	
Arsenic**	(mg/kg)	<5	5.7	16.4	6.2	
Cadmium**	(mg/kg)	0.5	0.5	0.7	0.6	
Chromium**	(mg/kg)	12	9	24	6	
Lead**	(mg/kg)	5	3	15	4	
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	
Nickel**	(mg/kg)	8	6	17	5	
Copper**	(mg/kg)	5	3	11	3	
Zinc**	(mg/kg)	13	11	39	85	
Selenium**	(mg/kg)	0.9	0.7	1.0	0.7	
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	
Water Soluble Boron	(mg/kg)	<0.5	<0.5	<0.5	<0.5	
Barium**	(mg/kg)	13	10	50	<10	
Beryllium**	(mg/kg)	<1	<1	<1	<1	
Vanadium**	(mg/kg)	17	23	51	16	
Antimony	(mg/kg)	<2.5	<2.5	<2.5	<2.5	
Molybdenum	(mg/kg)	<5	<5	<5	<5	
Cobalt	(mg/kg)	3	3	7	3	
pH Value**	(Units)	8.2	8.7	8.2	8.6	
Total Sulphate	(% as SO ₄)	< 0.05	<0.05	< 0.05	< 0.05	
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	
Free Cyanide	(mg/kg)	<1	<1	<1	<1	
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	
Water Soluble Sulphate	(mg/l as SO ₄)	<10	<10	<10	<10	
Total Organic Carbon	(%)	0.7	0.9	1.0	1.5	
Elemental Sulphur**	(mg/kg)	<10	<10	<10	<10	
Moisture Content**	(%)	11.0	6.3	18.5	14.4	
Thiocyanate	(mg/kg)	<2	<2	<2	<2	

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

F.A.O. Roni Savage **Jomas Associates Limited** Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

<u>Soils</u>	TP/BH	BHNSA2	BHNSA10	BHNSA13	BHNSA14	BHNSA21	BHNSA38	TP94	TP95	BHNSA6	BHNSA6
	Depth (m)	3.10	1.00	1.20	1.20	3.40	1.20	1.50	1.00	3.20	4.20
	Our ref	20127	20129	20130	20131	20132	20133	20134	20135	20136	20137
Naphthalene**	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene**	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene**	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene**	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene**	(mg/kg)	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene**	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene**	(mg/kg)	<0.1	0.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene**	(mg/kg)	<0.1	0.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene**	(mg/kg)	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene**	(mg/kg)	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene**	(mg/kg)	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene**	(mg/kg)	<0.1	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene**	(mg/kg)	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(123-cd)pyrene**	(mg/kg)	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(ah)anthracene**	(mg/kg)	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene**	(mg/kg)	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total PAH**	(mg/kg)	<0.1	5.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

^{** -} MCERTS accredited test



Middlesex, UB4 8LP

F.A.O. Roni Savage **Jomas Associates Limited** Jomas House 21 Bradenham Road

Soils

THE ENVIRONMENTAL LABORATORY LTD



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

Reporting Date: 18/11/11

	TP/BH	TP230A	BHNSA10
	Depth (m)	0.50	3.40
	Our ref	20138	20139
Naphthalene**	(mg/kg)	<0.1	<0.1
Acenaphthylene**	(mg/kg)	<0.1	<0.1
Acenaphthene**	(mg/kg)	<0.1	<0.1
Fluorene**	(mg/kg)	<0.1	<0.1
Phenanthrene**	(mg/kg)	0.1	<0.1
Anthracene**	(mg/kg)	<0.1	<0.1
Fluoranthene**	(mg/kg)	1.7	<0.1
Pyrene**	(mg/kg)	1.6	<0.1
Benz(a)anthracene**	(mg/kg)	1.0	<0.1
Chrysene**	(mg/kg)	1.3	<0.1
Benzo(b)fluoranthene**	(mg/kg)	1.0	<0.1
Benzo(k)fluoranthene**	(mg/kg)	1.1	<0.1
Benzo(a)pyrene**	(mg/kg)	1.2	<0.1
Indeno(123-cd)pyrene**	(mg/kg)	1.0	<0.1
Dibenz(ah)anthracene**	(mg/kg)	0.2	<0.1
Benzo(ghi)perylene**	(mg/kg)	0.8	<0.1
Total PAH**	(mg/kg)	11.0	<0.1

All results expressed on dry weight basis

^{** -} MCERTS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

Reporting Date: 18/11/11

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

TPH CWG - Soil

	TP/BH	BHNSA2	BHNSA2	BHNSA3	BHNSA10	BHNSA13	BHNSA14	BHNSA21	BHNSA38	TP94	TP95
	Depth (m)	2.00	3.10	4.00	1.00	1.20	1.20	3.40	1.20	1.50	1.00
	Our ref	20126	20127	20128	20129	20130	20131	20132	20133	20134	20135
<u>Aromatic</u>											
>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₇ -EC ₈	(mg/kg)	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01
>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	0.8	<0.1	<0.1	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	12.8	<0.1	0.1	0.4	0.2	<0.1	27.0	<0.1	0.2	0.1
>EC ₁₆ -EC ₂₁	(mg/kg)	22.8	<0.1	0.1	2.6	1.6	0.2	57.8	0.2	0.2	0.2
>EC ₂₁ -EC ₃₅	(mg/kg)	43.2	<0.1	<0.1	21.6	2.8	0.3	25.1	1.2	<0.1	<0.1
Aliphatic											
>EC ₅ -EC ₆	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₆ -EC ₈	(mg/kg)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01
>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	3.2	<0.1	0.1	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	11.4	<0.1	<0.1	1.2	<0.1	<0.1	46.7	<0.1	0.2	0.2
>EC ₁₆ -EC ₂₁	(mg/kg)	15.0	<0.1	<0.1	<0.1	1.1	<0.1	60.9	<0.1	0.1	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	78.3	1.4	<0.1	20.8	0.1	<0.1	16.8	1.3	0.6	1.3
TPH (C ₅ - C ₃₅)	(mg/kg)	184.1	1.4	0.2	46.7	5.9	0.5	238.4	2.6	1.3	1.9

All results expressed on dry weight basis

** - MCERTS accredited test

MP





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

Reporting Date: 18/11/11

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

TPH CWG - Soil

	TP/BH	BHNSA6	BHNSA6	TP230A	BHNSA10
	Depth (m)	3.20	4.20	0.50	3.40
	Our ref	20136	20137	20138	20139
<u>Aromatic</u>					
>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01	<0.01	<0.01
>EC ₇ -EC ₈	(mg/kg)	< 0.01	<0.01	< 0.01	<0.01
$>EC_8-EC_{10}$	(mg/kg)	<0.1	<0.1	<0.1	0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1	<0.1	0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	0.2	0.2	0.1	0.2
>EC ₁₆ -EC ₂₁	(mg/kg)	0.8	0.1	2.1	0.2
>EC ₂₁ -EC ₃₅	(mg/kg)	1.0	<0.1	11.7	<0.1
Aliphatic					
>EC ₅ -EC ₆	(mg/kg)	<0.01	<0.01	<0.01	<0.01
>EC ₆ -EC ₈	(mg/kg)	< 0.01	<0.01	< 0.01	<0.01
$>EC_8-EC_{10}$	(mg/kg)	<0.1	0.1	<0.1	0.3
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1	<0.1	0.2
>EC ₁₂ -EC ₁₆	(mg/kg)	1.0	0.1	<0.1	0.2
>EC ₁₆ -EC ₂₁	(mg/kg)	0.5	<0.1	0.9	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	1.9	1.3	1.0	0.3
TPH (C ₅ - C ₃₅)	(mg/kg)	5.4	1.8	15.8	1.7

All results expressed on dry weight basis

** - MCERTS accredited test

MP





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

Reporting Date: 18/11/11

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils

TP/BH	BHNSA21
Depth (m)	3.40
Our ref	20132

PCB (7 ICES Congeners)

PCB 28**	(µg/kg)	<10
PCB 52**	(µg/kg)	<10
PCB 101**	(µg/kg)	<10
PCB 118**	(µg/kg)	<10
PCB 138**	(µg/kg)	<10
PCB 153**	(µg/kg)	<10
PCB 180**	(µg/kg)	<10

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY Fax: 01424 729911

Tel: 01424 718618

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited **Jomas House** 21 Bradenham Road Middlesex, UB4 8LP

Soils

Reporting Date: 18/11/11

VOC ANALYSIS

	TP/BH	BHNSA21
	Depth (m)	3.40
	Our ref	20132
Benzene**	(µg/kg)	<10
Toluene**	(μg/kg)	<10
Ethyl Benzene**	(μg/kg)	<10
mpXylene**	(μg/kg)	<10
oXylene**	(μg/kg)	<10
1, 2-Dichloroethene-cis**	(μg/kg)	<10
1, 1-Dichloroethane**	(μg/kg)	<10
Chloroform**	(μg/kg)	<10
Carbontetrachloride**	(μg/kg)	<10
1, 1, 1-Trichloroethane**	(μg/kg)	<10
Trichloroethylene**	(μg/kg) (μg/kg)	<10
Tetrachloroethylene**		<10
1, 1, 1, 2-Tetrachloroethane**	(µg/kg)	<10
1, 1, 2, 2-Tetrachloroethane**	(µg/kg)	<10
Chlorobenzene**	(µg/kg)	<10
Bromobenzene**	(µg/kg)	
Bromodichloromethane**	(µg/kg)	<10
Methylethylbenzene**	(µg/kg)	<10
1, 1-Dichloro-1-propene**	(µg/kg)	<10
1, 2-Dichloroethene-trans	(µg/kg)	<10
,	(µg/kg)	<10
2, 2-Dichloropropane Bromochloromethane	(µg/kg)	<10
1, 2-Dichloroethane	(µg/kg)	<10
Dibromomethane**	(µg/kg)	<10
1, 2-Dichloropropane**	(µg/kg)	<10
1, 3-Dichloro1propene**	(µg/kg)	<10
1, 3-Dichloro1propene trans	(µg/kg)	<10
1, 1, 2-Trichloroethane	(µg/kg)	<10
Dibromochloromethane	(µg/kg)	<10
	(µg/kg)	<10
1, 3-Dichloropropane Dibromoethane**	(µg/kg)	<10
	(µg/kg)	<10
Styrene Propylbenzene	(µg/kg)	<10
2-Chlorotoluene	(µg/kg)	<10
1, 2, 4-Trimethylbenzene	(µg/kg)	<10
4-Chlorotoluene	(µg/kg)	<10
t-Butylbenzene	(µg/kg)	<10
Trimethylbenzene	(µg/kg)	<10
1-Methylpropylbenzene	(µg/kg)	<10
* * * * * .	(µg/kg)	<10
o-Cymene 1, 4-Dichlorobenzene	(µg/kg)	<10
Butylbenzene	(µg/kg)	<10
•	(µg/kg)	<10
1, 2-Dibromo-3-chloropropane Hexachlorobutaciene	(µg/kg)	<10
1, 2, 3-Trichlorobenzene	(µg/kg)	<10
1, 2, 4-Trichlorobenzene	(µg/kg)	<10
1, 2, 4-Trichlorobenzene	(µg/kg)	<10
1, 3-Dichlorobenzene	(µg/kg)	<10
1, 2-Dichlorobenzene Bromoform	(µg/kg)	<10
Bioilioiolm	(µg/kg)	<10

^{** -} MCERTS accredited test

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899 Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road

<u>Soils</u>

Middlesex, UB4 8LP

Reporting Date: 18/11/11

SVOC ANALYSIS

	TP/BH	BHNSA21
	Depth (m)	3.40
	Our ref	20132
	Oui 101	20102
Pyridine	(µg/kg)	<10
Aniline	(µg/kg)	<10
Phenol	(µg/kg)	<10
Bis(2-chloroethyl) ether	(µg/kg)	<10
Benzene, 1,3-dichloro-	(µg/kg)	<10
Benzene, 1,4-dichloro-	(µg/kg)	<10
Benzene, 1,2-dichloro- Phenol, 2-methyl-	(µg/kg)	<10 <10
Ethane, hexachloro-	(µg/kg) (µg/kg)	<10
Phenol, 3-methyl-	(µg/kg)	<10
Nitrobenzene	(µg/kg)	<10
Isophorone	(µg/kg)	<10
Phenol, 2-nitro-	(µg/kg)	<10
Phenol, 2,4-dimethyl-	(µg/kg)	<10 <10
Methane, bis(2-chloroethoxy)- Phenol, 2,4-dichloro-	(µg/kg) (µg/kg)	<10 <10
1,3,4-Trichlorobenzene,	(µg/kg)	<10
Naphthalene	(µg/kg)	
4-Chloroaniline	(µg/kg)	<10
Hexachloro-1,3-butadiene	(µg/kg)	<10
Phenol, 4-chloro-3-methyl-	(µg/kg)	<10
Naphthalene, 2-methyl- Naphthalene, 1-methyl-	(µg/kg) (µg/kg)	<10 <10
Hexachlorocyclopentadiene	(µg/kg)	<10
Phenol, 2,4,6-trichloro-	(µg/kg)	<10
Phenol, 2,4,5-trichloro-	(µg/kg)	<10
Naphthalene, 2-chloro-	(µg/kg)	<10
2-Nitroaniline 1,4-Dinitrobenzene,	(µg/kg)	<10 <10
Dimethylphthalate	(µg/kg) (µg/kg)	<10
Acenaphthylene	(µg/kg)	
1.3-Dinitrobenzene	(µg/kg)	<10
3-Nitroaniline	(µg/kg)	<10
Acenaphthene	(µg/kg)	
Dibenzofuran 2,4-Dinitrotoluene	(µg/kg) (µg/kg)	<10 <10
2,3,4,6-Tetrachlorophenol,	(μg/kg)	<10
2,3,5,6-Tetrachlorophenol,	(µg/kg)	<10
Diethylphthalate	(µg/kg)	<10
Fluorene	(µg/kg)	
Diphenylamine	(µg/kg)	<10 <10
Azobenzene 4-Bromophenyl phenyl ether	(µg/kg) (µg/kg)	<10 <10
Hexachlorobenzene	(µg/kg)	<10
Pentachlorophenol	(µg/kg)	<10
Phenanthrene	(µg/kg)	
Anthracene	(µg/kg)	
Fluoranthene Pyrene	(µg/kg)	
Benzylbutylphthalate	(µg/kg) (µg/kg)	<10
Bis(2-ethylhexyl)adipate	(µg/kg)	<10
Benzo(a)anthracene	(µg/kg)	
Chrysene	(µg/kg)	
Bis(2-ethylhexyl)phthalate	(µg/kg)	<10
Benzo(b)fluoranthene Benzo(k)fluoranthene	(µg/kg) (µg/kg)	
Benzo(a)pyrene	(μg/kg)	
Indeno[1,2,3-cd]pyrene	(µg/kg)	
Dibenz(ah)anthracene	(µg/kg)	
Benzo(ghi)perylene	(µg/kg)	

MP



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

Asbestos Identification

Sample ref: BHNSA2
Depth (m) 3.10
Our ref: 20127
#Description of Sample Matrix: Soil
*Result No asbestos identified

 Sample ref:
 BHNSA10

 Depth (m)
 1.00

 Our ref:
 20129

 #Description of Sample Matrix:
 Soil

 *Result
 No asbestos identified

 Sample ref:
 BHNSA13

 Depth (m)
 1.20

 Our ref:
 20130

 *Plescription of Sample Matrix:
 Soil

 *Result
 No asbestos identified

 Sample ref:
 BHNSA14

 Depth (m)
 1.20

 Our ref:
 20131

 #Description of Sample Matrix:
 Soil

 *Result
 No asbestos identified

 Sample ref:
 BHNSA21

 Depth (m)
 3.40

 Our ref:
 20132

 #Description of Sample Matrix:
 Soil

 *Result
 No asbestos identified

^{*=} UKAS accredited

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 18/11/11

Asbestos Identification

Sample ref: BHNSA38
Depth (m) 1.20
Our ref: 20133
#Description of Sample Matrix: Soil
*Result No asbestos identified

 Sample ref:
 TP94

 Depth (m)
 1.50

 Our ref:
 20134

 #Description of Sample Matrix:
 Soil

 *Result
 No asbestos identified

 Sample ref:
 TP95

 Depth (m)
 1.00

 Our ref:
 20135

 #Description of Sample Matrix:
 Soil

 *Result
 No asbestos identified

 Sample ref:
 TP230A

 Depth (m)
 0.50

 Our ref:
 20138

 #Description of Sample Matrix:
 Soil

 *Result
 No asbestos identified

 Sample ref:
 BHNSA10

 Depth (m)
 3.40

 Our ref:
 20139

 #Description of Sample Matrix:
 Soil

 *Result
 No asbestos identified

^{*=} UKAS accredited

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA

Reporting Date: 18/11/11

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils

	TP/BH Depth (m)	BHNSA2 2.00
	Our ref	20126
01	(0/)	4
Stone Content	(%)	<1
pH Value**	(Units)	8.7
Total Sulphate	(% as SO ₄)	0.14
Total Sulphur	(% as S)	0.06
Water Soluble Sulphate**	(mg/l as SO ₄)	24
Water Soluble Chloride	(mg/l)	8
Water Soluble Nitrate	(mg/l)	<1
Water Soluble Magnesium	(mg/l)	0.3
Ammonium	(mg/l)	<0.1

All results expressed on dry weight basis

MP

^{** -} MCERTS accredited test

^{* =} UKAS accredited test





Unit A2 Windmill Road Ponswood Industrial Estate St Leonards on Sea East Sussex TN38 9BY Telephone (01424) 718618 Facsimile (01424) 729911

THE ENVIRONMENTAL LABORATORY LTD

SOLID SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number
Your Job No:
Sample Receipt Date:
Reporting Date:

AR35899
--15/11/11
Reporting Date:
18/11/11

Registered: 15/11/11 Prepared: 16/11/11 Analysis complete: 18/11/11

SOLID TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
Arsenic**	Air dried sample	16/11/11	118	ICPMS
Antimony	Air dried sample	16/11/11	118	ICPMS
Cadmium**	Air dried sample	16/11/11	118	ICPMS
Chromium**	Air dried sample	16/11/11	118	ICPMS
Lead**	Air dried sample	16/11/11	118	ICPMS
Mercury**	Air dried sample	16/11/11	118	ICPMS
Nickel**	Air dried sample	16/11/11	118	ICPMS
Copper**	Air dried sample	16/11/11	118	ICPMS
Zinc**	Air dried sample	16/11/11	118	ICPMS
Selenium**	Air dried sample	16/11/11	118	ICPMS
Barium**	Air dried sample	16/11/11	118	ICPMS
Beryllium**	Air dried sample	16/11/11	118	ICPMS
Vanadium**	Air dried sample	16/11/11	118	ICPMS
Molybdenum	Air dried sample	16/11/11	118	ICPMS
Hexavalent Chromium	As submitted sample	17/11/11	110	Colorimetry
Water Soluble Boron	Air dried sample	16/11/11	202	Colorimetry
pH Value**	Air dried sample	16/11/11	113	Electrometric
Total Sulphate	Air dried sample	16/11/11	208	Colorimetry
Total Cyanide**	As submitted sample	17/11/11	204	Automated Flow Digital Colorimetry
Free Cyanide	As submitted sample	17/11/11	107	Colorimetry
Complex Cyanide	As submitted sample	17/11/11	145	Colorimetry
Elemental Sulphur**	Air dried sample	16/11/11	122	HPLC
Thiocyanate	As submitted sample	17/11/11	146	Colorimetry
Total Monohydric Phenols**	As submitted sample	17/11/11	121	HPLC
Total Organic Carbon	Air dried sample	17/11/11	111	Titration
Water Soluble Sulphate	Air dried sample	16/11/11	209	Colorimetry
Speciated PAH**	As submitted sample	16/11/11	133	Gas Chromatography
Carbon Banding (TPH CWG)	As submitted sample	16/01/11	117	Gas Chromatography
PCB (7 ICES Congenors)**	Air dried sample	16/11/11	120	GCMS
VOC**	As submitted sample	16/11/11	181	GCMS
SVOC	As submitted sample	16/11/11	167	GCMS
Asbestos*	As submitted sample	16/11/11	179	See note

^{* =} UKAS Accredited test

Determinands not marked with * or ** are not accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

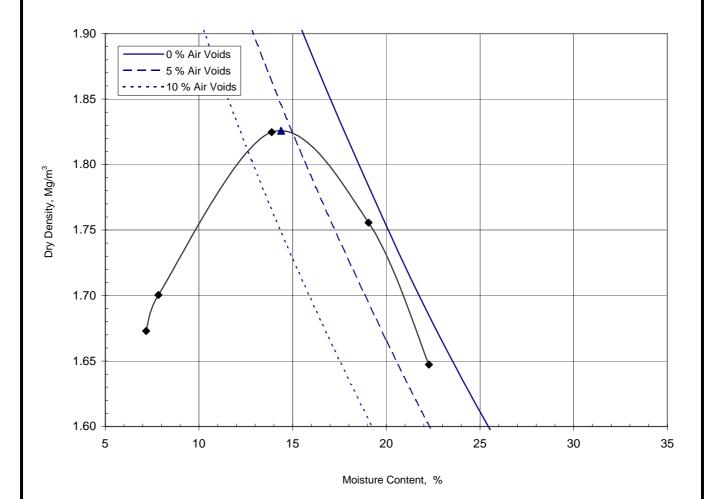
Any comments, opinions, or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

^{** -} MCERTS Accredited test



APPENDIX 7 – GEOTECHNICAL LABORATORY TEST RESULTS

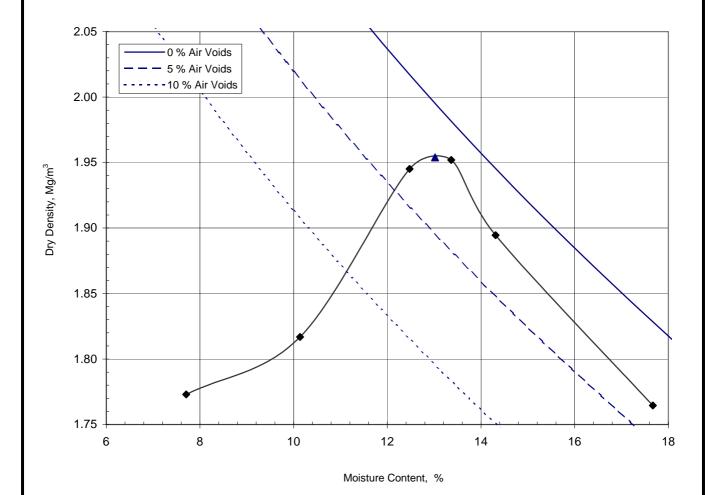
K4 SOILS	Dry Density / Moisture Content Relationship	Job Ref	P8219J107.13
Soils	BS 1377 : Part 4 : 1990 : Clause 3	Borehole / Pit No	TP205
Site Name	Upper Heyford	Sample No	
	Brown clayey sandy GRAVEL (gravel is fmc and angular to	Depth	0.50 m
Soil Description	rounded)	Sample Type	



Preparation		Air dried	
Test Method		2.5 kg rammer	
Mould Type		One litre	
Samples Used		Single Sample	
Mass Retained on 37.5 mm Sieve	%	0	
Mass Retained on 20.0 mm Sieve	%	20	
Particle Density - Assumed	Mg/m³	2.70	
Maximum Dry Density	Mg/m³	1.83	
Optimum Moisture Content	%	14	

K4 SOILS LABORATORY	Approved Signatories:	Checked and Approved
Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU.Tel:01923711288 Fax:01923711311.	K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)	Initials: kp
E-mail: k4soils@aol.com	Test results relate only to the sample numbers shown above	Date: 02/12/2011
All samples connected with this report, incl any on 'hold' will b	be disposed off according to company policy. A copy of this policy is avail-	able on request. Sheet2/2

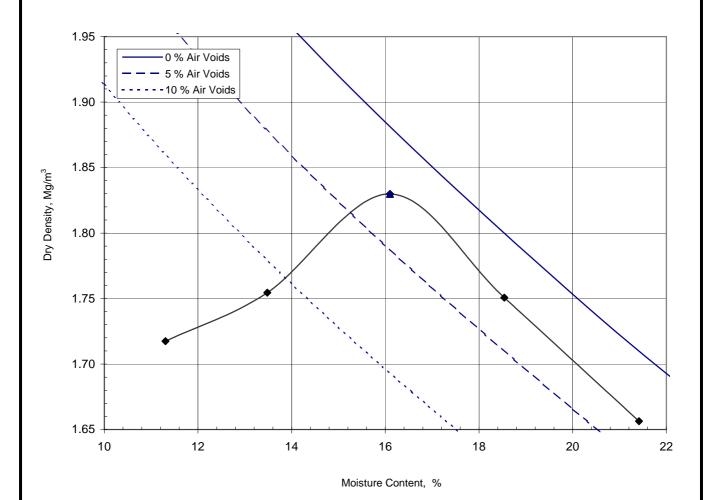
K4 SOILS	Dry Density / Moisture Content Relationship	Job Ref	P8219J107.13
Soils	BS 1377 : Part 4 : 1990 : Clause 3	Borehole / Pit No	TP221
Site Name	Upper Heyford	Sample No	
	Croviah brown alighthy approxy alighthy grovally CLAY (groval is	Depth	0.50 m
Soil Description	Greyish brown slightly sandy slightly gravelly CLAY (gravel is fmc and angular limestone fragments)	Sample Type	



Preparation		Air dried
Test Method		2.5 kg rammer
Mould Type		One litre
Samples Used		Single Sample
Mass Retained on 37.5 mm Sieve	%	0
Mass Retained on 20.0 mm Sieve	%	16
Particle Density - Assumed	Mg/m³	2.70
Maximum Dry Density	Mg/m³	1.95
Optimum Moisture Content	%	13

K4 SOILS LABORATORY	Approved Signatories:	Checked and Approved	
Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU.Tel:01923711288 Fax:01923711311.	K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)	Initials: kp	
E-mail: k4soils@aol.com	Test results relate only to the sample numbers shown above	Date: 02/12/2011	
All samples connected with this report, incl any on 'hold' will be disposed off according to company policy. A copy of this policy is available on request. Sheet2/2			

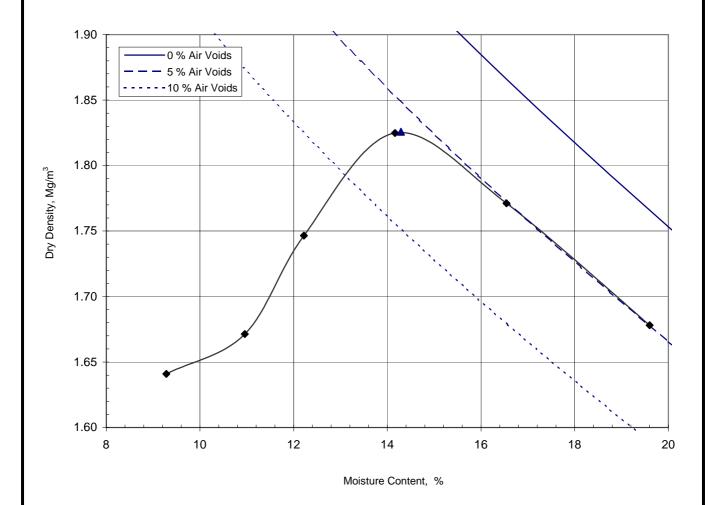
K4 SOILS	Dry Density / Moisture Content Relationship	Job Ref	P8219J107.13
Soils	BS 1377 : Part 4 : 1990 : Clause 3	Borehole / Pit No	TP222
Site Name	Site Name Upper Heyford	Sample No	
	Grovich brown cilty clightly grovally condy CLAY (groval is	Depth	0.50 m
Soil Description	Greyish brown silty slightly gravelly sandy CLAY (gravel is fmc sub angular sandstone fragments)	Sample Type	



Preparation		Air dried
Test Method		2.5 kg rammer
Mould Type		One litre
Samples Used		Single Sample
Mass Retained on 37.5 mm Sieve	%	6
Mass Retained on 20.0 mm Sieve	%	2
Particle Density - Assumed	Mg/m³	2.70
Maximum Dry Density	Mg/m³	1.83
Optimum Moisture Content	%	16

K4 SOILS LABORATORY	Approved Signatories:	Checked and Approved	
Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU.Tel:01923711288 Fax:01923711311.	K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)	Initials: kp	
E-mail: k4soils@aol.com	Test results relate only to the sample numbers shown above	Date: 02/12/2011	
All samples connected with this report, incl any on 'hold' will be disposed off according to company policy. A copy of this policy is available on request. Sheet2/2			

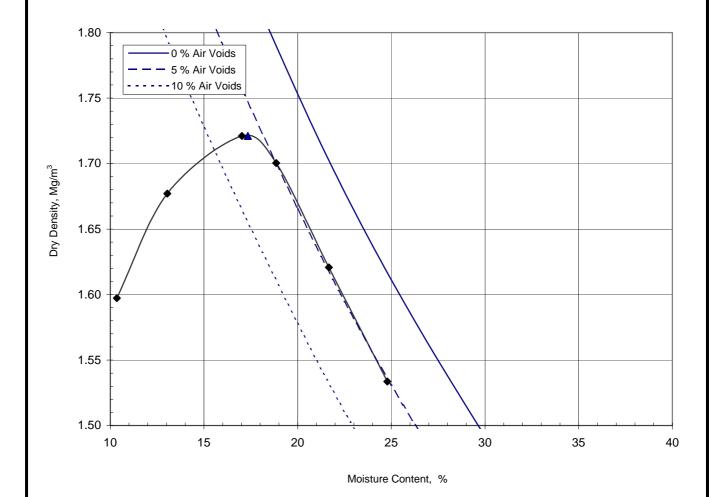
K4 SOILS	Dry Density / Moisture Content Relationship	Job Ref	P8219J107.13
Soils	BS 1377 : Part 4 : 1990 : Clause 3	Borehole / Pit No	TP223
Site Name	Site Name Upper Heyford	Sample No	
	Brown slightly gravelly clayey SAND with occasional cobble	Depth	0.50 m
Soil Description	size fragments (gravel is fmc and sub angular limestone/sandstone fragments)	Sample Type	



Preparation		Air dried
Test Method		2.5 kg rammer
Mould Type		One litre
Samples Used		Single Sample
Mass Retained on 37.5 mm Sieve	%	17
Mass Retained on 20.0 mm Sieve	%	6
Particle Density - Assumed	Mg/m³	2.70
Maximum Dry Density	Mg/m³	1.83
Optimum Moisture Content	%	14

K4 SOILS LABORATORY	Approved Signatories:	Checked and Approved	
Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU.Tel:01923711288 Fax:01923711311.	K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)	Initials: kp	
E-mail: k4soils@aol.com	Test results relate only to the sample numbers shown above	Date: 02/12/2011	
All samples connected with this report, incl any on 'hold' will be disposed off according to company policy. A copy of this policy is available on request. Sheet2/2			

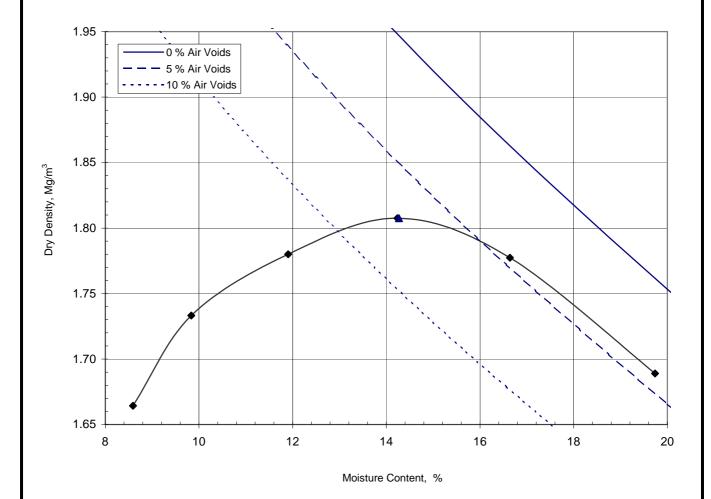
K4 SOILS	Dry Density / Moisture Content Relationship BS 1377 : Part 4 : 1990 : Clause 3	Job Ref	P8219J107.13
Soils		Borehole / Pit No	TP223
Site Name	Site Name Upper Heyford	Sample No	
	Prown clayou grayally SAND (grayal is two and cabble sized	Depth	1.50 m
Soil Description	Brown clayey gravelly SAND (gravel is fmc and cobble sized and sub angular to angular)	Sample Type	



Preparation		Air dried
Test Method		2.5 kg rammer
Mould Type		One litre
Samples Used		Single Sample
Mass Retained on 37.5 mm Sieve	%	0
Mass Retained on 20.0 mm Sieve	%	27
Particle Density - Assumed	Mg/m³	2.70
Maximum Dry Density	Mg/m³	1.72
Optimum Moisture Content	%	17

K4 SOILS LABORATORY	Approved Signatories:	Checked and Approved	
Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU.Tel:01923711288 Fax:01923711311.	K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)	Initials: kp	
E-mail: k4soils@aol.com	Test results relate only to the sample numbers shown above	Date: 02/12/2011	
All samples connected with this report, incl any on 'hold' will be disposed off according to company policy. A copy of this policy is available on request. Sheet2/2			

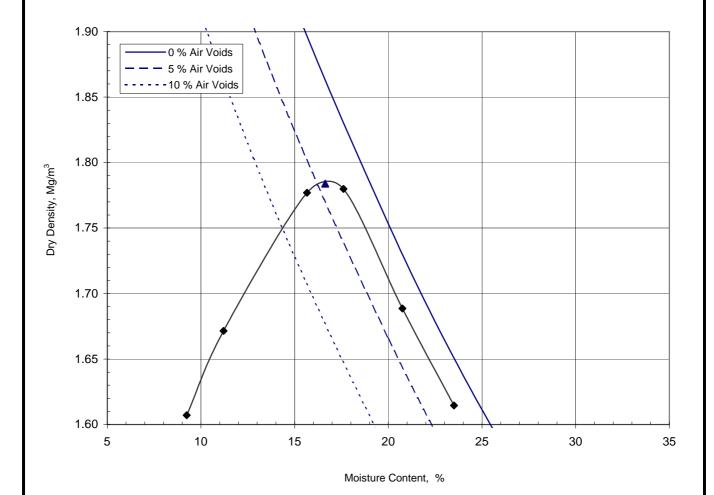
K4 SOILS	Dry Density / Moisture Content Relationship	Job Ref	P8219J107.13	
Soils	BS 1377 : Part 4 : 1990 : Clause 3	Borehole / Pit No	TP224	
Site Name	Upper Heyford	Sample No		
	Brown slightly gravelly clayey SAND / sandy CLAY with	Depth	0.50 m	
Soil Description	numerous fmc limestone fragments (gravel is fmc and sub angular)	Sample Type		



Preparation		Air dried	
Test Method		2.5 kg rammer	
Mould Type		One litre	
Samples Used		Single Sample	
Mass Retained on 37.5 mm Sieve	%	0	
Mass Retained on 20.0 mm Sieve	%	8	
Particle Density - Assumed	Mg/m³	2.70	
Maximum Dry Density	Mg/m³	1.81	
Optimum Moisture Content	%	14	

K4 SOILS LABORATORY	Approved Signatories:	Checked and Approved			
Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU.Tel:01923711288 Fax:01923711311.	K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)	Initials: kp			
E-mail: k4soils@aol.com	Test results relate only to the sample numbers shown above	Date: 02/12/2011			
All samples connected with this report, incl any on 'hold' will be disposed off according to company policy. A copy of this policy is available on request. Sheet2/2					

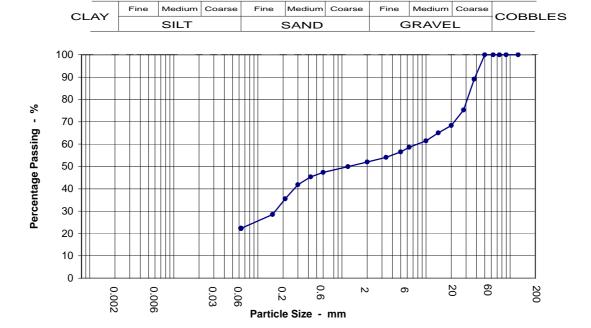
K4 SOILS	Dry Density / Moisture Content Relationship	Job Ref	P8219J107.13	
Soils	BS 1377 : Part 4 : 1990 : Clause 3	Borehole / Pit No	TP226	
Site Name	Upper Heyford	Sample No		
	Decomposed to all which are also CLAV (see cold to be a seed to be	Depth	0.50 m	
Soil Description	Brown gravelly slightly sandy CLAY (gravel is fmc and subangular to angular)	Sample Type		



Preparation		Air dried	
Test Method		2.5 kg rammer	
Mould Type		One litre	
Samples Used		Single Sample	
Mass Retained on 37.5 mm Sieve	%	10	
Mass Retained on 20.0 mm Sieve	%	12	
Particle Density - Assumed	Mg/m³	2.70	
Maximum Dry Density	Mg/m³	1.78	
Optimum Moisture Content	%	17	

K4 SOILS LABORATORY	Approved Signatories:	Checked and Approved				
Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU.Tel:01923711288 Fax:01923711311.	K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)	Initials: kp				
E-mail: k4soils@aol.com	Test results relate only to the sample numbers shown above	Date: 02/12/2011				
All samples connected with this report, incl any on 'hold' will be disposed off according to company policy. A copy of this policy is available on request. Sheet2/2						

K4 SOILS	PARTICLE SIZE DISTRIBUTION	Our Report No:	11891	
Soils	BS 1377 : Part 2 : 1990 : Clause 9		P8219J107.13	
Location	Upper Heyford	Borehole / Trial Pit No:	TP205	
Viewel Ceil	Prown clavey condy CPAVEL (gravel is the and angular	Depth	0.50 m	
Visual Soil Description	Brown clayey sandy GRAVEL (gravel is fmc and angular to rounded)	Sample Type/No	- 0	



Sievir	ng	Sedimen	tation
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	89		
28	75		
20	68		
14	65		
10	61		
6.3	59		
5	57		
3.35	54		
2	52		
1.18	50		
0.6	47		
0.425	45		
0.3	42		
0.212	36		
0.15	28		
0.063	22		

Test Method					
BS 1377 : Part 2 : 1990					
Sieving	Clause				
Sedimentation	N/A				
Suitable Amount Of Sample Received	Yes				

Sample Proportions					
Cobbles	0.0				
Gravel	48.0				
Sand	29.7				
Silt & Clay	22.3				

Grading Analysis						
D100	125.0					
D60	8.1					
D10						
Uniformity Coefficient	N/A					

ı	K.	4	SI	NΙΙ	S	1	ΔΙ	Rſ	٦R	ΔΤ	\cap	2 V	

Approved Signatories:

K.Phaure(Tech.Mgr)

Test results relate only to the sample numbers shown above

J. Phaure (Lab. Mgr)

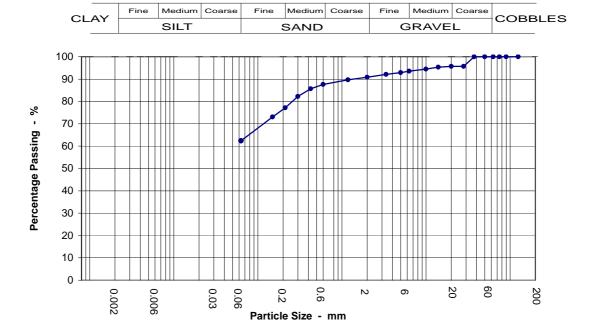
Initials:

tials: kp

Checked and Approved



K4 SOILS	PARTICLE SIZE DISTRIBUTION	Our Report No:	11891	
(Ksoils)	BS 1377 : Part 2 : 1990 : Clause 9	Project No:	P8219J107.13	
Location	Upper Heyford	Borehole / Trial Pit No:	TP222	
\"	One wish horses silter alimbah, massallar asa da OLAV	Depth	0.50 m	
Visual Soil Description			- 0	



Sievir	ng	Sedimen	tation
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	96		
20	96		
14	95		
10	94		
6.3	94		
5	93		
3.35	92		
2	91		
1.18	90		
0.6	88		
0.425	86		
0.3	82		
0.212	77		
0.15	73	_	_
0.063	62		

Test Method			
BS 1377 : Part 2 : 1990			
Sieving	Clause		
Sedimentation N/A			
Suitable Amount Of Sample Received	Yes		

Sample Proportions			
Cobbles	0.0		
Gravel	9.2		
Sand	28.4		
Silt & Clay	62.4		

Grading Analysis					
D100	125.0				
D60					
D10					
Uniformity Coefficient	N/A				

KΔ	SOIL	SI	ΙΔΒ	OR.	ΔΤΩ	RY

Approved Signatories:

K.Phaure(Tech.Mgr)

Tech.Mgr) J.Phaure(Lab.Mgr)

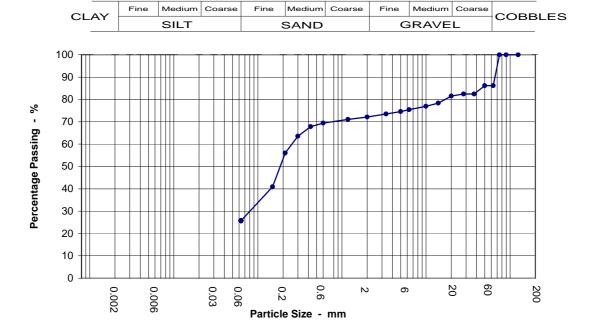
Test results relate only to the sample numbers shown above

Checked and Approved

Initials: kp



Our Report No: 11891 PARTICLE SIZE DISTRIBUTION Project No: P8219J107.13 BS 1377: Part 2: 1990: Clause 9 Borehole / Trial **TP223** Pit No: Location **Upper Heyford** Depth 0.50 m Brown slightly gravelly clayey SAND with occasional Visual Soil cobble size fragments (gravel is fmc and sub angular Description Sample Type/No 0 limestone/sandstone fragments)



Sievir	ng	Sedimen	tation
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	86		
50	86		
37.5	82		
28	82		
20	82		
14	78		
10	77		
6.3	75		
5	75		
3.35	73		
2	72		
1.18	71		
0.6	69		
0.425	68		
0.3	64		
0.212	56		
0.15	41		
0.063	26		

Test Method				
BS 1377 : Part 2 : 1990				
Sieving Clause				
Sedimentation N/A				
Suitable Amount Of Sample Received	Yes			

Sample Proportions				
Cobbles	13.8			
Gravel	14.0			
Sand	46.4			
Silt & Clay	25.7			

Grading Analysis				
D100	125.0			
D60	0.3			
D10				
Uniformity Coefficient	N/A			

KΔ	SOIL	SI	ΔR	OR A	$\Omega T \Delta$	RY

Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU. E-mail: k4soils@aol.com Approved Signatories:

K.Phaure(Tech.Mgr)

Test results relate only to the sample numbers shown above

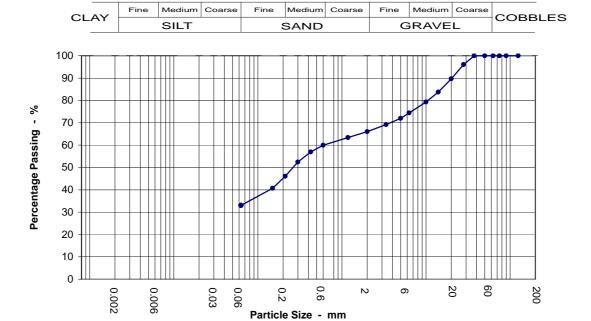
J.Phaure(Lab.Mgr)

Checked and Approved

Initials: kp



Our Report No: 11891 PARTICLE SIZE DISTRIBUTION Project No: P8219J107.13 BS 1377: Part 2: 1990: Clause 9 Borehole / Trial **TP224** Pit No: Location **Upper Heyford** Depth 0.50 m Brown slightly gravelly clayey SAND / sandy CLAY with Visual Soil numerous fmc limestone fragments (gravel is fmc and Description Sample Type/No 0 sub angular)



Sievir	ng	Sedimen	tation
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	96		
20	90		
14	84		
10	79		
6.3	74		
5	72		
3.35	69		
2	66		
1.18	63		
0.6	60		
0.425	57		
0.3	52		
0.212	46		
0.15	41	_	_
0.063	33		

Test Method			
BS 1377 : Part 2 : 1990			
Sieving Clause			
Sedimentation N/A			
Suitable Amount Of Sample Received	Yes		

Sample Proportions			
Cobbles	0.0		
Gravel	33.9		
Sand	33.0		
Silt & Clay	33.0		

Grading Analysis			
D100	125.0		
D60	0.6		
D10			
Uniformity Coefficient	N/A		

KΔ	SOIL	SI	ΔR	OR A	$\Omega T \Delta$	RY

Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU. E-mail: k4soils@aol.com Approved Signatories:

K.Phaure(Tech.Mgr)

Test results relate only to the sample numbers shown above

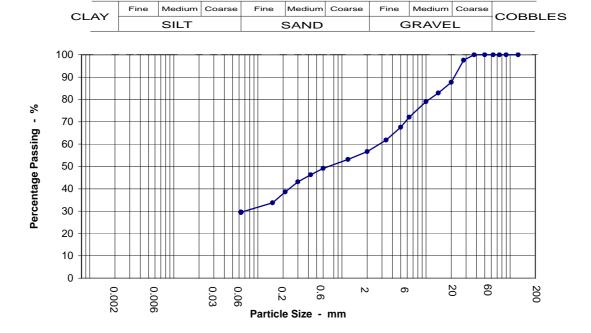
J.Phaure(Lab.Mgr)

Checked and Approved

Initials: kp



K4 SOILS	PARTICLE SIZE DISTRIBUTION	Our Report No:	11891	
Soils	BS 1377 : Part 2 : 1990 : Clause 9	Project No:	P8219J107.13	
Location	n Upper Heyford		TP221	
Vieual Cail	Crovich brown clightly condy clightly gravelly CLAV	Depth	0.50 m	
Visual Soil Description	Greyish brown slightly sandy slightly gravelly CLAY (gravel is fmc and angular limestone fragments)	Sample Type/No	- 0	



Sieving		Sediment	tation
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	98		
20	88		
14	83		
10	79		
6.3	72		
5	68		
3.35	62		
2	57		
1.18	53		
0.6	49		
0.425	46		
0.3	43		
0.212	39		
0.15	34	_	
0.063	29		

	Test Method			
	BS 1377 : Part 2 : 1990			
	Sieving Clause			
Sedimentation N/A		N/A		
	Suitable Amount Of Sample Received	Yes		

Sample Proportions			
Cobbles	0.0		
Gravel	43.3		
Sand	27.2		
Silt & Clay	29.5		

Grading Analysis			
D100	125.0		
D60	2.9		
D10			
Uniformity Coefficient	N/A		

KΔ	SOIL	SI	ΔR	OR A	$\Omega T \Delta$	RY

Approved Signatories:

K.Phaure(Tech.Mgr)

Test results relate only to the sample numbers shown above

J.Phaure(Lab.Mgr)

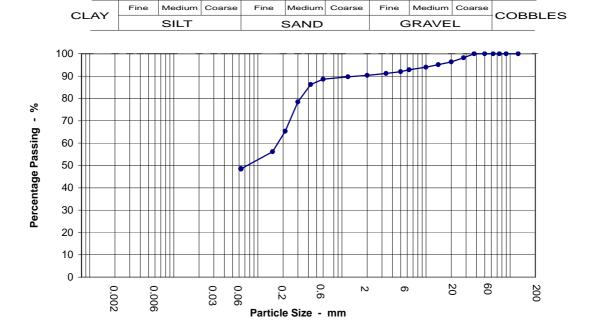
Initials:

07/12/2011 Date:

kp



PARTICLE SIZE DISTRIBUTION BS 1377 : Part 2 : 1990 : Clause 9		Our Report No: 11891	
		Project No:	P8219J107.13
Location	Upper Heyford		TP223
	Danier de la company de CAND (marcel la force de la colonia	Depth	1.50 m
Visual Soil Description	Brown clayey gravelly SAND (gravel is fmc and cobble sized and sub angular to angular)	Sample Type/No	- 0



Sievii	ng	Sedimen	tation
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	98		
20	96		
14	95		
10	94		
6.3	93		
5	92		
3.35	91		
2	90		
1.18	90		
0.6	89		
0.425	86		
0.3	78		
0.212	65		
0.15	56		
0.063	49		

Test Method						
BS 1377 : Part 2 : 1990						
Sieving Clause						
Sedimentation	N/A					
Suitable Amount Of Sample Received	Yes					

Sample Proportions							
Cobbles	0.0						
Gravel	9.6						
Sand	41.8						
Silt & Clay	48.5						

Grading Analysis								
D100	125.0							
D60	0.2							
D10								
Uniformity Coefficient	N/A							

KΔ	SOIL	SI	ΔR	OR A	$\Omega T \Delta$	RY

Approved Signatories:

K.Phaure(Tech.Mgr)

Test results relate only to the sample numbers shown above

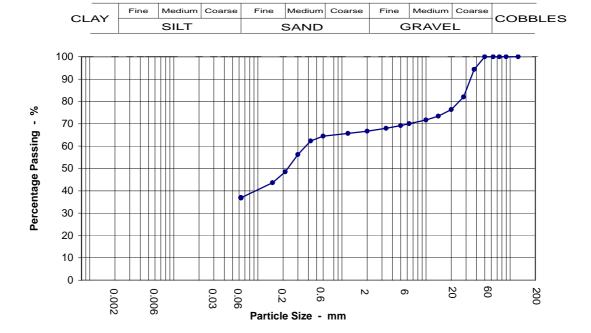
J.Phaure(Lab.Mgr)

Checked and Approved

Initials: kp



K4 SOILS	PARTICLE SIZE DISTRIBUTION	Our Report No:	11891	
Soils	BS 1377 : Part 2 : 1990 : Clause 9	Project No:	P8219J107.13	
Location	cation Upper Heyford		TP226	
	Prown grovelly clightly condy CLAY (grovel is two and	Depth	0.50 m	
Visual Soil Description	Brown gravelly slightly sandy CLAY (gravel is fmc and sub angular to angular)	Sample Type/No	- 0	



Sievir	ng	Sedimentation					
Particle Size mm	% Passing	Particle Size mm	% Passing				
125	100						
90	100						
75	100						
63	100						
50	100						
37.5	94						
28	82						
20	76						
14	73						
10	72						
6.3	70						
5	69						
3.35	68						
2	67						
1.18	66						
0.6	64						
0.425	62						
0.3	56						
0.212	49						
0.15	44						
0.063	37						

Test Method						
BS 1377 : Part 2 : 1990						
Sieving Clause						
Sedimentation	N/A					
Suitable Amount Of Sample Received	Yes					

Sample Proportions							
Cobbles	0.0						
Gravel	33.3						
Sand	29.8						
Silt & Clay	36.9						

Grading Analysis								
D100	125.0							
D60	0.4							
D10								
Uniformity Coefficient	N/A							

ı	K.	4	SI	NΙΙ	S	1	ΔΙ	Rſ	٦R	ΔΤ	\cap	2 V	

Approved Signatories:

K.Phaure(Tech.Mgr)

Test results relate only to the sample numbers shown above

J.Phaure(Lab.Mgr)

Checked and Approved

Initials: kp



i de la companya de								eceived:	K4 SOILS		
ent:							T			/a.a.i	SOILS
oject No:		P8219J1	07.13	Our job/report no:	118	91	Date Repo	rted:	02/12	/2011	
orehole S	Sample No: Depth Description (m)			Moisture content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 0.425 mm (%)	Remarks		
orehole :	Sample	Depth (m)	Brown slightly clay	Description		Moisture content	Liquid Limit	Plastic Limit	Plasticity Index	Passing 0.425	Remarks Unsuitable
	20 4077	. De = 2	Clause 4.4 4000 D	Summary of Test			m ath = 1				Checked and Approved Initials: K.P

UKAS TESTING

BS 1377 : Part 2 : Clause 5 : 1990 Determination of the plastic limit and plasticity index.

BS 1377 : Part 2 : Clause 3.2 : 1990 Determination of the moisture content by the oven-drying method.

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

Initials: K.P
Date: 02/12/2011





Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone (01424) 718618
Facsimile (01424) 729911

THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 23/11/11

ANALYTICAL REPORT No. AR35900

Samples Received By:- Courier
Samples Received:- 15/11/11

Site Location: Upper Heyford NSA

No Samples Received:- 11

Report Checked By:-

Steve Knight Director

Authorised By:-

Mike Varley BSc, CChem, CSci, FRSC Chief Chemist

Any comments, opinions, or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618

Fax: 01424 729911

ANALYTICAL REPORT No. AR35900

Location: Upper Heyford NSA

Your Order No: P8219J107.09d Reporting Date: 23/11/11

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

	Characteristic Sar	ndy Silt Ioam	Sandy Clay	Silt loam	Sand	Sandy Clay	Silt loam	Sandy Clay	Sand	Sandy Clay	Silt loam	Sand
<u>Soils</u>	TP/BH	TP202	TP206	TP208	TP209	TP210	TP211	TP213	TP215	TP221	TP223	TP225
	Depth (m)	1.00	0.60	0.20	0.50	0.50	0.10	0.80	1.10	0.50	0.70	1
	Our ref	20140	20141	20142	20143	20144	20145	20146	20147	20148	20149	20150
Stone Content	(%)	10	11	9	10	12	12	8	<1	<1	5	<1
pH Value**	(Units)	8.6	8.6	8.2	8.4	8.6	8.4	8.2	8.7	8.6	8.1	8.5
Water Soluble Sulphate	(mg/I as SO₄)	93	16	17	27	<10	65	12	16	13	17	22

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone (01424) 718618
Facsimile (01424) 729911

THE ENVIRONMENTAL LABORATORY LTD

SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR35900 Sample Receipt Date: 15/11/11 Reporting Date: 23/11/11

Registered: 15/11/11Prepared: 16/11/11Analysis complete: 23/11/11

TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
pH Value**	Air dried sample	18/11/11	113	Probe
Water Soluble Sulphate	Air dried sample	18/11/11	209	Colorimetry

Determinands not marked with * or ** are not accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

Any comments, opinions, or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

^{* =} UKAS Accredited test

^{** -} MCERTS Accredited test



Project Name	Upper Heyf	ord NSA				K4
Project Number		Client	Jomas	Reference	11891	SOILS
Borehole Number	12	Sample Nu	ımber	Depth (m)	11.80	LABORATORY

Sample description : rockcore

Depth within original sample : N/A Orientation within original sample : Vertical Specimen preparation : Undisturbed Cell preparation : In accordance with Clause 5.2.4

Specimen details		<u>Initial</u>	Final
Diameter	mm :	83.0	-
Length	mm:	103.0	-
Wet density	Mg/m³:	2.55	2.54
Dry density	Mg/m ³ :	2.36	2.36
Moisture content	% .	8	8

Saturation StageIn accordance with Clause 5.4.3Initial pore pressure parameter B:n/aFinal pore pressure parameter B:n/aDurationday(s) :n/a

Consolidation Stage

 Cell pressure
 kPa :
 250

 Back pressure
 kPa :
 200

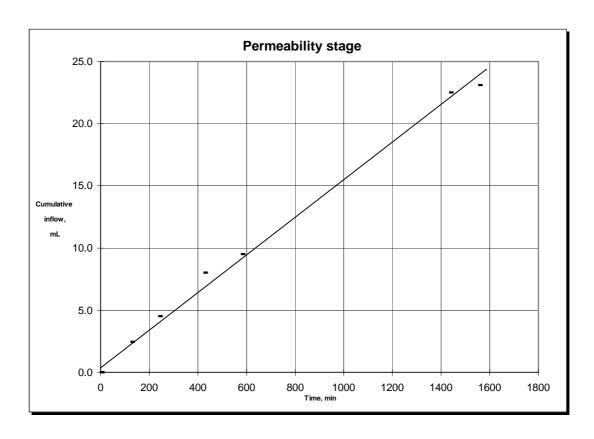
 Effective pressure
 kPa :
 50

 Duration
 day(s) :
 4

Permeability Stage

kPa: Cell pressure 600 Top pressure kPa: 500 kPa: 550 Base pressure Pressure difference across specimen kPa: -50 Mean effective stress kPa: 75 Coefficient of permeability at 20°C m/s: 1.2E-09

Duration day(s): 2



	TRIAXIAL PERMEABILITY TEST	Approved
02/12/2011	BS 1377 : Part 6 : Clause 6 : 1990	Initials :
	Determination of permeability under constant head conditions in a triaxial cell.	Date :

Project Name	Upper Heyf	ord NSA				K4
Project Number		Client	Jomas	Reference	11891	SOILS
Borehole Number	16	Sample Nu	ımber	Depth (m)	9.50	LABORATORY

Sample description : Dark grey silty CLAY with mudstone fragments and patches of grey sand and

shell fragments

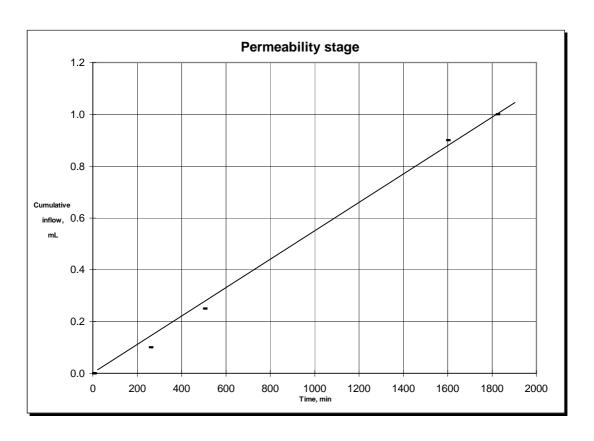
Depth within original sample : N/A Orientation within original sample : Vertical Specimen preparation : Undisturbed Cell preparation : In accordance with Clause 5.2.4

Specimen details		<u>Initial</u>	<u>Final</u>	Saturation Stage	In acco	rdance with Clause 5	5.4.3
Diameter	mm :	83.0	-	Initial pore pressure paran	neter B	:	n
Length	mm:	103.0	-	Final pore pressure param	eter B	:	n
Wet density	Mg/m³:	2.29	2.31	Duration		day(s):	n
Dry density	Mg/m³:	1.96	2.01				
Moisture content	%:	17	15				

Consolidation Stage Permeability Stage

Cell pressure Cell pressure kPa: kPa: 600 600 Back pressure kPa: 500 Top pressure kPa: 500 Effective pressure kPa: 100 kPa: 550 Base pressure Duration day(s): 1 Pressure difference across specimen kPa: -50 Mean effective stress kPa: 75 Coefficient of permeability at 20°C m/s: 3.4E-11

Duration day(s): 2



	TRIAXIAL PERMEABILITY TEST	Approved
08/12/2011	Accelerated Method	Initials :
	Determination of permeability under constant head conditions in a triaxial cell.	Date :

n/a n/a n/a

FACTUAL REPORT

ON

GROUND INVESTIGATION

AT

RESIDUAL NEW SETTLEMENT AREA, UPPER HEYFORD





Report Title : Factual Report on Ground Investigation at Residual New Settlement

Area, Upper Heyford

Report Status : Final v1.1

Job No : P8251J128

Date : April 2012

Quality Control: Previous Release

Version	Date	Issued By
Draft v0.1	April 2012	RS

Prepared by: JOMAS ASSOCIATES LTD For: HEYFORD PARK SETTLEMENTS LTD

Marin

Prepared by Marc Williams BSc (Hons), AIEMA, FGS
Principal Consultant

Malebage

Approved by Roni Savage BEng (hons), MSc, SiLC, CGeol, MCIWM, FGS Technical Director

Should you have any queries relating to this report, please contact

Roni Savage

Jomas Associates Ltd

• www.jomasassociates.com

2 0843 289 2187

⋈ info@jomasassociates.com



CONTENTS

Page INTRODUCTION4 1 Terms of Reference4 1.1 Scope of Works4 1.2 Limitations4 1.3 2 Rationale for Ground Investigation5 2.1 2.2 Scope of Ground Investigation5 Exploratory Hole Position Survey5 2.3 Standard Penetration Tests (SPTs)......5 2.4 3 3.1 3.2 3.3 Hydrology......7 3.4 3.5 BOREHOLES.......9 4.1 Overview......9 4.2 Inspection Pits9 Testing and Sampling9 4.3 Installations 9 4.4 Conditions Encountered9 4.5 4.6

4.7



5	IN SITU CBR TESTING11
5.1	Overview11
5.2	Methodology11
5.3	Results
6	TANK SURVEY12
6.1	Overview12
6.2	Above Ground Storage Tanks12
6.3	Below Ground Storage Tanks12
7	PERMIABILITY TESTS14
7.1	Overview14
7.2	Results14
8	LABORATORY CHEMICAL TESTING15
8.1	Overview15
8.2	Analysis Scheduled
AP	PENDICES
AP	PENDIX 1 – FIGURES & GPS SURVEY RECORDS
AP	PENDIX 2 – TRIAL PIT LOGS
AP	PENDIX 3 – BOREHOLE LOGS
AP	PENDIX 4 - IN SITU CBR TEST RECORDS
AP	PENDIX 5 – TANK SURVEY RECORDS
AP	PENDIX 6 - FALLING HEAD TEST RESULTS



1 INTRODUCTION

1.1 Terms of Reference

- 1.1.1 Heyford Park Settlements Ltd ("The Client") has commissioned Jomas Associates Ltd ('JAL'), to undertake a ground investigation at the Residual New Settlement Area, Upper Heyford, Oxfordshire.
- 1.1.2 This factual report details the works undertaken and ground conditions encountered.

1.2 Scope of Works

- 1.2.1 The scope of the required ground investigation works are set out in the Specification for Ground Investigation document produced by Waterman Group (document ref EED 10658 S 9.1.1 FA) dated September 2011.
- 1.2.2 Works have been carried out in accordance with the specification detailed within this document, and Jomas' fee proposal dated 20 January 2012. Further instructions were provided by Waterman as the site works progressed.

1.3 Limitations

- 1.3.1 Jomas Associates Ltd ('JAL') has prepared this report for the sole use of Heyford Park Settlements Ltd, in accordance with the generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon by any other party without the explicit written agreement of JAL. No other third party warranty, expressed or implied, is made as to the professional advice included in this report. This report must be used in its entirety.
- 1.3.2 Whilst every effort has been made to ensure the accuracy of the data supplied, and any analysis derived from it, there may be conditions at the site that have not been disclosed by the investigation, and could not therefore be taken into account. As with any site, there may be differences in soil conditions between exploratory hole positions. Furthermore, it should be noted that groundwater conditions may vary due to seasonal and other effects and may at times be significantly different from those measured by the investigation. No liability can be accepted for any such variations in these conditions.



2 GROUND INVESTIGATION

2.1 Rationale for Ground Investigation

- 2.1.1 The site investigation has been undertaken in accordance with Contaminated Land Report 11, BS10175, NHBC Standards Chapter 4.1, and other associated Statutory Guidance.
- 2.1.2 The soil sampling rationale for the site investigation was specified by Waterman Group ('The Engineers').

2.2 Scope of Ground Investigation

- 2.2.1 The ground investigation was undertaken from the 26 January 2012 until the 24 February 2012.
- 2.2.2 The work was undertaken in accordance with BS5930 'Code of Practice for Site Investigation' and BS10175 'Investigation of Potentially Contaminated Sites'. All works were completed without incident.
- 2.2.3 Prior to commencing the ground investigation, a utilities tracing contractor was commissioned to clear all exploratory hole positions of underground services. In addition, hand inspection pits were dug prior to drilling of boreholes. Mechanically excavated trial holes were progressed carefully using a toothless bucket.
- 2.2.4 Ground investigation works comprised a total of 17 No. rotary boreholes, 58 No. trial pits (machine and hand excavated), 6 No. in situ CBR tests and 5 No. falling head permeability tests. A survey was also undertaken of above and below ground storage tanks, with tanks dipped using an interface probe to identify the presence of any free product, and samples of liquid contents obtained.
- 2.2.5 Exploratory hole and tank positions were surveyed by GPS, and plotted in Figure 1. The exploratory hole records are included in Appendix 2 and 3 respectively.
- 2.2.6 The trial pits were backfilled with the arisings (in the reverse order in which they were excavated) and the ground surface was reinstated so that no depression was left. Where the breaking out of hardstanding within roadways or areas of hardstanding was required, the surface was reinstated by a professional reinstatement contractor. The surrounding areas were left clean and clear of any debris.
- 2.2.7 Boreholes were installed with combined gas and groundwater monitoring wells, with the installation depth specified by Watermans' site engineer for each borehole.

2.3 Exploratory Hole Position Survey

2.3.1 A survey of exploratory hole positions was undertaken to obtain X, Y and Z coordinates. Tabulated results are presented in Appendix 1, with individual positions plotted in Figure 1 (also in Appendix 1).

2.4 Standard Penetration Tests (SPTs)

2.4.1 In-situ standard/cone penetration tests were undertaken in the boreholes in accordance with BS EN ISO 22476-2 'Methods of Test on Soils for Engineering Purposes (Part 9)'; to give an indication of soil 'strength'.

SECTION 2 GROUND INVESTIGATION



2.4.2 The results are presented on the individual exploratory hole records in Appendix 3.



3 TRIAL PITS

3.1 Overview

- 3.1.1 A total of 58 No. trial pits were excavated under Waterman's instructions. Of these trial pits, 29 No. were excavated using a 7.5 tonne back acting wheeled excavator. 29 No. of the trial pits were hand excavated due to access constraints and the presence of buried services.
- 3.1.2 The depth of trial pits was severely curtailed by the presence of shallow bedrock horizons. Machine excavated trial pits were excavated to depths of between 0.8m and 2.4m bgl. 3 No. machine excavated trial pits were terminated prior to full depth due to the possible presence of buried services and a suspected old soakaway/drain.
- 3.1.3 Hand excavated trial pits were excavated to depths of between 0.2m and 1.1m.
- 3.1.4 Full trial pit logs are presented as Appendix 2.

3.2 Sampling and Testing

- 3.2.1 In accordance with the Specification for Ground Investigation, environmental samples were obtained at 0.5m depth intervals and at changes in strata. Further samples were also obtained where evidence of contamination was observed.
- 3.2.2 Additionally, headspace testing was undertaken at all sampling intervals using a photo ionisation detector (PID), with the results included within the trial pit logs.

3.3 Conditions Encountered

- 3.3.1 Ground conditions typically comprised a variable covering of Made Ground (typically 0.15m to 0.8m thickness, comprising brown/grey/black/yellow clayey sandy gravel, with gravel typically comprising limestone, concrete, brick and tarmac), underlying a covering of turf, tarmac or concrete, and overlying white/cream/yellow sandy gravel. The gravel was observed to comprise weathered limestone, with the horizon becoming a thickly bedded limestone bedrock containing a small amount of yellow interstitial sand.
- 3.3.2 Within trial pit TPNSA 229, the Made Ground was observed to be different in character, comprising brown/grey gravelly clay, with the gravel comprising limestone, concrete, brick and wood. This horizon persisted to a depth of 0.9m bgl, where it overlay a brown sandy clay with frequent roots and an organic odour (possible buried former topsoil horizon). This horizon persisted to a depth of 1.4m bgl, where yellow/cream/white sandy gravel was encountered.

3.4 Hydrology

3.4.1 Groundwater was not encountered during the trial pitting investigation, with the exception of seepage encountered at the base of trial pits TPNSA 229, 230, 231 and 232 (depths ranging from 2.0m bgl to 1.1m bgl).

3.5 Physical and Olfactory Evidence of Contamination

3.5.1 Visual and olfactory evidence of hydrocarbon contamination was encountered within trial pits TPNSA 230 and 231, in the form of a faint to strong hydrocarbon odour and

SECTION 3 TRIAL PITS



visible hydrocarbon staining. Elevated PID readings were recorded within these trial pits, with a maximum PID reading of 238ppm observed at 1.0m bgl within trial pit TPNSA 230.

3.5.2 With the exception of trial pits TPNSA 230 and 231, no further visual and olfactory evidence of contamination was observed during the trial pitting exercise, with the exception of occasional fragments of tarmac and clinker within the Made Ground.



4 BOREHOLES

4.1 Overview

- 4.1.1 A total of 17 No. boreholes (6 No. additional to the initial investigation scope) were drilled by rotary boring techniques. Rotary core drilling (using a PWF liner) was undertaken on 5 No. of the boreholes, with the remaining 11 No. advanced by open hole drilling techniques.
- 4.1.2 The terminal depth of individual holes, are recorded on the borehole logs, presented as Appendix 3.

4.2 Inspection Pits

- 4.2.1 With the exception of boreholes BHNSA 31 and 45 (which were advanced through previously excavated trial pits), a hand dug inspection pit was undertaken at each location to check for any buried services.
- 4.2.2 Ground conditions comprising near surface weathered limestone resulted in difficult conditions for the undertaking of hand excavated inspection pits. Inspection pits were excavated to a depth of 1.2m bgl, or until the commencement of a recognisable bedrock horizon (depending upon which was encountered first). The inspection pit was then logged in accordance with BS5930:1999 incorporating Amendment 2 and an environmental sample obtained from a depth of 0.5m bgl and 1.0m bgl (if depth reached), before drilling progressed.

4.3 Testing and Sampling

- 4.3.1 A standard penetration test was undertaken at the base of each inspection pit prior to the commencement of drilling. With the exception of borehole BHNSA 26 (SPT N Value of 38 at 1.2m depth), all SPTs returned refusal upon the underlying bedrock. A second SPT was not undertaken within borehole BHNSA 26 as a structured bedrock horizon was reached within 2m bgl.
- 4.3.2 Within bedrock deposits readings were taken using a photo ionisation detector (PID) at 1 metre intervals, changes in strata, or when suspect hydrocarbon contamination was observed. Where olfactory evidence of hydrocarbon contamination or elevated PID readings were encountered, environmental samples were obtained where possible.

4.4 Installations

4.4.1 Upon completion of drilling operations, boreholes were installed with combined gas and groundwater monitoring wells. The installation details of individual boreholes were specified by the Watermans' site engineer, and are included within the individual borehole logs. All monitoring wells were finished with plain pipe surrounded by a bentonite seal. 500mm of sand was included at the base of the bentonite seal to act as a fines screen, separating the bentonite from the borehole response zone.

4.5 Conditions Encountered

4.5.1 Ground conditions were logged in accordance with the requirements of BS5930:1999, incorporating Amendment 2. The following presents a brief summary of the conditions encountered. Reference should be made to the borehole logs presented as Appendix 3 for detailed information.



- 4.5.2 Ground conditions typically comprised a horizon of brown sandy clay containing occasional fragments of limestone, below a covering of turf, gravel, concrete or tarmac. In places this horizon appeared to have been reworked, also containing fragments of brick, concrete or tarmac. This horizon was typically encountered to depths of 0.6m 1.35m bgl.
- 4.5.3 Underlying this horizon a weathered yellow to structured pale grey crystalline limestone/occasionally calcareous sandstone, with occasional bands of loosely cemented sand, was frequently encountered. This horizon was typically encountered to depths of 3.5m to 6.8m bgl.
- 4.5.4 Below this an interbedded complex of pale grey to dark grey siltstone and pale grey to dark grey mudstone with occasional bands of coarse grained shelly limestone, was observed. The siltstone horizon was observed to vary in grain size, with occasional sandy siltstone horizons containing shell fragments. This horizon persisted to the base of the boreholes at 10m bgl.

4.6 Hydrogeology

4.6.1 The large quantities of water utilised during the drilling process made accurate monitoring of water strikes impractical. Where observable, water strikes were reported at depths of between 2.9m and 9.5m bgl. All boreholes were then re-dipped after a period of twenty minutes from strike or completion of drilling to monitor for rise or fall in water levels. Records of water levels upon completion of drilling and after 20 minutes monitoring are included within the borehole logs presented as Appendix 3 of this report.

4.7 Physical and Olfactory Evidence of Contamination

4.7.1 Visual and olfactory evidence of hydrocarbon contamination was observed within borehole BHNSA 30 (borehole located down gradient of storage tanks). Evidence typically comprised black staining with a hydrocarbon odour where fractures occurred within the bedrock. Evidence of hydrocarbon contamination was also observed within borehole BHNSA 43, in the form of sand with a faint hydrocarbon odour.



5	IN SITU CBR TESTING
5.1	Overview
5.1.1	A total of 6 No. in situ CBR tests were undertaken in accordance with the Specification for Ground Investigation. The CBR tests were carried out at locations specified by Waterman – presented in Appendix 1.
5.2	Methodology
5.2.1	In situ CBR tests were undertaken using a 4X4 mounted test rig. Prior to the undertaking of assessment, test holes were hand excavated to a depth of 0.6m bgl.
5.2.2	The tests were undertaken by a suitably qualified engineer in accordance with BS1377 Part 9. Test holes were logged in accordance with BS5930:1999 incorporating Amendment 2.
5.3	Results
5.3.1	The results of CBR testing varied between 2.3% and >30% (i.e. refusal). Of the 6 No. CBR tests undertaken, 3 No. tests recorded values in excess of 30%.
5.3.2	The results of moisture content analysis varied between 12% and 27%.
5.3.3	Detailed CBR test results and associated data sheets are presented as Appendix 4 of this report.



6 TANK SURVEY

6.1 Overview

- 6.1.1 A survey was carried out of existing above and below ground storage tanks. The purpose of the survey was to establish the size, volume and number of above and below ground storage tanks present within the study area, in addition to providing an indication of their condition and contents.
- Where tanks could be opened safely and were identified to contain liquids, the tanks were dipped with an oil/water interface probe to establish the presence of any free product within the tanks. Samples of the fluid contents of the tanks were obtained using a vacuum transfer pump and placed within sealed glass bottles for transport to the laboratory.
- 6.1.3 Findings of the tank survey are presented as Appendix 5 of this report.

6.2 Above Ground Storage Tanks

- 6.2.1 A total of 5 No. above ground storage tanks were surveyed, identified as AGNSA 04 08.
- 6.2.2 AGNSA 04 and 05 comprised a pair of metal tanks mounted side by side, measuring 2.8m x 3.6m (each). Fill gauges on the tanks indicated a capacity of 4900 gallons. The tanks appeared to be empty.
- 6.2.3 AGNSA 06 comprised a metal tank, approximately 2.2m x 4m, and in slightly rusted condition. Lettering on the tank indicated a capacity of 5000 imperial gallons. The tank could not be opened safely, but appeared to be empty. Lettering upon the side of the tank also suggested that it previously contained generator oil.
- 6.2.4 AGNSA 07 comprised a metal tank, approximately 1.5m x 2.4m, and in a slightly rusted and heavily overgrown condition. The tank appeared to be empty, with a bottom valve open, but could not be opened from above due to significant overgrowth of vegetation.
- 6.2.5 AGNSA 08 comprised a metal tank approximately 0.7m x 2.0m x 1.0m (depth) and in slightly rusted condition. The tank appeared to be empty and was located within a metal bund.

6.3 Below Ground Storage Tanks

- 6.3.1 A total of 14 No. below ground storage tanks were surveyed, identified as UGNSA 22 35
- 6.3.2 UGNSA 22 and 23 comprised 2 No. below ground tanks associated with an unidentified former structure (in a state of severe disrepair, with only floor slab and occasional wall sections remaining). The fill gauges of the tanks indicate a capacity of 11,000 gallons each, with the tanks measuring 3.1m to their base. Tank UGNSA 22 was observed to be dry, with tank UGNSA 23 observed to be water filled. No free product or hydrocarbon sheen was observed.
- 6.3.3 UGNSA 24 and 25 comprise a pair of buried tanks associated with a former filling station. Placards attached to tank filler necks indicate a capacity of 5000 litres per tank (although placard was observed to be in a very poor condition and only partly



legible). Placards also indicate that tank 24 contained diesel, with tank 25 containing petrol. Both tanks were water filled, and although no free product was indicated, a visible hydrocarbon sheen was observed upon the water surface.

- 6.3.4 UGNSA 26 comprises a single buried tank associated with a depot building (building currently used by site tenants), with signage indicating that the tank contained fuel oil for a boiler. The tank was located below a concrete and metal cover approx 1.1m x 1.8m in size. The cover was rusted in place and could not be opened. Site tenants stated that the tank was unused (by them), and was in its current derelict condition when they became tenants of the building.
- 6.3.5 UGNSA 27, 28, 29 and 30 comprise 4 No. buried tanks associated with a former boiler house. Fill gauges on the tanks indicate a capacity of 12,000 gallons each, with the tanks measured to their base at 5m bgl. Tanks 27 29 were observed to be water filled to a depth of 1.6m bgl, and while no free product was indicated a visible hydrocarbon sheen was observed on the samples. The sampling neck of tank UGNSA 30 was found to be blocked and a sample could not be obtained.
- UGNSA 31, 32 and 33 comprised 3 No. buried tanks. Their former use is unclear, but it is believed they may be associated with a nearby hardened building. No gauges were located in order to provide a measure of volume, and no surface evidence as to the tanks potential area was observed (entire area covered by uniform hardstanding). The tanks were observed to be water filled from surface to their apparent base (measured at 3.0m bgl). Approximately 0.02m of free product was recorded within tank UGNSA 33, and while no free product was recorded in the remaining tanks, a visible hydrocarbon sheen was present upon the water surface. Placards placed over the tanks' sampling/fill points indicate that the tanks were water filled in 1989.
- 6.3.7 UGNSA 34 and 35 comprise 2 No. buried tanks located below concrete covers measuring 2m x 2m, and each measured at 1.5m deep. Samples were collected by Waterman's site engineer for further analysis.



7 PERMIABILITY TESTS

7.1 Overview

- 7.1.1 In addition to the initial scope of works, falling head tests were requested within 5 No. boreholes (3 of which were boreholes drilled during the previous phase of works). The boreholes to be tested were specified by Waterman.
- 7.1.2 Jomas' Engineer returned to the site on 24 February 2012 to undertake the works. Prior to commencing the tests, standing water levels in the monitoring wells installed during the boring operations, were measured using a dip meter. The wells were subsequently filled with water, using a 40 litre portable bowser, with the change in head measured against time, until the original standing water level was reached.

7.2 Results

- 7.2.1 Borehole BHNSA 16 (drilled during a previous phase of works) had been sealed into the underlying deep aquifer at approximately 23m bgl. The standing water level within this monitoring well was recorded at 12.4m bgl, suggesting significant hydrostatic pressure. Despite repeated fills of the monitoring well, no rise in standing water level was determined. For each test conducted in this borehole, 40L was emptied into the hole in 80secs. Therefore, a flow of 0.5L/sec has been assumed for maintaining a constant head at 12.4mbgl. This suggests an approximate permeability of 3.3 x 10⁻³ m/s.
- 7.2.2 Within the remainder of the boreholes, infiltration rates were obtained ranging from 1.53×10^{-6} and 8.3×10^{-7} m/s.
- 7.2.3 Full records of the falling head tests are presented within Appendix 6 of this report.



8 LABORATORY CHEMICAL TESTING

8.1 Overview

8.1.1 Samples were transported in coolboxes to UKAS and MCERTS accredited laboratory The Environmental Laboratory. The requirements for chemical testing were defined within the Specification for Ground Investigation, with the final testing schedule determined by the Watermans' site engineer.

8.2 Analysis Scheduled

- 8.2.1 Samples from the boreholes, trial holes and CBR test pits were scheduled for the following analysis:
 - 74 No. samples for contaminant suite S4 as defined in the Specification for Ground Investigation document.
 - 31 No. samples for total petroleum hydrocarbon assessment speciated in accordance with Criterion Working Group protocols.
 - 35 No. samples scheduled for asbestos screening.
 - 26 No. samples scheduled for total organic carbon analysis
 - 5 No. samples scheduled for polychlorinated biphenols (PCB) analysis
 - 5 No. samples scheduled for volatile and semivolatile organic compound analysis.
 - 20 No. samples scheduled for BRE SD1 suite, concrete in aggressive ground determination.
 - 9 No. samples obtained from within storage tanks scheduled for speciated polyaromatic hydrocarbons and total petroleum hydrocarbons speciated in accordance with Criterion Working Group protocols
- 8.2.2 Laboratory tests results are presented in Appendix 7.



APPENDICES



APPENDIX 1 – FIGURES & GPS SURVEY RECORDS



UPPER HEYFORD- EXPLORATORY HOLE POSITIONS

POINT NUMBER	EASTINGS	NORTHINGS	ELEVATION	DESCRIPTION
CBR NSA 1	450917.638	225913.060	125.458	CBR
CBR NSA 2	451353.107	225906.691	124.556	CBR
CBR NSA 3	451443.236	225959.138	124.034	CBR
CBR NSA 4	451559.392	225967.496	123.165	CBR
CBR NSA 5	451664.011	226058.411	121.434	CBR
CBR NSA 6	451639.523	225785.261	119.493	CBR
BH NSA 23	451646.424	226136.529	122.010	BORE HOLE
BH NSA 24	451545.308	226004.316	123.672	BORE HOLE
BH NSA 25	451549.801	225968.843	123.170	BORE HOLE
BH NSA 26	451515.773	225971.185	123.412	BORE HOLE
BH NSA 27	451411.127	225982.150	124.731	BORE HOLE
BH NSA 28	451416.309	225915.805	123.778	BORE HOLE
BH NSA 28A	451426.414	225929.760	123.969	BORE HOLE
BH NSA 29	451329.466	226080.616	126.459	BORE HOLE
BH NSA 30	451352.724	226066.036	125.878	BORE HOLE
BH NSA 31	451322.448	226049.884	126.186	BORE HOLE
BH NSA 32	451395.810	225831.345	123.099	BORE HOLE
BH NSA 33	451596.940	226165.300	122.010	BORE HOLE
BH NSA 34	451608.053	226108.640	122.916	BORE HOLE
BH NSA 35	451558.888	226107.167	123.062	BORE HOLE
BH NSA 36	451594.349	226064.430	123.198	BORE HOLE
BH NSA 39	451138.295	226036.756	127.140	BORE HOLE
BH NSA 42	451276.231	225585.459	121.620	BORE HOLE
BH NSA 43	451298.015	225582.739	121.678	BORE HOLE
BH NSA 44	451315.492	225580.340	121.755	BORE HOLE
BH NSA 45	451275.53	225734.24	122.83	BORE HOLE
BH NSA 225	450651.805	225761.212	122.932	BORE HOLE
BH NSA 226	450865.958	225720.296	124.266	BORE HOLE
TP NSA 229	451777.441	226129.325	120.326	TRIAL PIT
TP NSA 230	451694.921	226140.879	120.829	TRIAL PIT
TP NSA 231	451671.035	226110.596	120.949	TRIAL PIT
TP NSA 232	451669.529	226098.688	121.071	TRIAL PIT
TP NSA 233	451667.563	226075.617	120.886	TRIAL PIT
TP NSA 234	451587.942	225966.801	122.834	TRIAL PIT
TP NSA 235	451672.688	225959.390	122.358	TRIAL PIT
TP NSA 236	451564.444	225983.362	123.369	TRIAL PIT
TP NSA 237	451508.857	225951.176	123.254	TRIAL PIT
TP NSA 238	451555.607	225916.006	122.564	TRIAL PIT
TP NSA 239	451560.778	225856.084	120.921	TRIAL PIT
TP NSA 240	451559.804	225862.786	121.210	TRIAL PIT
TP NSA 241	451488.988	225904.215	122.692	TRIAL PIT
TP NSA 242	451461.758	225887.499	123.181	TRIAL PIT

UPPER HEYFORD- EXPLORATORY HOLE POSITIONS

POINT NUMBER	EASTINGS	NORTHINGS	ELEVATION	DESCRIPTION
TP NSA 243	451447.212	225992.055	124.716	TRIAL PIT
TP NSA 244	451426.079	225994.638	124.676	TRIAL PIT
TP NSA 245	451393.489	226023.430	125.007	TRIAL PIT
TP NSA 246	451386.331	226025.300	124.992	TRIAL PIT
TP NSA 247	451403.697	226022.650	124.989	TRIAL PIT
TP NSA 248	451403.518	226070.155	125.301	TRIAL PIT
TP NSA 249	451434.700	226063.542	125.066	TRIAL PIT
TP NSA 250	451443.038	226060.048	125.135	TRIAL PIT
TP NSA 251	451454.085	226059.492	125.086	TRIAL PIT
TP NSA 252	451341.767	226051.476	125.964	TRIAL PIT
TP NSA 253	451388.873	225846.289	123.593	TRIAL PIT
TP NSA 254	451356.701	225861.536	124.269	TRIAL PIT
TP NSA 257	451183.858	225991.046	126.756	TRIAL PIT
TP NSA 258	451203.962	226014.080	126.731	TRIAL PIT
TP NSA 259	451212.827	226026.659	126.824	TRIAL PIT
TP NSA 261	451188.090	225934.505	125.804	TRIAL PIT
TP NSA 262	451253.935	226121.709	127.016	TRIAL PIT
TP NSA 263	451324.434	226099.025	126.641	TRIAL PIT
TP NSA 264	451299.419	226090.380	126.770	TRIAL PIT
TP NSA 265	451322.448	226049.884	126.186	TRIAL PIT
TP NSA 266	451289.910	225924.675	125.102	TRIAL PIT
TP NSA 267	451240.085	226013.110	126.468	TRIAL PIT
TP NSA 268	451202.364	225909.943	125.392	TRIAL PIT
TP NSA 269	451199.347	225885.931	125.445	TRIAL PIT
TP NSA 270	451197.789	225871.165	125.480	TRIAL PIT
TP NSA 271	451179.867	225819.620	124.886	TRIAL PIT
TP NSA 272	451160.681	225817.019	124.832	TRIAL PIT
TP NSA 274	451150.615	225901.292	125.603	TRIAL PIT
TP NSA 275	451144.558	225872.143	125.518	TRIAL PIT
TP NSA 276	451093.300	225874.764	125.622	TRIAL PIT
TP NSA 277	451314.442	225805.096	123.866	TRIAL PIT
TP NSA 278	451364.280	225810.643	123.281	TRIAL PIT
TP NSA 279	451383.136	225804.248	123.168	TRIAL PIT
TP NSA 280	451049.598	225901.356	125.535	TRIAL PIT
TP NSA 281	451532.062	226017.595	124.520	TRIAL PIT
TP NSA 282	451560.028	226024.272	124.554	TRIAL PIT
TP NSA 283	451572.790	226031.738	123.872	TRIAL PIT
TP NSA 284	451583.560	226030.929	123.611	TRIAL PIT
TP NSA 285	451428.305	226115.033	125.752	TRIAL PIT
TP NSA 286	451408.285	226118.593	125.830	TRIAL PIT
TP NSA 288	451310.661	226147.813	127.031	TRIAL PIT
TP NSA 289	451285.942	226147.169	127.245	TRIAL PIT
TP NSA 290	451262.357	226129.771	127.363	TRIAL PIT
TP NSA 291	451620.836	226155.319	121.629	TRIAL PIT
TP NSA 292	451556.524	226136.567	123.591	TRIAL PIT

UPPER HEYFORD- EXPLORATORY HOLE POSITIONS

POINT NUMBER	EASTINGS	NORTHINGS	ELEVATION	DESCRIPTION
AG NSA 4	451386.339	225846.524	122.818	TANK
AG NSA 5	451388.970	225848.688	122.805	TANK
AG NSA 6	451048.098	225901.725	125.637	TANK
AG NSA 7	451729.460	225902.629	121.057	TANK
AG NSA 8	451529.720	226018.502	124.428	TANK
UG NSA 22	451146.638	226073.746	127.221	TANK
UG NSA 23	451140.514	226065.825	127.279	TANK
UG NSA 24	451549.549	225995.918	123.785	TANK
UG NSA 25	451549.318	225993.416	123.824	TANK
UG NSA 26	451652.784	226150.057	121.634	TANK
UG NSA 27	451342.708	226078.006	126.156	TANK
UG NSA 28	451340.610	226080.609	126.266	TANK
UG NSA 29	451333.602	226070.677	126.182	TANK
UG NSA 30	451331.644	226073.409	126.278	TANK
UG NSA 31	451408.654	225958.172	124.664	TANK
UG NSA 32	451407.435	225959.755	124.670	TANK
UG NSA 33	451404.939	225955.423	124.677	TANK
UG NSA 34	451287.279	225827.297	124.132	TANK
UG NSA 35	451286.860	225824.356	124.140	TANK





Project Name	Upper Heyford New Settlement Area	Client	Heyford Park Settlements Ltd
Title	Photographs of the Site	Dwg No.	P8251J128 - Fig 2 – March 2012

Photos 1 – 3, showing tanks AGNSA 04-05, AGNSA 06 and AGNSA 07









Photo 4 (left) showing tank AGNSA 08

Photo 5 (right) showing tanks UGNSA 22 and 23.







Project Name	Upper Heyford New Settlement Area	Client	Heyford Park
Title	Photographs of the Site	Dwg No.	P8251J128 - Fig 2b – March 2012

Photos 6 – 8 showing tanks UGNSA 24-25, UGNSA 26 and UGNSA 27-30









Photo 9 (left) showing tanks UGNSA 31-33

Photo 10 (right) showing tanks UGNSA 34 and 35.







Project Name	Upper Heyford New Settlement Area	Client	Heyford Park
Title	Photographs of the Site	Dwg No.	P8251J128 - Fig 2 – March 2012

Photos 11-12, showing trial pits 283 and 284 within Paragon area, Photo 13 showing trial pit 261 with drain/underground structure encountered









Photo 14 (left) showing trial pit 238, with horizon of visually hydrocarbon impacted material

Photo 15 (right) showing trial pit 237, within maintenance yard adjacent to fuel tank







Project Name	Upper Heyford New Settlement Area	Client	Heyford Park
Title	Photographs of the Site	Dwg No.	P8251J128 - Fig 2 – March 2012

Photos 16-17, showing hydrocarbon impacted bedrock in trial pit TPNSA 231, Photo 1 showing trial pit TPNSA 230, hydrocarbon impacted









Photo 19 (left) showing trial pit 229, with Made Ground horizon

Photo 20 (right) showing borehole BHNSA 30, with hydrocarbon impacted bedrock within fractures





APPENDIX 2 – TRIAL PIT LOGS

	1/						Trial Pit Number			TPNSA 229	Job No:	P8251J128		
s	pecialists in the	he investigati	on & recla	amation of t	brownfield sites	İ		Site:			Upper Heyford NSA, Oxfordshire			
	TI	RIAL PI	T RE	CORD	,	Ų		Dat			31/01/2012			
Depth (m)	Sam Depth	Sample Test Seat Drive		Test Drive				Legend	Description					
Depth (iii,	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading			
0.10				\vdash		 	$\vdash \vdash \vdash$	 		\vdash	 		TARMAC	
										匚			MADE GROUND - brown/grey gravelly clay. Gravel is of limestone, concrete, brick and wood	
					<u> </u>	<u> </u>		<u> </u>	<u> </u>	F				
	0.50	ח	PID	0.5	<u> </u>	<u> </u>		<u> </u>	<u> </u>	lacksquare	0			
	0.50		112	0.5							Ŭ			
				 		 '	 	 	<u> </u>	├─				
0.90														
	1.00	D	PID	1		 '	\vdash	 	<u> </u>	├	0		Brown sandy CLAY with frequent roots (possible buried former topsoil horizon) with organic odour	
1.40				 		<u> </u>	 	 	ļ	├				
	1.50	D	PID	1.5							0		Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of	
				 		 	$\vdash \vdash \vdash$	 	<u> </u> '	 	 	<u> </u>	yellow interstitial sand	
						 	<u> </u>		 			· · · · :		
	2.00	D	PID	2	<u> </u>	$\vdash \sqsubseteq$	$\vdash \vdash$		\vdash		0			
				<u> </u>			<u> </u>			匚				
												[
2.40				 		 '	\longmapsto	 		├─		<u> </u>		
						<u> </u>			<u> </u>					
				\vdash		 	$\vdash \vdash \vdash$	 	<u> </u>	 				
										\sqsubseteq				
				igg	Ē'	<u> </u>	igg	<u> </u>	[\vdash				
							$\vdash \vdash \vdash$	 	<u> </u>	\vdash	 			
				<u> </u>		<u> </u>	<u> </u>		_ '					
				\vdash	<u> </u>		$\vdash \vdash$	\vdash	<u> </u>	<u> </u>				
										\sqsubseteq				
				igg	<u> </u>	<u> </u>	igg	<u> </u>	['	\vdash				
				├──'			$\vdash \vdash \vdash$	 		 	 			
			Remai	rks:	<u> </u>					<u> </u>				
Client:	HPS				ninated on !	limeston	e rockhe	ead at 2	2.4m bg	l. Grou	undwater enco	ountered	as moderate seepage from 2.0m	
	n/a													
Engineer:	MW		<u> </u>											
					Innana A		A 1 A 4 1 115	المائية والماساة	and Inches	ctuiol	Ectato Oxford	I Dood II	vheidas IIDD 1 UD	

	INMAS						Tr	Trial Pit Number			TPNSA 230	Job No:	P8251J128	
s	pecialists in th	ne investigation	on & recla	amation of b	rownfield sites			Site	٥.		Upper Heyford, Oxfordshire			
	TE	RIAL PI	T RE	CORD	ı			Dat			31/01/2012	u, Oxioit	Janie -	
Depth (m)	Sam Depth	ple	Т	est	Seat D	rive		Test Drive			Legend	Description		
Depth (m)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading			
0.10												///	TARMAC	
													White/grey/blue sandy GRAVEL. Gravel is angular to subrounded of limestone with faint hydrocarbon odour	
													, , , , , , , , , , , , , , , , , , ,	
		_	DID	0.5							0.7			
	0.50	D	PID	0.5							0.7			
0.90														
	1.00	D	PID	1							238		Blue/grey/black sandy, clayey GRAVEL. Gravel is angular of Limestone. Strong hydrocarbon odour	
													Carang Hydrocarbon sacca	
1.40														
			Rema				l .		<u> </u>				1	
Client:	HPS				ninated on I	imeston	e rockhe	ad at 1	.4m bg	l. Grou	ındwater enco	untered	as seepage at base	
	n/a													
Engineer:	MW													

	INMAS							Trial Pit Number			TPNSA 231	Job No:	P8251J128
s	necialists in th	ne investigation	on & recla	emation of b	rownfield sites								
		RIAL PI						Site			Upper Heyfor	d, Oxford	dshire
	San			est	Seat D	rive		Date: Test Drive			31/01/2012	Legend	Description
Depth (m)	Depth (m)	Туре		Depth	75	75	75	75	75	75	PID Reading	•	
												[]]	CONCRETE containing steel reinforcement
				-								///	
0.40													
0.40													White/grey/blue sandy GRAVEL. Gravel is angular to subrounded of calcarious sandstone with faint hydrocarbon odour
	0.50	D	PID	0.5							2.4		calcarious sandstone with faint hydrocarbon odour
	0.30	D	FID	0.5							2.4		
0.90													Pale grey slightly sandy GRAVEL. Gravel is angular of sandstone.
	1.00	D	PID	1							1.4		Becoming thickly bedded sandstone rock with a small amount of pale grey interstitial sand. Occasional hydrocarbon staining
1.30													, ,
1.50													
				-									
			Rema		J						I		
Client:	HPS		1: Tria	l pit term	ninated on s	andston	e rockhe	ead at 1	1.4m bg	l. Gro	undwater enco	ountered	as slight seepage at base
	n/a												
Engineer:	MW												

		7/1		7			Tr	Trial Pit Number			TPNSA 232	Job No:	P8251J128
s	ipecialists in t	he investigati	ion & recla	amation of t	brownfield sites	İ		Site	٠	_	Upper Heyfor	-d Ovford	dahira
		RIAL PI				Į		Dat			31/01/2012	ü, Oxioic	asnire
Doroth (m)	Sam	Sample		Test	Seat D	rive	Test Drive				Legend	Description	
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
												<i>7</i> //	CONCRETE containing steel reinforcement
	'			<u> </u>					<u> </u>				<u> </u>
	'			 	 	 '	 	 	igwdapprox]
	'												<u> </u>
	'		'	 	 	<u> </u>	igwdapprox igwedge	 	igwdapprox igwedge				.]
	'												<u> </u>
0.60	'			 	 	 '	 -	 	\vdash				1
													Yellow/white sandy GRAVEL. Gravel is angular to subrounded of calcarious sandstone
	1.00	ח	PID	1	 	<u> </u>		<u> </u>			0		Calcallous Sandstone
			FID	1							U	<u> </u>	
1.10	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>				
	'		\vdash	\vdash		 	$\vdash \vdash$	 	$\vdash \vdash$				
	'												
	'		$\vdash \vdash$	\vdash		 	$\vdash \vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$				
	'								<u> </u>				
	'		$\vdash \vdash$	\vdash		 	$\vdash \vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$				
	'												
	'		$\vdash \vdash$	$\vdash \sqsubseteq \vdash$	<u> </u>	$\vdash \sqsubseteq$	$\vdash \sqsubseteq$	\vdash	$\vdash \vdash$		 		
	'								<u> </u>				
	'		\vdash	\vdash	$\vdash = \vdash$	\vdash	\vdash		\vdash				
	'		<u> </u>	<u> </u>	<u> </u>	<u> </u>		F-'	<u> </u>				
	'		\Box										
	'		<u> </u>	<u> </u>	Ē'	<u> </u>	igcap	<u> </u>	igspace			ŀ	
	'												
	'		$\vdash \vdash$	\vdash		 	$\vdash \vdash \vdash$	 	$\vdash \vdash \vdash$			1	
	'								<u> </u>				
	'		$\vdash \vdash$	├ ──'	 	 	┼─┤	 	┼─┤			1	
	'								<u> </u>				
	'		$\vdash \vdash$	 	 	 	$\vdash \vdash \vdash$	 	$\vdash \vdash \vdash$				
	'							\square	<u> </u>				
	'		\vdash	\vdash		 	$\vdash \vdash$	 	$\vdash \vdash$				
	'												
	'		$\vdash \vdash$	\vdash		 	$\vdash \vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$				
	'								<u> </u>				
	'			 	 	 '	₩	 	₩			1	
Client:	HPS		Remar 1: Tria		minated on	sandstor	ne rockh	ead at	1.1m bs	l. Gro	undwater enco	ountered	l as slight seepage at base
										,,,,		-	000000000000000000000000000000000000000
	n/a MW												
	1												
					Lamas A.		real pr	ام استادات	- Indu	* dali	Outon	Second III	1111 1100 4 110
													lxbridge, UBB 1 HR associates.com

	17	7//		2 (Tr	rial Pit I	Numbe	TPNSA 233	Job No:	P8251J128					
s	Specialists in the	he investigati	on & recla	amation of I	brownfield sites	Į											
		RIAL PI				!		Site				Upper Heyford, Oxfordshire 31/01/2012					
	Sam	nple		Test	Seat D	rive		Test E			31/01/2012	Legend	Description				
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading						
	` _	,				<u> </u>						///	TARMAC				
0.15					<u> </u>					<u> </u>							
				<u> </u>		<u> </u>	<u> </u>		<u> </u>	<u> </u>			Yellow/white sandy GRAVEL. Gravel is angular to subrounded of calcarious sandstone				
					<u> </u>					<u> </u>		ļ <u></u>					
l				<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		F_		ļ					
	0.50	D	PID	0.5		$\vdash \sqsubseteq$	$\vdash \sqsubseteq$		<u> </u>	<u> </u>	0	[::::					
					<u> </u>							} : · : · :					
0.80		<u> </u>		<u>[</u> '	<u> </u>	<u>[</u> '	<u> </u>					<u></u>					
				$\vdash \sqsubseteq$	<u> </u>	$\vdash \sqsubseteq$	$\vdash \vdash$			<u> </u>	<u> </u>						
				 	 	 	$\vdash \vdash \vdash$			-							
				 		 	<u> </u>										
			\vdash	 	 	 	$\vdash \vdash \vdash$		 	 							
				\vdash	 	\vdash	$\vdash \sqsubseteq$		<u> </u>		<u> </u>						
											<u> </u>						
				<u> </u>	<u> </u>	<u> </u>											
												j					
				<u> </u>	<u> </u>	<u> </u>	\vdash	<u> </u>	<u> </u>	<u> </u>	<u> </u>	ļ					
				<u> </u>	 	<u> </u>	igwdapprox										
				 	 	 	├──				 	1					
				<u> </u>		<u> </u>											
				 	\vdash	 	$\vdash \vdash \vdash$					1					
				<u> </u>		<u> </u>											
				 	 	 	$\vdash \vdash \vdash$			 							
				\vdash	<u> </u>	\vdash	\vdash			<u> </u>	<u> </u>						
										<u> </u>							
							<u> </u>										
				 	 	 	$\vdash \vdash$			 							
		<u> </u>	2:									<u> </u>					
Client:	HPS		Remai 1: Tria		minated on	sandstor	ne rockh	ead at (0.8m bg	gl. Gro	undwater not	encounte	ered				
Driller:	n/a																
	MW		1														
													xbridge, UBB 1 HR associates.com				

	17	7//		Z 🎼			Tr	Trial Pit Number			TPNSA 234	Job No:	P8251J128			
s	pecialists in the	he investigati	on & recla	amation of t	brownfield sites	ļ		Site		_	Upper Heyford, Oxfordshire					
	TF	RIAL PI	T RE	CORD)	!		Dat			26/01/2012	iu, Oxioic	name			
Doroth (m)	San	nple		Test	Seat D	rive		Test D			20,01,2012	Legend	Description			
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading					
_													MADE GROUND - Brown/black slightly sandy, gravelly clay. Gravel is of brick and limestone			
	2.20	<u> </u>	3:5			 										
	0.20	D	PID	0.2	 	 	 		\vdash	 	0					
					<u> </u>											
				$\vdash \vdash \vdash$	 	 '	 		 	-						
0.50																
0.50					<u> </u>											
					<u> </u>					F						
				$\vdash \vdash$		$\vdash \sqsubseteq$	<u> </u>		\vdash	 						
ĺ																
				$\vdash \vdash \vdash$	 	$\vdash \vdash$			 		 					
ĺ																
ĺ				$\vdash \sqsubseteq$		$\vdash \sqsubseteq$	\vdash		\vdash							
					<u> </u>						<u> </u>					
				\vdash	<u> </u>	<u> </u>	\Box			\vdash	<u> </u>					
				$\vdash \vdash \vdash$	 '	<u> </u>			\vdash	<u> </u>						
				$\vdash \vdash \vdash$	 	 	\vdash		\vdash		 					
					<u> </u>						<u> </u>					
					<u> </u>	<u> </u>				<u> </u>						
			<u> </u>	 	<u> </u>	<u> </u>		 		 						
				$\vdash \vdash \vdash$	 		-				 					
						<u> </u>				匚						
				$\vdash \vdash \vdash$	 	 			\vdash	-	 					
				\vdash	\vdash	\vdash	<u> </u>				<u> </u>					
				<u>['</u>	<u> </u>	<u>['</u>				<u> </u>						
					<u> </u>						<u> </u>					
Client:	HPS		Remai		minated at (1 5m hal	due to h	uried e	loctrica	ol cable	es. Groundwat	or not en	icquintered			
			1. IIIa	i più terri	illiated at 0	.Jili bgi	uue to b	urieu e	lectrica	i cabie	s. Groundwat	er not en	icounter eu			
Driller: Engineer:	n/a MW															
					-											

	11	• <i>1.</i>		2 E	7		Tr	Trial Pit Number			TPNSA 235	Job No:	P8251J128		
s	pecialists in ti	he investigati	on & recla	amation of b	rownfield sites						Upper Heyford, Oxfordshire				
		RIAL PI						Sit Dat			03/02/2012	rd, Oxfor	dshire		
	San	nple		est	Seat D	rive		Test [03/02/2012	Legend	Description		
Depth (m)	Depth (m)	Туре	Type	Depth	75	75	75	75	75	75	PID Reading				
												///	MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of limestone, brick and concrete		
													4		
	0.20	D	PID	0.2							0		1		
0.30															
													Brown sandy CLAY containing occasional fragments of highly weathered limestone		
	0.50	D	PID	0.5							0				
0.70															
													Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone.		
	1.00	D	PID	1							0				
											-				
1.40															
				\vdash											
			Rema	rke.											
Client:	HPS				ninated on	Limestor	ne rockh	ead at :	1.4m bg	l. Gro	undwater not	encount	rered		
Driller:	n/2														
Engineer:	n/a MW														

	17						Tr	Trial Pit Number			TPNSA 236	Job No:	P8251J128
s	pecialists in t	he investigati	on & recla	amation of b	rownfield sites		Site:				Upper Heyfor	d Oxford	tshire
	T	RIAL PI	T RE	CORD				Dat			27/01/2012	u, Oxioic	anne.
Depth (m)	San Depth	nple	Т	est	Seat D	rive		Test [, ,	Legend	Description
Deptii (iii)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
												///	MADE GROUND - black/brown sandy gravelly clay. Gravel is of limestone with occasional fragments of brick
												///	
0.60	0.50	D	PID	0.5							0		
													Brown/orange/yellow, slightly sandy, clayey GRAVEL. Gravel is angular to subrounded of Limestone
													Subjounded of Limestone
	1.00	D	PID	1							0		
1.20												• • • • • • • • • • • • • • • • • • • •	Becomes pale yellow, slightly gravelly, limestone bedrock with a small
			PID	1.3							0		amount of yellow interstitial sand
1.50													
		l .	Rema			I						1	
Client:	HPS		1: Tria	l pit tern	ninated on	limeston	e rockhe	ad at 1	.5m bg	l. Grou	ındwater not e	encounte	red
Driller:	n/a												
Engineer:	MW												
					Jomas As	sociates	Ltd - Hi	ghbrid	ge Indu	strial I	Estate, Oxford	Road, U	xbridge, UBB 1 HR

	Trial Pit Number										TPNSA 237	Job No:	P8251J128			
	concialists in th	ne investigatio	on & recla	emation of h	prownfield sites	1										
		RIAL PI				ļ		Site				Upper Heyford, Oxfordshire				
	Sam			est	Seat Di	rive		Dat Test D			30/01/2012	Legend	Description			
Depth (m)	Depth (m)	Туре		Depth	75	75	75	75	75	75	PID Reading					
0.10				$\vdash \vdash \vdash$		$\vdash \vdash$							TARMAC			
0.10													MADE GROUND - Grey/yellow/brown sandy gravel. Gravel is of tarmac, limestone and concrete			
	0.20	D	PID	0.2		$\vdash \vdash$					0		illnestore and concrete			
0.30																
			<u> </u>	igwdown	ļ	<u> </u>							Brown sandy CLAY containing occasional fragments of limestone			
				\vdash		\vdash										
	0.50	D	PID	0.5							0					
				\vdash		\vdash										
0.90											_		Valley/(seem /yhite cond.) CDAVEL Croud is ensuler to subsequed of			
	1.00	D	PID	1		\vdash					0		Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of			
													yellow interstitial sand			
			-	$\vdash \vdash$		$\vdash \vdash$										
	1.50	D	PID	1.5							0					
1.70				$\vdash \vdash$		$\vdash \vdash$										
				$\vdash \vdash$		$\vdash \vdash \vdash$										
			-	igwdot	<u> </u>	——										
				\vdash		\Box										
				\square												
				$\vdash \vdash$		$\vdash \vdash$		$\overline{}$								
			-	$\vdash \vdash \vdash$		$\vdash \vdash \vdash$										
			—	$\vdash \vdash \vdash$,——— <u> </u>	$\vdash \vdash \vdash$										
				\Box		\sqsubseteq										
				\vdash	 	\vdash		-								
				\vdash	$\overline{}$	$\vdash \vdash$		$\overline{}$								
				$\vdash \vdash$		$\vdash \vdash$										
			-	$\vdash \vdash$		$\vdash \vdash$										
				$\vdash \vdash$		$\vdash \vdash \vdash$										
Client:	HPS		Remar		ninated on l	limeston	a rockhe	and at 1	7m ha	l Grou	ındwater not e	ancounte	red			
Chefft.	111 3		1. 1110	pit terri	illiated oil i	mestone	e rockiie	au at 1	/III bg	i. G100	indwater not t	encounte	neu			
	n/a MW															
Engineer:	IVIVV															

	11						Trial Pit Number			TPNSA 238	Job No:	P8251J128			
s	pecialists in the	he investigation	on & recla	amation of b	brownfield sites	Į		Site	٠		Upper Heyford, Oxfordshire				
,	Ti	RIAL PI	T RE	CORD	,		-	Dat			30/01/2012	iu, Oxioit	Janii 6		
	Sam			est	Seat D	rive		Test D			30/01/2012	Legend	Description		
Depth (m)	Depth (m)	Туре	Type	Depth	75	75	75	75	75	75	PID Reading				
	\ ,	.,,,	.,,,								,	///	TARMAC		
0.15				\vdash	 	 	$\vdash \vdash$	 	$\vdash \vdash \vdash$	-					
													MADE GROUND - Brown/grey/black sandy slightly clayey gravel. Gravel is of concrete and limestone. Occasional hydrocarbon odour and staining		
	0.25	D	PID	0.25	 	 	┼─┤	 	┼─┤	 	31.7		is of contribute and infrastructions. Socialism Hydrocal Sci. 2004, and all all all all all all all all all al		
									<u> </u>						
0.40	 	 	-	\longmapsto	 	<u> </u>	 	 	لـــــــا	-		///	Brown sandy CLAY containing occasional fragments of limestone		
	0.50	D	PID	0.5							0		3		
				\longmapsto	 	<u> </u>	 	 	لـــــــا	-					
					<u> </u>					<u> </u>	<u> </u>				
0.90	1.00		210										Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of		
	1.00	D	PID	1		 	$\vdash \vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	 	0		limestone. Becomes structured limestone bedrock with a small amount of		
												ļ	yellow interstitial sand		
		'		\vdash	 	<u> </u>	igwdapprox		igspace	-					
	1.50	D	PID	1.5							0	ļ · . · . ·			
1.70				\sqsubseteq	<u> </u>	<u> </u>	\sqsubseteq	<u> </u>	<u> </u>	<u> </u>	<u> </u>	} : • : • :			
1.70															
				$ar{\Box}$	<u> </u>	<u> </u>	\sqsubseteq	<u> </u>	\sqsubseteq	<u> </u>	<u> </u>				
				\vdash	<u> </u>	\vdash	$\vdash \sqsubseteq$		$\vdash \vdash$	<u> </u>	 				
				\vdash	<u> </u>	\vdash	$\vdash \sqsubseteq$	\vdash	$\vdash \vdash$	<u> </u>	<u> </u>				
						<u> </u>	<u> </u>	<u> </u>	<u> </u>						
										<u> </u>					
									<u> </u>						
					<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>						
				\square	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u></u> '	<u> </u>					
											<u> </u>				
				\square	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>					
				\vdash	<u> </u>	\vdash	$\vdash \sqsubseteq$		$\vdash \vdash$	<u> </u>	 				
						<u> </u>	<u> </u>	<u> </u>	<u> </u>						
					\vdash		\vdash		$\vdash \vdash$	<u> </u>	<u> </u>				
									<u> </u>						
				$\vdash \vdash$		 	$\vdash \vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	 	 				
				$\vdash \vdash$	 	-		 		<u> </u>					
Client:	HPS		Remai		minated on	limestor	e rockhi	ead at 1	1 7m hø	l Grou	undwater not e	encounte	red		
			1. 1110	i pit terri	illiated off i	ineston	e rockiie	au at 1	.7III DEI	i. G 100	mawater not t	encounte	ieu		
Driller: Engineer:	n/a MW														
Liigineer.	10100														

	11				7		Tr	ial Pit N	Numbe	r	TPNSA 239	Job No:	P8251J128		
s	pecialists in th	ne investigation	on & recla	mation of b	rownfield sites			Site	e:		Upper Heyford, Oxfordshire				
	TE	RIAL PI	T RE	CORD				Dat			10/02/2012	и, ожого			
Depth (m)	Sam Depth	nple	T	est	Seat D	rive	Test Drive					Legend	Description		
эсран (,	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading				
													Ornamental flint gravel		
0.30												///	Brown slightly clayey GRAVEL. Gravel is angular of limestone		
	0.50	D	PID	0.5							0				
0.70															
0.70															
			Remai	rke.											
Client:	HPS				ited. Termir	nated at	0.8m bg	l on gra	vel. Gr	oundv	ater not enco	untered			
Driller:	n/a														
Engineer:	MW														

	Trial Pit Number											Job No:	P8251J128			
s	necialists in th	ne investigation	on & recta	mation of b	rownfield sites											
		RIAL PI										Jpper Heyford, Oxfordshire				
	Sam			est	Seat D	rive		Dat Test D			10/02/2012	Legend	Description			
Depth (m)	Depth (m)			Depth		75	75	75	75	75	PID Reading		·			
	(111)	туре	туре	Deptil	75	/3	/5	/3	/3	/3	PID Reading	///	Ornamental flint gravel			
0.30																
0.30													Brown slightly clayey GRAVEL. Gravel is angular of limestone			
	0.50	D	PID	0.5							0					
0.70																
0.70																
				-												
an .			Rema													
Client:	HPS		1: Han	d excava	ated. Termii	nated at	0.8m bg	I on gra	ivel. Gr	oundw	vater not enco	untered				
	n/a															
Engineer:	MW															

	11				7		Tr	ial Pit I	Numbei		TPNSA 241	Job No:	P8251J128		
s	pecialists in the	ne investigation	on & recla	amation of b	rownfield sites			Site	e:		Upper Heyford, Oxfordshire				
	TE	RIAL PI	T RE	CORD				Dat			27/01/2012	ia, oxion	anne.		
Donth (m)	San	ple	Т	est	Seat D	rive		Test D				Legend	Description		
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading				
													MADE GROUND - Brown/black slightly sandy, gravelly clay. Gravel is of brick and limestone		
	0.30	D	PID	0.3							0				
0.45			DID	0.5							_		Parameter lland a service of the CLAY Constalled a substant and a few		
	0.50	D	PID	0.5							0		Brown/yellow sandy, gravelly CLAY. Gravel is angular to subrounded of limestone		
0.90															
	1.00	D	PID	1							0		Yellow/white/cream sandy GRAVEL. Gravel is angular to subrounded of limestone		
1.20															
1.20															
Client:	HPS		Rema 1: Tria		ninated on I	imeston	e rockhe	ad at 1	2m bgl	. Grou	ındwater not e	encounte	red		
									-0						
	n/a MW														

	1/	• T.					Tr	ial Pit I	Numbe	r	TPNSA 242	Job No:	P8251J128
s	pecialists in t	ne investigation	on & recla	amation of b	rownfield sites			Sit	۵۰		Upper Heyfor	d Oxford	tshire
	TI	RIAL PI	T RE	CORD				Dat			30/01/2012	u, Oxioit	Janile .
		nple	T	est	Seat D	rive		Test D				Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.05												///	TURF
													Brown sandy CLAY containing occasional fragments of limestone
	0.50	D	PID	0.5							0		
0.50													
0.60													Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of
													limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand
	1.00	D	PID	1							0		
	2.00												
1.40													
			Remai									<u> </u>	1
Client:	HPS		1: Tria	l pit tern	ninated on I	imeston	e rockhe	ad at 1	.4m bg	l. Grou	ındwater not e	encounte	red
Driller:	n/a												
Engineer:	MW	-											
					Jomas As	sociates	Ltd - Hi	ghbrid	ge Indu	strial E	state, Oxford	Road, U	xbridge, UBB 1 HR

	1/	• I.			7		Tr	ial Pit I	Numbe	r	TPNSA 244	Job No:	P8251J128
s	pecialists in t	he investigati	on & recla	amation of b	rownfield sites			٠.,					date
		RIAL PI						Sit			Upper Heyfor	rd, Oxfor	dshire
		nple		est	Seat D	rive		Dat Test [30/01/2012	Legend	Description
Depth (m)	Depth												Beschpton
	(m)	Type	Туре	Depth	75	75	75	75	75	75	PID Reading	///	MADE GROUND - Brown/black sandy slightly gravelly clay. Gravel is of
													MADE GROUND - Brown/black sandy slightly gravelly clay. Gravel is of brick and limestone
0.20	0.15	D	PID	0.15							0		1
0.20												///	Brown sandy CLAY containing occasional fragments of limestone
				<u> </u>									
				\vdash									
	0.50	D	PID	0.5							0		
0.80													
0.00													Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of
	1.00	D	PID	1							0		limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand
				\vdash									
	1.50	D	PID	1.5							0		
1.60				\vdash									
				<u> </u>									
				\vdash									
				<u> </u>									
				\vdash									
				<u> </u>									
			Rema	rks:			Į						<u> </u>
Client:	HPS		1: Tria	ıl pit tern	ninated on	limeston	e rockhe	ead at 1	l.6m bg	l. Grou	undwater not	encounte	ered
Driller:	n/a												
Engineer:	MW												
l													

	11						Tr	ial Pit I	Numbei	r	TPNSA 245	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites								Addess
		RIAL PI						Sit			Upper Heyfor	rd, Oxford	dshire
		nple		est	Seat D	rive		Dat Test D			07/02/2012	Legend	Description
Depth (m)	Depth											-cgcu	
0.05	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	///	TURF
													Brown slightly sandy CLAY containing occasional fragments of highly
													weathered limestone
	0.50	D	PID	0.5							0		
0.70													
													Yellow/brown sandy GRAVEL. Gravel is angular to subangular of limestone
1.00	0.90	D	PID	0.9							0		illinestorie
1.00													
			Rema	rks:									
Client:	HPS				ated. Termii	nated at	1.0m bg	l on gra	vel. Gr	oundw	ater not enco	untered	
Driller:	n/a												
Engineer:	MW												
													
					Lance Co.		11.1					la	thicker upperup
					Jomas As	sociates	Lta - Hi	gnorid	ge indu	striai E	state, Oxford	r koad, U	xbridge, UBB 1 HR

	11		F				Tr	ial Pit I	Numbei	r	TPNSA 246	Job No:	P8251J128
s	pecialists in the	he investigation	on & recla	amation of t	brownfield sites	ļ		C:+			Usasa Houfor	-! Ovfor	4.4
		RIAL PI				ļ		Site			Upper Heyfor	a, Oxford	asnire
		nple		est	Seat D	rive		Dat Test D			07/02/2012	Legend	Description
Depth (m)	Depth												Description
0.05	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	,,,	TURF
0.05		\vdash		$\vdash \vdash$	 		<u> </u>		H				Yellow/brown sandy GRAVEL. Gravel is angular to subangular of
İ													limestone
İ				$\vdash \vdash$	 			 	\vdash	 			
İ				$\vdash \vdash \vdash$	 		 		\vdash				
İ													
İ				<u> </u>	├ ──	<u> </u>		<u> </u>					
İ	0.50	D	PID	0.5	 	 '	 		\vdash		0		
İ												· · · · .	
0.00	ļ			₩	 	<u> </u>	 	ļ	<u> </u>	<u> </u>			
0.80		\vdash		$\vdash \vdash \vdash$	 	 '	 	-	₩	 	-		
	ļ				<u> </u>								
				\Box '									
				₩-	├ ──	<u> </u>	ļ!	<u> </u>	<u> </u>	<u> </u>			
	ļ			$\vdash \vdash \vdash$	 		 		\vdash				
	ļ												
	ļ		<u> </u>	<u> </u>				<u> </u>		<u> </u>			
				$\vdash \vdash \vdash$	 	<u> </u>		-	\vdash		1		
				<u> </u>	<u> </u>	<u>[</u> '				<u> </u>			
	ļ			$\vdash \vdash \vdash$	 	 '	 	-	₩	 	-		
					<u> </u>								
				<u> </u>									
	ļ			$\vdash \vdash$	\vdash	 			 		 		
	ļ												
			<u> </u>	<u> </u>	<u> </u>	<u> </u>		!	<u> </u>	<u> </u>			
	ļ			$\vdash \vdash \vdash$	 		 		\vdash				
				──'		<u> </u>			<u> </u>				
				$\vdash \vdash$					 				
				\vdash	 								
				$\vdash \vdash$					 				
				$\vdash \vdash \vdash$	 		 		_	\vdash			
				\vdash									
				$\vdash \vdash \vdash$		<u> </u>							
				'	<u> </u>	<u> </u>				<u> </u>			
				<u> </u>	<u> </u>				<u> </u>	<u> </u>			
		-	Remai	rks:				J.					
Client:	HPS		1: Han	ıd excav	ated. Termi [,]	nated at	0.8m bg	l on gra	avel. Gr	oundv	vater not enco	untered	
Driller:	n/a												
	MW												

					7		Tr	ial Pit I	Numbe	r	TPNSA 247	Job No:	P8251J128
s	pecialists in the	he investigation	on & recla	amation of b	rownfield sites								
		RIAL PI						Sit			Upper Heyfor	d, Oxford	dshire
	San	nple		est	Seat D	rive		Dat Test E			07/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Type	Depth	75	75	75	75	75	75	PID Reading		
0.05	(111)	турс	турс	Deptil	7,5	,,	/3	,,	,,	,,	r ib iteauing	///	TURF
													Yellow/brown sandy, clayed GRAVEL / gravelly CLAY. Gravel is angular to subangular of limestone
	0.50	D	PID	0.5							0		
0.80													
			Rema	rks:									
Client:	HPS				ated. Termii	nated at	0.8m bg	l on gra	vel. Gr	oundw	vater not enco	untered	
Driller:	n/a												
	MW												

	11	4).		2			Tr	ial Pit I	Numbei	r	TPNSA 248	Job No:	P8251J128
sı	pecialists in (the investigati	ion & recli	amation of t	brownfield sites	ŀ		Ci+			Upper Heyfor	-1 Oufor	
		RIAL PI				ŀ	 	Site			27/01/2012	d, Uxiore	Ishire
	San	mple		est	Seat D	rive		Test D			2//01/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
								\square	-			77	MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of limestone with occasional tile, brick and concrete
		ļ						\square'	 '				
	1	ļ	<u> </u>	igwdapprox	 	 	igwdapprox	$\vdash \vdash$		<u> </u>			
	1	ļ						\Box					<u> </u>
	1	ļ	<u> </u>		 	<u> </u>	 '	——'	<u> </u>	<u> </u>			
	0.50	D	PID	0.5							0		<u> </u>
0.60		ļ				<u> </u>		=		F'			
0.00													Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of
	1	ļ	<u> </u>	<u> </u> '	 '	<u> </u>	<u> </u> '	——'	ļ'	<u> </u> '			limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand
	1.00	D I	PID	1		$\vdash \vdash \vdash$	$\vdash \vdash \vdash$	${ m \square}$	 	\vdash	0	}	
	1	ļ						$ abla^{\prime}$	<u> </u>			ļ	
1.30		ļ	<u> </u>	igwdapprox igwedge	 	 	igwdapprox igwedge	$\vdash \vdash \vdash$		 		 	
=:=:								\Box				<u> </u>	
			<u> </u>	₩	 		 	$\vdash \vdash \vdash$	<u> </u> '	 -			
		ļ						\square'					
	1			$\vdash \vdash \vdash$	 	$\vdash \vdash \vdash$	\vdash	$\vdash \vdash$	<u> </u>			ł	
		ļ						\square'					
		ļ	<u> </u>	 	 	 	 	$\vdash \vdash \vdash$	<u> </u>	 -			
		ļ						\square'					
		ļ	<u> </u>	 	 	 	 	$\vdash \vdash \vdash$	<u> </u>	 -			
		ļ						\square'					
			<u> </u>	₩	 		 	$\vdash \vdash \vdash$	<u> </u> '	 -			
	1							\Box	 				
		ļ	<u> </u>	\vdash	 	$\vdash \vdash \vdash$	\vdash	$\vdash \vdash \vdash$	<u> </u>	 		ł	
		ļ						\Box					
	1			$\vdash \vdash \vdash$	 	$\vdash \vdash \vdash$	\vdash	$\vdash \vdash$	<u> </u>			ł	
		ļ						\square'					
			<u> </u>	₩	 		 	$\vdash \vdash \vdash$	<u> </u> '	 -			
		ļ						\Box					
		ļ	<u> </u>	igwdapprox igwedge	 	 	igwdapprox igwedge	$\vdash \vdash \vdash$		 			
		ļ						\Box					
	1		<u> </u>	igwdapprox	 	 	igwdapprox	$\vdash \vdash$		<u> </u>		•	
		ļ						\Box					
			<u> </u>	\vdash	 	 '	├ ──'	$\vdash \vdash$	<u> </u> '	<u> </u>		ļ	
	1								<u> </u>				
		ļ						\Box					
	\vdash		Remai	rks:			ш			Ш	<u> </u>		<u> </u>
Client:	HPS		1: Tria	l pit tern	ninated on I	imeston	e rockhe	ad at 1	1.3m bg	l. Grou	undwater not e	encounte	red
	n/a												
Engineer:	MW		<u> </u>										

	1/			4			Tr	ial Pit	Number	r	TPNSA 249	Job No:	P8251J128
s	pecialists in the	he investigation	on & recla	amation of b	prownfield sites	į		Site	٠.	I	Upper Heyfor	rd Oxford	dehira
	Tí	RIAL PI	T RE	CORD)			Dat			27/01/2012	u, omore	330
Depth (m)		nple	T	est	Seat D	rive		Test D				Legend	Description
Deptii (iii)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
				\vdash			\vdash \vdash \vdash	\vdash	\vdash	\vdash	 		MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of concrete, brick and limestone
l	2.20	_	210										1
l	0.20	ו	PID	0.2	,—— <u> </u>	$\vdash \vdash$	$\vdash \vdash \vdash$	$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash	0		4
İ	!]								\square			1
0.40	!]	$\vdash \vdash$	\vdash		 	+-	 	$\vdash \vdash \vdash$	\vdash			1
			SID										Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of
	0.50	D	PID	0.5	,———!		$\vdash \vdash \vdash$	 	$\vdash \vdash \vdash$		0	ļ	yellow interstitial sand
		ļ											
		ļ	$\vdash \vdash \vdash$	\longmapsto		 '	 	 		<u>—</u>		[· · · ·	
	1.00	D	PID	1							0	<u> </u>	
	!]	\vdash	$ar{ar{\Box}}$		<u> </u>	\sqsubseteq	<u> </u>	<u> </u>	<u> </u>	<u> </u>	[· · · ·	
	!]	\vdash	\vdash	,———		$\vdash \vdash \vdash$	\vdash	$\vdash \vdash \vdash$	\vdash		ł : : : .	
1.40	 '									\Box		<u> </u>	
							\vdash		\vdash		<u> </u>		
		ļ								\Box			
		ļ		\vdash		\vdash	$\vdash \sqsubseteq$	\vdash	\vdash	\vdash	<u> </u>		
		ļ								\Box			
		ļ	\vdash	$\vdash \vdash$		$\vdash \vdash$	$\vdash \sqsubseteq$	$\vdash \vdash$	\vdash	\vdash	<u> </u>	•	
		ļ								\Box			
		ļ		$\vdash \exists$		$\vdash \vdash$	$\vdash \sqsubseteq$	\vdash	\vdash			1	
		ļ								\Box			
		ļ	\vdash	$\vdash \vdash \vdash$,	$\vdash \vdash$	$\vdash \vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	\vdash		1	
		ļ										ļ	
	!]					\vdash	<u> </u>	\vdash		<u> </u>		
		ļ				<u> </u>	<u> </u>	<u> </u>	<u>[</u>				
		ļ											
		ļ			<u> </u>							ļ	
		ļ											
		ļ	\square			<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>			
		ļ										j	
		ļ	\square			<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>			
		ļ											
	'			\Box		<u> </u>	\square	<u> </u>	\sqsubseteq	F'		ļ	
		ļ										<u> </u>	
		ļ			'	<u> </u>		<u> </u>	<u>[_'</u>	<u> </u>			
			\vdash	$\vdash \vdash \vdash$		\vdash	$\vdash \vdash$		\vdash				
Clicat.	LIDE		Remar		teres al au		المام د د				de contrar made		
Client:	HPS		1: Iria	I pit term	iinated on I	imeston	e rockhe	ad at 1	4m bgi	. Grou	undwater not e	encounte	red:
	n/a MW												
Liigiileei.	IVIVV												
												l Bood III	hybridge LIBB 1 LIB

	17						Tr	ial Pit I	Numbei	r	TPNSA 250	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	amation of b	rownfield sites			Sit	٠.		Upper Heyfoi	rd Ovfor	dehiro
	TI	RIAL PI	T RE	CORD				Dat			27/01/2012	iu, Oxioit	ustine
	San	nple		est	Seat D	rive		Test E			27/01/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Tyne	Depth	75	75	75	75	75	75	PID Reading		
	(111)	Турс	Турс	Берип	-,,	,,,	,,	,,,	,,	,,,	T ID Reduing	///	MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of brick and limestone with occasional fragments of concrete
													and limestone with occasional fragments of concrete
	0.20	D	PID	0.2							0		
0.40													
	0.50		DID	0.5							0		Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of
	0.50	D	PID	0.5							0		yellow interstitial sand
												[• • • •	
	1.00	D	PID	1							0		
												• • • •	
	1.50	D	PID	1.5							0	• • • •	
1.80													
Client:	HPS		Rema		ninated on	halk ros	khood o	+ 2 Fm	hal Gra	nund	ater not enco	untered	
CHEIR.	1113		T. IIId	i pir terri	mateu on	LIIAIK IUC	wiiedu g	. Z.OIII	ugi. GrC	JunuW	ater not enco	untered	
Driller:	n/a MW												
Engineer:	IVIVV		<u> </u>										

	1/						Tr	ial Pit I	Numbe	r	TPNSA 251	Job No:	P8251J128
s	pecialists in t	ne investigation	on & recla	amation of b	rownfield sites			C:A				Ofa	dahira.
		RIAL PI						Site			Upper Heyfor	a, Oxford	osnire
	San	nple		est	Seat D	rive		Dat Test D			27/01/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Tyne	Depth	75	75	75	75	75	75	PID Reading		
	(111)	туре	турс	Берип	73	73	/3	,,	73	,,	r ib iteauilig	///	MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of
													limestone with occasional fragments of brick and concrete
		_											
	0.50	D	PID	0.5							0		
0.60													
													Brown/orange slightly sandy clayey GRAVEL. Gravel is angular to subrounded of Limestone
1.10	1.00	D	PID	1							0		
1.10													Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of
													limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand
	1.50	D	PID	1.5							0		
1.60													
			Rema	rks:]		l				1
Client:	HPS		1: Tria	l pit tern	ninated on I	imeston	e rockhe	ad at 1	.6m bg	l. Grou	ındwater not e	encounte	red
Driller:	n/a												
Engineer:	MW												

	11						Tr	ial Pit I	Numbei	r	TPNSA 252	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	amation of b	rownfield sites			Sit	٠.		Upper Heyfor	d Ovford	dehiro
	TI	RIAL PI	T RE	CORD				Dat			27/01/2012	u, Oxioic	isine
	San			est	Seat D	rive		Test E			27/01/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Type	Depth	75	75	75	75	75	75	PID Reading		
	(,	.,,,,,	.,,,,									///	MADE GROUND - Brown sandy clay containing occasional fragments of limestone and brick
													illnestone and brick
0.20												///	
													Brown sandy CLAY containing occasional fragments of limestone
	0.50	D											
1.10	1.00	D	PID	1									
1.10													Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of
													limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand
1.50	1.40	D	PID	1.4									
			D-										
Client:	HPS		Remai 1: Tria		ninated on I	imeston	e rockhe	ad at 1	.5m bgl	l. Grou	ındwater not e	encounte	red
									- 8		- /*		
	n/a MW												
-													

	11						Tr	ial Pit I	Numbei	r	TPNSA 253	Job No:	P8251J128
s	pecialists in the	he investigation	on & recla	amation of br	rownfield sites	ŀ		Site			Upper Heyfor	-d Ovfor	dahira
	TI	RIAL PI	T RE	CORD	,	ŀ	-	Dat			26/01/2012	u, Oxioit	ustinie
	San	nple		est	Seat D	rive		Test D			20/01/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Tvpe	Depth	75	75	75	75	75	75	PID Reading		
			PID	0.1							0	///	MADE GROUND - Brown/black sandy slightly clayey gravel. Gravel is of limestone and brick
0.15	0.10	D	PID	0.1		\vdash	\vdash	\Box	<u> </u>				
								=					Brown slightly sandy, gravelly CLAY. Gravel is angular to subrounded of limestone
			$\vdash \vdash \vdash$			$\vdash \vdash \vdash$	$\vdash \vdash \vdash$	$\vdash \vdash$	\vdash		 		
								otin oti]
	0.50	D	PID	0.5		 	$\vdash \vdash$	$\vdash \vdash$	\vdash		0]
	0.50		- 12	0.5				$ abla^{\prime}$					
			\longmapsto			 '	├ ──	$\vdash \vdash$]
0.90]						\Box]
	1.00	D	PID	1				\Box			0		Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone
		ļ	$\vdash \vdash$	 		$\vdash \vdash$	$\vdash \vdash \vdash$	$\vdash \vdash$	 		 		
		ļ						\Box					
	1.50	ו	PID	1.5		<u> </u>	igwdapprox	——'	<u> </u>		0		
	1.50		FID	1.0									
		ļ				<u> </u>		<u> </u>					
1.90]	$\vdash \vdash$			$\vdash \vdash$	$\vdash \vdash \vdash$	$\vdash \vdash$	\vdash				
								\Box					
		ļ	$\vdash \vdash$	 		$\vdash \vdash$	$\vdash \vdash \vdash$	$\vdash \vdash$	 		 		
		ļ						\Box					
		ļ	$\vdash \vdash$	-		$\vdash \vdash$	\vdash		\vdash		+		
		ļ						\Box					
			$\vdash\vdash$	-		$\vdash \vdash \vdash$	\vdash	$\vdash \vdash$	\vdash				
		ļ						\Box					
]	$\vdash\vdash\vdash$	-		$\vdash \vdash \vdash$	\vdash		\vdash		 		
								\Box					
		ļ	$\vdash\vdash\vdash$	-		$\vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	\vdash		 		
		ļ						\Box					
]	$\vdash \vdash$			 	\vdash	$\vdash \vdash$					
								\Box					
		ļ	$\vdash \vdash$			<u> </u>	igwdapprox	——'	<u> </u>		 		
		ļ											
		ļ	\sqsubseteq		_	<u> </u>	\square	<u> </u>		<u> </u>	<u> </u>		
		ļ				\vdash	\vdash	\Box			 		
]				<u> </u>		<u> </u>					
		ļ	\vdash			$\vdash \vdash \vdash$	$\vdash \vdash \vdash$	${ m \square}$	\vdash		 		
		ļ						\Box					
			$\vdash \vdash \vdash$			<u></u> '		$\vdash \vdash$					
			Remar				<u> </u>						
Client:	HPS		1: Tria	l pit term	ninated on I	imeston	e rockhe	ad at 1	l.9m bgl	l. Grou	undwater not e	encounte	ered
	n/a												
Engineer:	MW												

	11	1)					Tr	ial Pit I	Numbe	r	TPNSA 254	Job No:	P8251J128
s	pecialists in t	he investigati	on & recla	amation of b	rownfield sites								
		RIAL PI						Sit			Upper Heyfor	rd NSA, C	oxfordshire
		nple		Test	Seat D	rive		Dat Test I			26/01/2012	Legend	Description
Depth (m)	Depth											2080	2337,433
	(m)	Type	Туре	Depth	75	75	75	75	75	75	PID Reading	///	MADE GROUND - Brown/black sandy gravel. Gravel is of limestone, flint,
													brick and ceramic
	0.20		DID	0.2									1
	0.20	D	PID	0.2							0		
													1
0.40													
0.40												///	Brown slightly sandy, gravelly CLAY. Gravel is angular to subrounded of
	0.50	D	PID	0.5							0		limestone
]
0.90													
	1.00	_	DID	1							0		Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone
	1.00	D	PID	1							0		
	1.50	D	PID	1.5							0		
	1.50		110	1.5							- ŭ		
1.90												• • •	
				-									
			D										
Client:	HPS		Rema 1: Tria		ninated on	limeston	e rockhe	ead at 1	L.9m hø	l. Groi	ındwater not e	encounte	ered
			1	p cc.11					~6				
Driller: Engineer:	n/a MW												
Liigiileer.	14144		1										

	1		F				Tr	rial Pit I	Numbei	r	TPNSA 257	Job No:	P8251J128
s	pecialists in the	he investigati	on & recla	amation of t	brownfield sites	ļ		C:+					
		RIAL PI				į	 	Site			Upper Heyfor 13/02/2012	d, Oxioic	ishire
	Sam	nple		est	Seat D	rive		Test D			13/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
												///	Ornamental Flint Gravel
													•
0.25			$\vdash \vdash$	igwdapprox			\longmapsto	$\vdash \vdash$	 '	<u> </u>			
5.25													Yellow/brown sandy, clayey GRAVEL. Gravel is angular of limestone
			$\vdash \vdash$	$\vdash \vdash$	\vdash	 '	\vdash	$\vdash \vdash$	 '	 	 	<u> </u>	
	0.50	D	PID	0.5	\vdash		\vdash	$\vdash \vdash$		-	0		
				\square				\square					
0.80	\vdash	 	$\vdash \vdash$	igwdapprox			\longmapsto	$\vdash \vdash$	 '	<u> </u>			
			$\vdash\vdash$	$\vdash \vdash \vdash$			\longmapsto	$\vdash \vdash$	 	<u> </u>			
			$ar{ar{\sqcup}}$	\vdash	 -	<u> </u>	igcapsup	\vdash	<u> </u>	<u> </u>			
			$\vdash \vdash$	igwdapprox			\longmapsto	$\vdash \vdash$	 '	<u> </u>			
			$\vdash\vdash$	$\vdash \vdash \vdash$		 	$\vdash \vdash$	$\vdash \vdash$	 				
			$\vdash\vdash\vdash$	$\vdash \vdash \vdash$	\vdash		\vdash	$\vdash \vdash$					
				\Box									
			$\vdash\vdash$	$\vdash \vdash$	—	 	$\vdash \vdash \vdash$	$\vdash \vdash$	 				
			\square	<u> </u>			\Box	\sqsubseteq					
			lacksquare	\vdash	 '	Ē'	\square	\vdash	<u> </u>	<u> </u>			
			$\vdash \vdash$	$\vdash \vdash$	\vdash	 	\longmapsto	\vdash	<u> </u> '	 			
			$\vdash\vdash\vdash$	\vdash	\vdash	 	$\vdash \vdash \vdash$	$\vdash \vdash \vdash$	 '				
								\square'	<u> </u>				
			$\vdash\vdash$	$\vdash \vdash$	\vdash	 '	\vdash	$\vdash \vdash$					
									<u> </u>				
			$\vdash\vdash$	$\vdash \vdash$			$\vdash \vdash \vdash$	$\vdash\vdash\vdash$	 				
		<u> </u>	Remar	rks:		<u> </u>			<u></u> '			<u> </u>	
Client:	HPS				ated. Termir	nated at	0.8m bg	ار on gra	avel. Gr	oundv	vater not enco	untered	
Driller:	n/a												
	MW		<u> </u>										

	11		F	i E			Tr	rial Pit N	Numbe	r	TPNSA 258	Job No:	P8251J128
s	Specialists in the	he investigation	on & recla	amation of I	brownfield sites	ļ							
		RIAL PI				Į.		Site			Upper Heyfor	rd, Oxford	dshire
	Sam			Test	Seat D	rive		Dat Test D			13/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре		Depth		75	75		75	75	PID Reading		
	(111)	Турс	Турс	Deptin	/3	/3	,,,	73	75	75	PID Neaumb	///	Ornamental flint gravel covering
				<u> </u>		<u> </u>		ا للم	<u> </u>	<u> </u>			
0.20					<u> </u>								
	[<u> </u>		<u></u> '	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		Brown sandy CLAY containing occasional fragments of highly weathered limestone
							+		<u> </u>	<u> </u>	 		
								\Box					
	0.50	D	PID	0.5	\vdash	 	 	$\vdash \vdash$	 		0		
0.70				<u> </u>		<u> </u>	<u> </u>	\square					
0.70 0.80		$\vdash \vdash \vdash$		 	 	 	 	$\vdash \vdash$	 		 		becomes Yellow/brown clayey GRAVEL. Gravel is angular of limestone
			<u> </u>	<u> </u>	<u> </u>	<u> </u>	 	$\vdash \vdash$	-	 	ļ		
				<u> </u>		<u> </u>	\vdash		<u> </u>			1	
								\square					
				 	 	 	\vdash	\square	 		 	1	
								\square					
					 	 	\vdash	$\vdash \vdash$	-		 	ł	
							<u> </u>	\square'					
				 	 	 '	 	$\vdash \vdash$	-		 	ļ	
								\square'					
			$\vdash\vdash$	 	 	 '	 	$\vdash \vdash$	-	_			
					<u> </u>			\Box					
					 	 		$\vdash \vdash$	-	-		ł	
							<u> </u>	\square'					
					 	 		$\vdash \vdash$	-	-		ł	
				 	 	 '	 	$\vdash \vdash$	-		 	ļ	
			$\vdash \vdash$	 	 '	<u> </u>	 	$\vdash \vdash$		_		ŀ	
			<u> </u>	<u> </u>	<u> </u>	<u> </u> '	 	$\vdash \vdash$	-	<u> </u>	ļ	ļ	
				<u> </u> '	 	<u> </u> '	 '	$\vdash \vdash$	-	_	ļ	ļ	
					<u> </u>								
				<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>			
					<u> </u>								
								<u>二</u> '					
				 		<u> </u>	┢	Ш	-				
			Remai								1		
Client:	HPS		1: Han	d excava	ated. Termir	nated at	0.8m bg	,I on gra	avel. Gr	oundw	vater not enco	untered	
	n/a												
Engineer:	MW		Щ_										

	II				7		Tr	ial Pit I	Numbei	r	TPNSA 259	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites			Sit	۵.		Upper Heyfor	d Oxford	dchira
	TF	RIAL PI	T RE	CORD	1			Dat			03/02/2012	u, Oxioic	anne.
	Sam	nple	T	est	Seat D	rive		Test D				Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
												///	TARMAC
0.15													
													Brown sandy CLAY with occasional fragments of weathered limestone
	0.50	D	PID	0.5							0		
0.70													
													Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone
	1.00	D	PID	1							0		
1.30				-	<u> </u>								
1.50													
				<u> </u>									
Cliont:	шDC		Remai		ninated ac-	imasta	o roel-k	ad =+ 1	2m h -	I C	indivisted as *	nco:+-	vod.
Client:	HPS		T: I ria	ı pıt tern	ıınated on I	ırneston	e rockhe	ad at 1	3m bgl	ı. Grou	ındwater not e	ericounte	rea
	n/a MW												
LIIGHICCI.	1.41.44												
												Dood II	wheides LIBB 1 LIB

							,						•
						l	Trí	ial Pit I	Numbei	<u>r</u>	TPNSA 261	Job No:	P8251J128
s					brownfield sites	ŀ	<u> </u>	Site	e:		Upper Heyfor	rd, Oxford	dshire
		RIAL PI					<u> </u>	Dat			01/02/2012		
Depth (m)		mple	T/	est	Seat D	rive	Ļ.,	Test D)rive		'	Legend	Description
	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	, ,	AT INC.
0.05	 '	<u> </u>	├─	+	 		\longmapsto		 '	\vdash	 	H,	TURF MADE GROUND - brown, sandy, gravelly clay. Gravel is of limestone,
	'												concrete, brick and occasional tarmac
	ļ '		<u> </u>	<u> </u>	<u> </u>	<u> </u>	\Box	'	<u>[</u> '	<u> </u>	<u> </u>		1
	'		$\vdash \vdash$	$+\!-\!\!-\!\!\!-$	 		\longmapsto	!	 	\vdash	 	///	3
	'		\vdash	$\vdash \vdash \vdash$	 	$\overline{}$	\vdash			\vdash	+		4
	ļ '												1
						<u> </u>	Г	<u>'</u>	<u>[</u> '	\Box		///	1
	0.50	D	PID	0.5	 		\vdash		 	\vdash	0		4
0.70	ļ <u> </u> '	<u> </u>	$\vdash \sqsubseteq'$	\vdash	<u> </u>						 		1
	'			<u> </u>	<u>['</u>	<u> </u>		'	<u> </u>	匚	<u> </u>	-	
	'		\vdash	\vdash	 	 '	\longmapsto	!	 '	├─	 	-	
	ļ '		$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash		$\vdash \vdash \vdash$		$\vdash \vdash$	\vdash		1	
	ļ '				<u> </u>						 		
	'			<u> </u>		\Box '				匚	 '		
	ļ '		igwdapper	├ ──'	 	 '	\longmapsto		 '	\vdash	<u> </u>	-	
	ļ '		$\vdash \vdash$	$\vdash \vdash$	\vdash	-	\vdash		 	\vdash	 	1	
	ļ '												
	'		<u> </u>	<u>['</u>	igsqcut	<u> </u>	\Box	'	<u>[</u> '	<u> </u>	<u> </u>	-	
	ļ '		$\vdash \vdash$	+	 -	+	\longmapsto	!	 '	├─	 	-	
	ļ '		$\vdash \vdash$	$\vdash \vdash \vdash$	 	$\overline{}$	+		$\vdash \vdash$	\vdash	+	•	
	ļ '										<u> </u>		
	!	1		 '	 -'	<u></u> '	↓	<u> </u>	<u> </u>		<u> </u>	-	
	'		$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash	$\vdash \vdash$	\vdash		$\vdash \vdash$	\vdash	 	1	
	'												
	'			<u>['</u>	<u> </u>	<u> </u>	Ш	'	<u>['</u>	lacksquare	<u> </u>	-	
	ļ '		\vdash	+	+	$\vdash \vdash$	\longmapsto		 	\vdash	 	}	
	'		\vdash	$\vdash \vdash \vdash$	 	$\overline{}$	\vdash			\vdash	+	•	
	ļ '												
	'		<u> </u>	<u> </u>	 -	<u></u> '	igwdapprox	'	<u> </u>	—	<u> </u> !	-	
	ļ '		$\vdash \vdash$	$\vdash \vdash \vdash$		$\vdash \vdash$	\vdash		 	\vdash	 	Ì	
	ļ '										† <u> </u>		
	ļ '			<u> </u>	<u> </u>	<u> </u>		'	<u> </u>	匚	<u> </u>	-	
	ļ '		igwdapprox	$\vdash \vdash \vdash$	 -	 '	\vdash	!	 	├─	 	-	
	ļ '		$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash		$\vdash \vdash \vdash$		$\vdash \vdash$	\vdash		1	
	ļ '										<u> </u>		
	!	1		 '	 -'	<u></u> '	↓	<u> </u>	<u> </u>		<u> </u>	-	
	'	'	$\vdash \vdash$	$\vdash \vdash \vdash$		$\vdash \vdash \vdash$	\vdash		 	\vdash	 	1	
	ļ '												
	ļ '		<u> </u>	['	<u> </u>	<u> </u>	\Box	'	<u>[</u> '	<u> </u>	<u> </u>	-	
	ļ '		<u> </u>	<u> </u> '	 '	<u></u> '	igwdapprox	'	<u> </u>	—	<u> </u> !	-	
	ļ '		$\vdash \vdash$	$\vdash \vdash \vdash$		$\vdash \vdash$	\vdash		 	\vdash	 	•	
			Remar							1		<u> </u>	<u>.</u>
Client:	HPS							g void	and bel	ow gro	ound structure	e at 0.7m	n bgl, measured to 2.4m bgl - possible old soakaway/drain or air raid
Driller:	n/a	ļ	sneitei	r. Groun	ndwater not	encount	.erea						
	MW		<u> </u>										
					Iomac Ar	coriator	iH - btl s	ahhrid	go Indu	strial '	Estate Oxford	I Road II	Jxbridge, UBB 1 HR

	11			<i>z</i> 🗐			Tr	rial Pit I	Number	r	TPNSA 262	Job No:	P8251J128
s	ipecialists in t	he investigati	ion & recla	amation of t	prownfield sites	I		Site	<u>-</u>		Upper Heyfor	rd Oxford	dehira
	TI	RIAL PI	T RE	CORD)	ŀ		Dat			21/02/2012	u, Oxioic	istille
Depth (m)	Sam Depth	nple	T	est	Seat D	rive		Test D				Legend	Description
Deptii (iii,	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
ŀ	'	'	$\vdash \sqsubseteq$	$\vdash \vdash$		\vdash	\vdash	\vdash	\vdash \vdash \vdash	-	 		MADE GROUND - brown/black sandy clayey gravel. Gravel is of limestone, brick, concrete and fragments of clinker
0.20	0.15	D	PID	0.15				=		\vdash	0		
0.20												<i>* * *</i>	
ļ			\vdash	$\vdash \vdash$			\vdash	\vdash	$\vdash \vdash$	 	+		
ļ	'												
!	'			oxdot				\Box		世			
ļ	'		\square	$ar{ar{\ }}$	<u>'</u>	\vdash	\longmapsto	$ar{ar{}}$	igg	$ar{ar{}}$			
!	'												
ļ	'			$\vdash \vdash \vdash$	 	\vdash	\vdash	$\vdash \vdash$	$\vdash \vdash$	 	 		
!	'												
ļ	'		$\mid \rightarrow \mid$	$\vdash \vdash$		\vdash	\vdash	-	$\vdash \vdash \vdash$	 			
!	'			\square				\square		\Box			
!													
			$\mid \rightarrow \mid$	$\vdash \vdash$		\vdash		$\vdash \vdash$	igwdapprox igwedge	 	-		
				\vdash	<u>'</u>			H		F			
											<u> </u>		
 				\sqsubseteq			\Box	=		F			
 			$\mid = \mid$	$\vdash \vdash \vdash$	 	+-	\vdash	$\vdash \vdash$	$\vdash \vdash$	\vdash			
 				\square				\square		\Box			
			$\mid = \mid$	$\vdash \vdash$	 	\vdash	\vdash	$\vdash\vdash$					
											<u> </u>		
	'							=		\vdash			
	'	'											
 			\vdash	$\vdash \vdash$	 	+	\vdash	\vdash	$\vdash \vdash \vdash$	 			
										\blacksquare			
	'												
								=		\sqsubseteq			
			Remar				<u>—</u>		—	<u> </u>			
Client:	HPS		1: Han	d excava	ated. Trial p	it termin	iated on	concre	te at 0.2	2m bg	gl. Groundwate	r not end	ountered
	n/a MW		-										
Liiginee	IVIVV												
í													
							aled Li	أماماما	ao Indii	otriol	Estata Ouford	l Bood 11	xbridge, UBB 1 HR

0.05		11		F				Tr	rial Pit I	Numbei	r	TPNSA 263	Job No:	P8251J128
Company Text	s	pecialists in the	he investigation	on & recta	amation of t	prownfield sites			C:+		_	Linner Houfor	Ovfor	4.6
Depth (m) Depth (m) Type Type Depth Type Type Depth Type Type Depth Type Type Type Depth Type													u, Oxiore	asnire
Depth Type Depth 75 75 75 75 75 75 75 7							rive						Legend	Description
0.50 D PID 0.5 I I I I I I I I I I I I I I I I I I I	Depth (m)	Depth						75			75			- 335p.130
0.50 D PID 0.5 1 1 1 1 1 1 1 1 1	0.05	(m)	Туре	Туре	Depth	75	75	/5	75	75	75	PID Reading	///	TURF
0.50 P FID 0.5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														Yellow/brown sandy, clayed GRAVEL / gravelly CLAY. Gravel is angular to
0.80			ļ								-			Suburigular of infrestorie
0.80			Į.											
0.80														
0.80				$\vdash \vdash \vdash$		<u> </u>		\vdash	├─	₩	├	-		
0.80			ļ	\vdash				 		 	 			
Client: HPS Remarks: 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Doriller: n/a		0.50	D	PID	0.5							0		
Client: HPS Remarks: 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Doriller: n/a				$\vdash \vdash \vdash$		<u> </u>		\vdash	 	\vdash	-	-		
Client: HPS Remarks: 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Doriller: n/a	0.80												: : : :	
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a														
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a				$\vdash \vdash \vdash$		<u> </u>		 	├──	\vdash				
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a				-				\vdash		\vdash				
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	[
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a				$\vdash \vdash \vdash$	\vdash	<u> </u>		<u> </u>	├─	<u> </u>				
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	[<u> </u>		<u> </u>	<u> </u>	\vdash				
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	[
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	[
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	ĺ		ļ											
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	[\square	<u> </u>	<u> </u>		[!	<u> </u>	[!	<u> </u>			
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a				\vdash		1		 		 				
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a														
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a					\vdash	-		\vdash	-	₩	-	-		
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a														
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a				\square	<u> </u>	<u> </u>		[!	<u> </u>	[!	<u> </u>			
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a				$\vdash \vdash$	$\vdash \vdash$	 		\vdash	-	\vdash				
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a														
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a						 		\vdash	 	\vdash	-	-		
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a														
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a														
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	1										-			
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a														
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a				-		ļ			<u> </u>		-			
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	1							 			†			
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a														
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	1			-		ļ	-		\vdash	_	 			
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	1													
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a						<u> </u>			<u> </u>		ļ			
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a	1			-						<u> </u>	-			
Client: HPS 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered Driller: n/a														
Driller: n/a	Cliant.	LIDC						0.0						
	Client:	HP3		1: Han	d excava	ated. Termii	nated at	0.8m bg	,I on gra	avel. Gr	oundw	vater not enco	untered	
Engineer: MW														
	Engineer:	MW		<u> </u>										

	1/	• T.					Tr	ial Pit I	Numbe	r	TPNSA 264	Job No:	P8251J128
s	pecialists in t	ne investigation	on & recla	mation of b	rownfield sites			Sit	۵۰		Upper Heyfor	d Oxford	tshire
	TI	RIAL PI	T RE	CORD				Dat			30/01/2012	u, Oxioit	Janile .
	San	nple		est	Seat D	rive		Test D			30/01/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Type	Depth	75	75	75	75	75	75	PID Reading		
0.05	` '	,, ·	, r -		_							ZZZ	TURF
													Brown sandy CLAY containing occasional fragments of limestone
	0.50	D	PID	0.5							0		
	0.50			0.0									
0.70													
0.70													Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of
													limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand
	1.00	D	PID	1							0		
1.30												· . · . ·	
			Remai		1	1	1					1	
Client:	HPS		1: Tria	l pit tern	ninated on	imeston	e rockhe	ad at 1	.3m bg	l. Grou	indwater not e	encounte	red
Driller:	n/a												
Engineer:	MW												
					Jomas As	sociates	Ltd - Hi	ghbrid	ge Indu	strial E	state, Oxford	Road, U	xbridge, UBB 1 HR

	11				7		Tr	ial Pit N	Number	r	TPNSA 265	Job No:	P8251J128
s	specialists in the	ne investigation	on & recla	amation of b	rownfield sites			Ci+			Upper Heyfor	-! Oufore	4.1
		RIAL PI				ļ		Site			03/02/2012	d, Uxioi	ashire
3 - th ()	Sam	nple		est	Seat D	rive		Test D				Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
							\vdash		\Box				TARMAC
0.15													1405 000 IVD 11 14 15 15 15 15 15 15 15 15 15 15 15 15 15
													MADE GROUND - black/brown sandy, slightly clayey gravel. Gravel is of tarmac, concrete, brick and limestone
0.60	0.50	D	PID	0.5					\vdash		0		
													Yellow/orange sandy GRAVEL. Gravel is angular to subrounded of sandstone
						—					-		datastone
	1.00	D	PID	1							0		
								<u> </u>					
1.40													
						\vdash	\vdash		\vdash				
						\vdash	\vdash		$\vdash \vdash \vdash$				
							\vdash		$\vdash \vdash \vdash$				
							\vdash		\longmapsto				
						<u> </u>			\square		<u> </u>		
						<u> </u>	igcap		\square				
				<u> </u>					\vdash				
						$\vdash \vdash \vdash$	$\vdash \vdash$		$\vdash \vdash \vdash$				
						\vdash	\vdash		\vdash				
						\vdash	\vdash		\vdash				
<u> </u>			Rema	rke.									
Client:	HPS				ninated on s	sandston	ne rockhe	ead at 1	1.4m bg	l. Grou	undwater not	encounte	ered
Driller:	n/a												
	MW												

	17				7		Tr	ial Pit I	Numbe	r	TPNSA 266	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	amation of b	rownfield sites			Site	••		Upper Heyfor	rd Ovford	dehiro
	TE	RIAL PI	T RE	CORD	ı			Dat			26/01/2012	u, Oxioic	isinie
Depth (m)	Sam Depth	nple	Т	est	Seat D	rive		Test D				Legend	Description
Deptil (III)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
													MADE GROUND - Brown sandy slightly clayey gravel. Gravel is of limestone and brick
0.15												///	Brown/yellow sandy, gravelly CLAY. Gravel is angular to subrounded of
													limestone
	0.50	D	PID	0.5							0		
0.85													
													Yellow/white/cream sandy GRAVEL. Gravel is angular to subrounded of limestone
	1.00	D	PID	1							0		
4.50	1.50	D	PID	1.5							0		
1.60													
GI' a sat	LIDG		Rema			_						1	
Client:	HPS		1: Tria	I pit tern	ninated on I	imeston	e rockhe	ad at 1	.6m bg	I. Grou	ındwater not e	encounte	red
	n/a MW												
rugmeer:	IVIVV												

	1/						Tr	ial Pit I	Numbei	r	TPNSA 267	Job No:	P8251J128
s	pecialists in t	he investigation	on & recla	amation of b	rownfield sites			Sit	۵۰		Upper Heyfor	d Ovford	tshira
,	TI	RIAL PI	T RE	CORD				Dat			30/01/2012	u, Oxioic	Janii 6
	San	nple		est	Seat D	rive		Test E			30/01/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
	, ,	,,									Ü		MADE GROUND - Brown/yellow/orange sandy gravelly clay. Gravel is of brick, concrete, limestone and metal
													oron, controlo, imposorio ara mota
												///	
	0.50	D	PID	0.5							0		
0.60													Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of
													Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand
											_		yolon morada cara
	1.00	D	PID	1							0		
	1.50	D	PID	1.5							0		
1.60													
			Remai					<u> </u>				1	
Client:	HPS		1: Tria	l pit tern	ninated on I	imeston	e rockhe	ad at 1	.6m bgl	l. Grou	ındwater not e	encounte	red
Driller:	n/a												
Engineer:	MW												
							144 115	ا اداد اداد		الماستم		Dood II	wheidan LIRR 1 HR

	11	• Y.		18	7		Tr	ial Pit I	Number	r	TPNSA 268	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	amation of b	rownfield sites	ŀ		Ci+					
		RIAL PI				ŀ		Site Dat			Upper Heyfor 01/02/2012	a, Oxioic	asnire
Denth (m)	Sam			est	Seat Di	rive		Test D			01, 02,	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
				$\vdash \sqsubseteq \vdash$		\vdash	\vdash		\vdash				CONCRETE
				\vdash			\square	=	\Box				
								\square'					<u> </u>
0.30				$\vdash \vdash \vdash$		$\vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	\vdash			///	MADE GROUND - Brown sandy gravelly clay. Gravel is of slate, brick,
				\square				\square'					concrete and occasional tarmac
	0.50	D	PID	0.5				\Box			0		1
			$ar{ar{\Box}}$	$\overline{\longmapsto}$		\vdash	$ar{ar{\Box}}$	$ar{dash}$	\square	<u> </u>			4
0.80													
	1.00	D	PID	1		$\vdash \vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	\vdash		0		Brown/orange/yellow gravelly SAND. Gravel is angular to subrounded of calcarious sandstone.
				口				\square'					
				$\vdash \vdash \vdash$		$\vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	$\vdash \vdash \vdash$				
	1.50	,	מוס	1.5				\square			0		
1.60		Ь	PID	1.5							0		
			\vdash	$\overline{\longmapsto}$		\vdash	$ar{ar{\ }}$	$ar{dash}$	igwdard	[]			
				\square				\square					1
				\vdash		$\vdash \vdash$	$\vdash \vdash$	\vdash	$\vdash \sqsubseteq$				
				\Box				=					
				$\vdash \vdash \vdash$		$\vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	$\vdash \vdash \vdash$				
				口				\Box					
				\vdash			\square	=					
								\Box					
				$\vdash \vdash \vdash$		$\vdash \vdash$	\vdash	$\vdash \vdash$	\vdash				
				\Box									
			$ar{ar{\Box}}$	$\overline{\longmapsto}$		\vdash	$ar{ar{\Box}}$	$ar{dash}$	\square	<u> </u>			
				\Box				\square					
				$\vdash \vdash \vdash$		$\vdash \vdash \vdash$	$\vdash \vdash \vdash$	H					
				\Box			\Box	\square					
]	
			$ar{ar{\Box}}$	$\overline{\longmapsto}$		\vdash	$ar{ar{}}$	$ar{dot}$	igwdard	\square			
ļ													
			Remar	rks:					ш				
Client:	HPS				ninated on s	sandstor	ie rockho	ead at 1	1.6m bg	l. Gro	undwater not	encounte	ered
Driller:	n/a												
Engineer:	MW												

				7			Tr	ial Pit I	Numbe	r	TPNSA 269	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites								
		RIAL PI						Sit			Upper Heyfor	d, Oxford	dshire
	San			est	Seat D	rive		Dat Test D			21/02/2012	Legend	Description
Depth (m)	Depth											Legenu	Description
	(m)	Type	Type	Depth	75	75	75	75	75	75	PID Reading		Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone
													Tollow Boundaries, Grayo, Gray
		_											
	0.40	D	PID	0.4							0		
0.50													
			-										
		1	Rema	rks:		l	I				1	1	1
Client:	HPS				ated. Trial p	it termir	nated on	dense	limesto	ne gra	vel at 0.5m bg	l. Ground	dwater not encountered
Driller:	n/a												
	MW												
	-												

	T				7		Tr	ial Pit I	Numbe	r	TPNSA 270	Job No:	P8251J128
s	necialists in ti	ne investigation	on & recla	mation of b	rownfield sites								
		RIAL PI						Sit			Upper Heyfor	d, Oxfor	dshire
	San			est	Seat D	rive		Dat Test E			21/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Type	Depth	75	75	75	75	75	75	PID Reading		
	(111)	туре	туре	Берип	73	/3	/3	73	/3	/3	FID Reading		Brown sandy CLAY containing occasional fragments of highly weathered
													limestone
	0.50	D	PID	0.5							0		
0.60													
			Rema	rks.									
Client:	HPS				ated. Trial p	it termin	nated on	buried	service	warn	ing tape at 0.6	m bgl. Gı	roundwater not encountered
Driller:	n/a												
	MW												
									_			_	

	1/			Z 📗	7		Tr	ial Pit I	Numbe	r	TPNSA 271	Job No:	P8251J128
s	Specialists in t	he investigati	on & recla	amation of t	rownfield sites			Sit	۵۰		Upper Heyfor	d Oxford	tshire
	TI	RIAL PI	T RE	CORD)			Dat			10/02/2012	u, Oxioic	ishine.
Depth (m)	San Depth	nple	Т	est	Seat D	rive		Test [, ,	Legend	Description
Deptii (iii)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
I													Brown sandy CLAY containing occasional fragments of highly weathered limestone
	0.50	D	PID	0.5							0		
I													
0.70													Yellow/brown slightly clayey GRAVEL. Gravel is angular of limestone
0.80													cobbles
1													
Cliont	unc		Remai					ا د د داد		الد	atawa calabi	** 0.0:	hal Convention and account and
Client:	HPS		ı: Han	iu excavi	ateu. Triai p	ıı termir	iated on	uensel	у раске	u iime	scone copples	at U.8M	bgl. Groundwater not encountered
Driller: Engineer:	n/a MW												
	•												
					Jomas As	sociates	Ltd - Hi	ghbrid	ge Indu	strial I	Estate, Oxford	Road, U	xbridge, UBB 1 HR

	11	4 Y .			7		Tr	ial Pit N	Numbei		TPNSA 272	Job No:	P8251J128
s	necialists in the	ne investigati	on & recla	amation of b	rownfield sites								
		RIAL PI						Site			Upper Heyfor	d, Oxford	dshire
		nple		est	Seat D	rive		Dat Test D			01/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре		Depth	75	75	75	75	75	75	PID Reading	ŭ	·
0.05	(111)	туре	туре	Берип	75	/3	/5	/3	/3	/5	PID Reading	///	TURF
													MADE GROUND - brown sandy gravelly clay. Gravel is of concrete, brick and limestone
	0.50	D	PID	0.5							0		
0.60													Osanga/hagun apadu aliabhu alaugu CDAVEL Cayad is angulas ta
													Orange/brown sandy slightly clayey GRAVEL. Gravel is angular to subrounded of limestone
	1.00	D	PID	1							0		
	1.50	D	PID	1.5							0		
1.60													
			Rema	rks:		l							
Client:	HPS		1: Tria	l pit tern	ninated on	Limestor	e rockhe	ead at 1	L.6m bg	l. Gro	undwater not	encounte	ered
Driller:	n/a												
Engineer:	MW												

	1/	• T.					Tr	ial Pit I	Numbei	r	TPNSA 274	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	prownfield sites			Sit	e:		Upper Heyfor	d Oxford	dshire
	TE	RIAL PI	T RE	CORD)			Dat			21/02/2012	u, oxioic	anne.
Danth (m)	Sam	nple	Т	est	Seat D	rive		Test [, , ,	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
													Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone
	0.50	D	PID	0.5							0		
0.70													
													Becoming thinly bedded limestone bedrock with a small amount of yellow interstitial sand
0.80													interstitial sand
			Remai			1							
Client:	HPS		1: Han	id excava	ated. Trial p	it termir	nated on	Limest	one roc	k at 0	.8m bgl. Grour	ndwater r	not encountered
Driller:	n/a												
Engineer:	MW												
					Jomas As	sociates	Ltd - Hi	ghbrid	ge Indu	strial I	Estate, Oxford	Road, U	xbridge, UBB 1 HR

	1/			4			Tr	ial Pit I	Numbei	r	TPNSA 275	Job No:	P8251J128
s	pecialists in ti	ne investigation	on & recla	amation of b	rownfield sites			Sit	e:		Upper Heyfor	rd. Oxford	dshire
	TI	RIAL PI	T RE	CORD	1			Dat			01/02/2012	.,	
Depth (m)	San Depth	nple	Т	est	Seat D	rive		Test E	Prive			Legend	Description
Deptil (III)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
													MADE GROUND - Brown sandy slightly gravelly clay. Gravel is of limestone, brick and tarmac
0.60	0.50	D	PID	0.5							0		
0.00													
			Do	rke.									
Client:	HPS		Remai 1: Buri		nain encour	itered at	0.2m bg	gl. Hole	ended.	Grou	ndwater not e	ncounter	red
				-									
Driller: Engineer:	n/a MW												

	M				7		Tr	ial Pit I	Numbe		TPNSA 276	Job No:	P8251J128
s					prownfield sites			Site	e:		Upper Heyfor	d, Oxford	dshire
		RIAL PI						Dat			21/02/2012		
Depth (m)	Sam Depth	ıple	T	est	Seat D	rive		Test D	Prive			Legend	Description
	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.05													TURF Yellow/brown/orange sandy clayey GRAVEL. Gravel is angular of
													limestone
				<u> </u>	1								
	0.50		PID	0.5							0		
	0.50	D	PID	0.5							U		
					ļ								
0.80													
				-									
				—									
				—									
				\vdash									
				<u> </u>	1								
				\vdash									
				<u> </u>	-								
				-									
				—									
Client:	HPS		Remar		ated Trials	it termin	nated on	denco	limerta	ne oro	velat 0 9m ha	d Groups	dwater not encountered
			1. ITall	u EALdV	aceu. IIIai p	ic tellilli	iated Off	ueiise i	6510	ne gra	ver at U.OIII Dg	,. Ground	awater not encountered
	n/a MW												
rugineer:	14144												
					Inmas As	sociates	Itd - Hi	ohhrida	ze Indu	strial I	Estate Oxford	Road II	xbridge, UBB 1 HR

	1 F			2 E			Tr	ial Pit I	Numbe	r	TPNSA 277	Job No:	P8251J128
3	nacialists in th	E E	on & rects	amation of h	rownfield sites								
3		RIAL PI						Site Dat			Upper Heyfor 14/02/2012	d, Oxford	Ishire
	Sam			est	Seat D	rive		Test D				Legend	Description
Depth (m)	Depth											ŭ	·
	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		Brown sandy CLAY containing occasional fragments of highly weathered
													limestone
	0.50	D	PID	0.5							0		
0.60													Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone
0.80													Tellow/Flowingality Grave Letter is angular of limestone
			Rema								1		
Client:	HPS		1: Har	nd excava	ated. Termii	nated at	0.8m bg	l on gra	vel. Gr	oundw	ater not enco	untered	
Driller:	n/a												
	MW												

							Tr	ial Pit I	Numbe	r	TPNSA 278	Job No:	P8251J128
s	pecialists in t	he investigation	on & recla	mation of b	rownfield sites								
		RIAL PI						Sit Dat			Upper Heyfor 14/02/2012	d, Oxford	dshire
	San			est	Seat D	rive		Test I			14/02/2012	Legend	Description
Depth (m)	Depth (m)		Type	Depth	75	75	75	75	75	75	PID Reading		
	(111)	туре	Турс	Бери	73	,,	,,	,,	/3	,,	r ib iteauilig		Brown sandy CLAY containing occasional fragments of highly weathered
													limestone
	0.50	D	PID	0.5							0		
0.60													
													Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone
0.80												• • •	
					-								
		<u> </u>	Remai	rke.		<u> </u>	<u> </u>		<u> </u>				
Client:	HPS				ated. Termi	nated at	0.8m bg	l on gra	avel. Gr	oundv	vater not enco	untered	
	n/a MW												
Engineer:	IVIVV		l										

	11	1 T.			7		Tr	ial Pit I	Numbe	r	TPNSA 279	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites			Site			Upper Heyfor	Ovford	dah:
,	TI	RIAL PI	T RE	CORD				Dat			26/01/2012	u, Oxioit	ustinie
	San			est	Seat D	rive		Test D			20/01/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Tvpe	Depth	75	75	75	75	75	75	PID Reading		
					-						0		MADE GROUND - Brown/black sandy slightly clayey gravel. Gravel is of limestone and brick
0.15	0.10	D	PID	0.1							U		milestene and stick
													Brown slightly sandy, gravelly CLAY. Gravel is angular to subrounded of limestone
	0.50	D	PID	0.5							0		
	0.50	D	PID	0.5							U		
0.00													
0.80													Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of
	1.00	D	PID	1							0		limestone
1.40													
Client:	HPS		Remai 1: Tria		ninated on	imeston	e rockhe	ad at 1	.4m bø	l. Groi	ındwater not e	encounte	ered
				p					~6				
Driller: Engineer:	n/a MW												
	1												

	11	σI_L		7			Tr	ial Pit I	Numbei		TPNSA 280	Job No:	P8251J128
s s	pecialists in ti	ne investigation	on & recla	amation of b	rownfield sites								Addess
	TI	RIAL PI	T RF	CORD				Sit			Upper Heyfor	a, Oxford	osnire
		nple		est	Seat D	rive		Dat Test E			01/02/2012	Legend	Description
Depth (m)	Depth (m)	Tuna	Tuna	Donth	75	75	75	75	75	75	PID Reading		
0.05	(m)	Туре	Туре	Depth	/5	/5	/3	/5	/5	/5	PID Reading	///	TURF
													Brown/orange sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes thinly bedded limestone horizon with a small amount
													of orange/yellow interstitial sand
	0.50		PID	0.5							0		
	0.50	D	PID	0.5							U		
	1.00	D	PID	1							0		
	1.50	D	PID	1.5							0		
1.60													
Client:	HPS		Rema		ninated on I	imeston	e rockha	ad at 1	6m hal	Grov	ındwater not e	ancounto	red
			1. IIId	i pir terii	iiiiaieu UN I	meston	e rockile	au di 1	uiii ugi	. Grot	mawater not t	incounte	ieu
Driller: Engineer:	n/a MW												
rugineer:	14144												
					Jomas As	sociates	Ltd - Hi	ghbrid	ge Indu	strial E	Estate, Oxford	Road, U	xbridge, UBB 1 HR

	17			4			Tr	ial Pit I	Numbei	r	TPNSA 281	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	amation of b	prownfield sites	ļ		Site	e:		Upper Heyfor	d, Oxford	Ishire
	TF	RIAL PI)	ļ		Dat			21/02/2012		
Depth (m)	Sam Depth	nple	T	est	Seat D	rive		Test D	Prive			Legend	Description
ьери. (,	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading	,,,	ALASE ODOLIND, have annot alway ground. Crayel is of limestone.
ļ	0.10	D	PID	0.1							0		MADE GROUND - brown sandy clayey gravel. Gravel is of limestone, brick and concrete.
0.20													
ļ													
ļ													
			\vdash			 							
				<u> </u>		$\vdash \sqsubseteq$							
				<u> </u>		\vdash							
						\vdash							
						\vdash							
						<u> </u>							
Client:	HPS		Remai		ated Trial n	it termir	nated on	concre	to at 0	2m ha	I. Groundwate	er not enc	countered
			1.11011	u excave	iteu. Iriai p	ic ceriiiii	iateu on	concre	te at o	ziii bg	i. Groundwate	ii iiot eiic	ountered
	n/a MW												
							. 1	م اما ما ما				Dood II	whyddo IIDD 1 UD

	Æ E		= =										
							Tr	ial Pit I	Numbe	r	TPNSA 282	Job No:	P8251J128
s	pecialists in th	ne investigati	on & recla	mation of b	rownfield sites			Sit	e:		Upper Heyfor	d. Oxford	dshire
	TF	RIAL PI	T RE	CORD)			Dat			13/02/2012	.,	
	San	nple	Т	est	Seat D	rive		Test E				Legend	Description
Depth (m)	Depth (m)	Туре	Tyne	Depth	75	75	75	75	75	75	PID Reading		
	(,	.,,,,	.,,,,	- cpt	7.0	,,,	,,,	,,,	,,,		. is iteauing	///	Concrete
0.15													
0.13												///	MADE GROUND - brown/red/black sandy gravel. Gravel is of brick,
													concrete, limestone and tarmac
			818										
0.60	0.50	D	PID	0.5							0.2		
													Pale yellow LIMESTONE bedrock with a small amount of yellow, interstitial sand
													Sanu
		1	Rema	rks:		I	I .		l		1		1
Client:	HPS				ated. Termi	nated at	0.6m bg	l on lim	nestone	bedro	ock. Groundwa	iter not e	ncountered
Driller:	n/a												
	MW												

	TE			. € ·	7		Tr	ial Pit I	Numbe	r	TPNSA 283	Job No:	P8251J128
s		ÉÆ	on & recla	mation of b	rownfield sites						Upper Heyfor		
		RIAL PI						Site			13/02/2012	u, Oxiore	asnire
	Sam			est	Seat D	rive		Test D			13/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.10													Concrete
0.10 0.15													MADE GROUND - Subase of crushed concrete
													Thinly bedded, pale yellow LIMESTONE rock with a small amount of yellow, interstitial sand
	0.30	D	PID	0.3							0		
0.40													
Client:	HPS		Remai 1: Han		ated Termin	nated at	0 4m hø	l on lim	estone	hedro	ock due to grou	ındwater	r ingress filling hole
								. •					
Driller: Engineer:	n/a MW												
-													

	T						Tr	rial Pit	Numbei	r	TPNSA 284	Job No:	P8251J128
a s	inecialists in t	the investigati	E E	amation of t	brownfield sites	Ī							
		RIAL PI				į	-	Site			Upper Heyfor	rd, Oxford	Ishire
		nple		est	Seat D	rive		Dat Test D			13/02/2012	Legend	Description
Depth (m)	Depth						75			75	DID Panding		
	(m)	Type	Туре	Depth	75	75	75	75	75	75	PID Reading	///	Tarmac
0.10 0.15		 '						=		\blacksquare			MADE GROUND - subase of crushed concrete
0.15	0.20	D	PID	0.2		$\vdash \vdash$	\vdash	$\overline{}$	$\vdash \vdash$	\vdash	0		MADE GROUND - yellow/brown/black sandy clayey gravel. Gravel is of
0.20		'		<u> </u>				=					concrete and tarmac
0.30	$\vdash \vdash \vdash$	 	┼─┤	$\vdash \vdash \vdash$	 	 	\vdash		 	\vdash	 	///	Yellow/brown sandy, clayey GRAVEL. Gravel is angular of limestone
	'	'											
	0.50		PID	0.5	 	<u></u> '	<u> </u>	<u></u> '	<u> </u>	}—	0		
0.60		D	110	0.5									
	<u> </u>			<u> </u>	<u> </u>	<u> </u>	\square	<u></u> '	<u> </u>	L		<u> </u>	
	'	'	$\vdash \vdash$	+	 		\vdash	$\vdash \vdash$	<u> </u>	\vdash	 	ŀ	
	'	'		<u> </u>				\square'					
	'	'	\vdash	\vdash	 	<u> </u>	 	—'	<u> </u> '	├	ļ		
	'	'	$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash	$\vdash \vdash$	\vdash	-	\vdash	\vdash	 	1	
	'	'		<u> </u>				\square'	<u> </u>				
	'	'	\vdash	$\vdash \vdash \vdash$	 		\vdash			\vdash	 	ł	
	'	'										j	
	'	'	\vdash	\vdash	 	<u> </u>	 	—'	<u> </u> '	├	ļ		
	'	'	$\vdash \sqsubseteq $	$\vdash \sqsubseteq \vdash$			+	\Box			<u> </u>		
	'	'		<u> </u>				<u> </u>		匚			
	'	'	\vdash	$\vdash \vdash \vdash$	 	\vdash	\vdash	-	<u> </u>	\vdash	 	•	
	'	'		<u> </u>				\Box	<u> </u>				
	'	'	\vdash	+	 	 	\vdash		 	\vdash	 		
	'	'						\square'	 '				
	'	'	\vdash	\vdash	 				<u> </u>	\vdash	<u> </u>	ł	
	'	'		<u> </u>				\square'					
	'	'	$\vdash \vdash$	igwdapprox	 	 	├ ─┤	 '		 	 		
	'	'						\Box					
	'	'	<u> </u>	<u> </u>	Ē'	<u> </u>	igspace	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
	'	'									<u> </u>		
	'	'		<u> </u>	<u> </u>	<u> </u>		<u> </u>		Į.			
	'	'	$\vdash \vdash$	$\vdash \vdash$		$\vdash \vdash$	\vdash	$\vdash \vdash$	 	\vdash	 	1	
	'	'						\square	<u> </u>				
	'	'	$\vdash \vdash$	+	 		\vdash	$\vdash \vdash$	<u> </u>	\vdash	 	ŀ	
	'	'						\square'	 '				
	'	'	\vdash	+	 		├ ──	 '	 '	₩	 		
	'	'										j	
	'	'	<u> </u>	<u> </u>	Ĺ'	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>		
	'	'	$\vdash \vdash$	$\vdash \vdash \vdash$	 	 '	 		 	\vdash	 		
			Remar							<u> </u>			
Client:	HPS		1: Han	ıd excava	ated. Termir	nated at	0.6m bg	I on gra	avel. Gr	oundv	vater not enco	untered	
	n/a												
Engineer:	MW												

							Tr	ial Pit I	Numbe	r	TPNSA 285	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites			Sit	e:		Upper Heyfoi	rd, Oxford	dshire
		RIAL PI)			Dat			21/02/2012		
Depth (m)	San Depth	nple	Т	est	Seat D	rive		Test E	Orive I			Legend	Description
эсран (н.,)	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
													MADE GROUND - Brown sandy gravelly clay. Gravel is of brick, concrete, wood and limestone
	0.50	D	PID	0.5							0		
0.60													
			Remai	rks:									
Client:	HPS				ated. Trial p	it termir	nated at	0.6m b _i	gl depth	on co	oncrete. Grour	ndwater r	not encountered
Driller:	n/a												
Engineer:	MW												

	1/			Z 🎼	7		Tr	ial Pit I	Numbe	r	TPNSA 286	Job No:	P8251J128
s	Specialists in	he investigati	on & recla	amation of b	prownfield sites			Sit	e :		Upper Heyfor	d Oxford	dshire
	Т	RIAL P	T RE	CORD)			Dat			30/01/2012	u, oxioic	
Depth (m)	Sar Depth	nple	Т	est	Seat D	rive		Test [, ,	Legend	Description
	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.05													TURF Brown sandy CLAY containing occasional fragments of limestone
	0.50	D											
0.60													Velley (see any to bits a see to CDAVEL Consulting and set a subsequently of
												• • • • • •	Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of
													yellow interstitial sand
	1.00	D										• : • : • :	
	1.00												
1.40												• : • : • :	
1.40												<u> </u>	
			Da	-1									
Client:	HPS		Rema 1: Tria		ninated on	limeston	e rockhe	ead at 1	.4m bg	l. Grou	ındwater not e	encounte	red
Driller:				-					J				
	n/a MW												
					Jomas As	sociates	Ltd - Hi	ghbrid	ge Indu	strial I	Estate, Oxford	Road, U	xbridge, UBB 1 HR

	1/			7			Tr	ial Pit I	Numbe	•	TPNSA 288	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites			Site	e:		Upper Heyfor	d, Oxford	dshire
	TI	RIAL PI	T RE	CORD)			Dat	e:		21/02/2012		
Devile (m)	San	nple	Т	est	Seat D	rive		Test D	Prive			Legend	Description
Depth (m) 0.05	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		TURF
0.03												H	MADE GROUND - Brown/black sandy gravel. Gravel is of limestone, brick, metal and clinker
													brick, metal and clinker
												///	
												///	
	0.50	D	PID	0.5							0	///	
0.60													
			Rema	eko.									
Client:	HPS				ated. Trial p	it termir	nated on	buried	service	at 0.6	im bgl. Ground	lwater no	ot encountered
											-		
Driller: Engineer:	n/a MW												

	17						Tr	ial Pit I	Numbei		TPNSA 289	Job No:	P8251J128
s	pecialists in ti	he investigation	on & recla	amation of b	rownfield sites			C:+	-		lloufor	1 Outor	
		RIAL PI						Sit			Upper Heyfor	a, Oxford	osnire
		nple		est	Seat D	rive		Dat Test E			21/02/2012	Legend	Description
Depth (m)	Depth											Legena	best.p.io.
	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		Brown/orange sandy CLAY with occasional fragments of limestone
													aromasango canay og vi mar cocasiona nagmonio si imposiono
				igwdown									
				$\vdash \vdash \vdash$									
				$\vdash \vdash$									
	0.50	D	PID	0.5							0		
				$\vdash\vdash\vdash$									
				\vdash									
	1.00	D	PID	1							0		
1.10				\vdash									
				$\vdash \vdash \vdash$									
				$\vdash \vdash$									
				\vdash									
				$\vdash \vdash$									
				$\vdash \vdash$									
				\vdash									
				$\vdash \vdash \vdash$									
				$\vdash \vdash$									
				$\vdash \vdash$									
				$\vdash \vdash$									
				 									
				\vdash									
				\vdash									
				\vdash									
				\vdash									
Client:	HPS		Remai		atad Trial n	it tarmin	atad an	limacta	nn at 1	1mh	gl. Groundwat	or not on	countered
Client:	пгэ		1: Han	u excava	асео. тпагр	it termin	iated on	imesto	one at 1	. IIII D	gi. Groundwai	er not en	icountered
	n/a												
Engineer:	MW												

	11			. E	7		Tr	ial Pit I	Numbei		TPNSA 290	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites								
		RIAL PI						Site			Upper Heyfor 21/02/2012	a, Oxford	osnire
	San	nple		est	Seat D	rive		Test D			21/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.05												<i>ZZZ</i>	TURF Yellow/brown/orange sandy clayey GRAVEL. Gravel is angular of
													limestone
	0.50	D	PID	0.5							0		
0.70													
Client:	HPS		Remar 1: Han		ated. Trial n	it termin	ated on	dense	limesto	ne gra	ivel at 0.7m ha	l. Ground	dwater not encountered
										- 5.0		, 2.00.10	
	n/a MW												
					Iomas As	sociates	Itd - Hi	ahhrida	ndu	strial	Estate Oxford	Road II	xbridge, UBB 1 HR

	1						Tr	ial Pit	Numbe	r	TPNSA 291	Job No:	P8251J128
s	pecialists in the	he investigation	on & recla	amation of b	prownfield sites	ļ		C:+			. La sa Houfor	1 Outor	
		RIAL PI				Ų		Site			Upper Heyfor	a, Oxford	osnire
1		nple		est	Seat D	rivo		Dat Test D			14/02/2012	Legend	Description
Depth (m)	Depth											Legenu	Description
	(m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		SOLAV anatolists and and fragments of highly weathered
				$\vdash \vdash$		 	$\vdash \vdash \vdash$	 			 		Brown sandy CLAY containing occasional fragments of highly weathered limestone
	'					<u> </u>							
	'			igsquare		<u> </u> '	└ ──'	└ ─'	ļ				
	'			$\vdash \vdash \vdash$	 	 	$+\!-\!\!-\!\!\!-$	 	-	-	-		
	'			\vdash		\vdash	$\vdash \vdash \vdash$						
	'				Ī								
	'				<u> </u>	<u>['</u>	<u> </u>	<u> </u>					
l	0.50	D	PID	0.5	 	 	₩	 	-		0		
				$\vdash \vdash \vdash$		$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash	 				
0.80					i							[:::: <u>::::</u>	
	0.90	D	PID	0.9							0		Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone
1.00	 			$\vdash \vdash$	 	 '	├ ──'		-				
				$\vdash \vdash \vdash$	 	 	$\vdash \vdash$	$\vdash \vdash$	 				
				\vdash			$\vdash \vdash \vdash$		 				
	'												
	'			igwdown		 	<u> </u>	₩.	-	<u> </u>	-		
				$\vdash \vdash \vdash$	 		$\vdash \vdash \vdash$	\vdash	 				
					ſ <u></u>								
					<u> </u>	<u> </u>	<u> </u>						
				$\vdash \vdash$	 	 '	\vdash						
				$\vdash \vdash$		$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash					
					<u> </u>								
			ļ	igspace	 	<u> </u> '	└ ──'	└	-				
				$\vdash \vdash \vdash$	 	 	$\vdash \vdash \vdash$	+-	-		 		
					ſ <u></u>								
							<u> </u>						
				$\vdash \vdash$	 	<u> </u>	\vdash						
				$\vdash \vdash$		$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash					
					<u> </u>								
	'			igspace	 	<u> </u> '	 '	<u> </u>					
			-	$\vdash \vdash$		 	₩	 					
					ſ <u></u>								
							<u> </u>						
			<u> </u>	$\vdash \vdash$	 	 '	├ ──'		-				
				$\vdash \vdash \vdash$	 	 	$\vdash \vdash$	$\vdash \vdash$	 				
					Ī	<u> </u>	<u> </u>						
			ļ	igspace	 	<u> </u> '	└ ──'	└	-				
				$\vdash \vdash \vdash$	 	 	+	 	-		 		
					ſ <u></u>								
				igsquare		<u> </u>	<u> </u> '	<u> </u>	<u> </u>				
				$\vdash \vdash \vdash$		 '	+		-	_	-		
			Rema			<u> </u>	<u> </u>		<u> </u>		<u> </u>		
Client:	HPS		1: Han	ıd excava	ated. Termi	nated at	1.0m bg	ار on gra	avel. Gr	oundv	vater not enco	untered	
Drillor	2/2												
	n/a MW												
İ													

			E	2		ļ	Tr	rial Pit I	Numbei	r	TPNSA 292	Job No:	P8251J128
s	ipecialists in the	he investigati	ion & recla	amation of I	brownfield sites	ļ		_					
		RIAL PI				Į	<u> </u>	Site			Upper Heyfor	d, Oxtord	dshire
		nple		Test	Seat D	rive		Dat Test D			21/02/2012	Legend	Description
Depth (m)	Depth												Description.
	(m)	Type	Туре	Depth	75	75	75	75	75	75	PID Reading		Grey/brown/orange very sandy CLAY / clayey SAND
ĺ		'											
	0.15	D	PID	0.15	 	<u> </u>	 '	 	<u> </u> '	<u> </u>	0.1	f	
		'	$\vdash \vdash$	+-	 	 '	$\vdash \vdash \vdash$	 	 	 	 		<u> </u>
		'				<u> </u>						[::::::]
		'	<u> </u> '	<u> </u>	<u> </u>	<u> </u> '	<u> </u> '	<u> </u>	<u> </u>	<u> </u> '			1
		'	$\vdash \vdash$	$\vdash \vdash \vdash$	 	 '	┼'	 	 '	 '	 		<u> </u>
	0.50	D	PID	0.5	<u> </u>						0	[:::::::	
		'		<u>[</u>	<u> </u>		<u> </u>					 	1
0.80		'	$\vdash \vdash$	$\vdash \vdash$	 	<u> </u>		 	<u> </u>	 	+]
0.60		$\vdash \vdash$	$\vdash \vdash$	$\vdash \vdash \vdash$	 	 	$\vdash \vdash \vdash$	\vdash	$\vdash \vdash$	\vdash	 	ř	
		'											
		'	<u> </u> '	<u> </u> '		<u> </u>	<u> </u> '	<u> </u>	<u> </u>	<u> </u> '			
ĺ		'	$\vdash \vdash$	 	 		 	 		 	 	-	
ĺ		'	$\vdash \sqsubseteq'$				<u> </u>				<u> </u>		
ĺ		'											
ĺ		'	igdash	 '	 	<u> </u>	 '	 	<u> </u>	 '	 	ŀ	
ĺ		'	$\vdash \vdash$	$\vdash \vdash \vdash$	 	$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash	$\vdash \vdash$	$\vdash \vdash$	 		
		'					<u> </u>						
ĺ		'		<u> </u> '	├ ──	<u> </u>	<u> </u> !	<u> </u>	<u> </u>	<u> </u>			
		'	$\vdash \vdash$	$\vdash \vdash \vdash$	\vdash		 -	 		\vdash	 		
		'											
		'	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>['</u>	<u> </u>		
		'	$\vdash \vdash$	+	 		\vdash	 		 	 		
		'											
		'	<u> </u> '	<u> </u>			<u> </u> !	<u> </u>	<u> </u>	<u> </u>	ļ		
		'	$\vdash \vdash$	+-	 	-	$\vdash \vdash \vdash$	\vdash	 	\vdash	 		
		']	
		'	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
		'	$\vdash\vdash$	+-	\vdash	 	 	 	 	 	 		
		'											
		'	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>		['			
		'	$\vdash \vdash \vdash$	$\vdash \vdash \vdash$	 	<u> </u>	┼──	 	<u> </u>	 '	+	1	
		'	$\vdash \sqsubseteq'$		 						<u> </u>		
		'		<u> </u>									
		'	$\vdash \vdash$	$\vdash \vdash \vdash$	 	 '	┼'	 	 '	 '	 	1	
		'			<u> </u>								
		'	<u> </u>	<u> </u>	\Box		<u> </u>	\Box					
		'	$\vdash \vdash$	$\vdash \vdash$	 	<u> </u>		 	<u> </u>	 	+	ł	
		'	H										
		'											
			Remar	-ke-				<u> </u>		<u> </u>		<u> </u>	
Client:	HPS				ated. Trial p	oit termir	nated on	ı sandst	tone roc	ck at 0	.8m bgl. Grour	ndwater r	not encountered
											- 5		
	n/a MW		-										
Lligineer.	IVIVV		Ь										

			E		7		Tr	ial Pit I	Numbe	r	CBRNSA 1A	Job No:	P8251J128
s	necialists in th	ne investigation	on & recla	mation of b	rownfield sites								
		RIAL PI						Sit			Upper Heyfor	d, Oxford	dshire
	San			est	Seat D	rive		Dat Test E			21/02/2012	Legend	Description
Depth (m)	Depth (m)			Depth	75	75	75	75	75	75	PID Reading	ŭ	·
0.05	(111)	турс	Турс	Берип	//	/3	/5	,,	,,	,,	r ib iteauilig	ZZZ	TURF
				 									Brown sandy CLAY with occasional fragments of limestone
				—									
	0.50	D	PID	0.5							0		
0.60		J											
				-									
				 									
				—									
				<u> </u>									
				\vdash									
			Remai									1	
Client:	HPS		1: Han	d excava	ited. Trial p	it termin	ated at (0.6m b _i	gl and C	BR tes	st undertaken.	Groundy	water not encountered
Driller:	n/a												
Engineer:	MW												

			E		7		Tr	ial Pit I	Numbe	r	CBRNSA 2A	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites								
		RIAL PI						Sit Dat			Upper Heyfor	d, Oxford	dshire
	Sam			est	Seat D	rive		Test E			21/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.05												///	TURF
													Brown sandy CLAY with occasional fragments of limestone
	0.50	D	PID	0.5							0		
0.60													
			Remai	rks:									
Client:	HPS		1: Han	d excava	ited. Trial p	it termin	ated at (0.6m b	gl and C	BR tes	st undertaken.	Groundy	water not encountered
Driller:	n/a												
Engineer:	MW												

	1 F		F				Tr	ial Pit I	Numbe	r	CBRNSA 3A	Job No:	P8251J128
8	necialists in th	e investigation	en & recla	mation of b	rownfield sites								
		RIAL PI						Sit			Upper Heyfor	d, Oxford	dshire
	Sam			est	Seat D	rive		Dat Test D			21/02/2012	Legend	Description
Depth (m)	Depth											Legenu	Description
0.05	(m)	Type	Type	Depth	75	75	75	75	75	75	PID Reading		TURF
0.05													Brown sandy CLAY containing occasional fragments of limestone
0.40													brown sandy clayey GRAVEL. Gravel is angular of limestone
	0.50	D	PID	0.5							0		brown surfay drayey Grove E. Graver is uniquial or limitestorie
0.60													
			Remar	rks:		<u> </u>	<u> </u>						
Client:	HPS				ated. Trial p	it termir	nated at	0.6m b _i	gl and C	BR tes	t undertaken.	Groundy	water not encountered
Drillor	2/2												
Driller: Engineer:	n/a MW												
			1										

	1			2 E	7		Tr	ial Pit I	Numbe	r	CBRNSA 4A	Job No:	P8251J128
s	necialists in the	he investigation	on & recla	emation of b	rownfield sites								
		RIAL PI						Sit			Upper Heyfor	d, Oxford	dshire
	San	nple		est	Seat D	rive		Dat Test E			21/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре		Depth	75	75	75	75	75	75	PID Reading		·
0.05	(111)	туре	туре	Берип	/5	/3	/5	/5	/5	/3	PID Reading	///	TURF
													Brown sandy CLAY with occasional fragments of limestone
	0.50	D	PID	0.5							0		
0.60													
Client:	HPS		Remail 1: Han		ated. Trial n	it termin	ated at i	0.6m h	gl and C	BR te	st undertaken	Groundy	water not encountered
						,			,. au C				
Driller: Engineer:	n/a MW												
	1												

	1 F			<i>a</i> [.	7		Tr	ial Pit I	Numbe	r	CBRNSA 5A	Job No:	P8251J128
i s	pecialists in ti	he investigation	on & recla	emation of b	rownfield sites								
		RIAL PI						Sit			Upper Heyfor	rd, Oxford	dshire
		nple		est	Seat D	rive		Dat Test E			21/02/2012	Legend	Description
Depth (m)	Depth				75	75	75	75	75	75	PID Reading		
	(m)	Type	туре	Depth	/5	75	/5	/5	75	/5	PID Reading	///	TURF
0.10												77.	vellow/brown sandy GRAVEL GraveLis angular to subrounded of
													yellow/brown sandy GRAVEL. Gravel is angular to subrounded of calcarious sandstone
	0.50	D	PID	0.5							0		
0.60												· · · · ·	
			Rema										
Client:	HPS		1: Han	nd excava	ated. Trial p	ıt termin	ated at (U.6m b	gi and C	.BR tes	st undertaken.	Groundy	water not encountered
Driller:	n/a												
Engineer:	MW												

			E		7		Tr	ial Pit I	Numbe	r	CBRNSA 6A	Job No:	P8251J128
s	pecialists in the	ne investigation	on & recla	mation of b	rownfield sites								
		RIAL PI						Sit Dat			Upper Heyfor	d, Oxtoro	dshire
	Sam			est	Seat D	rive		Test E			21/02/2012	Legend	Description
Depth (m)	Depth (m)	Туре	Туре	Depth	75	75	75	75	75	75	PID Reading		
0.05												///	TURF
													Brown sandy CLAY with occasional fragments of limestone
	0.50	D	PID	0.5							0		
0.60													
Client:	HPS		Remai		ated Trial n	it termin	ated at 1	0 6m h	ol and C	'RR te	st undertaken	Grounds	water not encountered
			±. 11011	CACOVO	.ccu. mai p	.c cermin	accu at 1	υ.υ.ιι υ <u> </u>	5. u.iu C	.on 163	, and creater.	Jiounuv	nate. Not encountered
	n/a MW												
	1												



APPENDIX 3 - BOREHOLE LOGS



Borehole Number	BHNSA 23 Job No: P8251J128
Site:	Upper Heyford, Oxfordshire
Elevation	122.01
Co-Ordinates	E: 451646.4, N:226136.5

									Co	o-Ordin	ates		E: 451646.4,	N:22613	6.5
		ROT	ARY BORE		RECO	RD				Date	:		13/02/2012		
	Sam	ple		Depth	T	est	Seat D	rive		Test Dr				Legend	Description
Depth (m)	Depth		Core Length	of										_	
	(m)	Type	Recovered	Casing	Type	Depth	75	75	75	75	75	75	PID Result		
		_													Brown sandy CLAY with occasional fragments of limestone
	0.50	D	Open Hole		PID	0.5							0		
0.60															Veller /house seed also CDAVEL Constitute for
															Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone. Becomes limestone bedrock
				1.2m	SPT	1.2	6	7	9	14	16	11			ilmestone. Becomes ilmestone bedrock
				1.2111	311	1.2	0		9	14	10	11			
1.60															
1.00															Yellow SANDSTONE
2.70															
				3m											Grey SANDSTONE
3.60														7 0	0.00000000
														XX	Grey SILTSTONE
														ኢጲጵ	
														∞	
4.50														∞	
4.50															Grey CLAY
4.90															,
														52525	Grey SILTSTONE
														ĸXX	-,
														ለንረንረ	
														ለንረንረ	
6.00															
															Grey CLAY
6.90														****	0.00000000
														∞	Grey SILTSTONE
														∞	
														∞	
														$\alpha \alpha$	
8.00														KXXX	
															Grey CLAY
	l														
	1														
	l														
	l														1
9.20					<u> </u>										
	l				<u> </u>									∞	Grey SILTSTONE
	l				-	-								∞	
10.00	1				 									XXX	
10.00	1			1	 	\vdash								^^	
	l				-	-									
	l				<u> </u>										
	 		<u> </u>	-	Rema	rke.				ı					<u> </u>
lant:	Comma	hio 305					er struck a	3 1m h	rose to ?	6m hal	l after ?	n mine	monitoring		
	Comma	0 303												høl to su	rface plain pipe
lient:	Heyford	Park LLF)		2. 11151	.uncu IIU	10 - 2111	∞61 WILII	acmonne,	>111 - TII	ugi ali	occu S	conupipe, IIII	~51 tO 3U	ridee plant pipe
-	1			1											
riller:	Taylor/G				l										
	M Willia														



Borehole Number	BHNSA 24	Job No:	P8251J128
Site:	Upper Heyford, (Oxfordshi	re
Elevation	123.672		
Co-Ordinates	E: 451545.308	N: 22600	4.316

ROTARY BOREHOLE RECORD

		ROT	TARY BOREH	OLE RE	COR	D				Date	::		10/02/2012		
	Sam	ple	Core Length	Depth	Т	est	Seat D	rive		Test Di				Legend	Description
Depth (m)	Depth	T	Recovered	of Casing	T	D4b	75	75	75	75	75	75	PID Result		
	(m)	Type	Open Hole	Casing	туре	Depth	/5	/5	/5	/5	/5	/5	PID Result	100000	Brown sandy CLAY with occasional fragments of limestone
	0.50	D			PID	0.5							0		sion sandy CE i with occasional magnitudes innestone
0.70															
															Yellow/brown sandy clayey GRAVEL. Gravel is angular of
1.20	1.00	Ь		1.2m	PID SPT	1.2	6	8	6	16	20	6 ref	0		sandstone.
1.20				1.2111	31 1	1.2		-		10	20	OTCI			Pale yellow/pale grey LIMESTONE
														-	4
														-	
														<u> </u>	
															1
				3m											1
3.40															
3.60														·	Uncemented orange SAND
														DOC	Grey SILTSTONE
														∞	
				4.5m										DOC	
				4.5111										ĮΧXX	
														888	
														ЮОX	
					-						-			ЮО	
														ЮX	
														KXXX	
														KXXX	
														DÖÖ	
														DOC	
														∞	4
7.00														$\mathbf{x}\mathbf{x}$	
7.40														[-] -]	Grey SAND
7.40														111	Grey SILTSTONE
														∞	ore, sizis foriz
														ЮXX	
8.30														KXX	0. 01.01
														: :::::::::::::::::::::::::::::::::::	Grey CLAY
9.30				ļ											a di Municipalis
															Grey silty MUDSTONE
10.00	<u> </u>														
	-			<u> </u>	D-			l	<u> </u>	<u> </u>	<u> </u>				
	Commach	io 305			Rema		er strike at	7m hal	rose to 5m	høl afte	r 20 mi	ns mor	itoring		
	Committee	303											andpipe, 1m bgl	to surface	plain pipe
Client:	Heyford P	ark LLP]											
		. –													
Driller: Engineer:	Taylor/Gir M William	dman		4											
ingineer:	INI MAIIII ALI	13		1											



Borehole Number BHNSA 25 **Job No**: P8251J128 Upper Heyford, Oxfordshire 123.17 E: 451549.801 N: 225968.843 Ground Level (m) Co-Ordinates

														u	3-Orain	iates		E: 451549.8	101	N: 225908.843
				RC	TARY BO		RECOR	D							Date	:		07/02/2012		
	Sam	ple	Core Length	Depth		Solid Core	RQD	Fracture	Fracture	Ti	est	Seat D	Orive		Test Dr				Legenc	Description
Depth (m)	Depth		Recovered	of	Total Core	Recovery		Depth	Index	_										
0.15	(m)	Type	PWF Core	Casing	Recovery %	%				Type	Depth	75	75	75	75	75	75	PID Result	,,	TARMAC
0.15			r wir core																1	MADE GROUND - Concrete
0.33	0.50	D								PID	0.5							0		Brown sandy CLAY containing occasional fragments of highly
0.80		_																		weathered limestone
0.00				1m																Brown/yellow slightly clayey GRAVEL. Gravel is angular of
			1.2 - 2.7 1.5m		70	20			NI	SPT	1.2	8	9	14	13	17	6 ref			limestone
			core							-										
				2m																
																			'	•
2.60																				
			1.5m		65	30			NI											Becomes structured pale yellow/grey fine grained calcarious SANDSTONE bedrock with occasional shell fragments
			2.7 - 4.2 core																	SANDSTONE bedrock with occasional shell fragments
3.10																			~~	
			-	1																Pale grey coarse grained LIMESTONE with frequent shell
							1													fragments interbedded with occasional thin bands of SANDSTO
							1													_
				4m																
4.30																				
			1.5m		85	80		5	1										[-:-:-:	Pale grey CLAY
			4.2 - 5.7 core																	<u>:</u>
4.70																				
																			\times	Pale grey SILTSTONE with occasional thin bands of coarse grain shelly limestone and thin CLAY bands
																			እረጉረ	shelly limestone and thin CLAY bands
																			ЮC)
				5.7m															ረንረን	<u> </u>
					90	85		5.7 - 6.0											\times	
			5.7 - 7.7 2m core	2					multiple,										እረጉረ	<u>1</u>
									likely drill										ЮC)
									induced										ረንረን	<u> </u>
																			\times	
																			እረጉረ	<u>1</u>
								6.5	1										ЮC)
																			ረንረን	<u> </u>
																			\times	
																			ነ ለጉረ	<u>1</u>
			7.7 -		95	90			0										ЮC)
			10.7 3m core		, ,	30													$C \times C$	<u> </u>
			20.7 5 60.0																XX	
																			$ abla \mathcal{N}_{\mathcal{N}}$	
																			KX:)
																			/~,×	
							1										t		XX	
							1						1						\mathcal{N}	7
																			\mathbf{C}	y
																			жж	
																			XX	
10.00							1						1						V	P
22.50																	t			End Hole
					1					Remai	rks:									
ant:	Commac	hio 305										er at 3.6m	bgl. rose	to 3.1m bgl	after 2	0 mins	monite	oring		
				1						2. Inst	alled fro	m base to	1m bel w	ith slotted st	tandpin	e. with	1m pla	in pipe to su	rface	
ient:	Heyford I	Park LLP														,		p.p. 10 00		
				1																
	Taylor/Gi	dman		1																
iller:	Taylor/G	uman																		



Commachio 305

Heyford Park LLP Driller: Taylor/Gidman
Engineer: M Williams

Plant:

Client:

Borehole Number BNSA 26 Job No: P8251J128 Site: Upper Heyford, Oxfordshire

				FÆ										Gre	und Le	vel (m)		123.412	,,	OAI	
,		Specia	lists in the investiga	tion & recla	mation of brownf	ield sites									o-Ordir			E: 451515	777		N: 225971.185
					ROTARY B	ODENOIE	DECO	חס													N: 2259/1.185
				Depth	-					_					Date Test Dr			07/02/20:		-	- 11
Depth (m)	San Depth		Core Length Recovered	of	Total Core Recovery %	Solid Core Recovery %	RQD	Fracture Depth	Fracture Index		est	Seat D						PID	Lege	end	Description
0.10	(m)	Туре	PWF Core	Casing						Туре	Depth	75	75	75	75	75	75	Result		,	TARMAC
0.10			r wi core																٠,		MADE GROUND - Subase of crushed concrete
0.23	0.50	D								PID	0.5							0	1		Brown sandy CLAY containing occasional fragments of highly
0.80																				٠.,	weathered limestone
				1m																	Brown/yellow slightly clayey GRAVEL. Gravel is angular of
			1.2 - 1.4 0.35m	1						SPT	1.2	5	8	7	8	7	16				limestone
			core																	-	
1.80			1.4 - 2.9 1.4m		85	60			NI										٠.	٠.	
1.80			core	2m						+										•	Becomes structured pale yellow/grey LIMESTONE with shelly
				2111																	bands and occasional thin clay bands. Becomes dark grey
																					LIMESTONE interbedded with orange/yellow calcarious
																			_		SANDSTONE
			1.5m		80	65															
			2.9 - 4.4 core																		
								3.8, 3.9											-	_	
				4m				0.0, 0.0													
4.30								4.1, 4.3													
			1.5m		85	80				PID	4.4							0			Pale grey silty MUDSTONE with faint hydrocarbon odour
			4.4 - 5.9 core																		
4.70																				ш	
				5m				4.8, 5.1	Likely drill											Ш	becomes dark grey silty MUDSTONE with occasional clay
5.20									induced	-									-	ш	1
																					pale grey silty MUDSTONE
			1.5m		90	85													Ш		
			5.9 - 7.4 core		30	03															
								6.2													
								6.5													
7.00								7	Likely drill induced												
7.00				+	1	-	1	/	induced	+					-			1	-		Dark grey coarse grained shelly LIMESTONE
7.40										-	-		-	-	-			-	\vdash	-	o Branica sticily Emiliarions
7.40			1.5m		95	90				1									100	366	Dark grey clayey silty MUDSTONE
			7.4 - 8.9 core		33																9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
7.90																					
	_			1				8													Pale grey silty MUDSTONE with occasional clay bands
									likely drill												
									induced at												
			8.9 - 1.5m		98	95			base of clay	Ή—											
			10.4 core		30	33								l	 			l			
			20.4 2016																		
9.60								9.4													
2.00				1			1	9.7, 9.9		1											Pale grey SILTSTONE
10.00								3.1, 3.3						l	 			l	DC:	X	
20.00				1	1					1										_	

Remarks:

1. Water at 2.9m bgl on completion, rose to 2.45m after 20 mins

2. Installed from base to 1m bgl with slotted standpipe, with 1m plain pipe to surface



 Borehole Number
 BHNSA 27 Job No:
 P8251J128

 Site:
 Upper Heyford, Oxfordshire

 Ground Level (m)
 124.731

 Co-Ordinates
 E: 451411.127
 N: 225982.15

		Spec	cialists in the investig	ation & rec	lamation	n of browi	nfield sites		Co	o-Ordin	ates		E: 451411	.127	N: 225982.15
		RO	TARY BOREH	OLE RE	COR	D				Date			10/02/20		
Danth (m)	San	nple	Core Length	Depth	Т	est	Seat D	rive		Test Dr	ive		DID.	Legend	Description
Depth (m)	(m)	Туре	Recovered	of Casing	Type	Depth	75	75	75	75	75	75	PID Result		
0.10			Open Hole											//	TURF
0.70	0.50	D			PID	0.5							0		Brown sandy CLAY containing occasional fragments of highly weathered limestone
0.70															Brown/yellow slightly clayey GRAVEL. Gravel is angular of
				1m											limestone
1.20					SPT	1.2	6	7	8	19	19	4 ref		10.00	Veller CANDSTONE
															Yellow SANDSTONE
														••••	
														• •	
				2											
				3m											
3.50														100	
															Orange SAND
3.90														300	Orange SANDSTONE
4.10														••	orange sharestern
4.30															Grey LIMESTONE
4.50				4.5m										• •	Grey SANDSTONE Dark grey LIMESTONE
															Dark grey Liviestone
															4
															1
								 						-	1
															1
0.00								<u> </u>							
8.80				1				 			<u> </u>				Dark grey clayey MUDSTONE
								 							
10.00															
														4	
			I		Rema	rks:		1	I .				<u> </u>	<u> </u>	l
Plant:	Commac	hio 305					ter struck a	t 3.1m b	gl, rose to 2	.6m bgl	after 2	20 min	monitorir	ng	
Cliant	Haufau'l'	Dead. 112													surface plain pipe
Client:	Heyford I	rark LLP		1											
	Taylor/G]											
Engineer:	M Williar	ns		<u> </u>											



Borehole Number	BHNSA 28A Job No : P8251J128
Site:	Upper Heyford, Oxfordshire
site.	opper negroru, oxforusinie
Ground Level (m)	123.969
Co-Ordinates	E: 451426.414 N: 225929.76
	(aa (aa)

							ond ontoo		C	o-Ordir	nates		E: 451426.41	4		N: 225929.76
		RO	TARY BOREH							Date			15/02/2012			
	San	nple	Core Length	Depth	T	est	Seat D	rive		Test Di	rive			Le	egend	Description
Depth (m)	Depth (m)	Туре	Recovered	of Casing	Type	Depth	75	75	75	75	75	75	PID Result			
	(111)	туре	Open Hole	Casing	туре	Бериі	/3	/3	/3	/3	/3	/3	FID Result	h		Brown sandy CLAY with occasional fragments of limestone
	0.50	D			PID	0.5							0	М		
0.60														Ш		
														ļ.	٠	Yellow/brown sandy clayey GRAVEL. Gravel is angular of
	1.00	D		1m	PID	1	-						0	١.	٠	limestone. Becomes limestone bedrock
					SPT	1.2	6	16	23	20	7 ref			١.	٠	
														١		
														1.		
														ŀ		
														ŀ.		
														ŀ.		
														ŀ.		
2.80				3m										ŀ.		Yellow SAND
3.30				3111										t.		Tellow SAIND
3.30														۲		Yellow LIMESTONE
														H		1
																1
4.00				4m										E		
														P	Ω	Grey SILTSTONE
				4.5m										P	Ω	
														Ľ	XX	
														Ľ	XX	
														Ľ	ΧX	
														С	XX	
														ľ	XΧ	
														Ю	XX	
6.40														Ю	XX	
6.10				1				-						۲	~~	Grey silty MUDSTONE
														H		dicy sitty Mobsione
														Н		
														ŀ		
														H		
7.70																
7.70								-						۲		Grey CLAY
														t.		diey CDAT
														١.		
] :		
														:		
									1					:		
9.10				 										۰		O. CHITCIONS
									-					H		Grey SILTSTONE
									1					l		
10.00																
10.00				 					-					۴	2428283	
									1					1		
				İ	Rema	rks:			•		•					•
ant:	Commac	hio 305		1	1. Gro	oundwat			gl, rose to 4.							
					2. Inst	alled fro	m 10 - 9m l	ogl with	bentonite, 9	m - 1m	bgl slo	tted st	andpipe, 1m b	bgl	to surf	ace plain pipe
ent:	Heyford	Park LLP		1												
iller:	Taylor/G	idman														
	M Willian			1												

									Bore	ehole N	lumber		BHNSA 29	Job No:	P8251J128
				F		3				Site			Upper Heyf	ord. Oxfo	rdshire
	-			E Æ					Gro		vel (m)		126.459		
	Spe	cialists ir	n the investigation	& reclan	nation	of browr	nfield sites			o-Ordir			E: 451329.4	166	N: 226080.616
		RO	TARY BOREH	OLF RE	COR	D				Date			09/02/2012		N. 220000.010
	San	nple	Core Length	Depth		est	Seat D	rive		Test Dr			09/02/2012	Legend	Description
Depth (m)	Depth		Recovered	of	_								1	_	·
0.10	(m)	Type	Open Hole	Casing	Туре	Depth	75	75	75	75	75	75	PID Result	///	TURF
															MADE GROUND - brown/yellow sandy gravelly clay. Gravel is of
	0.50	D			PID	0.5							0	///	tarmac and limestone - reworked natural ground
	1.00	D		1m	PID	1							0		
1.35		_			SPT	1.2	10	14	20	20	10 ref		Ţ		
															Pale yellow SANDSTONE
				2m											
2.20				2111										Ю	
2.40														\cdots	Yellow/orange SAND
															Pale yellow sandy LIMESTONE
3.10				3m											
														70	Pale grey/yellow SANDSTONE
3.70														100	
	3.70	D			PID	3.7							0.2	[Clayey yellow SAND
4.30				4m										· · · ·	
														XXX	Grey SILTSTONE
4.70														∞	
														ж	Yellow SANDSTONE
4.90															
														ľΧX	Grey SILTSTONE
														ЮX	
														ŊΥ	
6.30				-										\mathbf{M}	C. CIL MURCIONS
															Grey Silty MUDSTONE
7.00															
7.20 7.40				-											Clayey MUDSTONE Silty MUDSTONE
7.40															Grey CLAY
															Grey Silty MUDSTONE
					<u> </u>						<u> </u>				
					-			-				 			
9.60															
															Grey CLAY
10.00		l	l	I	1	1	l		1		I	ı	1	Jan 1947	4

Remarks:

1. Groundwater stike at 9.5m bgl, rose to 7.4m bgl after 20 mins monitoring

2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe

Commachio 305 Heyford Park LLP

Driller: Taylor/Gidman
Engineer: M Williams

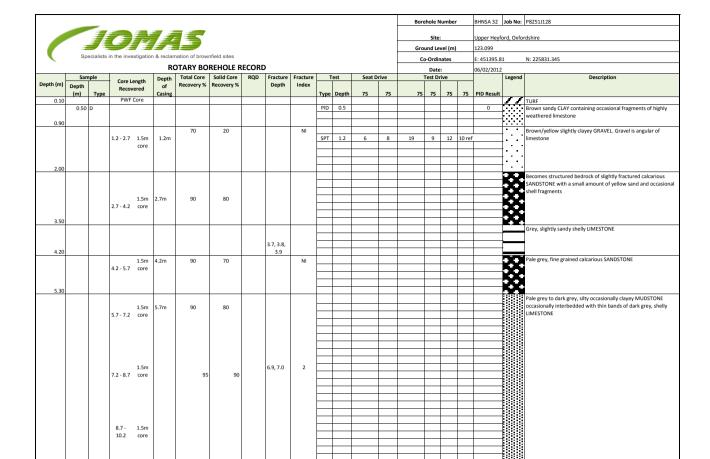
Client:



Driller: Taylor/Gidman
Engineer: M Williams

	-	Æ		Æ						Gro	und Le	vel (m)		125.878							
	Spe	cialists ir	the investigation											Co	o-Ordir	nates		E: 451352.7	24	N: 226066.036	
						REHOLE F									Date			09/02/2012			
Donah (m)	San	ple	Core Length	Depth	Total Core		RQD	Fracture	Fracture	Т	est	Seat D	rive		Test Dr	rive			Legend	Description	
Depth (m)	Depth (m)	Tunn	Recovered	of Casing	Recovery %	Recovery %		Depth	Index	Time	Donah	75	75	75	75	75	75	PID Result			
0.10	(111)	Type	PWF Core	Casing						Туре	Depth	/3	/3	/3	/3	/3	/5	PID Result	~ / /	TURF	
	0.50	D								PID	0.5							0		Brown sandy CLAY containing occasional fragments of highly	
0.70																				weathered limestone	
	0.90	D		1m						PID	0.9							0		Brown/yellow slightly clayey GRAVEL. Gravel is angular of	
			1.2 - 2.5 1m core		60	15			NI	SPT	1.2	4	4	6	12	15	17			limestone	
																			1	1	
																			† . • .	i	
2.00																					
																			00	Structured pale grey calcarious SANDSTONE with occasional bands of loosely cemented sand	
			1.5m	2.5m															M	bands of loosely cemented sand	
			2.5 - 4 core		75	60		Multiple 2.5 - 3.6	Likely drill										XX		
3.00								2.3 - 3.0	induced										XX		
5.00									maacca										7.7	with occasional black/grey staining in fractures - no hydrocarbo	
																				odour	
3.20										PID	3							0		Delegan selection CANDSTONE	
																			XX	Pale grey calcarious SANDSTONE	
3.80																					
			4m -	4m	90	85														Loosely cemented orange SAND	
4.20			7m 3m core		30	03															
																			(XX)	Grey sandy SILTSTONE with occasional bands of yellow SANDSTONE	
								4.5	3										ርንርን	SANDSTONE	
								4.6, 4.7											ХΧ	Q	
4.90								4.9											XX		
								5.1											<i></i>	Pale grey slightly sandy SILTSTONE with occasional shell	
								5.6											\mathcal{O}	fragments	
								5.0											∞		
6.00																			ላላ		
								6.1	6.5										КΧ		
								6.3											XX	grey CLAY	
								6.5											$\mathcal{O}(\mathcal{O})$		
								6.9											∞		
			7 - 10m 3m core		95	80			NI 7.0 - 7.6										റഹ		
			Silicole						7.0 - 7.0										χх		
																			$\mathbf{K}\mathbf{X}$		
																			ኢዮጵዮ		
								8	3										\mathcal{O}		
								8.3											റവ		
								8.6											ጚጚ		
								8.6											XX		
																			XXX		
								9.1, 9.3											$\mathcal{O}(\mathcal{O})$		
				1															\mathcal{O}		
				1															ርእርጉ	1	
								9.7						 		-		-	ХХ	ł	
10.00																-			~~~		
																-		-	4		
					1		·		<u> </u>	Remarks:				l			Ь—	1		 	
lant:	Commac	hio 305										er at 6.2m	bgl upon	completion	n, rose	to 4.3m	bgl af	ter 20 mins			
															lain pipe to si	urface					
lient:	Heyford Park LLP																				
				l						1											

		_												Bore	ehole N	Number		BHNSA 31	Job No:	P8251J128
				=		7									Site			Upper Heyf	~~d Ovfo	esilah ira
		i i		E		•								Gro		vel (m)		126.186	oru, Oxio	usine
7	Sny	acialiete	in the investigation	on & roo	lamation of h	rounfield eite	e								o-Ordir			E: 451322.4	40	N: 226049.884
	эре	BCIBIISTS	in the investigation			REHOLE R)						- u	Date			08/02/2012		N: 226049.884
	Sam	nple	Core Length	Depth		Solid Core	RQD	Fracture	Fracture	Т	est	Seat D	rive		Test Di			06/02/2012	Legend	Description
Depth (m)	Depth		Recovered	Of	Recovery %	Recovery %		Depth	Index	Time	Donth	75	75	75	75	75	75	PID Result		
	(m)	Type	PWF Core	Casing						туре	Depth	/5	/3	/3	/3	/3	/3	PID Result	//	Borehole drilled through trial pit due to proximity of buried
																				services
											г									
																			//	
1.40				1.4m						SPT	1.4	10	10	21	25	4 ref				
			1.4 - 2.9 1m core		60	20			NI										M	POOR RECOVERY - cobbles of pale grey/yellow sandstone
2.00										-	H								•••	
2.00											Г									Becomes structured calcarious SANDSTONE with occasional shell
																				fragments and thin bands of loosely cemented orange SAND
											\vdash									
			1.5m	2.9m	90	80														
			2.9 - 4.4 core								<u> </u>								• •	
3.80																			œ	
4.10																				Dense brown/orange clayey SAND
4.10				4.4m															$\nabla \nabla$	Grey SILTSTONE
					95	90		4.5, 4.6	4											Grey fine grained shelly LIMESTONE
			4.4 - 7.4 3m core	5m				4.95		-	H									
5.10								4.95			Г									
								5.2											∞	Grey SILTSTONE with occasional shell fragments
								5.5			\vdash								00	
								5.8											00	
																			00	
																			00	
																			00	
																			00	
			7.4 -		95	90													00	
			10.4 3m core							-	\vdash								00	
																			$\langle \chi \chi \rangle$	
									Likely drill		<u> </u>								(እረ)	
									induced at clay	—			-			-		-	ረ ረን	
8.80								8.7	boundary										ረአረን	
										<u> </u>	<u> </u>					-				Dark grey silty MUDSTONE with occasional shell fragments and clay layers
										—	l		-			†				any mysis
10.40										-	\vdash					-	-			
10.40											\Box									End Hole
										_										
Plant:	Commacl	hio 305								Rema 1. Wa		ding at 4.2n	n høl on	completion	rose t	o 4.1m	høl aft	er 20 mins		
				İ															and 1m ba	gl to surface plain pipe
Client:	Heyford I	Park LLP		ł																
Driller:																				
Engineer:	M Willian	ns		<u> </u>																
							Joi	nas Associa	ites Ltd - Hi	ghbrida	ge Indus	trial Estate.	Oxford	Road, Uxbri	idge, U	IBB 1 HF	R			
														v.jomasasso						



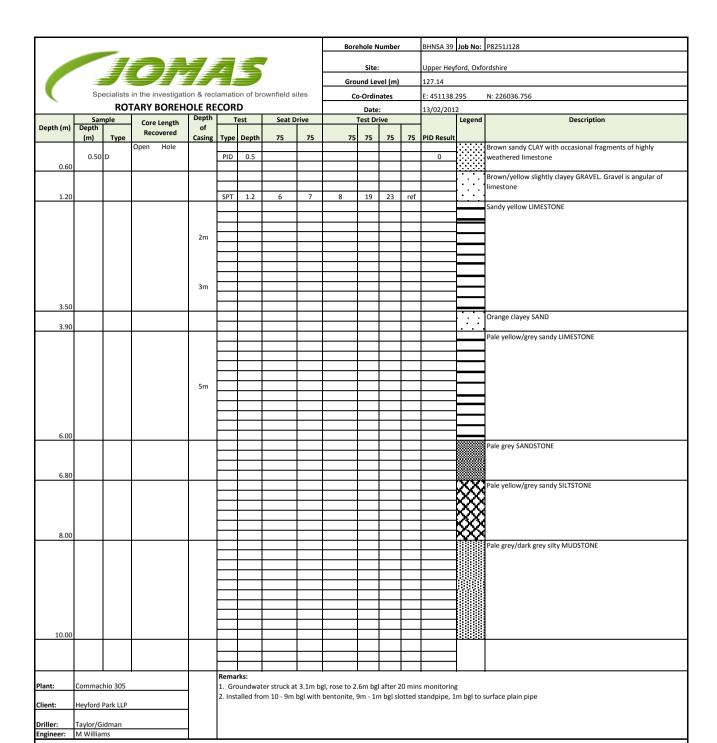
Client: Heyford Park LLP

Oriller: Taylor/Gidman
Ingineer: M Williams

Remarks:

1. Water recorded at 8.9m bgl on completion of drilling. No variance after 20mins monitoring

2. Installed from base to 1m bgl with slotted standpipe, with 1m plain pipe to surface





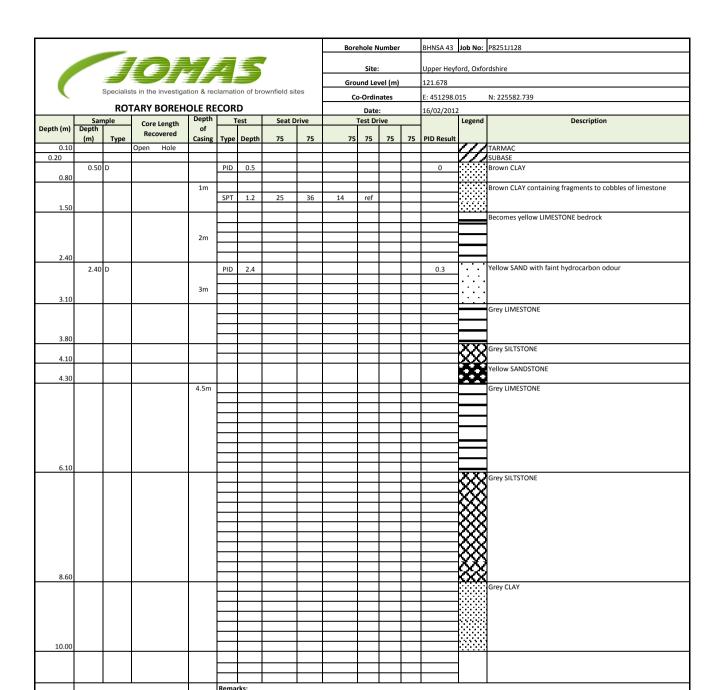
 Borehole Number
 BHNSA 42
 Job No:
 P8251J128

 Site:
 Upper Heyford, Oxfordshire

 Ground Level (m)
 121.62

 Co-Ordinates
 E: 451276.231
 N: 225585.459

	S	pecialists	in the investigati	on & recl	amatic	on of bro	ownfield sit	es	C	o-Ordir	nates		E: 451276.23	1	N: 225585.459
		ROT	ARY BOREH	OLE RE	COR	D				Date			15/02/2012		
	San		Core Length	Depth		est	Seat D	rive		Test Dr			-3,02,2012	Legend	Description
Depth (m)	Depth		Recovered	of										_	·
0.15	(m)	Type	Open Hole	Casing	Туре	Depth	75	75	75	75	75	75	PID Result	,,,	TARIAGE
0.15	0.50	D	Open Hole		PID	0.5							0	H	TARMAC Crushed concrete
0.40	0.50				110	0.5								<i>y y</i>	Pale grey/yellow LIMESTONE
															Tale grey, yellow Elimes Forte
				1m											
					SPT	1.2	25	36	ref						
				2m											
2.20				2111											
2.40															Orange SAND
															Yellow SANDSTONE
2.90															
				3m											Orange clayey SAND
														- : - : -	
3.60															Yellow SANDSTONE
4.10									 						TEHOW SAINDSTONE
4.10															Orange SANDSTONE
				4.5m											, and the second
4.60															
														∞	Grey SILTSTONE
														∞	
														25252	
5.50															Yellow SANDSTONE
															TELIOW SAINDSTONE
5.80 6.00														L /L /L	Grey SILTSTONE
6.10														~~	Grey CLAY
0.10														CXX	Grey SILTSTONE
														∞	, i
														∞	
														$\mathcal{C}\mathcal{C}\mathcal{C}$	
														52525	
														52525	
7.90														XXX	
															Grey silty MUDSTONE
8.10									1						
															Grey silty CLAY
									 	-	<u> </u>				1
															1
															1
10.00														<u></u>	
					Rema	\Box			<u> </u>		<u> </u>				
Plant:	Commac	nio 305			17mh-	no rico aft	or 20	ninc							
a	COMMING	110 303		Groundwater strike at 4.7m Installed from 10 - 9m bgl with								tted st	andnine 1m h	ngl to surf	face plain nine
Client:	Heyford I	ark LLP		2. Installed from 10 - 9m bgl wit					4111	. 25. 310	30	upipe, 1111 k	. o. to sull		
Driller:	Taylor/Gidman														
Engineer:	M Williar	ns													



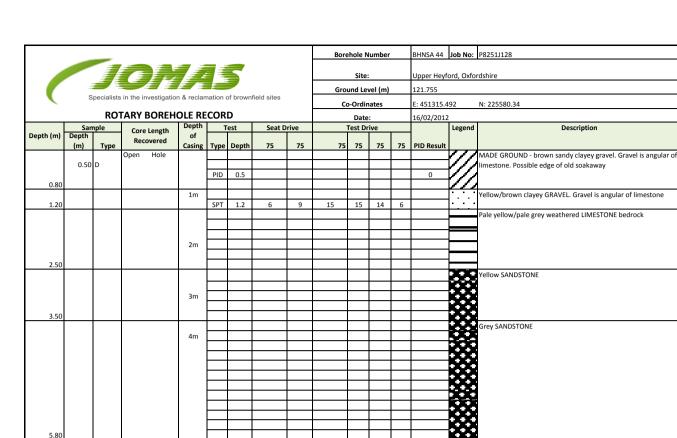
Groundwater struck at 3.1m bgl, rose to 2.6m bgl after 20 mins monitoring
 Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe

Commachio 305

Heyford Park LLP
Taylor/Gidman

Plant:

Driller: Taylor/Gidm Engineer: M Williams



Grey SILTSTONE 10.00

8.90

Client:

Commachio 305

Heyford Park LLP

Driller: Taylor/Gidman
Engineer: M Williams

1. Groundwater strike at 4.8 m bgl, rising to 4m after 20 mins monitoring

2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe

Grey CLAY

									Bor	ehole N	lumber		BHNSA 45	Job No:	P8251J128
										Site			Upper Heyfo	ord. Oxfor	dshire
				¥ į		F			Gro		vel (m)		122.83	Jiu, C	asime
•		Specia	lists in the investig	gation &	reclam	ation of	brownfield	Isites		o-Ordir			E: 451275.53	3	N: 225734.24
		ROT	TARY BOREH			D				Date			16/02/2012		
Depth (m)	San	nple	Core Length	Depth of		Гest	Seat D	rive		Test Di	rive			Legend	Description
Deptii (iii)	(m)	Туре	Recovered		Туре	Depth	75	75	75	75	75	75	PID Result		
			Open Hole			-									Borehole was advanced on the edge of backfilled former trial pit
						 									
						<u> </u>									
						 								///	
2.70 3.00				2.7m 3m	₩	-								///	Weathered pale yellow LIMESTONE
3.00				5											Yellow CLAY
3.50						-									
3.30														700	Yellow SANDSTONE
														25	
4.50						<u> </u>								****	
						1								1	
						<u> </u>									
					-	1									
					-	1								-	
					-	-								-	
						-								-	
						-								_	
														1	
						<u> </u>									
						<u> </u>									
						-								-	
Plant:	Commac	hio 305	<u> </u>												
Client:	Heyford I	ParkIID			Rema		or struck	- 2 7m h-	d no rico -f	tor 20 -	ninc				
					d, no rise af th bentonite			gl with	slotted stand	pipe with	1m bgl to surface plain pipe				
Driller: Engineer:	ller: Taylor/Gidman														
Liiginicei.	vviiiidi														



Driller: Taylor/Gidman Engineer: M Williams
 Borehole Number
 BHNSA 225
 Job No:
 P8251J128

 Site:
 Upper Heyford, Oxfordshire

 Ground Level (m)
 122.932

 Co-Ordinates
 E: 450651.805
 N: 225761.212

							unu Le	vei (iii)		122.532					
•	Spe	cialists i	n the investigation	n & reclai	mation	of brow	nfield site:	3	c	o-Ordii	nates		E: 450651.805	5	N: 225761.212
		RO	TARY BOREH	OLF RE	COR	D				Date			13/02/2012		
	·			Depth		est	Seat D			Test Di			13/02/2012		Di-ti
Depth (m)	Depth	nple	Core Length	of	'	est	Seat L	rive		lest Di	rive			Legend	Description
Deptii (iii)	(m)	Туре	Recovered	Casing	Type	Depth	75	75	75	75	75	75	PID Result		
	(,	турс	Open Hole	Cusing	турс	Берин		,,	,,	,,,	//	,,,	TID Result	 	Prown sandy CLAV containing occasional fragments of limestone
	0.50	D	Open Hole		PID	0.5							0	1::::::::	Brown sandy CLAY containing occasional fragments of limestone
	0.50				110	0.5								 	
0.80														1	
0.80															Brown/yellow slightly clayey GRAVEL. Gravel is angular of
1.20					SPT	1.2	5	7	10	13	13	14			limestone
1.20					311	1.2	3	,	10	15	13	14			Pale yellow/ grey LIMESTONE
															Pale yellow/ grey LINESTONE
											<u> </u>			 	
				3m											
3.20				ļ	<u> </u>						<u> </u>	<u> </u>			
															Pale grey CLAY
3.70															
														በረንረን	Grey SILTSTONE
				4m										KXXX	
														ΚХХ	
														$\mathcal{O}\mathcal{O}$	
4.90														\mathbf{C}	
				5m										£:::::::	Pale to dark grey CLAY
														[::::::	
5.30															
5.50														JUC	Grey SILTSTONE
															Grey CLAY
														1::::::::::::::::::::::::::::::::::::::	/ -
														1::::::::	
6.10														1:::::::	
															Pale grey to dark grey silty MUDSTONE
														188888	
I		1		1										1000000	
	1	l												1	
		1		1										1::::::::::::::::::::::::::::::::::::::	
		1		1											
	l	l													
		1		1										1::::::::::::::::::::::::::::::::::::::	
	l	l												1888	
		1		1										1888	
I		1		1]::::::::::::	
	l	l													
		1		1										1888	
		1		1										1	
10.00	l	l												Tilliani.	
10.00				-	 			-			 			<u> </u>	
I		1		1	-			1		 	 	 		1	
	l	·	l	Remarks:					1		<u> </u>		l		
Plant:	Commac	hio 305		1	Groundwater struck at 3.1m bg					6m hal	after 2) mine	monitoring		
	25	5 505		1									andpipe, 1m b	gl to surfa	ce plain nine
Client:	Heyford	Park LLP		1	2. 11151		10 - 31111	-BI WILLII	ocintollite, 3	* ±11	. ppi 310	icu st	upipc, 1111 D	b. 10 3011d	ce prant pipe
F	,			1	1										



BHNSA 226 **Job No:** P8251J128 Borehole Number Site: Upper Heyford, Oxfordshire Ground Level (m) 124.266 E: 450865.958 Co-Ordinates N· 225720 296

	Specialists in the investigation & reclamation of brownfield site								C	o-Ordir	nates		E: 450865.958		N: 225720.296
			TARY BOREH		COR	D				Date			14/02/2012		
		nple	Core Length	Depth	Т	est	Seat D	rive		Test Di				Legend	Description
Depth (m)	Depth	_	Recovered	of	_	_									
0.10	(m)	Type		Casing	Туре	Depth	75	75	75	75	75	75	PID Result	,,	7101446
0.10			Open Hole	1										<i>* * *</i>	TARMAC Brown sandy CLAY with occasional fragments of highly
	0.50				PID	0.5							0		weathered limestone
0.70		D			PID	0.5							U		weatherea limestone
0.70				1m											Yellow/brown slightly clayey GRAVEL. Gravel is angular of
1.20				2	SPT	1.2	8	12	19	21	10 ref				limestone
															Yellow LIMESTONE
1.60															
1.90															Yellow SAND
1.50				1											Yellow silty SANDSTONE
														ЮО	
														ومر	
														00	
				3m										ЮO	
3.10														20	
															Yellow/orange SAND
				1										l	
3.50				<u> </u>										<u> </u>	
				1						<u> </u>				KXX	Grey SILTSTONE
				4m										∞	
4.20														\sim	V.H. CAND
4.40				4.5m											Yellow SAND Yellow/Grey SILTSTONE
				4.5111										KXX	Yellow/Grey SILTSTONE
														KXX	
														KXXX	
														KXXX	
5.60														25252	
														CXX	Grey SILTSTONE
6.10														25252	
															Grey clayey MUDSTONE
				1											
				1]::::::::::	
				1											
				1											
8.70				ļ											
															Grey CLAY
				1						 				 ::::::	
					-									1	
10.00					-										
10.00				 										<u> </u>	
				1				1					1		
			1	†	Remarks:									1	
Plant:	Commac	hio 305		1	1. Groundwater struck at 6.1m bg			d, rose to 4.	5m bgl	after 20) mins	monitoring			
				1	2. Installed from 10 - 9m bgl with							l to surfa	ce plain pipe		
Client:	Heyford	Park LLP		1	1			•	,		- '				
				1											
Driller:	Taylor/G			4											
Engineer:	M Williams			İ											



APPENDIX 4 - IN SITU CBR TEST RECORDS

N		ximum particle size		Rate of Strain :1.00m	m/min	Test No:	-
		Brown slightly gravelly sitty if	inc sandy OLA	Tr (graver is line and sub	-arigular)	Depth (m):	0.60
Sample descriptio	n:	Brown slightly gravelly silty fi	ine sandy CI A	Y (gravel is fmc and sub	-angular)	TP No:	CBR001
Project No:	P8251J128.08	Our Job / report no:	12247	Sample no/ type:	-		
Client Name:		Jomas Associates Ltd		Date reported:	10/02/2012		
				Testing Started:	09/02/2012		
Project Name:		Upper Heyford NSA II		Project Started:	09/02/2012		

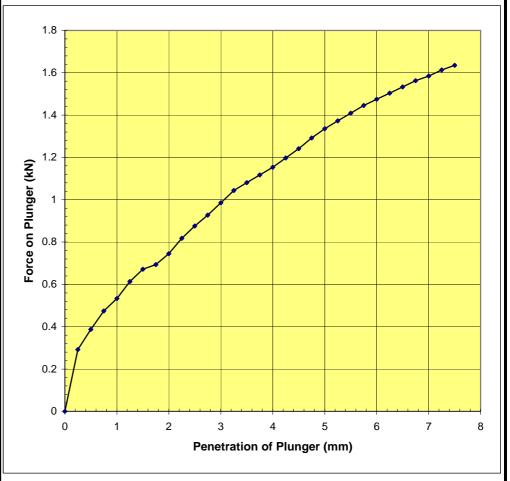
Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm Note: Penetration and force readings after seating load zeroed.

Mass of Surcharge 8.5

Proving Ring factor: 7.3 kg

RECORDINGS

Penetration	Force on P	lunger
of Plunger	Dial Reading	Load
mm	Diai Reading	kN
0	0	0
0.25	40	0.29
0.50	53	0.39
0.75	65	0.47
1.00	73	0.53
1.25	84	0.61
1.50	92	0.67
1.75	95	0.69
2.00	102	0.74
2.25	112	0.82
2.50	120	0.88
2.75	127	0.93
3.00	135	0.99
3.25	143	1.04
3.50	148	1.08
3.75	153	1.12
4.00	158	1.15
4.25	164	1.20
4.50	170	1.24
4.75	177	1.29
5.00	183	1.34
5.25	188	1.37
5.50	193	1.41
5.75	198	1.45
6.00	202	1.47
6.25	206	1.50
6.50	210	1.53
6.75	214	1.56
7.00	217	1.58
7.25	221	1.61
7.50	224	1.64



RESULTS:

		Penetration	Force	Standard Force	CBR
Moisture content (%) 18	mm	kN	kN	%
		2.5	0.88	13.2	6.64
In-situ CBR value %	6.7	5	1.34	20	6.68
III-Situ CDIX Value /6	0.7				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials:

Date: 10/02/2012

Remarks:

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

Il samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

MSF-11/ R10/1

kp

			•			Test No:	-
		Brown slightly gravelly slity	iiile saridy OLA	r (graveris inte and sub	-angular)	Depth (m):	0.60
Sample description	n:	Brown slightly gravelly silty	fine sandy CLA	Y (gravel is fmc and sub	-angular)	TP No:	CBR002
Project No:	P8251J128.08	Our Job / report no:	12247	Sample no/ type:	-		
Client Name:		Jomas Associates Ltd		Date reported:	10/02/2012		
•				Testing Started:	09/02/2012		
Project Name:		Upper Heyford NSA II		Project Started:	09/02/2012		

Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm

Note: Penetration and force readings after seating load zeroed.

Rate of Strain :1.00mm/min

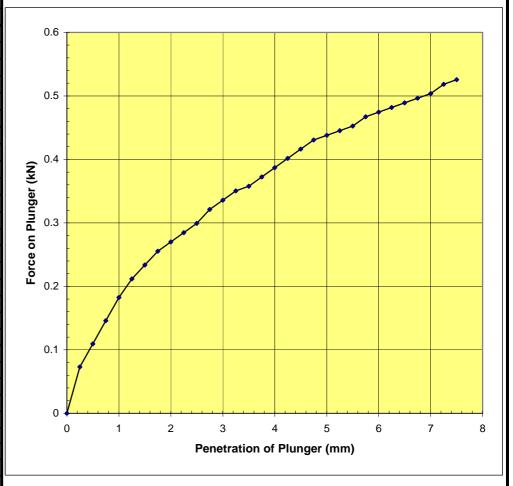
Mass of Surcharge 8.5

kg

Proving Ring factor: 7.3

RECORDINGS

Penetration	Force on P	lunger
of Plunger	Dial Reading	Load
mm	Diai Reading	kN
0	0	0
0.25	10	0.07
0.50	15	0.11
0.75	20	0.15
1.00	25	0.18
1.25	29	0.21
1.50	32	0.23
1.75	35	0.26
2.00	37	0.27
2.25	39	0.28
2.50	41	0.30
2.75	44	0.32
3.00	46	0.34
3.25	48	0.35
3.50	49	0.36
3.75	51	0.37
4.00	53	0.39
4.25	55	0.40
4.50	57	0.42
4.75	59	0.43
5.00	60	0.44
5.25	61	0.45
5.50	62	0.45
5.75	64	0.47
6.00	65	0.47
6.25	66	0.48
6.50	67	0.49
6.75	68	0.50
7.00	69	0.50
7.25	71	0.52
7.50	72	0.53



RESULTS:

		Penetration	Force	Standard Force	CBR
Moisture content (%) 20	mm	kN	kN	%
		2.5	0.30	13.2	2.27
In-situ CBR value %	2.3	5	0.44	20	2.19

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Initials: kp

Date: 10/02/2012

Approved by

Remarks:

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

Il samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

MSF-11/ R10/1

Project Name:	Upper Heyford NSA II	Upper Heyford NSA II		09/02/2012 09/02/2012		
Client Name:	Jomas Associates Ltd		Date reported:	10/02/2012		
Project No:	P8251J128.08 Our Job / report no:	12247	Sample no/ type:	-		
Sample descripti	ion: Brown gravelly silty	, CLΔV (grave)	is fmc and sub-angular	1	TP No:	CBR003
	Blown gravelly silty	OLAT (grave	is inic and sub-angular,	1	Depth (m):	0.60
					Test No:	-
Note: Test applica	able only when maximum particle size	Rate of Strain :1.00m	nm/min			
beneath plu	inger does not exceed 20mm	Mass of Surcharge	8.5	kg		

Proving Ring factor:

7.3

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on P	lunger										
of Plunger	Dial Reading	Load										
mm	Diai Reading	kN										
0	0	0		4.5								
0.25	550	4.02		-								
				4								
				4								
				-						/		
				3.5								
				-								
				<u> </u>					/			
			Ŝ	3								
			,	F								
				2.5								
			Force on Plunger (kN)	F								
			l F	2								
			9	-								
			orc	E								
			L	1.5								
				F								
				4								
				1 +								
				F	/							
				0.5								
				E								
				0 🖊								
				0	0	.05	0.1	n	15	0.2	0.25	0.3
				J	O	.00					0.20	0.0
							renet	tration of	f Plunger (m	1111)		
	1											
	1		1									

RESULTS:

Moisture content ((%) 12	Penetration Force S mm kN		Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-3IIU ODIN VAIUE /	>30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials: kp

Date: 10/02/2012

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report ,incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

MSF-11/ R10/1

Project Name:	Upper Hevford NSA II	Upper Heyford NSA II				
,	5PP - 115, 115 - 115		Testing Started:	09/02/2012		
Client Name:	Jomas Associates Ltd		Date reported:	10/02/2012		
Project No:	P8251J128.08 Our Job / report no:	12247	Sample no/ type:	-	7	
Sample descript	tion: Brown slightly gravelly silt	v fine sandy CLA	V (arayel is tmc and sub	y-angular)	TP No:	CBR004
	Diown slightly gravelly slit	y line sandy CLA	1 (graver is lifte and suc	Depth (m):	0.60	
					Test No:	-
Note: Test applic	cable only when maximum particle size	Rate of Strain :1.00m	ım/min			

Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm

Mass of Surcharge

kg

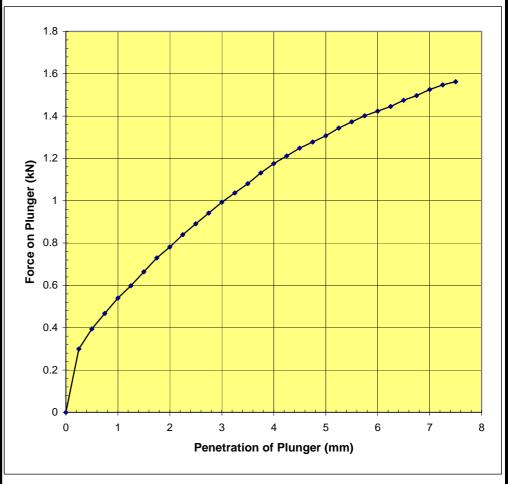
8.5

Note: Penetration and force readings after seating load zeroed.

Proving Ring factor: 7.3

RECORDINGS

Penetration	Force on P					
of Plunger	Dial Reading	Load				
mm	Diai redaining	kN				
0	0	0				
0.25	41	0.30				
0.50	54	0.39				
0.75	64	0.47				
1.00	74	0.54				
1.25	82	0.60				
1.50	91	0.66				
1.75	100	0.73				
2.00	107	0.78				
2.25	115	0.84				
2.50	122	0.89				
2.75	129	0.94				
3.00	136	0.99				
3.25	142	1.04				
3.50	148	1.08				
3.75	155	1.13				
4.00	161	1.18				
4.25	166	1.21				
4.50	171	1.25				
4.75	175	1.28				
5.00	179	1.31				
5.25	184	1.34				
5.50	188	1.37				
5.75	192	1.40				
6.00	195	1.42				
6.25	198	1.45				
6.50	202	1.47				
6.75	205	1.50				
7.00	209	1.53				
7.25	212	1.55				
7.50	214	1.56				



RESULTS:

		Penetration	Force	Standard Force	CBR
Moisture content (%) 27	mm	kN	kN	%
		2.5	0.89	13.2	6.75
In-situ CBR value %	6.7	5	1.31	20	6.53
III-Situ ODIT Value /6	0.7				

UKAS

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Date: 10/02/2012

Initials:

Remarks:

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Fest Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

MSF-11/ R10/

kp

Project Name:	Upper Heyford NSA II		Project Started:	09/02/2012		
.,	211 2 37 2 2		Testing Started:	09/02/2012		
Client Name:	Jomas Associates Ltd		Date reported:	10/02/2012		
Project No:	P8251J128.08 Our Job / report no:	12247	Sample no/ type:	-		
Sample descripti	on: Yellowish brown gravelly silty CLA	V (gravel is fm	r weakly comented siltst	one fragments)	TP No:	CBR005
	Tellowish brown gravelly silty OLA	ir (graveris iiii	o weakly comenica sinsi	one fragments)	Depth (m):	0.60
					Test No:	-
Note: Test applica	able only when maximum particle size	Rate of Strain :1.00m	m/min			
beneath plu	nger does not exceed 20mm	Mass of Surcharge	8.5	kg		

Proving Ring factor:

7.3

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on F	lunger					
of Plunger		1 1					
mm	Dial Reading	kN					
0	0	0	4.5 -				
0.25	187	1.37		-			
0.50	293	2.14	4 -	-			
0.75	367	2.68	4	-			
1.00	411	3.00		-			
1.25	471	3.44	3.5 -			-	
1.50	509	3.72		-			
1.75	550	4.02	3 -	-			
			Z Š				
			Force on Plunger (kN)	-	No.		
			6 2.5 -	_			
			Plu	-			
			5 2 -	/	•		
			90				
			o.				
			╙ 1.5 -				
			1 -				
				/			
				/			
			0.5 -	. /			
				:/			
			0 -	, , , ,			
				0 0.	5	1	1.5
	1					of Plunger (mm)	

RESULTS:

Moisture content ((%) 15	Penetration mm	Force kN	Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-Situ CDIX Value /0	-30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3

Determination of In-situ CBR values

Approved by

Initials: kp

Date: 10/02/2012

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report, incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.

MSF-11/ R10/1

Project Name:	Upper Heyford NSA II	Project Started: Testing Started:	09/02/2012 09/02/2012			
Client Name:	Jomas Associates Ltd		Date reported:	10/02/2012		
Project No:	P8251J128.08 Our Job / report no:	12247	Sample no/ type:	-		
Sample descripti	ion: Brown gravelly silty fine s	andy CL AV (aravel is fmc and sub-an	aular)	TP No:	CBR006
	Brown gravery sitty fine s	andy OLAT (graver is fille and sub-an	igulai)	Depth (m):	0.60
					Test No:	-
Note: Test applica	able only when maximum particle size	Rate of Strain :1.00m	nm/min			
beneath plu	nger does not exceed 20mm	Mass of Surcharge	8.5	kg		

Proving Ring factor:

7.3

RECORDINGS

Note: Penetration and force readings after seating load zeroed.

Penetration	Force on P										
of Plunger	Dial Reading	Load									
mm	Diai reading	kN									
0	0	0		4.5							
0.25	550	4.02			_						
				4 -	-						
				4	-						
					-						
			1	3.5 -							
			1		-						
			1	_	-			/			
			2	3 -	-						
			ਤੂ		-						
			lde	2.5							
			Force on Plunger (kN)		-		/				
			d	: ,	-						
			0	2 -	-						
			or o	}	-						
			Ľ	1.5 -							
					-						
			1		-						
			1	1 -	-						
					/						
				0.5 -							
				0 () 0	.05 ().1 ().15 ().2 (0.25	<u></u> 0.3
				(J U.					J.ZJ	0.3
						Р	enetration of	of Plunger (m	ım)		

RESULTS:

Moisture content ((%) 14	Penetration Force Stand mm kN		Standard Force kN	CBR %
		2.5	-	13.2	-
In-situ CBR value %	>30	5	-	20	-
III-Situ CDIX Value /6	>30				

In-situ CBR Test

BS1377 Part 9: 1990: 4.3
Initials: kp
Determination of In-situ CBR values

Date: 10/02/2012

Remarks: Maximum kentledge reached

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report ,incl any on 'hold' will be stored and disposed off according to Company policy. Acopy of this policy is available on request.



APPENDIX 5 - TANK SURVEY RECORDS

Project Ref:	P8251J128	Project Name:	Upper Heyford NSA
Lead Engineer:	Marc Williams	Title:	Tank Data
Version:	0.2	Date:	02/03/12



Leau Engineer.		Marc William	13	Title.			Data		<i></i>		
Version:		0.2		Date:		02/0	3/12		:-		
Tank ID	Type of Tank (UST/AST)	Tank construction details – metal, plastic	Condition rusted, d good con etc?	_	Depth base tank (mbg	of	Tank dimensions	Estimated volume of contents/dry	Results of interface probe dipping? Any free product noted?	ID of samples taken.	Any other observations made, leaks, local staining, Photograph ID etc
AGNSA 04, 05 (2 x tanks mounted side by side)	AST	Metal	Rusted		2.8m	1	2.8m x 3.6m	Dry	Dry	-	Gauge indicates 4900 gallons capacity. From surrounding area/building considered likely to have contained generator fuel oil
AGNSA 06	AST	Metal	Rusted		2.2m	1	2.2m x 4.0m	Appears to be dry – access point on elevated platform in poor condition	-	-	Gauge indicates 5000 imperial gallons capacity. Partially obscured lettering indicates tank to have contained generator oil
AGNSA 07	AST	Metal	Rusted		1.5 (appr	rox)	1.5m x 2.4m	Appears to be dry – access point on elevated platform in poor condition. Valve at base left open	-	-	Tank heavily overgrown Likely contents heating oil
AGNSA 08	AST	Metal	Rusted		1m appro	ox	0.7 x 2m	Appears to be dry	-	-	Likely contents heavy oi – tank within metal bund on elevated concrete

Project Ref:		P8251J128		Project Na	ame:	Uppe	er Heyford NS	A			
Lead Engineer:		Marc William	S	Title:		Tank	Data			JOH	145
Version:		0.2		Date:		02/03	3/12		•		
Tank ID	Type of Tank (UST/AST)	Tank construction details – metal, plastic	rusted, d good con etc?	_	Depti base tank (mbg	of	Tank dimensions	Estimated volume of contents/dry	Results of interface probe dipping? Any free product noted?	ID of samples taken.	Any other observations made, leaks, local staining, Photograph ID etc
UGNSA 22, 23	UST	Appears to be metallic	Rusted		3.1m	l	-	Gauges indicate 11,000 gallons capacity each	Tank 22 Dry Tank 23 water filled from 1.8m bgl to base, no free product	UGNSA 23	Tanks discovered by Jomas
UGNSA 24, 25	UST	Appears to be metallic	Rusted		2.9m	1		Rusted placard indicates 5000 litres	Both tanks water filled to surface – no free product recorded but visible sheen on water	UGNSA 24, UGNSA 25	Placards indicate tank 24 to have contained Diesel and tank 25 to have contained petrol
UGNSA 26	UST	?	?		?		?	?	-	-	Tank below large, rusted concrete cover – unable to open. Tank cover measures 1.8m x 1.1m. Signage indicates tank to have contained fuel oil for a boiler. Site tenant stated tank to be unused, and as being in a derelict condition when they moved onto site.
UGNSA 27, 28, 29, 30	UST	Metal	Rusted		5		Unknown – buried	Gauges indicate 12,000 gallons to each tank	No free product observed. Tanks 27 – 29 water filled to 1.6m bgl. Sampling neck for tank 30 blocked	UGNSA 27, 28, 29	

Project Ref:		P8251J128		Project N	ame:	Uppe	er Heyford NS	A			
Lead Engineer:		Marc William	S	Title:		Tank	k Data			(JO)	145
Version:		0.2		Date:		02/03	02/03/12		N		
Tank ID	Type of Tank (UST/AST)	Tank construction details – metal, plastic	rusted, d good con etc?	_	Depti base tank (mbg	of	Tank dimensions	Estimated volume of contents/dry	Results of interface probe dipping? Any free product noted?	ID of samples taken.	Any other observations made, leaks, local staining, Photograph ID etc
UGNSA 31, 32, 33	UST	Metal	Rusted		3.0		Uncertain – buried	Unknown – unable to locate gauges	0.02m free product indicated within tank 33. Other tanks recorded no free product, but water had visible sheen	UGNSA 31, 32, 33	Placard states tanks to have been water filled in 1989. No evidence as to tanks use.
UGNSA 34, 35	UST	Concrete cover over metal	unknow	n	1.5m	l	Buried – top appears 2m x 2m each		Tanks appear to be filled with waste oil (x1) or varnish (x 1)	-	Waterman to conduct own investigations and obtain own samples



APPENDIX 6 - FALLING HEAD TEST RESULTS

FALLING HEAD TEST RECORD							
Heyford Park Settlements Ltd	Ground Level	Hole Nr	BHNSA 04				
Upper Heyford	Nat Grid Co-ord	Project Nr	P8251J128				
24/02/2012	Engineer MW						



 Borehole Dimensions

 Borehole Diameter (m)
 0.17

 Standpipe Diameter (m)
 0.050

 Length of Slotted Pipe (m)
 4.10

 F (Intake Factor)
 4.86

 A (Cross-sectional Area)
 0.0020

Client Site

Date

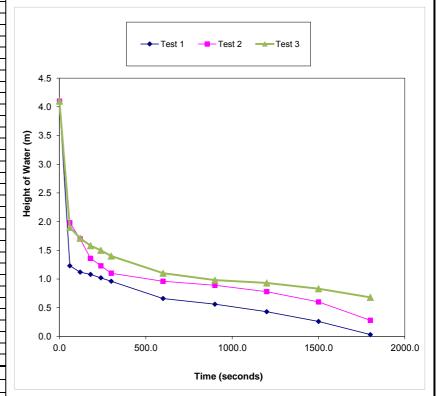
Well Installation Details (mbgl) 50mm standpipe installed to 13.0m

Groundwater measured prior to commencement of test at 4.1m bgl

Ground Conditions
see BHNSA 04 borehole record

	TE	ST 1	TEST 2		TE	ST 3
Elapsed time	Depth to Water	Height of Water	Depth to Water			Height of Water
Seconds	mbgl	m	mbgl	m	(Dw) mbgl	(Dg) m
0.0	0.00	4.100	0.000	4.100	0.000	4.100
60	2.87	1.230	2.120	1.980	2.200	1.900
120	2.98	1.120	2.400	1.700	2.390	1.710
180	3.02	1.080	2.740	1.360	2.520	1.580
240	3.08	1.020	2.870	1.230	2.600	1.500
300	3.14	0.960	3.000	1.100	2.700	1.400
600	3.44	0.660	3.140	0.960	3.000	1.100
900	3.54	0.560	3.210	0.890	3.120	0.980
1200	3.67	0.430	3.320	0.780	3.170	0.930
1500	3.84	0.260	3.500	0.600	3.270	0.830
1800	4.07	0.030	3.820	0.280	3.420	0.680
	TE:	ST 1	TES	ST 2	TE	ST 3
t1 (sec)		60		60		30
t2 (sec)		0.00		0.00		00.00
t2-t1 (sec)		0.00		0.00		10.00
h1 (m)		230		980		900
h2 (m)		260		300		830
112 (111)	0.2		0.0		0.	

4.36E-07



Water Depths -Groundwaterr at 4.1mbgl

Permeability -k - (m/sec)

Remarks: 40L of water used for test

2.32E-07

Approved By: RS

3.35E-07

FALLING HEAD TEST RECORD						
Heyford Park Settlements Ltd	Ground Level	Hole Nr BHNSA	07			
Upper Heyford	Nat Grid Co-ord	Project Nr P8251J1	128			
24/02/2012	Engineer MW					



 Borehole Dimensions

 Borehole Diameter (m)
 0.17

 Standpipe Diameter (m)
 0.050

 Length of Slotted Pipe (m)
 2.60

 F (Intake Factor)
 3.37

 A (Cross-sectional Area)
 0.0020

Client Site

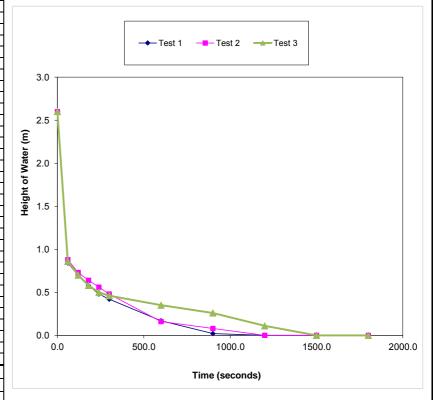
Date

Well Installation Details (mbgl) 50mm standpipe installed to 10.0m

Groundwater measured prior to commencement of test at 2.6m bgl

Ground Conditions
see BHNSA 07 borehole record

	TES	ST 1	TES	ST 2	TE	ST 3
Elapsed time	Depth to Water	Height of Water	Depth to Water	Height of Water		Height of Water
Seconds	mbgl	m	mbgl	m	(Dw) mbgl	(Dg) m
0.0	0.00	2.600	0.000	2.600	0.000	2.600
60	1.76	0.840	1.720	0.880	1.740	0.860
120	1.90	0.700	1.870	0.730	1.900	0.700
180	2.02	0.580	1.960	0.640	2.020	0.580
240	2.12	0.480	2.040	0.560	2.100	0.500
300	2.18	0.420	2.120	0.480	2.140	0.460
600	2.43	0.170	2.440	0.160	2.250	0.350
900	2.58	0.020	2.520	0.080	2.340	0.260
1200	2.60	0.000	2.600	0.000	2.490	0.110
1500	2.60	0.000	2.600	0.000	2.600	0.000
1800	2.60	0.000	2.600	0.000	2.600	0.000
	TE:	ST 1	TES	ST 2	TE	ST 3
t1 (sec)		60		60		30
t2 (sec)		0.00		0.00		0.00
		0.00		0.00		0.00
t2-t1 (sec)						
h1 (m)		340 020		380 380		860
h2 (m)						260
Permeability -k - (m/sec)	2.59	E-06	1.66	E-06	8.30	E-07



Water Depths -Groundwater at 2.6mbgl Remarks: 40L of water used for test

Approved By: RS

		PEI	RMEABIL	TY TEST	RECORD								
Client	Heyford Park Settle			Ground Level				Hole Nr	BHNSA 16		OMAS		
Site	Upper Heyford			Nat Grid Co-o	rd			Project Nr	P8251J128			0 realemetion of h	rounfield sites
Date	24/02/2012			Engineer	MW				•	Speciali	sts in the investigation	& reclamation or b	rownneid sites
Borehole Dimensions			Well Installation	n Details (mbg	I)			Ground Co	nditions				
Borehole Diameter (m)	0.17		50mm standpipe					see BHNSA 16 I	oorehole record				
Standpipe Diameter (m)	0.050		Groundwater me	asured prior to co	mmencement of to	est at 12.4m bgl							
ength of Slotted Pipe (m)	12.40												
(Intake Factor)	12.16												
A (Cross-sectional Area)	0.0020												
	TES	Т 1	- 	ST 2	75	ST 3		<u> </u>					
Elapsed time	Depth to Water	Height of Water		Height of Water		Height of Water							
Seconds	mbgl	m m	mbgl	m m	(Dw) mbgl	(Dg) m							
0.0	12.40	0.000	12.400	0.000	12.400	0.000							
80	12.40	0.000	12.40	0.000	12.40	0.000							
												٦	
						<u> </u>							
									→ Test ′	─ <mark>=</mark> ─Test	2 Test 3		
						+		4.0					
								1.0					
								0.9 -					
							(u	0.8 -					
							of Water (m)						
							ate	0.7 -					
							×						
			+				t of	0.6 -					
							Height						
							Hei	0.5					
								0.4					
	Note: Permeability	estimates given b	elow are based on	a constant head t	est								
								0.3 -					
	40L emptied in 80secs. T	Therefore, assume flow	40L emptied in 80sec	s. Therefore, assume	40L emptied in 80sed	cs. Therefore, assume		0.2					
	of 0.5L/sec for maintain	ing a constant head at	flow of 0.5L/sec for n	naintaining a constant	flow of 0.5L/sec for r	naintaining a constant							
	12.4n	nbgl I	head at	12.4mbgl	head at	12.4mbgl		0.1					
	1		1			 							
								0.0	ı	1	ı		
								0.0	20.0	40.0	60.0	80.0	100.0
	TES	T 1	TES	ST 2	TE	ST 3							
Flow (q)	0.5	5	0	.5		.5				Time (sec	onds)		
F	12.			.16		1.16				(000			
Constant Head (Hc)	12.4			.40		.40							
(*)													
Permeability -k - (m/sec)	3.32	E-03	3.32	E-03	3.32	PE-03							
					Remarks:	40L of water used	for each	test Desnite re	neated fills ground	water level di	d not rise above s	anding water lev	/el
/ater Depths - roundwater at 12.4mbgl					rtomarito.	102 01 Water 4000	1 101 000	r toot. Despite re	outou illo, giouriu			arraining water lev	

FALLING HEAD TEST RECORD							
Heyford Park Settlements Ltd	Ground Level	Hole Nr	BHNSA 27				
Upper Heyford	Nat Grid Co-ord	Project Nr	P8251J128				
24/02/2012	Engineer MW						



Client

Site

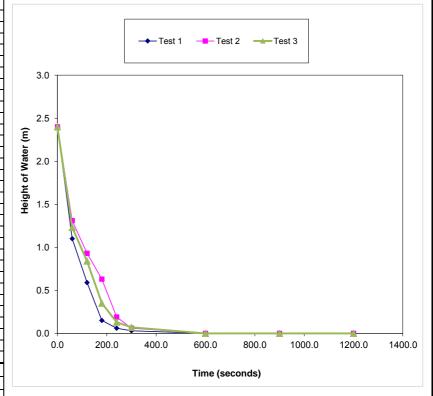
Date

Well Installation Details (mbgl) 50mm standpipe installed to 9.0m

Groundwater measured prior to commencement of test at 2.4m bgl

Ground Conditions see BHNSA 27 borehole record

	TES	ST 1	TES	ST 2	TE	ST 3
Elapsed time	Depth to Water	Height of Water	Depth to Water	Height of Water		Height of Water
Seconds	mbgl	m	mbgl	m	(Dw) mbgl	(Dg) m
0.0	0.00	2.400	0.000	2.400	0.000	2.400
60	1.30	1.100	1.090	1.310	1.170	1.230
120	1.81	0.590	1.470	0.930	1.560	0.840
180	2.25	0.150	1.770	0.630	2.050	0.350
240	2.34	0.060	2.210	0.190	2.270	0.130
300	2.37	0.030	2.340	0.060	2.330	0.070
600	2.40	0.000	2.400	0.000	2.400	0.000
900	2.40	0.000	2.400	0.000	2.400	0.000
1200	2.40	0.000	2.400	0.000	2.400	0.000
	+					
	+					
	+					
	+					
	TE	I ST 1	TE	ST 2	TE	ST 3
t4 ()						
t1 (sec)	-	30		80		60
t2 (sec)		0.00		0.00		0.00
t2-t1 (sec)		0.00		0.00		0.00
h1 (m)	1.1	100	1.3	310	1.	230
h2 (m)	0.0	030	0.0	060	0.	070
Permeability -k - (m/sec)	9.31	E-06	7.97	'E-06	7.41	IE-06



Water Depths -Groundwater at 2.4mbgl Remarks: 40L of water used for test

Approved By: RS

FALLING HEAD TEST RECORD									
Heyford Park Settlements Ltd	Ground Level	126.46	Hole Nr	BHNSA 29					
Upper Heyford	Nat Grid Co-ord	E: 451329.466	N: 226080.61 Project Nr	P8251J128					



Borehole Dimensions 0.17 Borehole Diameter (m) Standpipe Diameter (m) 0.050 Length of Slotted Pipe (m) 2.70 F (Intake Factor) 3.47 A (Cross-sectional Area) 0.0020

24/02/2012

Client

Site

Date

Well Installation Details (mbgl) 50mm standpipe installed to 9.0m

0.670

0.060

1.62E-06

Engineer

Groundwater measured prior to commencement of test at 2.7m bgl

MW

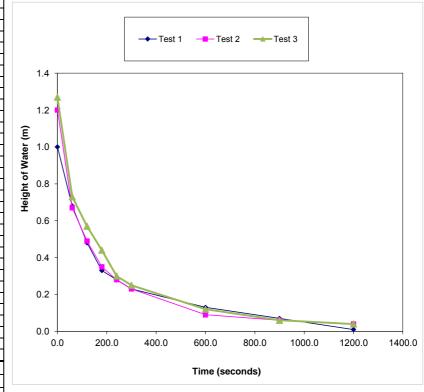
Ground Conditions see BHNSA 29 borehole record

	TE	ST 1	TE	ST 2	TEST 3		
Elapsed time	Depth to Water	Height of Water	Depth to Water	Height of Water	Depth to Water	Height of Water	
Seconds	mbgl	m	mbgl	m	(Dw) mbgl	(Dg) m	
0.0	1.70	1.000	1.500	1.200	1.430	1.270	
60	2.02	0.680	2.030	0.670	1.970	0.730	
120	2.22	0.480	2.210	0.490	2.130	0.570	
180	2.37	0.330	2.350	0.350	2.260	0.440	
240	2.42	0.280	2.420	0.280	2.400	0.300	
300	2.47	0.230	2.470	0.230	2.450	0.250	
600	2.57	0.130	2.610	0.090	2.580	0.120	
900	2.63	0.070	2.640	0.060	2.640	0.060	
1200	2.69	0.010	2.660	0.040	2.660	0.040	
			2.670	0.030	2.670	0.030	
	TE	ST 1	TES	ST 2	TE	ST 3	
t1 (sec)	(60	6	60	(60	
t2 (sec)	90	0.00	900	0.00	90	0.00	
t2-t1 (sec)		0.00		0.00	840.00		

0.680

0.070

1.53E-06



Water Depths -Groundwater at 2.7m bgl

h1 (m)

h2 (m)

Permeability -k - (m/sec)

Remarks: 40L of water used for test

0.730

0.060

1.68E-06

Approved By: RS



APPENDIX 7 – CHEMICAL LABORATORY TEST RESULTS





Unit A2 Windmill Road Ponswood Industrial Estate St Leonards on Sea East Sussex TN38 9BY Telephone (01424) 718618 Facsimile (01424) 729911

THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 23/03/12

ANALYTICAL REPORT No. AR37278A (Supplementary Report)

Samples Received By:- Courier
Samples Received:- 16/02/12
Your Job No: P8251J128.

Site Location: Upper Heyford NSA

No Samples Received:- 36

Authorised By:-

Mike Varley BSc, CChem, CSci, FRSC Chief Chemist

Director

Any comments, opinions, or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silty clay loam	Silt Loam	Sand	Silty clay loam	Clay loam	Silt Loam	Silt Loam	Silt Loam	Sand	Sand
	TP/BH	229	230	231	232	233	234	235	236	237	238
	Depth (m)	0.50	0.50	0.50	1.00	0.50	0.20	0.20	0.50	0.20	0.25
	Our ref	28670	28671	28672	28673	28674	28675	28676	28677	28678	28679
Stone Content	(%)	<1	12	8	16	<1	8	<1	15	40	27
Arsenic**	(mg/kg)	12.1	7.4	14.5	19.7	8.1	18.0	20.3	12.9	15.4	25.4
Cadmium**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	0.5	<0.5	<0.5	<0.5
Chromium**	(mg/kg)	18	10	16	30	12	23	28	19	20	24
Lead**	(mg/kg)	35	7	8	5	5	25	30	39	39	15
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	13	9	10	15	11	17	21	13	12	18
Copper**	(mg/kg)	8	4	4	3	6	22	15	10	14	8
Zinc**	(mg/kg)	40	18	22	26	18	50	75	67	83	51
Selenium**	(mg/kg)	1.1	0.9	1.1	0.7	0.7	1.2	1.4	1.2	0.6	0.8
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	1.6	0.7	0.7	0.5	<0.5	0.8	0.8	0.8	0.8	1.2
Antimony	(mg/kg)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	2.9	<2.5
Cobalt	(mg/kg)	6.1	3.9	3.6	4.5	4.9	7.2	9.0	5.8	4.4	7.4
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Barium**	(mg/kg)	40.1	21.7	11.0	12.1	14.5	57.2	72.1	56.5	37.3	44.1
Beryllium**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium**	(ma/ka)	32.6	21.8	39.2	65.3	24.8	52.0	58.6	38.6	24.6	47.5

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam	Silt Loam
	TP/BH	238	241	242	244	248	249	250	250	251	252
	Depth (m)	0.50	0.30	0.50	0.15	0.50	0.20	0.20	1.00	0.50	0.50
	Our ref	28680	28681	28682	28683	28684	28685	28686	28687	28688	28689
Stone Content	(%)	<1	8	<1	21	<1	9	13	<1	11	11
Arsenic**	(mg/kg)	27.2	23.1	29.0	15.8	25.0	19.7	17.9	15.9	22.5	19.1
Cadmium**	(mg/kg)	<0.5	0.6	0.5	<0.5	0.6	<0.5	0.7	<0.5	1.4	0.9
Chromium**	(mg/kg)	37	31	42	22	49	30	30	17	43	24
Lead**	(mg/kg)	15	19	30	15	130	42	68	8	101	39
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	27	23	30	16	34	21	19	13	26	21
Copper**	(mg/kg)	12	12	16	9	19	11	15	8	22	24
Zinc**	(mg/kg)	63	51	81	52	150	61	97	21	178	193
Selenium**	(mg/kg)	1.4	1.1	1.4	<0.5	1.4	0.9	0.8	0.8	1.2	1.2
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	0.9	0.9	1.2	0.8	0.8	1.2	0.7	<0.5	<0.5	<0.5
Antimony	(mg/kg)	<2.5	<2.5	<2.5	<2.5	7.4	<2.5	<2.5	<2.5	2.7	<2.5
Cobalt	(mg/kg)	12.8	10.8	13.5	6.9	13.5	8.9	7.5	5.3	11.3	7.9
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Barium**	(mg/kg)	88.8	77.6	108.4	55.8	341.2	102.6	216.1	29.0	510.5	77.3
Beryllium**	(mg/kg)	<1	<1	1.2	<1	1.2	<1	<1	<1	<1	<1
Vanadium**	(ma/ka)	87.2	69.6	88.7	46.2	89.3	65.4	53.4	58.9	68.7	65.0

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* =} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam
	TP/BH	253	253	254	259	264	265	266	267	268	272
	Depth (m)	0.10	0.50	0.20	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Our ref	28690	28691	28692	28693	28694	28695	28696	28697	28698	28699
Stone Content	(%)	7	8	12	<1	11	10	11	9	8	<1
Arsenic**	(mg/kg)	23.1	22.3	19.3	24.5	18.9	17.1	20.4	21.1	23.6	30.3
Cadmium**	(mg/kg)	0.8	<0.5	3.5	0.5	<0.5	<0.5	<0.5	<0.5	0.8	0.6
Chromium**	(mg/kg)	31	32	35	39	38	30	26	30	41	41
Lead**	(mg/kg)	51	17	117	22	24	17	28	27	55	36
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	23	23	21	29	27	29	20	26	27	31
Copper**	(mg/kg)	17	12	18	13	13	14	11	15	15	20
Zinc**	(mg/kg)	88	50	113	72	70	40	85	55	119	79
Selenium**	(mg/kg)	1.1	0.9	0.9	1.3	0.5	1.2	1.4	1.2	1.1	1.8
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	0.8	0.6	0.5	0.5	0.7	1.0	<0.5	0.8	0.7	0.8
Antimony	(mg/kg)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Cobalt	(mg/kg)	10.4	10.5	8.2	12.7	11.1	13.2	8.4	11.0	11.7	13.9
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Barium**	(mg/kg)	127.7	73.1	89.1	97.8	124.2	102.3	172.3	90.4	96.2	176.4
Beryllium**	(mg/kg)	<1	<1	<1	<1	124.2	3.0	<1	<1	<1	1.0
Vanadium**	(mg/kg)	65.6	73.9	58.0	71.6	60.5	73.0	56.2	62.0	71.1	86.5

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* =} UKAS accredited test



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA



Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils	Characteristic	Silt Loam Sa	andy silt loam	Clay loam	Silt Loam	Silt Loam	Silt Loam
	TP/BH	275	279	279	280	286	261
	Depth (m)	0.50	0.10	0.50	0.50	0.50	0.50
	Our ref	28700	28701	28702	28703	28704	28705
Stone Content	(%)	9	4	<1	8	11	<1
Arsenic**	(mg/kg)	23.9	23.2	30.0	14.9	17.5	21.8
Cadmium**	(mg/kg)	<0.5	0.7	0.5	<0.5	0.5	0.8
Chromium**	(mg/kg)	34	38	49	18	28	37
Lead**	(mg/kg)	53	112	26	13	41	42
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	27	24	34	13	22	24
Copper**	(mg/kg)	13	21	16	11	18	15
Zinc**	(mg/kg)	60	121	73	58	66	96
Selenium**	(mg/kg)	0.9	1.4	0.9	0.8	0.8	1.2
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	<0.5	0.6	0.6	<0.5	0.6	<0.5
Antimony	(mg/kg)	<2.5	4.4	<2.5	<2.5	<2.5	<2.5
Cobalt	(mg/kg)	10.9	9.5	14.3	5.4	9.8	9.6
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5
Barium**	(mg/kg)	90.2	168.6	113.3	46.0	154.5	104.8
Beryllium**	(mg/kg)	<1	<1	1.1	<1	<1	<1
Vanadium**	(mg/kg)	66.5	69.0	101.2	48.9	58.2	69.7

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* =} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silty clay loam	Silt Loam	Sand	Silty clay loam	Clay loam	Silt Loam	Silt Loam	Silt Loam	Sand	Sand
	TP/BH	229	230	231	232	233	234	235	236	237	238
	Depth (m)	0.50	0.50	0.50	1.00	0.50	0.20	0.20	0.50	0.20	0.25
	Our ref	28670	28671	28672	28673	28674	28675	28676	28677	28678	28679
pH Value**	(Units)	8.9	8.5	10.9	11.2	8.8	8.4	8.2	8.4	8.5	10.4
Total Sulphate	(% as SO ₄)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Soluble Sulphate	(mg/l as SO ₄)	69	58	127	110	38	31	27	28	13	205
Elemental Sulphur**	(mg/kg)	26	16	75	<10	<10	<10	<10	<10	<10	16
Total Organic Carbon*	(%)	0.6	n/t	n/t	n/t	n/t	n/t	n/t	n/t	0.3	0.5
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Moisture Content**	(%)	14.1	9.8	15.1	10.6	12.9	13.0	14.3	12.3	6.9	10.2
Total Petroleum Hydrocarbons**	(mg/kg)	52	51	6	65	23	14	6	10	157	5069

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam	Silt Loam
	TP/BH	238	241	242	244	248	249	250	250	251	252
	Depth (m)	0.50	0.30	0.50	0.15	0.50	0.20	0.20	1.00	0.50	0.50
	Our ref	28680	28681	28682	28683	28684	28685	28686	28687	28688	28689
pH Value**	(Units)	8.4	8.3	8.2	9.1	8.1	8.4	9.0	8.6	8.3	8.3
Total Sulphate	(% as SO ₄)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	3.1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	3.1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Soluble Sulphate	(mg/l as SO ₄)	28	10	10	15	<10	<10	<10	<10	<10	<10
Elemental Sulphur**	(mg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	13	<10
Total Organic Carbon*	(%)	n/t	n/t	n/t	n/t	n/t	n/t	n/t	n/t	n/t	n/t
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Moisture Content**	(%)	15.7	14.4	16.3	11.2	16.1	14.6	14.1	10.6	15.0	17.4
Total Petroleum Hydrocarbons**	(mg/kg)	<5	<5	<5	8	67	<5	19	17	7	6



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam
	TP/BH	253	253	254	259	264	265	266	267	268	272
	Depth (m)	0.10	0.50	0.20	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Our ref	28690	28691	28692	28693	28694	28695	28696	28697	28698	28699
pH Value**	(Units)	8.1	8.3	8.2	8.1	8.2	8.4	8.2	8.2	8.7	8.1
Total Sulphate	(% as SO ₄)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Soluble Sulphate	(mg/l as SO ₄)	<10	<10	<10	<10	<10	11	<10	<10	<10	<10
Elemental Sulphur**	(mg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total Organic Carbon*	(%)	n/t	n/t	n/t	n/t	n/t	n/t	n/t	n/t	n/t	n/t
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Moisture Content**	(%)	15.0	14.7	12.9	16.4	15.3	11.0	12.9	14.1	16.8	15.4
Total Petroleum Hydrocarbons**	(mg/kg)	<5	<5	38	<5	<5	798	<5	<5	113	44



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA



Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage
Jomas Associates Limited
Jomas House
21 Bradenham Road
Middlesex, UB4 8LP

Soils	Characteristic	Silt Loam	Sandy silt loam	Clay loam	Silt Loam	Silt Loam	Silt Loam
	TP/BH	275	279	279	280	286	261
	Depth (m)	0.50	0.10	0.50	0.50	0.50	0.50
	Our ref	28700	28701	28702	28703	28704	28705
pH Value**	(Units)	8.2	8.0	8.2	8.4	8.2	8.1
Total Sulphate	(% as SO ₄)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1
Water Soluble Sulphate	(mg/l as SO ₄)	<10	<10	<10	<10	<10	<10
Elemental Sulphur**	(mg/kg)	<10	<10	<10	<10	<10	<10
Total Organic Carbon*	(%)	n/t	n/t	n/t	n/t	n/t	n/t
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2
Moisture Content**	(%)	13.6	17.9	14.4	9.5	12.8	15.7
Total Petroleum Hydrocarbons**	(mg/kg)	<5	<5	<5	<5	<5	<5

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* =} UKAS accredited test



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA



Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils

Characteristic	Silty clay loam	Sand	Sand	Silt Loam
TP/BH	229	237	238	249
Depth (m)	0.50	0.20	0.25	0.20
Our ref	28670	28678	28679	28685
(%)	<1	40	27	9
(ua/ka)	~10	~10	~10	<10
(µg/kg)	<10	<10	<10	<10
(µg/kg)	<10	<10	<10	<10
(µg/kg)	<10	<10	<10	<10
(µg/kg)	<10	<10	<10	<10
(µg/kg)	<10	<10	<10	<10
(µg/kg)	<10	<10	<10	<10
	TP/BH Depth (m) Our ref (%) (µg/kg) (µg/kg) (µg/kg) (µg/kg) (µg/kg) (µg/kg) (µg/kg) (µg/kg)	Depth (m) 0.50 Our ref 28670 (%) <1 (μg/kg) <10 (μg/kg) <10 (μg/kg) <10 (μg/kg) <10 (μg/kg) <10 (μg/kg) <10 (μg/kg) <10 (μg/kg) <10 (μg/kg) <10	TP/BH 229 237 Depth (m) 0.50 0.20 Our ref 28670 28678 (%) <1 40 (μg/kg) <10 <10 (μg/kg) <10 <10 (μg/kg) <10 <10 (μg/kg) <10 <10 (μg/kg) <10 <10 (μg/kg) <10 <10 (μg/kg) <10 <10 (μg/kg) <10 <10 (μg/kg) <10 <10 (μg/kg) <10 <10	TP/BH 229 237 238 Depth (m) 0.50 0.20 0.25 Our ref 28670 28678 28679 (%) <1 40 27 (μg/kg) <10 <10 <10 (μg/kg) (μg/kg) <10 <10 <10 (μg/kg) (μg/kg) <10 <10 <10 (μg/kg) (μg/kg) <10 <10 <10 (μg/kg) (μg/kg) <10 <10 <10 (μg/kg) (μg/kg) <10 <10 <10 (μg/kg) (μg/kg) <10 <10 <10 (μg/kg) (μg/kg) <10 <10 <10 (μg/kg)

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128. Your Order No: 10 Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silty clay loam	Silt Loam	Sand	Silt Loam	Silt Loam	Silty clay loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam
	TP/BH	229	234	238	242	248	250	253	259	265	272
	Depth (m)	0.50	0.20	0.25	0.50	0.50	1.00	0.50	0.50	0.50	0.50
	Our ref	28670	28675	28679	28682	28684	28687	28691	28693	28695	28699
Stone Content	(%)	<1	8	27	<1	<1	<1	8	<1	10	<1
pH Value**	(Units)	8.9	8.4	10.4	8.2	8.1	8.6	8.3	8.1	8.4	8.1
Total Sulphate	(% as SO ₄)	0.13	0.06	0.14	0.06	0.07	0.07	< 0.05	0.08	< 0.05	0.08
Total Sulphur	(% as S)	< 0.05	< 0.05	0.07	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.07	< 0.05
Water Soluble Sulphate**	(mg/l as SO ₄)	60	<10	210	21	<10	<10	<10	10	55	<10
Water Soluble Chloride	(mg/l)	19	7	5	6	<5	<5	<5	<5	16	7
Water Soluble Nitrate	(mg/l)	<1	7	<1	6	<1	2	4	2	2	5
Water Soluble Magnesium	(mg/l)	0.5	0.4	0.2	0.5	0.5	0.3	0.4	0.4	0.4	0.5
Ammonium	(mg/l)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* =} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silty clay loam	Silt Loam	Sand	Silty clay loam	Clay loam	Silt Loam	Silt Loam	Silt Loam	Sand	Sand
	TP/BH	229	230	231	232	233	234	235	236	237	238
	Depth (m)	0.50	0.50	0.50	1.00	0.50	0.20	0.20	0.50	0.20	0.25
	Our ref	28670	28671	28672	28673	28674	28675	28676	28677	28678	28679
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	10.0
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	2.7	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	2.7	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	1.6	<0.5	<0.5	<0.5	<0.5	50.1	<0.5	<0.5	<0.5	4.9
Anthracene**	(mg/kg)	0.6	<0.5	<0.5	<0.5	<0.5	14.7	<0.5	<0.5	<0.5	2.8
Fluoranthene**	(mg/kg)	2.3	<0.5	<0.5	<0.5	<0.5	59.8	1.4	<0.5	<0.5	15.1
Pyrene**	(mg/kg)	1.8	<0.5	<0.5	<0.5	<0.5	47.9	1.2	<0.5	<0.5	13.4
Benz(a)anthracene**	(mg/kg)	1.0	<0.5	<0.5	<0.5	<0.5	27.4	0.7	<0.5	<0.5	10.0
Chrysene**	(mg/kg)	1.3	<0.5	<0.5	<0.5	<0.5	31.4	1.0	<0.5	<0.5	9.5
Benzo(b)fluoranthene**	(mg/kg)	1.2	<0.5	<0.5	<0.5	0.6	19.6	0.7	<0.5	<0.5	11.8
Benzo(k)fluoranthene**	(mg/kg)	1.3	<0.5	<0.5	<0.5	<0.5	19.0	0.8	<0.5	<0.5	11.4
Benzo(a)pyrene**	(mg/kg)	1.3	<0.5	<0.5	<0.5	0.6	20.8	0.6	<0.5	<0.5	11.5
Indeno(123-cd)pyrene**	(mg/kg)	1.2	<0.5	<0.5	<0.5	0.7	15.1	0.7	<0.5	<0.5	9.8
Dibenz(ah)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	3.6	<0.5	<0.5	<0.5	2.3
Benzo(ghi)perylene**	(mg/kg)	1.2	<0.5	<0.5	<0.5	0.7	12.1	0.7	<0.5	<0.5	10.2
Total PAH**	(mg/kg)	14.8	<0.5	<0.5	<0.5	2.5	329.4	7.9	<0.5	<0.5	122.7

All results expressed on dry weight basis

** - MCERTS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam	Silt Loam
	TP/BH	238	241	242	244	248	249	250	250	251	252
	Depth (m)	0.50	0.30	0.50	0.15	0.50	0.20	0.20	1.00	0.50	0.50
	Our ref	28680	28681	28682	28683	28684	28685	28686	28687	28688	28689
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	6.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	2.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	<0.5	<0.5	<0.5	17.2	2.0	<0.5	0.7	<0.5	<0.5	<0.5
Anthracene**	(mg/kg)	<0.5	<0.5	<0.5	4.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene**	(mg/kg)	<0.5	<0.5	0.8	17.8	6.0	<0.5	1.2	<0.5	0.7	0.8
Pyrene**	(mg/kg)	<0.5	<0.5	0.7	14.2	5.1	<0.5	0.9	<0.5	0.6	0.6
Benz(a)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	8.1	3.0	<0.5	0.6	<0.5	<0.5	<0.5
Chrysene**	(mg/kg)	<0.5	<0.5	0.7	8.7	4.4	<0.5	0.7	<0.5	<0.5	<0.5
Benzo(b)fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	5.6	2.9	<0.5	<0.5	<0.5	0.6	0.5
Benzo(k)fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	5.7	2.7	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene**	(mg/kg)	<0.5	<0.5	<0.5	6.4	2.7	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(123-cd)pyrene**	(mg/kg)	<0.5	<0.5	<0.5	4.3	1.9	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(ah)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	0.6	<0.5
Benzo(ghi)perylene**	(mg/kg)	<0.5	<0.5	<0.5	4.2	1.9	<0.5	<0.5	<0.5	<0.5	<0.5
Total PAH**	(mg/kg)	<0.5	<0.5	2.3	110.1	32.5	<0.5	4.1	<0.5	2.4	2.0

All results expressed on dry weight basis

** - MCERTS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam	Silt Loam	Silty clay loam	Silt Loam
	TP/BH	253	253	254	259	264	265	266	267	268	272
	Depth (m)	0.10	0.50	0.20	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Our ref	28690	28691	28692	28693	28694	28695	28696	28697	28698	28699
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	5.2	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	6.4	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	0.9	<0.5	<0.5	<0.5	<0.5	39.8	<0.5	<0.5	4.1	0.8
Anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	12.6	<0.5	<0.5	1.2	<0.5
Fluoranthene**	(mg/kg)	2.9	<0.5	<0.5	<0.5	<0.5	41.2	<0.5	<0.5	4.6	3.2
Pyrene**	(mg/kg)	2.6	<0.5	<0.5	<0.5	<0.5	31.0	<0.5	<0.5	3.7	3.1
Benz(a)anthracene**	(mg/kg)	1.4	<0.5	<0.5	<0.5	<0.5	16.9	<0.5	<0.5	2.4	2.1
Chrysene**	(mg/kg)	1.5	<0.5	<0.5	<0.5	<0.5	17.0	<0.5	<0.5	2.4	2.8
Benzo(b)fluoranthene**	(mg/kg)	1.3	<0.5	<0.5	<0.5	<0.5	11.8	<0.5	<0.5	2.1	3.2
Benzo(k)fluoranthene**	(mg/kg)	1.3	<0.5	<0.5	<0.5	<0.5	11.0	<0.5	<0.5	1.4	2.5
Benzo(a)pyrene**	(mg/kg)	1.3	<0.5	<0.5	<0.5	<0.5	12.2	<0.5	<0.5	1.7	2.7
Indeno(123-cd)pyrene**	(mg/kg)	1.1	<0.5	<0.5	<0.5	<0.5	8.5	<0.5	<0.5	1.2	3.8
Dibenz(ah)anthracene**	(mg/kg)	0.6	<0.5	<0.5	<0.5	<0.5	2.2	<0.5	<0.5	0.6	0.9
Benzo(ghi)perylene**	(mg/kg)	1.3	<0.5	<0.5	<0.5	<0.5	7.9	<0.5	<0.5	1.8	4.2
Total PAH**	(mg/kg)	16.2	<0.5	<0.5	<0.5	<0.5	224.5	<0.5	<0.5	27.2	29.5

All results expressed on dry weight basis

** - MCERTS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.

10

Reporting Date: 23/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt Loam San	dy silt loam	Clay loam	Silt Loam	Silt Loam	Silt Loam
	TP/BH	275	279	279	280	286	261
	Depth (m)	0.50	0.10	0.50	0.50	0.50	0.50
	Our ref	28700	28701	28702	28703	28704	28705
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	<0.5	1.2	<0.5	<0.5	<0.5	<0.5
Anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene**	(mg/kg)	<0.5	2.7	<0.5	<0.5	1.2	0.8
Pyrene**	(mg/kg)	<0.5	1.2	<0.5	<0.5	1.0	0.7
Benz(a)anthracene**	(mg/kg)	<0.5	0.6	<0.5	<0.5	0.6	<0.5
Chrysene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	0.9	0.7
Benzo(b)fluoranthene**	(mg/kg)	<0.5	1.2	<0.5	<0.5	0.7	0.6
Benzo(k)fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	0.6	<0.5
Indeno(123-cd)pyrene**	(mg/kg)	<0.5	0.7	<0.5	<0.5	0.6	<0.5
Dibenz(ah)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(ghi)perylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	0.8	<0.5
Total PAH**	(mg/kg)	<0.5	7.7	<0.5	<0.5	6.4	2.8

All results expressed on dry weight basis

** - MCERTS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Sand

Sand

Location: Upper Heyford NSA

Silt Loam

Silt Loam

Silt Loam

Silt Loam

Silt Loam

Your Job No: P8251J128.

10

Silt Loam

Reporting Date: 23/03/12

Silt Loam

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

TPH CWG - Soil

Characteristic Silty clay loam

Noau	Ondraotonotio On	ity olay loaili	Cana	Cana	One Louin	Olit Louin	Olit Loaili	Olit Louin	One Louin	One Louin	One Louin
4 8LP	TP/BH	229	237	238	244	249	251	253	254	275	286
	Depth (m)	0.50	0.20	0.25	0.15	0.20	0.50	0.10	0.20	0.50	0.50
	Our ref	28670	28678	28679	28683	28685	28688	28690	28692	28700	28704
Aromatic											
>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₇ -EC ₈	(mg/kg)	<0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
>EC ₈ -EC ₁₀	(mg/kg)	0.2	0.1	14.6	<0.1	<0.1	0.1	0.1	0.1	0.1	0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	0.2	<0.1	23.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	1.3	<0.1	24.7	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1
>EC ₁₆ -EC ₂₁	(mg/kg)	5.4	1.9	1.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	27.9	55.0	16.3	1.4	0.6	<0.1	<0.1	20.0	2.3	2.6
<u>Aliphatic</u>											
>EC ₅ -EC ₆	(mg/kg)	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₆ -EC ₈	(mg/kg)	<0.01	< 0.01	<0.01	< 0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1	959.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1	1402.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	0.6	0.4	1870.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC ₁₆ -EC ₂₁	(mg/kg)	0.8	2.3	125.4	0.7	0.1	0.3	<0.1	<0.1	<0.1	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	7.4	42.8	585.7	3.8	2.3	5.7	1.1	9.6	0.6	<0.1
TPH (C ₅ - C ₃₅)	(mg/kg)	43.7	102.5	5023.8	5.8	3.0	6.2	1.6	29.7	3.0	2.7
Benzene	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Toluene	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Xylenes	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
MTBE	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

All results expressed on dry weight basis

^{** -} MCERTS accredited test



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Your Job No: P8251J128.

10

Reporting Date: 23/03/12

VOC ANALYSIS

		Characteristic	Silty clay loam	Silt Loam	Sand	Sand	Silty clay loam
Soils		TP/BH	229	236	237	238	265
		Depth (m)	0.50	0.50	0.20	0.25	0.50
		Our ref	28670	28677	28678	28679	28695
	Benzene**	(µg/kg)	<10	<10	<10	<10	<10
	Toluene**	(µg/kg)	<10	<10	<10	<10	<10
	Ethyl Benzene**	(µg/kg)	<10	<10	<10	<10	<10
	mpXylene**	(µg/kg)	<10	<10	<10	127	<10
	oXylene**	(µg/kg)	<10	<10	<10	154	<10
	1, 2-Dichloroethene-cis**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1-Dichloroethane**	(µg/kg)	<10	<10	<10	<10	<10
	Chloroform**	(µg/kg)	<10	<10	<10	<10	<10
	Carbontetrachloride**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1, 1-Trichloroethane**	(µg/kg)	<10	<10	<10	<10	<10
	Trichloroethylene**	(µg/kg)	<10	<10	<10	<10	<10
	Tetrachloroethylene**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1, 1, 2-Tetrachloroethane**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1, 2, 2-Tetrachloroethane**	(µg/kg)	<10	<10	<10	<10	<10
	Chlorobenzene**	(µg/kg)	<10	<10	<10	<10	<10
	Bromobenzene**	(µg/kg)	<10	<10	<10	<10	<10
	Bromodichloromethane**	(µg/kg)	<10	<10	<10	<10	<10
	Methylethylbenzene**	(µg/kg)	<10	<10	<10	<10	<10
	1, 1-Dichloro-1-propene**	(µg/kg)	<10	<10	<10	<10	<10
	1, 2-Dichloroethene-trans	(µg/kg)	<10	<10	<10	<10	<10
	2, 2-Dichloropropane	(µg/kg)	<10	<10	<10	<10	<10
	Bromochloromethane	(µg/kg)	<10	<10	<10	<10	<10
	1, 2-Dichloroethane	(µg/kg)	<10	<10	<10	<10	<10
	Dibromomethane**	(µg/kg)	<10	<10	<10	<10	<10
	1, 2-Dichloropropane**	(µg/kg)	<10	<10	<10	<10	<10
	1, 3-Dichloro1propene**	(µg/kg)	<10	<10	<10	<10	<10
	1, 3-Dichloro1propene trans	(µg/kg)	<10	<10	<10	<10	<10
	1, 1, 2-Trichloroethane	(µg/kg)	<10	<10	<10	<10	<10
	Dibromochloromethane	(µg/kg)	<10	<10	<10	<10	<10
	1, 3-Dichloropropane	(µg/kg)	<10	<10	<10	<10	<10
	Dibromoethane**	(µg/kg)	<10	<10	<10	<10	<10
	Styrene	(µg/kg)	<10	<10	<10	<10	<10
	Propylbenzene	(µg/kg)	<10	<10	<10	<10	<10
	2-Chlorotoluene	(µg/kg)	<10	<10	<10	<10	<10
	1, 2, 4-Trimethylbenzene 4-Chlorotoluene	(µg/kg)	<10	<10	<10	<10	<10
	t-Butylbenzene	(μg/kg)	<10	<10	<10	<10	<10
	Trimethylbenzene	(μg/kg)	<10	<10	<10	<10	<10
	1-Methylpropylbenzene	(μg/kg)	<10	<10	<10	384	<10
	o-Cymene	(µg/kg)	<10	<10	<10	<10	<10
	1, 4-Dichlorobenzene	(µg/kg)	<10 <10	<10 <10	<10 <10	34	<10
	Butylbenzene	(µg/kg)				<10	<10
	1, 2-Dibromo-3-chloropropane	(µg/kg)	<10	<10 <10	<10	16 <10	<10
	Hexachlorobutaciene	(µg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
	1. 2. 3-Trichlorobenzene	(µg/kg) (µg/kg)	<10 <10	<10	<10	<10	<10 <10
	1, 2, 4-Trichlorobenzene	(μg/kg) (μg/kg)	<10	<10	<10	<10	<10
	1, 3-Dichlorobenzene	(μg/kg) (μg/kg)	<10	<10	<10	<10	<10
	1, 2-Dichlorobenzene	(μg/kg) (μg/kg)	<10 <10	<10	<10	<10	<10 <10
	Bromoform	(μg/kg) (μg/kg)	<10	<10	<10	<10	<10
	Bromolom	(µg/ng)	\10	<10	~10	<10	~10

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Your Job No: P8251J128.

10

Reporting Date: 23/03/12

SVOC ANALYSIS

• "	TD (D.)	200	000	007	000	005
<u>Soils</u>	TP/BH	229	236	237	238	265
	Depth (m)	0.50	0.50	0.20	0.25	0.50
	Our ref	28670	28677	28678	28679	28695
Pyridine	(µg/kg)	<10	<10	<10	<10	<10
Aniline	(µg/kg)	<10	<10	<10	<10	<10
Phenol	(µg/kg)	12	<10	<10	<10	17
Bis(2-chloroethyl) ether	(µg/kg)	<10	<10	<10	<10	<10
Benzene, 1,3-dichloro-	(µg/kg)	<10	<10	<10	<10	<10
Benzene, 1,4-dichloro-	(µg/kg)	<10	<10	<10	<10	<10
Benzene, 1,2-dichloro-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2-methyl-	(µg/kg)	<10	<10	<10	<10	<10
Ethane, hexachloro-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 3-methyl-	(µg/kg)	<10	<10	<10	<10	<10
Nitrobenzene	(µg/kg)	<10	<10	<10	<10	<10
Isophorone Phenol, 2-nitro-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2,4-dimethyl-	(µg/kg) (µg/kg)	<10 17	<10 <10	<10 <10	<10 <10	<10 <10
Methane, bis(2-chloroethoxy)-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2,4-dichloro-	(μg/kg)	<10	<10	<10	<10	<10
1,3,4-Trichlorobenzene,	(µg/kg)	<10	<10	<10	<10	<10
Naphthalene	(µg/kg)					
4-Chloroaniline	(µg/kg)	<10	<10	<10	<10	<10
Hexachloro-1,3-butadiene	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 4-chloro-3-methyl-	(µg/kg)	<10	<10	<10	<10	<10
Naphthalene, 2-methyl-	(µg/kg)	60	<10	15	<10	95
Naphthalene, 1-methyl-	(µg/kg)	71	<10	18	<10	138
Hexachlorocyclopentadiene	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2,4,6-trichloro-	(µg/kg)	<10	<10	<10	<10	<10
Phenol, 2,4,5-trichloro-	(µg/kg)	<10	<10	<10	<10	<10
Naphthalene, 2-chloro- 2-Nitroaniline	(µg/kg) (µg/kg)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10
1,4-Dinitrobenzene,	(μg/kg)	<10	<10	<10	<10	<10
Dimethylphthalate	(μg/kg)	<10	<10	<10	<10	<10
Acenaphthylene	(µg/kg)					
1.3-Dinitrobenzene	(µg/kg)	<10	<10	<10	<10	<10
3-Nitroaniline	(µg/kg)	<10	<10	<10	<10	<10
Acenaphthene	(µg/kg)					
Dibenzofuran	(µg/kg)	321	<10	<10	<10	410
2,4-Dinitrotoluene	(µg/kg)	<10	<10	<10	<10	<10
2,3,4,6-Tetrachlorophenol,	(µg/kg)	<10	<10	<10	<10	<10
2,3,5,6-Tetrachlorophenol,	(µg/kg)	<10	<10	<10	<10	<10
Diethylphthalate	(µg/kg)	13	<10	14	<10	37
Fluorene Diphenylamine	(µg/kg) (µg/kg)	 <10	 <10	<10	<10	<10
Azobenzene	(μg/kg)	<10	<10	<10	<10	<10
4-Bromophenyl phenyl ether	(µg/kg)	<10	<10	<10	<10	<10
Hexachlorobenzene	(µg/kg)	<10	<10	<10	<10	<10
Pentachlorophenol	(µg/kg)	<10	<10	<10	<10	<10
Phenanthrene	(µg/kg)					
Anthracene	(µg/kg)					
Fluoranthene	(µg/kg)					
Pyrene	(µg/kg)					
Benzylbutylphthalate	(µg/kg)	<10	<10	<10	<10	<10
Bis(2-ethylhexyl)adipate	(µg/kg)	<10	<10	<10	<10	<10
Benzo(a)anthracene	(µg/kg)					
Chrysene Bis(2-ethylhexyl)phthalate	(µg/kg) (µg/kg)	 <10	<10	<10	<10	<10
Benzo(b)fluoranthene	(μg/kg) (μg/kg)	<10	<10	<10	<10	<10
Benzo(k)fluoranthene	(μg/kg)					
Benzo(a)pyrene	(µg/kg)					
Indeno[1,2,3-cd]pyrene	(µg/kg)					
Dibenz(ah)anthracene	(µg/kg)					
Benzo(ghi)perylene	(µg/kg)					



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Fax: 01424 729911 Tel: 01424 718618

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

F.A.O. Roni Savage **Jomas Associates Limited Jomas House** 21 Bradenham Road Middlesex, UB4 8LP

Your Job No: P8251J128. 23/03/12 Reporting Date:

Asbestos Identification

Depth (m) 0.50 Our ref: 28670 #Description of Sample Matrix: Silty clay loam *Result No asbestos identified	Sample ref:	229
	Our ref: #Description of Sample Matrix:	28670 Silty clay loam

Sample ref:	234
Depth (m)	0.20
Our ref:	28675
#Description of Sample Matrix:	Silt Loam
*Result	No asbestos identified

Sample ref:	235
Depth (m)	0.20
Our ref:	28676
#Description of Sample Matrix:	Silt Loam
*Result	No asbestos identified

Sample ref:	236
Depth (m)	0.50
Our ref:	28677
#Description of Sample Matrix:	Silt Loam
*Result	No asbestos identified

Sample ref:	237
Depth (m)	0.20
Our ref:	28678
#Description of Sample Matrix:	Sand
*Result	No asbestos identified

Sample ref:	238
Depth (m)	0.25
Our ref:	28679
#Description of Sample Matrix:	Sand
*Result	No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Your Job No: P8251J128.

10
Reporting Date: 23/03/12

Asbestos Identification

241 Sample ref: Depth (m) 0.30 Our ref: 28681 #Description of Sample Matrix: Silt Loam *Result No ashestos identified Sample ref: 242 Depth (m) 0.50 Our ref: 28682 **#Description of Sample Matrix:** Silt Loam *Result No asbestos identified Sample ref: 244 Depth (m) 0.15 28683 Our ref: **#Description of Sample Matrix:** Silt Loam No asbestos identified *Result Sample ref: 248 Depth (m) 0.50 28684 Our ref: #Description of Sample Matrix: Silt Loam *Result No asbestos identified Sample ref: 249 Depth (m) 0.20 Our ref: 28685 **#Description of Sample Matrix:** Silt Loam *Result No asbestos identified

*= UKAS accredited

Analytical result only applies to the sample as submitted by the client

Sample ref:

#Description of Sample Matrix:

Depth (m)

Our ref:

*Result

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only

which must be verified by the client

250

0.20

28686

Silt Loam

No asbestos identified



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Your Job No: P8251J128. 10 Reporting Date: 23/03/12

Asbestos Identification

 Sample ref:
 251

 Depth (m)
 0.50

 Our ref:
 28688

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 254

 Depth (m)
 0.20

 Our ref:
 28692

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 265

 Depth (m)
 0.50

 Our ref:
 28695

 #Description of Sample Matrix:
 Silty clay loam

 *Result
 Chrysotile (White Asbestos)

Sample ref: 267
Depth (m) 0.50
Our ref: 28697
#Description of Sample Matrix: Silt Loam
*Result No asbestos identified

 Sample ref:
 268

 Depth (m)
 0.50

 Our ref:
 28698

 #Description of Sample Matrix:
 Silty clay loam

 *Result
 No asbestos identified

 Sample ref:
 272

 Depth (m)
 0.50

 Our ref:
 28699

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Your Job No: P8251J128.

10
Reporting Date: 23/03/12

Asbestos Identification

 Sample ref:
 275

 Depth (m)
 0.50

 Our ref:
 28700

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 279

 Depth (m)
 0.10

 Our ref:
 28701

 #Description of Sample Matrix:
 Sandy silt loam

 *Result
 No asbestos identified

 Sample ref:
 286

 Depth (m)
 0.50

 Our ref:
 28704

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

 Sample ref:
 261

 Depth (m)
 0.50

 Our ref:
 28705

 #Description of Sample Matrix:
 Silt Loam

 *Result
 No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

GM

^{*=} UKAS accredited





THE ENVIRONMENTAL LABORATORY LTD

SAMPLE RECEIPT AND TEST DATES

05/03/12

 Our Analytical Report Number
 AR37278A

 Your Job No:
 P8251J128.10

 Sample Receipt Date:
 16/02/12

 Reporting Date:
 23/03/12

 Registered:
 16/02/12

 Prepared:
 17/02/12

TEST METHOD SUMMARY

Analysis complete:

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
Arsenic**	Air dried sample	24/02/12	118	ICPMS
Cadmium**	Air dried sample	24/02/12	118	ICPMS
Chromium**	Air dried sample	24/02/12	118	ICPMS
Lead**	Air dried sample	24/02/12	118	ICPMS
Mercury**	Air dried sample	24/02/12	118	ICPMS
Nickel**	Air dried sample	24/02/12	118	ICPMS
Copper**	Air dried sample	24/02/12	118	ICPMS
Zinc**	Air dried sample	24/02/12	118	ICPMS
Selenium**	Air dried sample	24/02/12	118	ICPMS
Hexavalent Chromium	As submitted sample	29/02/12	110	Colorimetry
Water Soluble Boron	Air dried sample	23/02/12	202	Colorimetry
Antimony	Air dried sample	23/02/12	118	ICPMS
Cobalt	Air dried sample	23/02/12	118	ICPMS
Molybdenum	Air dried sample	23/02/12	118	ICPMS
Barium**	Air dried sample	23/02/12	118	ICPMS
Beryllium**	Air dried sample	23/02/12	118	ICPMS
Vanadium**	Air dried sample	23/02/12	118	ICPMS
pH Value**	Air dried sample	23/02/12	113	Probe
Total Sulphate	Air dried sample	27/02/12	208	Colorimetry
Total Cyanide**	As submitted sample	02/03/12	204	Automated Flow Digital Colorimetry
Free Cyanide	As submitted sample	02/03/12	107	Colorimetry
Complex Cyanide	As submitted sample	02/03/12	145	Colorimetry
Total Monohydric Phenols**	As submitted sample	24/02/12	121	HPLC
Water Soluble Sulphate	Air dried sample	24/02/12	209	Colorimetry
Elemental Sulphur**	Air dried sample	25/02/12	122	HPLC
Total Organic Carbon*	Air dried sample	24/02/12	111	Titration
Thiocyanate	As submitted sample	29/02/12	146	Colorimetry
Moisture Content**	As submitted sample	21/02/12	96	Gravimetric
Speciated PAH**	As submitted sample	24/02/12	133	Gas Chromatography
Carbon Banding (TPH BCB)**	As submitted sample	24/02/12	117	Gas chromatography
Carbon Banding (TPH CWG)	As submitted sample	24/02/12	214	Gas chromatography
VOC**	As submitted sample	23/02/12	181	GCMS
SVOC	As submitted sample	27/02/12	167	GCMS
PCB**(7 Congeneres)	Air dried sample	28/02/12	178	GCMS
Asbestos*	As submitted sample	28/02/12	179	see note

Asbestos analysis qualitative only

Note:- Documented In-house procedure based on HSG 248 2005

Determinands not marked with * or ** are not accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

^{* =} UKAS Accredited test

^{** -} MCERTS Accredited test





THE ENVIRONMENTAL LABORATORY LTD

SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR37278A
Your Job No: P8251J128.10
Sample Receipt Date: 16/02/12
Reporting Date: 23/03/12

 Registered:
 16/02/12

 Prepared:
 17/02/12

 Analysis complete:
 05/03/12

TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
pH Value**	Air dried sample	23/02/12	113	BRE SD1
Total Sulphate	Air dried sample	24/02/12	115	BRE SD1
Total Sulphur	Air dried sample	23/02/12	216	BRE SD1
Water Soluble Sulphate**	Air dried sample	24/02/12	172	BRE SD1
Water Soluble Nitrate	Air dried sample	24/02/12	172	BRE SD1
Water Soluble Chloride	Air dried sample	24/02/12	172	BRE SD1
Water Soluble Magnesium	Air dried sample	23/02/12	101	BRE SD1
Ammonium	As submitted sample	23/02/12	151	BRE SD1

Determinands not marked with * or ** are non accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

^{* =} UKAS Accredited test

^{** -} MCERTS Accredited test





THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 04/04/12

ANALYTICAL REPORT No. AR37536A (Supplementary Report)

Samples Received By:- Courier

Samples Received:- 02/03/12

Site Location: Upper Heyford

No Samples Received:- 30

Steve Knight Director



Mike Varley BSc, CChem, CSci, FRSC Chief Chemist



ELAB

Reporting Date: 04/04/12

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House

21 Bradenham Road Middlesex, UB4 8LP

Soils	Characteristic Sandy silt loa	m Silt clay loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt Ioam
	TP/BH 2	39 240	245	246	247	257	258	262	263	269
	Depth (m) 0.	0.50	0.50	0.50	0.50	0.50	0.50	0.15	0.50	0.40
	Our ref 305	30503	30504	30505	30506	30507	30508	30509	30510	30511
Stone Content	(%)	9	<1	15	<1	<1	<1	11	<1	5
Arsenic**	(mg/kg) 13	.0 14.2	25.0	11.4	26.8	29.3	25.9	25.0	22.9	23.9
Cadmium**	(mg/kg) <(.5 <0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.7	<0.5	1.0
Chromium**	(mg/kg)	.8 21	38	13	42	42	40	64	33	33
Lead**	(mg/kg)	.6 27	38	11	36	35	28	394	46	73
Mercury**	(mg/kg) <(.5 <0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	.4 19	29	11	30	32	31	32	24	25
Copper**	(mg/kg)	.1 12	17	6	16	19	16	32	14	24
Zinc**	(mg/kg)	85 89	82	45	75	83	68	516	84	79
Selenium**	(mg/kg) <(.5 0.6	0.8	<0.5	0.9	0.9	0.8	1.1	0.8	0.7
Hexavalent Chromium	(mg/kg)	2 <2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg) <(.5 <0.5	0.5	<0.5	0.7	0.9	0.6	0.6	0.6	1.2
Antimony	(mg/kg) <2	.5 <2.5	<2.5	<2.5	<2.5	<2.5	<2.5	3.6	<2.5	<2.5
Cobalt	(mg/kg) 5	.7 8.2	12.7	<5	13.7	14.8	13.7	12.2	10.2	11.1
Molybdenum	(mg/kg)	5 <5	<5	<5	<5	<5	<5	<5	<5	<5
Barium**	(mg/kg)	10 75	134	36	124	110	102	615	105	115
Beryllium**	(mg/kg)	:1 <1	1	<1	1	1	1	1	<1	1
Vanadium**	(mg/kg)	37 43	73	33	85	82	73	60	65	62

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford



Reporting Date: 04/04/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

mas House . Bradenham Road

<u>Soils</u>	Characteristic	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Chalk	Silt loam	Silt loam
	TP/BH	270	271	274	276	277	278	281	282	283	285
	Depth (m)	0.50	0.50	0.50	0.50	0.50	0.50	0.20	0.50	0.30	0.50
	Our ref	30512	30513	30514	30515	30516	30517	30518	30519	30520	30521
Stone Content	(%)	17	11	8	6	21	<1	15	27	9	6
Arsenic**	(mg/kg)	19.9	19.7	22.6	22.3	14.4	<5	18.0	8.3	19.2	21.6
Cadmium**	(mg/kg)	2.1	<0.5	<0.5	1.5	<0.5	4.0	1.8	<0.5	<0.5	1.5
Chromium**	(mg/kg)	32	29	32	31	20	32	60	14	18	34
Lead**	(mg/kg)	59	46	44	59	28	53	251	9	9	90
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	2.9	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	24	23	23	23	14	15	18	9	11	26
Copper**	(mg/kg)	20	18	16	18	17	70	19	6	6	24
Zinc**	(mg/kg)	90	86	75	96	52	22	375	40	31	535
Selenium**	(mg/kg)	0.8	1.0	0.6	0.7	0.6	1.7	0.6	<0.5	<0.5	1.0
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	0.9	0.7	0.7	0.7	<0.5	1.0	0.8	1.0	1.6	1.2
Antimony	(mg/kg)	<2.5	<2.5	<2.5	3.0	<2.5	168.5	<2.5	<2.5	<2.5	2.6
Cobalt	(mg/kg)	10.4	9.8	10.7	10.0	6.1	10.2	8.6	<5	18.1	10.6
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Barium**	(mg/kg)	179	115	123	116	65	<10	1279	41	28	482
Beryllium**	(mg/kg)	1	1	<1	<1	<1	<1	<1	<1	<1	1
Vanadium**	(mg/kg)	54	55	64	65	50	74	52	20	35	65

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 04/04/12

<u>Soils</u>	Characteristic	Silt loam	Silt loam	Silt loam	Silt loam	Silt clay loam	Silt loam	Silt loam	Silt loam	Silt loam
	TP/BH	288	289	290	291	292	CBR1	CBR2	CBR3	CBR5
	Depth (m)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Our ref	30522	30523	30524	30525	30526	30527	30528	30529	30530
Stone Content	(%)	7	<1	12	6	<1	10	5	<1	<1
Arsenic**	(mg/kg)	23.8	22.1	15.7	17.6	5.1	13.7	22.9	25.8	6.4
Cadmium**	(mg/kg)	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium**	(mg/kg)	47	37	24	29	12	21	37	42	13
Lead**	(mg/kg)	83	22	24	26	22	17	30	72	8
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel**	(mg/kg)	27	27	17	23	13	16	27	30	10
Copper**	(mg/kg)	17	13	10	12	12	9	14	13	5
Zinc**	(mg/kg)	230	71	132	56	12	34	67	74	24
Selenium**	(mg/kg)	0.9	0.9	0.6	1.0	<0.5	0.8	0.6	0.7	<0.5
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	0.7	0.6	0.7	1.0	0.5	0.7	0.6	0.6	<0.5
Antimony	(mg/kg)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Cobalt	(mg/kg)	11.7	12.2	7.1	10.1	5.2	7.7	11.5	13.0	5.1
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Barium**	(mg/kg)	186	94	117	68	21	41	85	87	20
Beryllium**	(mg/kg)	1	1	<1	<1	<1	<1	1	1	<1
Vanadium**	(mg/kg)	66	66	43	56	18	43	72	92	21

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road

Middlesex, UB4 8LP

Reporting Date: 04/04/12

<u>Soils</u>	Characteristic Sa	andy silt loam	Silt clay loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam
	TP/BH	239	240	245	246	247	257	258	262	263	269
	Depth (m)	0.30	0.50	0.50	0.50	0.50	0.50	0.50	0.15	0.50	0.40
	Our ref	30502	30503	30504	30505	30506	30507	30508	30509	30510	30511
pH Value**	(Units)	8.5	8.6	8.3	8.5	8.4	8.2	8.2	8.1	8.3	8.6
Total Sulphate	(% as SO ₄)	< 0.05	< 0.05	0.07	<0.05	0.05	0.08	<0.05	< 0.05	< 0.05	< 0.05
Total Cyanide**	(mg/kg)	<1	<1	<1	1.3	<1	<1	<1	4.3	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	1.3	<1	<1	<1	4.3	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Soluble Sulphate	(mg/I as SO ₄)	16	<10	<10	10	<10	28	<10	<10	<10	<10
Elemental Sulphur**	(mg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total Organic Carbon*	(%)	0.6	n/t	2.1	n/t	n/t	1.2	n/t	n/t	n/t	<2
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1
Moisture Content**	(%)	12.2	11.7	17.3	8.8	15.4	15.1	15.4	16.7	13.7	15.7
Total Petroleum Hydrocarbons**	(mg/kg)	26.7	1.3	1.9	<5	2.5	2.9	8.0	44.9	3.9	47.6

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford



Reporting Date: 04/04/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Chalk	Silt loam	Silt loam
	TP/BH	270	271	274	276	277	278	281	282	283	285
	Depth (m)	0.50	0.50	0.50	0.50	0.50	0.50	0.20	0.50	0.30	0.50
	Our ref	30512	30513	30514	30515	30516	30517	30518	30519	30520	30521
pH Value**	(Units)	8.5	8.2	8.3	8.2	8.3	8.4	9.8	11.7	11.8	9.1
Total Sulphate	(% as SO ₄)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	<0.05	<0.05
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	3.7	190.0	<1	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	3.6	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	3.7	186.4	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Water Soluble Sulphate	(mg/I as SO ₄)	<10	<10	<10	<10	<10	<10	45	<10	31	<10
Elemental Sulphur**	(mg/kg)	25	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total Organic Carbon*	(%)	n/t	n/t	0.7	1.1	n/t	n/t	n/t	<0.1	n/t	<2
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	3.6
Moisture Content**	(%)	13.6	13.2	12.5	13.9	10.7	13.1	15.2	8.2	11.3	18.5
Total Petroleum Hydrocarbons**	(mg/kg)	22.8	19.0	57.9	8.7	40.7	6.8	22.3	7.7	<5	19.7

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road

Middlesex, UB4 8LP

Reporting Date: 04/04/12

<u>Soils</u>	Characteristic	Silt Ioam	Silt loam	Silt loam	Silt loam	Silt clay loam	Silt loam	Silt loam	Silt loam	Silt loam
	TP/BH	288	289	290	291	292	CBR1	CBR2	CBR3	CBR5
	Depth (m)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Our ref	30522	30523	30524	30525	30526	30527	30528	30529	30530
pH Value**	(Units)	8.6	8.5	8.5	8.3	8.4	8.5	8.3	8.3	8.6
Total Sulphate	(% as SO ₄)	< 0.05	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	<0.05	<0.05
Total Cyanide**	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1
Free Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1
Complex Cyanide	(mg/kg)	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	<1	<1	<1	2.0	<1	<1	<1	<1
Water Soluble Sulphate	(mg/I as SO ₄)	<10	<10	<10	<10	<10	<10	<10	<10	<10
Elemental Sulphur**	(mg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total Organic Carbon*	(%)	n/t	1.0	n/t	n/t	0.4	n/t	1.0	n/t	n/t
Thiocyanate	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2
Moisture Content**	(%)	15.5	14.9	11.5	17.1	13.4	12.6	16.8	15.5	12.6
Total Petroleum Hydrocarbons**	(mg/kg)	<5	8.3	<5	<5	6.0	<5	9.0	7.3	<5

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



2683

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

THE ENVIRONMENTAL LABORATORY LTD

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618

Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

(µg/kg)

(µg/kg)

(µg/kg)

(µg/kg)

<10

<10

<10

<10

Location: Upper Heyford



Reporting Date: 04/04/12

Soils

	Characteristic TP/BH Depth (m) Our ref	Sandy silt loam 239 0.30 30502
PCB (7 ICES Congeners)		
PCB 28**	(µg/kg)	<10
PCB 52**	(µg/kg)	<10
PCB 101**	(µg/kg)	<10

PCB 118**

PCB 138**

PCB 153**

PCB 180**

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



ELAB

Unit A2, Windmilli Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

Reporting Date: 04/04/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Sandy silt loam	Silt clay loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam
	TP/BH	239	240	245	246	247	257	258	262	263	269
	Depth (m)	0.30	0.50	0.50	0.50	0.50	0.50	0.50	0.15	0.50	0.40
	Our ref	30502	30503	30504	30505	30506	30507	30508	30509	30510	30511
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	1.4
Anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
Fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	3.7
Pyrene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	3.2
Benz(a)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	2.0
Chrysene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	2.2
Benzo(b)fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	2.1
Benzo(k)fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	<0.5	2.3
Benzo(a)pyrene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.5
Indeno(123-cd)pyrene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	2.4
Dibenz(ah)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7
Benzo(ghi)perylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	2.0
Total PAH**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	9.1	<0.5	24.1

All results expressed on dry weight basis

** - MCERTS accredited test



ELAB

Unit A2, Windmilli Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

Reporting Date: 04/04/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Soils</u>	Characteristic	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Chalk	Silt loam	Silt loam
	TP/BH	270	271	274	276	277	278	281	282	283	285
	Depth (m)	0.50	0.50	0.50	0.50	0.50	0.50	0.20	0.50	0.30	0.50
	Our ref	30512	30513	30514	30515	30516	30517	30518	30519	30520	30521
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	<0.5	<0.5	2.2	<0.5	1.3	<0.5	<0.5	<0.5	0.6	<0.5
Anthracene**	(mg/kg)	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene**	(mg/kg)	<0.5	1.5	5.2	<0.5	4.2	<0.5	0.7	<0.5	3.3	2.1
Pyrene**	(mg/kg)	<0.5	1.4	4.1	<0.5	3.3	<0.5	0.6	<0.5	3.1	1.7
Benz(a)anthracene**	(mg/kg)	<0.5	0.9	2.5	<0.5	2.4	<0.5	0.6	<0.5	2.4	1.4
Chrysene**	(mg/kg)	<0.5	1.1	3.2	<0.5	2.7	<0.5	0.7	<0.5	2.7	1.4
Benzo(b)fluoranthene**	(mg/kg)	<0.5	0.9	2.5	<0.5	1.9	<0.5	0.7	<0.5	2.8	1.1
Benzo(k)fluoranthene**	(mg/kg)	<0.5	1.1	2.6	<0.5	2.4	<0.5	0.8	<0.5	3.1	1.6
Benzo(a)pyrene**	(mg/kg)	<0.5	0.7	1.2	<0.5	2.4	<0.5	<0.5	<0.5	3.3	1.7
Indeno(123-cd)pyrene**	(mg/kg)	<0.5	1.0	2.4	<0.5	1.9	<0.5	0.8	<0.5	2.8	1.3
Dibenz(ah)anthracene**	(mg/kg)	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(ghi)perylene**	(mg/kg)	<0.5	0.9	2.2	<0.5	1.6	<0.5	0.8	<0.5	2.5	1.2
Total PAH**	(mg/kg)	<0.5	9.5	29.4	<0.5	24.1	<0.5	5.8	<0.5	26.5	13.5

All results expressed on dry weight basis

** - MCERTS accredited test





Unit A2, Windmilli Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

Reporting Date: 04/04/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils

	Characteristic	Silt loam	Silt loam	Silt loam	Silt loam	Silt clay loam	Silt loam	Silt loam	Silt loam	Silt loam
	TP/BH	288	289	290	291	292	CBR1	CBR2	CBR3	CBR5
	Depth (m)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Our ref	30522	30523	30524	30525	30526	30527	30528	30529	30530
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5
Chrysene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(123-cd)pyrene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(ah)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(ghi)perylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total PAH**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

All results expressed on dry weight basis

** - MCERTS accredited test

SBE



Unit A2. Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Fax: 01424 729911 Tel: 01424 718618

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford



04/04/12

Reporting Date:

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road

Middlesex, UB4 8LP Characteristic Sandy silt loam Silt clay loam Silt loam Silt loam Silt loam Silt loam Silt loam Silt loam Silt loam Silt loam TP/BH 239 245 247 257 258 262 263 269 271 240 Depth (m) 0.50 0.30 0.50 0.50 0.50 0.50 0.15 0.50 0.40 0.50 TPH CWG - Soil Our ref 30502 30503 30504 30506 30507 30508 30509 30510 30511 30513 **Aromatic** >EC₅-EC₇ (mg/kg) <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 >EC7-EC8 (mg/kg) < 0.01 < 0.01 < 0.01 >EC₈-EC₁₀ (mg/kg) < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 0.2 2.2 0.2 >EC₁₀-EC₁₂ (mg/kg) < 0.1 0.1 0.2 0.7 0.1 >EC₁₂-EC₁₆ < 0.1 < 0.1 0.3 0.4 0.5 5.6 5.5 (mg/kg) < 0.1 0.3 11.7 >EC₁₆-EC₂₁ (mg/kg) < 0.1 < 0.1 0.3 0.5 0.6 0.8 8.2 0.7 9.3 4.7 5.3 0.2 0.2 0.1 < 0.1 < 0.1 18.7 0.4 18.1 5.2 >EC₂₁-EC₃₅ (mg/kg) **Aliphatic** < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 <0.01 < 0.01 < 0.01 >EC5-EC6 (mg/kg) < 0.01 < 0.01 >EC₆-EC₈ <0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 <0.01 < 0.01 < 0.01 (mg/kg) >EC₈-EC₁₀ (mg/kg) < 0.1 < 0.1 < 0.1 < 0.1 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 >EC₁₀-EC₁₂ < 0.1 < 0.1 0.1 0.1 0.1 0.2 < 0.1 0.1 0.3 0.2 (mg/kg) >EC₁₂-EC₁₆ (mg/kg) < 0.1 < 0.1 0.2 0.3 0.3 0.4 0.4 0.3 0.7 0.6 >EC₁₆-EC₂₁ (mg/kg) 0.4 < 0.1 0.3 0.4 0.5 0.6 1.2 0.6 1.4 0.9 < 0.1 < 0.1 8.8 >EC₂₁-EC₃₅ (mg/kg) 15.3 0.4 0.1 4.5 0.7 3.2 1.1 TPH (C₅ - C₃₅) 20.9 0.6 1.9 2.3 7.2 43.5 3.3 46.9 18.4 (mg/kg) 1.1 <10 <10 <10 <10 <10 <10 <10 (µg/kg) <10 <10 <10 Benzene <10 <10 <10 <10 <10 Toluene (µg/kg) <10 <10 <10 <10 <10 Ethylbenzene (µg/kg) <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 **Xylenes** (µg/kg) <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 MTBE (µg/kg) <10 <10 <10 <10 <10 <10 <10 <10 <10 <10

All results expressed on dry weight basis

** - MCERTS accredited test





Reporting Date: 04/04/12

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

F.A.O. Roni Savage **Jomas Associates Limited** Jomas House 2 М

Jomas House												
21 Bradenham Ro	oad											
Middlesex, UB4 8	LP	Characteristic	Silt loam	Silt loam	Silt loam	Silt loam	Silt Ioam	Chalk	Silt loam	Silt clay loam	Silt loam	Silt loam
		TP/BH	274	276	277	278	281	282	289	292	CBR2	CBR3
		Depth (m)	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50	0.50
TPH CWG - Soil		Our ref	30514	30515	30516	30517	30518	30519	30523	30526	30528	30529
	<u>Aromatic</u>											
	>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	>EC ₇ -EC ₈	(mg/kg)	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01	<0.01	<0.01	< 0.01	<0.01
	>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
	>EC ₁₀ -EC ₁₂	(mg/kg)	2.9	0.4	1.8	0.5	0.5	0.5	0.6	0.5	0.4	0.7
	>EC ₁₂ -EC ₁₆	(mg/kg)	15.5	0.9	13.8	1.1	3.7	1.2	1.4	1.1	0.9	1.3
	>EC ₁₆ -EC ₂₁	(mg/kg)	11.0	1.5	10.3	1.7	3.5	1.8	2.0	1.5	2.4	1.8
	>EC ₂₁ -EC ₃₅	(mg/kg)	21.7	<0.1	10.8	<0.1	5.7	<0.1	<0.1	0.4	1.9	<0.1
	Aliphatic											
	>EC ₅ -EC ₆	(mg/kg)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	>EC ₆ -EC ₈	(mg/kg)	<0.01	<0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	>EC ₁₀ -EC ₁₂	(mg/kg)	0.2	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.4
	>EC ₁₂ -EC ₁₆	(mg/kg)	0.6	0.7	0.7	0.8	0.6	0.8	0.9	0.7	0.8	0.9
	>EC ₁₆ -EC ₂₁	(mg/kg)	1.6	1.7	1.1	1.1	1.1	1.2	1.3	0.6	0.9	1.0
	>EC ₂₁ -EC ₃₅	(mg/kg)	3.5	2.7	1.1	0.8	6.5	1.2	1.1	<0.1	0.4	0.3
	TPH (C ₅ - C ₃₅)	(mg/kg)	57.0	8.2	39.9	6.2	21.9	7.0	7.7	4.9	8.1	6.5
	Benzene	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Toluene	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Ethylbenzene	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Xylenes	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	MTBE	(µg/kg)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

All results expressed on dry weight basis

** - MCERTS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On See, East Sussex, TNS8 9BY Tel: 01424 718618 Fax: 01424 729911 ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 04/04/12

Asbestos Identification

 Sample ref:
 239

 Depth (m)
 0.30

 Our ref:
 30502

 #Description of Sample Matrix:
 Sandy sitt loam

 *Result
 No asbestos identified

 No asbestos identified

 Sample ref:
 245

 Depth (m)
 0,50

 Our ref:
 350504

 *Description of Sample Matrix:
 Sitt loam

 *Result
 No asbestos identified

 Sample ref:
 258

 Depth (m)
 0.50

 Our ref:
 30508

 *Description of Sample Matrix:
 Sitt loam

 *Result
 No asbestos identified

 Sample ref:
 271

 Depth (m)
 0.50

 Our ref:
 30513

 #Description of Sample Matrix:
 Sit loam

 *Result
 No asbestos identified

 Sample ref:
 277

 Depth (m)
 0.50

 Our ref:
 30516

 #Description of Sample Matrix:
 Sit to am

 *Result
 No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonarda On See, East Sussex, TN38 98Y
Tel: 01424 718618 Fax: 01424 729911
ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 04/04/12

Asbestos Identification

 Sample ref:
 278

 Depth (m)
 0.50

 Our ref:
 30517

 #Description of Sample Matrix:
 Sitt loam

 *Result
 No asbestos identified

 Sample ref:
 282

 Depth (m)
 0,50

 Our ref:
 30519

 #Description of Sample Matrix:
 Chalik

 *Result
 No asbestos identified

 Sample ref:
 285

 Depth (m)
 0.50

 Our ref:
 30521

 #Description of Sample Matrix:
 Sit toam

 *Result
 No asbestos identified

 Sample ref:
 288

 Depth (m)
 0.50

 Our ref:
 30522

 #Description of Sample Matrix:
 Silt loam

 *Result
 No asbestos identified

 Sample ref:
 289

 Depth (m)
 0.50

 Our ref:
 30523

 #Description of Sample Matrix:
 Silt loam

 *Result
 No asbestos identified

 No asbestos identified

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

^{*=} UKAS accredited



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On See, East Sussex, TN38 9BY Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Reporting Date: 04/04/12

Asbestos Identification

 Sample ref:
 290

 Depth (m)
 0.50

 Our ref:
 30524

 #Description of Sample Matrix:
 Silt loam

 *Result
 No asbestos identified

 Sample ref:
 291

 Depth (m)
 0.50

 Our ref:
 30525

 #Description of Sample Matrix:
 Sit loam

 *Result
 No asbestos identified

*= UKAS accredited

Analytical result only applies to the sample as submitted by the client

Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client





04/04/12

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils

	Characteristic	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam
	TP/BH	263	288	CBR2	CBR3	CBR5	CBR6
	Depth (m)	0.50	0.50	0.50	0.50	0.50	0.50
	Our ref	30510	30522	30528	30529	30530	30531
Stone Content	(%)	<1	7	5	<1	<1	<1
pH Value**	(Units)	8.3	8.6	8.3	8.3	8.6	8.4
Total Sulphate	(% as SO ₄)	0.08	< 0.05	< 0.05	0.06	0.07	0.07
Total Sulphur	(% as S)	0.06	0.08	< 0.05	0.09	0.11	0.12
Water Soluble Sulphate**	(mg/I as SO ₄)	13	14	10	<10	<10	22
Water Soluble Chloride	(mg/l)	12	11	12	12	10	11
Water Soluble Nitrate	(mg/l)	4	6	5	10	2	14
Water Soluble Magnesium	(mg/l)	0.3	0.3	0.3	0.3	0.2	0.4
Ammonium	(mg/l)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* =} UKAS accredited test





THE ENVIRONMENTAL LABORATORY LTD

SOLID SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR37536A
Your Job No: -Sample Receipt Date: 02/03/12
Reporting Date: 04/04/12

 Registered:
 02/03/12

 Prepared:
 03/03/12

 Analysis complete:
 26/03/12

SOLID TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
	Grider tarrorr err			
Arsenic**	Air dried sample	13/03/12	118	ICPMS
Antimony	Air dried sample	13/03/12	118	ICPMS
Cadmium**	Air dried sample	13/03/12	118	ICPMS
Lead**	Air dried sample	13/03/12	118	ICPMS
Mercury**	Air dried sample	13/03/12	118	ICPMS
Nickel**	Air dried sample	13/03/12	118	ICPMS
Copper**	Air dried sample	13/03/12	118	ICPMS
Zinc**	Air dried sample	13/03/12	118	ICPMS
Selenium**	Air dried sample	13/03/12	118	ICPMS
Barium**	Air dried sample	13/03/12	118	ICPMS
Beryllium**	Air dried sample	13/03/12	118	ICPMS
Vanadium**	Air dried sample	13/03/12	118	ICPMS
Cobalt	Air dried sample	13/03/12	118	ICPMS
Molybdenum	Air dried sample	13/03/12	118	ICPMS
Chromium	Air dried sample	13/03/12	118	ICPMS
pH Value**	Air dried sample	13/03/12	113	Electrometric
Total Sulphate	Air dried sample	13/03/12	208	Colorimetry
Total Cyanide**	As submitted sample	14/03/12	204	Automated Flow Digital Colorimetry
Free Cyanide	As submitted sample	14/03/12	107	Colorimetry
Complex Cyanide	As submitted sample	14/03/12	145	Colorimetry
Hexavalent Chromium	As submitted sample	14/03/12	110	Colorimetry
Water Soluble Boron	Air dried sample	13/03/12	202	Colorimetry
Elemental Sulphur**	Air dried sample	13/03/12	122	HPLC
Thiocyanate	As submitted sample	14/03/12	146	Colorimetry
Total Monohydric Phenols**	As submitted sample	13/03/12	121	HPLC
Total Petroleum Hydrocarbons**	As submitted sample	06/03/12	117	Gas Chromatography
Total Organic Carbon	Air dried sample	09/03/12	210	IR Adsorption
Water Soluble Sulphate	Air dried sample	13/03/12	209	Colorimetry
PCB (7 ICES Congenors)**	Air dried sample	13/03/12	120	GCMS
Speciated PAH**	As submitted sample	07/03/12	133	Gas Chromatography
Carbon Banding (TPH CWG)	As submitted sample	06/03/12	117	Gas Chromatography
Asbestos*	As submitted sample	17/03/12	179	See note

* - UKAS Accredited test Asbestos analysis qualitative only

** - MCERTS Accredited test Note:- Documented In-house procedure based on HSG 248 2005

Determinands not marked with * or ** are not accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types





THE ENVIRONMENTAL LABORATORY LTD

SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number
Your Job No:
Sample Receipt Date:
Reporting Date:

02/03/12
Registered:
02/03/12

 Registered:
 02/03/12

 Prepared:
 03/03/12

 Analysis complete:
 26/03/12

TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
pH Value**	Air dried sample	13/03/12	113	BRE SD1
Total Sulphate	Air dried sample	13/03/12	115	BRE SD1
Total Sulphur	Air dried sample	09/03/12	216	BRE SD1
Water Soluble Sulphate**	Air dried sample	13/03/12	172	BRE SD1
Water Soluble Nitrate	Air dried sample	13/03/12	172	BRE SD1
Water Soluble Chloride	Air dried sample	13/03/12	172	BRE SD1
Water Soluble Magnesium	Air dried sample	13/03/12	101	BRE SD1
Ammonium	As submitted sample	13/03/12	151	BRE SD1

Determinands not marked with * or ** are non accredited

 ${\tt MCERTS}\ accreditation\ covers\ samples\ which\ are\ predominantly\ sand,\ clay,\ loam\ or\ combinations\ of\ these\ three\ soil\ types$

^{* =} UKAS Accredited test

^{** -} MCERTS Accredited test





THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 26/03/12

ANALYTICAL REPORT No. AR37660

Samples Received By:- Courier Samples Received:- 09/03/12

Site Location: Upper Heyford NSA

No Samples Received:- 18

Report Checked By:-

Steve Knight Director Authorised By:-

Mike Varley BSc, CChem, CSci, FRSC Chief Chemist





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37660

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 26/03/12

Soils

	Characteristic	Silt loam	Silt loam	Silt loam	Silt Ioam	Silt loam	Silt loam	Silt loam	Sandy Silt	Silt loam	Silt loam
	TP/BH	BHNSA23	BHNSA24	BHNSA25	BHNSA26	BHNSA28	BHNSA28	BHNSA29	BHNSA29	BHNSA30	BHNSA32
	Depth (m)	0.50	1.00	0.50	0.50	0.50	1.00	1.00	3.70	3.00	0.50
	Our ref	31264	31266	31267	31270	31272	31273	31275	31276	31277	31278
Stone Content	(%)	<1	13	5	8	4	14	7	<1	<1	<1
Arsenic**	(mg/kg)	15.6	14.4	16.6	20.3	24.1	12.5	20.3	n/t	n/t	40.9
Cadmium**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	n/t	n/t	<0.5
Total Chromium	(mg/kg)	30	19	25	34	40	21	29	n/t	n/t	70
Lead**	(mg/kg)	17	19	14	13	45	11	21	n/t	n/t	30
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	n/t	n/t	<0.5
Nickel**	(mg/kg)	22	15	19	24	28	14	22	n/t	n/t	51
Copper**	(mg/kg)	10	7	9	9	19	7	11	n/t	n/t	23
Zinc**	(mg/kg)	51	30	40	43	88	29	46	n/t	n/t	79
Selenium**	(mg/kg)	1.2	0.7	<0.5	1.0	1.4	0.7	0.8	n/t	n/t	1.8
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	n/t	n/t	<2
Water Soluble Boron	(mg/kg)	<0.5	0.5	0.6	0.6	0.7	<0.5	<0.5	n/t	n/t	0.6
Antimony	(mg/kg)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	n/t	n/t	<2.5
Cobalt	(mg/kg)	10.2	5.9	7.6	10.3	12.2	5.5	9.4	n/t	n/t	19.0
Molybdenum	(mg/kg)	<5	<5	<5	<5	<5	<5	<5	n/t	n/t	<5
Barium**	(mg/kg)	57	38	101	71	112	41	65	n/t	n/t	128
Beryllium**	(mg/kg)	1	<1	<1	1	1	<1	<1	n/t	n/t	3
Vanadium**	(mg/kg)	54	46	62	77	83	52	65	n/t	n/t	148

All results expressed on dry weight basis

SBE

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37660

0:14 1----

0:14 1----

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 26/03/12

Soils

	Characteristic	Silt Ioam	Silt loam
	TP/BH	BHNSA39	BHNSA43
	Depth (m)	0.50	2.40
	Our ref	31279	31281
Stone Content	(%)	<1	<1
Arsenic**	(mg/kg)	25.3	n/t
Cadmium**	(mg/kg)	<0.5	n/t
Chromium**	(mg/kg)	23	n/t
Lead**	(mg/kg)	52	n/t
Mercury**	(mg/kg)	<0.5	n/t
Nickel**	(mg/kg)	36	n/t
Copper**	(mg/kg)	26	n/t
Zinc**	(mg/kg)	63	n/t
Selenium**	(mg/kg)	2.2	n/t
Hexavalent Chromium	(mg/kg)	<2	n/t
Water Soluble Boron	(mg/kg)	0.8	n/t
Antimony	(mg/kg)	<2.5	n/t
Cobalt	(mg/kg)	21.0	n/t
Molybdenum	(mg/kg)	<5	n/t
Barium**	(mg/kg)	122	n/t
Beryllium**	(mg/kg)	2	n/t
Vanadium**	(mg/kg)	131	n/t

01-----

All results expressed on dry weight basis

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





26/03/12

Reporting Date:

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

101: 01424 / 10010 Fax: 01424 / 29911

ANALYTICAL REPORT No. AR37660

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Soils	Characteristic TP/BH	Silt loam BHNSA23	Silt loam BHNSA23	Silt loam BHNSA24	Silt loam BHNSA25	Silt loam BHNSA25	Silt loam BHNSA25	Silt loam BHNSA26	Silt loam BHNSA26	Silt loam BHNSA28	Silt loam BHNSA28
	Depth (m)	0.50	4.5-4.9	1.00	0.50	2.5-2.6	4.70	0.50	4.50	0.50	1.00
	Our ref	31264	31265	31266	31267	31268	31269	31270	31271	31272	31273
pH Value**	(Units)	8.2	n/t	8.4	8.3	n/t	n/t	8.2	n/t	8.2	8.5
Total Sulphate	(% as SO ₄)	< 0.05	n/t	< 0.05	< 0.05	n/t	n/t	< 0.05	n/t	< 0.05	< 0.05
Total Cyanide**	(mg/kg)	<1	n/t	<1	<1	n/t	n/t	<1	n/t	<1	<1
Free Cyanide	(mg/kg)	<1	n/t	<1	<1	n/t	n/t	<1	n/t	<1	<1
Complex Cyanide	(mg/kg)	<1	n/t	<1	<1	n/t	n/t	<1	n/t	<1	<1
Total Monohydric Phenols**	(mg/kg)	<1	n/t	<1	<1	n/t	n/t	<1	n/t	<1	<1
Water Soluble Sulphate	(mg/l as SO ₄)	96	n/t	<10	27	n/t	n/t	19	n/t	<10	<10
Elemental Sulphur**	(mg/kg)	<10	n/t	<10	<10	n/t	n/t	<10	n/t	<10	<10
Total Organic Carbon	(%)	0.8	0.3	0.4	1.1	0.4	0.2	n/t	0.2	n/t	1.0
Thiocyanate	(mg/kg)	<2	n/t	<2	<2	n/t	n/t	<2	n/t	<2	<2
Moisture Content**	(%)	16.4	n/t	8.9	15.4	n/t	n/t	13.0	n/t	15.3	8.9
Total Petroleum Hydrocarbons**	(mg/kg)	<5	n/t	<5	29	n/t	n/t	43	n/t	15	<5

All results expressed on dry weight basis

SBE

^{** -} MCERTS accredited test

^{* -} UKAS accredited test



ELAB

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37660

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 26/03/12

<u>Soils</u>		Characteristic Sa	Characteristic Sandy Silt loam		Sandy Silt	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam
·		TP/BH	BHNSA28	BHNSA29	BHNSA29	BHNSA30	BHNSA32	BHNSA39	BHNSA39	BHNSA43
		Depth (m)	3.20	1.00	3.70	3.00	0.50	0.50	3.90	2.40
		Our ref	31274	31275	31276	31277	31278	31279	31280	31281
	pH Value**	(Units)	n/t	8.4	n/t	n/t	8.1	8.0	n/t	n/t
	Total Sulphate	(% as SO ₄)	n/t	< 0.05	n/t	n/t	< 0.05	< 0.05	n/t	n/t
	Total Cyanide**	(mg/kg)	n/t	<1	n/t	n/t	<1	<1	n/t	n/t
	Free Cyanide	(mg/kg)	n/t	<1	n/t	n/t	<1	<1	n/t	n/t
	Complex Cyanide	(mg/kg)	n/t	<1	n/t	n/t	<1	<1	n/t	n/t
	Total Monohydric Phenols**	(mg/kg)	n/t	<1	n/t	n/t	<1	<1	n/t	n/t
	Water Soluble Sulphate	(mg/l as SO ₄)	n/t	<10	n/t	n/t	<10	<10	n/t	n/t
	Elemental Sulphur**	(mg/kg)	n/t	<10	n/t	n/t	<10	<10	n/t	n/t
	Total Organic Carbon	(%)	0.4	n/t	0.2	0.5	n/t	n/t	<0.1	0.1
	Thiocyanate	(mg/kg)	n/t	<2	n/t	n/t	<2	<2	n/t	n/t
	Moisture Content**	(%)	n/t	14.0	n/t	n/t	19.9	19.9	n/t	n/t
	Total Petroleum Hydrocarbons**	(mg/kg)	n/t	<5	n/t	n/t	<5	<5	n/t	n/t

All results expressed on dry weight basis

SBE

^{** -} MCERTS accredited test

^{* -} UKAS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37660

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 26/03/12

<u>Soils</u>

	Characteristic	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam	Silt loam
	TP/BH	BHNSA23	BHNSA24	BHNSA25	BHNSA26	BHNSA28	BHNSA28	BHNSA29	BHNSA32
	Depth (m)	0.50	1.00	0.50	0.50	0.50	1.00	1.00	0.50
	Our ref	31264	31266	31267	31270	31272	31273	31275	31278
Naphthalene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene**	(mg/kg)	<0.5	<0.5	0.9	5.5	<0.5	<0.5	0.8	<0.5
Anthracene**	(mg/kg)	<0.5	<0.5	<0.5	2.4	<0.5	<0.5	<0.5	<0.5
Fluoranthene**	(mg/kg)	<0.5	<0.5	5.3	16.2	<0.5	<0.5	1.5	<0.5
Pyrene**	(mg/kg)	<0.5	<0.5	3.6	10.0	<0.5	<0.5	0.9	<0.5
Benz(a)anthracene**	(mg/kg)	<0.5	<0.5	2.3	6.1	<0.5	<0.5	0.7	<0.5
Chrysene**	(mg/kg)	<0.5	<0.5	3.6	7.7	<0.5	<0.5	1.1	<0.5
Benzo(b)fluoranthene**	(mg/kg)	<0.5	<0.5	2.6	6.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene**	(mg/kg)	<0.5	<0.5	2.0	4.5	<0.5	<0.5	0.7	<0.5
Benzo(a)pyrene**	(mg/kg)	<0.5	<0.5	2.2	5.4	<0.5	<0.5	0.6	<0.5
Indeno(123-cd)pyrene**	(mg/kg)	<0.5	<0.5	2.1	4.9	<0.5	<0.5	<0.5	<0.5
Dibenz(ah)anthracene**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(ghi)perylene**	(mg/kg)	<0.5	<0.5	2.0	4.3	<0.5	<0.5	<0.5	<0.5
Total PAH**	(mg/kg)	<0.5	<0.5	26.4	73.5	<0.5	<0.5	6.3	<0.5

All results expressed on dry weight basis

** - MCERTS accredited test





Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37660

Location: Upper Heyford NSA

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 26/03/12

TPH CWG - Soil	Characteristic TP/BH Depth (m) Our ref	Silt Ioam BHNSA43 2.40 31281
Aromatic		
$>EC_5-EC_7$ $>EC_7-EC_8$ $>EC_8-EC_{10}$ $>EC_{10}-EC_{12}$	(mg/kg) (mg/kg) (mg/kg) (mg/kg)	<0.01 <0.01 <5 <5
$>EC_{12}-EC_{16}$ $>EC_{16}-EC_{21}$ $>EC_{21}-EC_{35}$	(mg/kg) (mg/kg) (mg/kg)	<5 <5 <5
Aliphatic		
$>EC_5-EC_6$ $>EC_6-EC_8$ $>EC_8-EC_{10}$ $>EC_{10}-EC_{12}$ $>EC_{12}-EC_{16}$ $>EC_{16}-EC_{21}$ $>EC_{21}-EC_{35}$ TPH ($C_5 - C_{35}$)	(mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg)	<0.01 <0.01 <5 <5 <5 <5 <5
Benzene Toluene Ethylbenzene Xylenes MTBE	(µg/kg) (µg/kg) (µg/kg) (µg/kg) (µg/kg)	<10 <10 <10 <10 <10

All results expressed on dry weight basis

** - MCERTS accredited test





THE ENVIRONMENTAL LABORATORY LTD

SOLID SAMPLE RECEIPT AND TEST DATES

26/03/12

Our Analytical Report Number
Your Job No:
Sample Receipt Date:
Reporting Date:

Registered:
Prepared:

AR37660
09/03/12
26/03/12

Analysis complete:

SOLID TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
Arsenic**	Air dried sample	14/03/12	118	ICPMS
Antimony	Air dried sample	14/03/12	118	ICPMS
Cadmium**	Air dried sample	14/03/12	118	ICPMS
Lead**	Air dried sample	14/03/12	118	ICPMS
Mercury**	Air dried sample	14/03/12	118	ICPMS
Nickel**	Air dried sample	14/03/12	118	ICPMS
Copper**	Air dried sample	14/03/12	118	ICPMS
Zinc**	Air dried sample	14/03/12	118	ICPMS
Selenium**	Air dried sample	14/03/12	118	ICPMS
Barium**	Air dried sample	14/03/12	118	ICPMS
Beryllium**	Air dried sample	14/03/12	118	ICPMS
Vanadium**	Air dried sample	14/03/12	118	ICPMS
Cobalt	Air dried sample	14/03/12	118	ICPMS
Molybdenum	Air dried sample	14/03/12	118	ICPMS
Total Chromium	Air dried sample	14/03/12	118	ICPMS
pH Value**	Air dried sample	14/03/12	113	Electrometric
Total Sulphate	Air dried sample	14/03/12	208	Colorimetry
Total Cyanide**	As submitted sample	15/03/12	204	Automated Flow Digital Colorimetry
Free Cyanide	As submitted sample	15/03/12	107	Colorimetry
Complex Cyanide	As submitted sample	15/03/12	145	Colorimetry
Hexavalent Chromium	As submitted sample	15/03/12	110	Colorimetry
Water Soluble Boron	Air dried sample	14/03/12	202	Colorimetry
Elemental Sulphur**	Air dried sample	14/03/12	122	HPLC
Thiocyanate	As submitted sample	15/03/12	146	Colorimetry
Total Monohydric Phenols**	As submitted sample	16/03/12	121	HPLC
Total Petroleum Hydrocarbons**	As submitted sample	13/03/12	117	Gas Chromatography
Water Soluble Sulphate	Air dried sample	14/03/12	209	Colorimetry
Speciated PAH**	As submitted sample	13/03/12	133	Gas Chromatography

Determinands not marked with * or ** are not accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

^{* -} UKAS Accredited test

^{** -} MCERTS Accredited test



THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 29/02/12

ANALYTICAL REPORT No. AR37394

Samples Received By:
Samples Received:
Your Job No:

Courier

13/02/12

P8251J128.07

Site Location:- Upper Heyford NSA II

No Samples Received:- 6

Report Checked By:-

Steve Knight Director Authorised By:-

Mike Varley BSc, CChem, CSci, FRSC Chief Chemist

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37394

Location: Upper Heyford NSA II



Your Job No: P8251J128.07

Reporting Date: 29/02/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Waters	TP/BH Our ref	UGNSA 23 29411	UGNSA 27 29414	UGNSA 28 29415	UGNSA 29 29416	UGNSA 31 29417	UGNSA 33 29419
Aromatic							
>C ₅ -C ₇	(µg/I)	<10	<10	<10	14	<10	21
>C ₇ -C ₈	(µg/I)	<10	<10	<10	16	<10	50
>C ₈ -C ₁₀	(µg/I)	<10	128	249	39	<10	172
>C ₁₀ -C ₁₂	(µg/I)	<10	677	343	39	57	5973
>C ₁₂ -C ₁₆	(µg/I)	<10	3655	821	119	1563	685
>C ₁₆ -C ₂₁	(µg/I)	<10	4554	576	161	3158	1034
>C ₂₁ -C ₃₅	(µg/I)	<10	1751	174	45	477	149
Aliphatic							
>C ₅ -C ₆	(µg/I)	10	<10	<10	53	<10	<10
>C ₆ -C ₈	(µg/I)	<10	<10	<10	<10	<10	<10
>C ₈ -C ₁₀	(µg/I)	<10	627	514	111	27	405
>C ₁₀ -C ₁₂	(µg/I)	<10	3016	691	93	163	6512
>C ₁₂ -C ₁₆	(µg/I)	<10	16217	1922	262	6845	2790
>C ₁₆ -C ₂₁	(µg/I)	<10	18907	1607	490	13066	4092
>C ₂₁ -C ₃₅	(µg/I)	<10	6914	605	186	1832	753
TPH (C ₅ - C ₃₅)	(µg/I)	10	56446	7500	1627	27187	22636
Benzene	(µg/I)	<1	<1	3	14	4	21
Toluene	(µg/I)	<1	<1	1	14	<1	37
Ethyl Benzene	(µg/I)	<1	<1	3	1	<1	13
Xylenes	(µg/I)	<1	20	109	91	3	88
MTBE	(µg/I)	<1	<1	<1	54	<1	<1
SBB							

Tel: 01424 718618

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY Fax: 01424 729911

ANALYTICAL REPORT No. AR37394

Location: Upper Heyford NSA II



Your Job No: 8251J128.07

Reporting Date: 29/02/12

F.A.O. Roni Savage **Jomas Associates Limited** Jomas House 21 Bradenham Road Middlesex, UB4 8LP

Total PAH

 $(\mu g/I)$

Waters	TP/BH Our ref	UGNSA 23 29411	UGNSA 27 29414	UGNSA 28 29415	UGNSA 29 29416	UGNSA 31 29417	UGNSA 33 29419
	our rer	20 111	20111	20110	20.10	20111	20110
Naphthalene	(µg/I)	0.07	5.53	132.46	3.31	3.18	7.48
Acenaphthylene	(µg/I)	<0.01	1.41	1.38	0.43	2.23	0.47
Acenaphthene	(µg/I)	0.02	6.39	4.67	1.51	6.90	1.25
Fluorene	(µg/I)	0.08	12.15	9.86	2.84	10.65	1.62
Phenanthrene	(µg/I)	0.01	9.20	8.19	2.26	11.18	2.74
Anthracene	(µg/I)	0.02	2.36	0.51	0.57	7.11	0.70
Fluoranthene	(µg/I)	0.02	0.84	0.14	0.28	2.78	0.56
Pyrene	(µg/I)	<0.01	2.07	0.27	0.63	4.21	0.48
Benz(a)anthracene	(µg/I)	0.01	0.14	0.03	0.04	1.12	0.14
Chrysene	(µg/I)	<0.01	0.56	0.06	0.12	0.97	0.17
Benzo(b)fluoranthene	(µg/I)	<0.01	0.04	0.02	0.02	0.58	0.17
Benzo(k)fluoranthene	(µg/I)	<0.01	0.01	0.02	0.01	0.43	0.13
Benzo(a)pyrene	(µg/I)	<0.01	0.04	0.03	0.01	0.69	0.18
Indeno(123-cd)pyrene	(µg/I)	<0.01	0.01	0.01	<0.01	0.22	0.10
Dibenz(ah)anthracene	(µg/I)	<0.01	<0.01	<0.01	<0.01	0.07	0.02
Benzo(ghi)perylene	(µg/I)	<0.01	<0.01	<0.01	<0.01	0.25	0.12

0.23

157.65

40.75

12.03

52.57

16.33



THE ENVIRONMENTAL LABORATORY LTD

WATER SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR37394
Your Ref No: P8251J128.07
Sample Receipt Date: 13/02/12
Reporting Date: 29/02/12

 Registered:
 13/02/12

 Prepared:
 14/02/12

 Analysis complete:
 29/02/12

WATER TEST METHOD SUMMARY

PARAMETER	Method Number	Technique
Carbon Banding (TPH CWG)	178	Gas chromatography
BTEX	154	GCMS
MTBE	154	GCMS
Speciated PAH	135	GCMS



THE ENVIRONMENTAL LABORATORY LTD

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP Reporting Date: 26/03/12

ANALYTICAL REPORT No. AR37714

Samples Received By:- Courier
Samples Received:- 14/03/12
Your Job No: P8251J128.07

Site Location:- Upper Heyford NSA II

No Samples Received:- 3

Report Checked By:-

Steve Knight Director Authorised By:-

Mike Varley BSc, CChem, CSci, FRSC Chief Chemist



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonard's on Sea, East Sussex, TN38 9BY
Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37714

Location: Upper Heyford NSA II

Your Job No: P8251J128.07

Reporting Date: 26/03/12

F.A.O. Roni Savage Jomas Associates Limited Jomas House 21 Bradenham Road Middlesex, UB4 8LP

<u>Waters</u>	TP/BH Our ref	UGNSA24 31621	UGNSA25 31622	UGNSA32 31623
Aromatic				
>C ₅ -C ₇	(µg/l)	5812	1391	<10
>C ₇ -C ₈	(µg/l)	17813	4081	16
>C ₈ -C ₁₀	(µg/l)	25813	11112	84
>C ₁₀ -C ₁₂	(µg/l)	875	1265	407
>C ₁₂ -C ₁₆	(µg/l)	92	837	566
>C ₁₆ -C ₂₁	(µg/l)	10	539	427
>C ₂₁ -C ₃₅	(µg/l)	22	183	70
Aliphatic				
>C ₅ -C ₆	(µg/l)	747	15	<10
>C ₆ -C ₈	(µg/l)	1847	663	<10
>C ₈ -C ₁₀	(µg/l)	4947	2876	28
>C ₁₀ -C ₁₂	(µg/l)	446	419	125
>C ₁₂ -C ₁₆	(µg/l)	26	323	228
>C ₁₆ -C ₂₁	(µg/l)	<10	387	332
>C ₂₁ -C ₃₅	(µg/l)	<10	133	59
TPH (C ₅ - C ₃₅)	(μg/l)	58450	24224	2342
Benzene	(µg/l)	5812	1391	6
Toluene	(µg/l)	17813	4081	16
Ethyl Benzene	(µg/l)	99	49	<1
Xylenes	(µg/l)	18248	4031	13
MTBE	(µg/l)	2324	677	<1



Unit A2 Windmill Road Ponswood Industrial Estate St Leonards on Sea East Sussex TN38 9BA Telephone (01424) 718618 Facsimile (01424) 729911

THE ENVIRONMENTAL LABORATORY LTD

WATER SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR37714
Your Ref No: P8251J128.07
Sample Receipt Date: 14/03/12
Reporting Date: 26/03/12

Registered: 14/03/12 Prepared: 15/03/12 Analysis complete: 23/03/12

WATER TEST METHOD SUMMARY

PARAMETER	Method Number	Technique
Carbon Banding (TPH CWG)	178	Gas chromatography
BTEX	154	GCMS
MTBE	154	GCMS

Any comments, opinions, or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



Appendix D Groundwater level monitoring results

D1. Groundwater level monitoring

	Water Level 10 - 12	10 -12 Jan reduced	06 -08 Feb dip	06 -08 Feb reduced level	06 - 09 March dip	06 -09 March	22 - 25 March dip	22 - 25 March reduced	02 -0 5 April dip	02 - 05 April reduced
Borehole	Jan (mbgs)	level (mAOD)	level (mbgs)	(mAOD)	level	reduced level	level (mbgl)	level (mAOD)	level (mbgl)	level (mAOD)
BHNSA- 1	2.57	121.24	2.27	121.54	2.57	121.24	3.1	120.71	3.25	120.56
BHNSA- 2	2.25	120.41	2.14	120.52	2.19	120.47	2.97	119.69	2.33	120.33
BHNSA- 3	2.78	120.71	2.69	120.8	2.47	121.02		123.49	3.17	120.32
BHNSA- 4	4.04	118.21	4.1	118.15	4.01	118.24	4.3	117.95	4.45	117.8
BHNSA- 5	2.52	119.81	2.51	119.82	2.68	119.65	3.7	118.63	3.9	118.43
BHNSA- 6	2.65	119.24	2.73	119.16	2.8	119.09	2.78	119.11	3.32	118.57
BHNSA- 7	2.23	118.44	2.17	118.5	2.25	118.42	2.32	118.35	2.3	118.37
BHNSA-8	6.13	114.71	6.04	114.8	5.98	114.86	6.3	114.54	6.44	114.4
BHNSA- 9	3.54	116.02	4.81	114.75	5.35	114.21	5.87	113.69	5.43	114.13
BHNSA- 10	4.56	114.09	4.89	113.76	4.93	113.72	5.25	113.4	5.35	113.3
BHNSA- 11	4.54	114.09	4.71	113.92	4.89	113.74	5.2	113.43	5.26	113.37
BHNSA- 12	7.5	110.72	4.54	113.68	4.76	113.46	4.94	113.28	4.9	113.32
BHNSA- 13	11.36	108.55	11.34	108.57	11.54	108.37	11.85	108.06	12.28	107.63
BHNSA- 14	5.7	112.14	5.32	112.52	4.12	113.72	4.8	113.04	4.4	113.44
BHNSA- 15	1.57	115.45	1.44	115.58	1.86	115.16	1.68	115.34	1.63	115.39
BHNSA- 16	12.75	111.16	12.85	111.06	12.89	111.02	13.45	110.46	13.62	110.29
BHNSA- 17	2.36	121.55	2.65	121.26	3.2	120.71	3.97	119.94	4.8	119.11
BHNSA- 18	2.53	121.45	2.92	121.06	3.45	120.53	4.26	119.72	5.05	118.93
BHNSA- 19	2.55	121.34	2.8	121.09	3.35	120.54	4.04	119.85	4.8	119.09
BHNSA- 20	2.95	120.2	3.17	119.98	3.65	119.5	4.23	118.92	4.86	118.29
BHNSA- 21	2.75	121.81	2.93	121.63	2.42	122.14	4.21	120.35	4.96	119.6
BHNSA- 22	2.6	122.41	2.7	122.31	2.94	122.07	3.64	121.37	4.35	120.66
BHNSA- 23	;				4.5	117.51	4.44	117.57	4.42	117.59
BHNSA- 24					2.02	121.652	2.22	121.452	2.47	121.202
BHNSA- 25					1.85	121.32	2.34	120.83	2.63	120.54
BHNSA- 26	;				1.9	121.512	2.27	121.142	2.54	120.872
BHNSA- 27	•				2.35	122.381	2.59	122.141	2.76	121.971
BHNSA- 28	}				2.89	121.079	2.53	121.439	2.72	121.249
BHNSA- 29					2.64	123.819	3	123.459	3.13	123.329
BHNSA- 30					2.48	123.398	2.82	123.058	2.96	122.918
BHNSA- 31	•				2.45	123.736	2.94	123.246	3.16	123.026
BHNSA- 32	1				2.23	120.869	2.59	120.509	2.89	120.209
BHNSA- 37	•					121.32	3.24	118.08	3.73	117.59
BHNSA- 38	2.13	119.26	2.23	119.16	2.34	119.05	3.18	118.21	3.69	117.7
BHNSA- 39					3.14	124	3.65	123.49	4.46	122.68
BHNSA -42					2.73	118.89	3.15	118.47	3.29	118.33
BHNSA -43	}				2.67	119.008	2.75	118.928	3.29	118.388
BHNSA -44	ļ				3.03	118.725	3.5	118.255	3.68	118.075
BHNSA -45					2.83	120	4.94	117.89	1.98	120.85



Appendix E Results of chemical analysis on groundwater

Our Ref: EXR/130267 (Ver. 1) Your Ref: E10658-109

January 23, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

ESC

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

J Elstub <u>Project Co-ordinator</u> 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/130267 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 9 samples described in this report were registered for analysis by ESG on 12-Jan-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Jan-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 13)
Table of GRO Results (Page 14)
Table of TPH (Si) banding (0.01) (Page 15)
GC-FID Chromatograms (Pages 16 to 33)
Analytical and Deviating Sample Overview (Pages 34 to 35)
Table of Method Descriptions (Page 36)
Table of Report Notes (Page 37)



Date of Issue: 23-Jan-2012

Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes:	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
LAB ID Number EX	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	. Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1259537	BH-NSA-1	11-Jan-12	7.5	1120	<2	Nil	81	116	174	9	155	0.006	0.008	<0.0001	0.001	<0.001	<0.002	0.004
1259538	BH-NSA-16	11-Jan-12	7.4	669	404	Nil	31	45	148	6	18	0.003	0.007	<0.0001	<0.001	<0.001	<0.002	<0.001
1259539	BH-NSA-3	11-Jan-12	7.2	933	439	Nil	63	66	177	12	33	0.004	0.008	<0.0001	<0.001	<0.001	<0.002	0.002
1259540	BH-NSA-2	11-Jan-12	7.2	1080	347	Nil	64	144	213	12	39	0.007	0.007	<0.0001	<0.001	<0.001	<0.002	0.003
1259541	BH-NSA-4	11-Jan-12	7.3	710	340	Nil	25	68	183	9	12	0.006	0.006	<0.0001	<0.001	<0.001	<0.002	<0.001
1259542	BH-NSA-5	11-Jan-12	7.3	820	330	Nil	52	42	157	4	30	0.003	0.006	<0.0001	0.001	<0.001	<0.002	0.001
1259543	BH-NSA-8	11-Jan-12	7.6	588	216	Nil	36	47	206	10	27	0.005	0.005	<0.0001	<0.001	<0.001	<0.002	0.001
1259544	BH-NSA-38	11-Jan-12	7.4	856	538	Nil	80	43	164	3	47	0.002	0.007	<0.0001	0.001	<0.001	<0.002	<0.001
1259545	BH-NSA-6	11-Jan-12	7.3	710	319	Nil	29	43	152	5	20	0.009	0.007	<0.0001	0.002	<0.001	<0.002	0.002
	ESG 🔗		Client N	ame	Watern Mr F Alco	nan EED						v	Vater S	ample .	Analysi	is		
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Joindoo		1 7 1100		er He	yford				Date Prin Report N Table Nu	lumber			-Jan-2012 KR/130267 1		

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW		PHEHPLCVL	PHEHPLCVL
I	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.01 Yes	2 No	1 No	0.002 No	0.0005 No	0.0005 No	0.0005 No
LAB ID Number EX	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols
1259537	BH-NSA-1	11-Jan-12	0.16	<0.0001	<0.001	<0.01	<0.2	<0.01	314	4.0	Req	Req	21.2	13	Req	0.0027	<0.0005	<0.0005
1259538	BH-NSA-16	11-Jan-12	0.04	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	0.62	Req	Req	<2.0	<6	Req	0.0032	<0.0005	<0.0005
1259539	BH-NSA-3	11-Jan-12	0.07	<0.0001	0.001	<0.01	<0.2	<0.01	34	8.7	Req	Req	10.5	<6	Req	0.0033	<0.0005	<0.0005
1259540	BH-NSA-2	11-Jan-12	0.04	<0.0001	0.001	0.3	<0.2	<0.01	34	10	Req	Req	3.0	22	Req	0.0039	<0.0005	0.0014
1259541	BH-NSA-4	11-Jan-12	0.02	<0.0001	<0.001	0.11	<0.2	<0.01	17	1.2	Req	Req	<2.0	<6	Req	0.0010	<0.0005	<0.0005
1259542	BH-NSA-5	11-Jan-12	0.02	<0.0001	0.001	<0.01	2.7	<0.01	8	0.97	Req	Req	<2.0	9	Req	0.0032	0.0008	<0.0005
1259543	BH-NSA-8	11-Jan-12	0.13	<0.0001	<0.001	<0.01	<0.2	<0.01	13	4.3	Req	Req	23.1	<6	Req	0.0013	<0.0005	<0.0005
1259544	BH-NSA-38	11-Jan-12	<0.01	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	2.3	Req	Req	<2.0	<6	Req	0.0017	0.0010	<0.0005
1259545	BH-NSA-6	11-Jan-12	0.03	<0.0001	<0.001	0.12	<0.2	<0.01	35	6.9	Req	Req	11.8	<6	Req	0.0042	<0.0005	<0.0005
Br Bu	nvironmental Scientifics Group retby Business Park, Ashby Road rurton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400		Client N Contact		Watern Mr F Alco	nan EED	er He	yford				Date Prin	nted lumber	ample		-Jan-2012 XR/130267		
	Fax +44 (0) 1283 554422						•	-				I ADIE INU	IIIINEI			1		

		Units :	mg/l								
	Method	Codes:	PHEHPLCVL								
	Method Reporting	Limits :	0.0005								
	UKAS Acc	redited :	No								
LAB ID Number EX/	Client Sample Description	Sample Date	Trimethylphenols								
1259537	BH-NSA-1	11-Jan-12	<0.0005								
1259538	BH-NSA-16	11-Jan-12	<0.0005								
1259539	BH-NSA-3	11-Jan-12	<0.0005								
1259540	BH-NSA-2	11-Jan-12	0.0030								
1259541	BH-NSA-4	11-Jan-12	<0.0005								
1259542	BH-NSA-5	11-Jan-12	<0.0005								
1259543	BH-NSA-8	11-Jan-12	<0.0005								
1259544	BH-NSA-38	11-Jan-12	<0.0005								
1259545	BH-NSA-6	11-Jan-12	<0.0005								
	_										
	FSC.		Client N	ame	Waterman EE	D		Water S	ample Analysi	s	
	Environmental Scientifics Group		Contact		Mr F Alcock						
	Bretby Business Park, Ashby Road				-			Date Printed	23-	Jan-2012	
	Burton-on-Trent, Staffordshire, DE15 0YZ				11		of a mal	Report Number	EX	(R/130267	
	Tel +44 (0) 1283 554400				Upj	per He	yτora	Table Number		1	
	Fax +44 (0) 1283 554422										

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-1
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259537
 Date Extracted:
 16-Jan-12

 Job Number:
 W13_0267
 Date Analysed:
 16-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	5
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.GC11\	0116_CCC1a.IGPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted D' denotes concentration confirmed by dilution

Surrogates	% Rec
2-Fluorophenol	55
Phenol-d5	41
Nitrobenzene-d5	97
2-Fluorobiphenyl	98
2,4,6-Tribromophenol	93
Terphenyl-d14	112

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-16
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259538
 Date Extracted:
 16-Jan-12

 Job Number:
 W13_0267
 Date Analysed:
 16-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	5
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.GC11\	0116_CCC1a.I GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted D' denotes concentration confirmed by dilution

 Internal Standards
 % Area

 1,4-Dichlorobenzene-d4
 109

 Naphthalene-d8
 111

 Acenaphthene-d10
 109

 Phenanthrene-d10
 116

 Chrysene-d12
 107

 Perylene-d12
 111

111	ed by dilution	
	Surrogates	% Rec
	2-Fluorophenol	46
	Phenol-d5	32
	Nitrobenzene-d5	90
	2-Fluorobiphenyl	97
	2,4,6-Tribromophenol	83
	Terphenyl-d14	102

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-3
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259539
 Date Extracted:
 16-Jan-12

 Job Number:
 W13_0267
 Date Analysed:
 16-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.005	_
2,6-Dinitrotoluene	606-20-2		< 0.005	_
Acenaphthene	83-32-9	_	< 0.003	_
3-Nitroaniline	99-09-2		< 0.002	_

Matrix:	Water	QC Batch Number:	5
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.GC11\ 0116_CCC1a	ı.IGPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

D' denotes concentration confirmed by dilution

D denotes concer
% Area
114
117
119
122
116
123

Ш	ea by allution	
	Surrogates	% Rec
	2-Fluorophenol	49
	Phenol-d5	36
	Nitrobenzene-d5	93
	2-Fluorobiphenyl	96
	2,4,6-Tribromophenol	102
	Terphenyl-d14	99
		•

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-2
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259540
 Date Extracted:
 16-Jan-12

 Job Number:
 W13_0267
 Date Analysed:
 16-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	5
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.GC11\	0116_CCC1a.l GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

D' denotes concentration confirmed by dilution

	B donotoo concor
Internal Standards	% Area
1,4-Dichlorobenzene-d4	114
Naphthalene-d8	109
Acenaphthene-d10	114
Phenanthrene-d10	122
Chrysene-d12	103
Perylene-d12	112

ш	ed by dilution	
	Surrogates	% Rec
	2-Fluorophenol	46
	Phenol-d5	32
	Nitrobenzene-d5	88
	2-Fluorobiphenyl	90
	2,4,6-Tribromophenol	110
	Terphenyl-d14	96

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-4
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259541
 Date Extracted:
 16-Jan-12

 Job Number:
 W13_0267
 Date Analysed:
 16-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	_	< 0.005	-
Naphthalene	91-20-3	_	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	_	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	-
2-Methylnaphthalene	91-57-6	_	< 0.002	-
1-Methylnaphthalene	90-12-0	_	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	_	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	5
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.GC11\	0116_CCC1a.l GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	79
Naphthalene-d8	92
Acenaphthene-d10	91
Phenanthrene-d10	91
Chrysene-d12	80
Perylene-d12	87

 ed by dilution	
Surrogates	% Rec
2-Fluorophenol	38
Phenol-d5	28
Nitrobenzene-d5	70
2-Fluorobiphenyl	79
2,4,6-Tribromophenol	81
Terphenyl-d14	91

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-5
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259542
 Date Extracted:
 16-Jan-12

 Job Number:
 W13_0267
 Date Analysed:
 17-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.002	<u> </u>
2.6-Dinitrotoluene	606-20-2	_	< 0.005	_
Acenaphthene	83-32-9	_	< 0.003	_
3-Nitroaniline	99-09-2	_	< 0.002	_

Matrix:	Water	QC Batch Number:	5
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.GC11\	0116_CCC1a.I GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted D' denotes concentration confirmed by dilution

Surrogates	% Rec
2-Fluorophenol	55
Phenol-d5	38
Nitrobenzene-d5	93
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	94
Terphenyl-d14	114

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-8
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259543
 Date Extracted:
 16-Jan-12

 Job Number:
 W13_0267
 Date Analysed:
 17-Jan-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	-	< 0.020	_
1.3-Dichlorobenzene	541-73-1	_	< 0.005	_
1,4-Dichlorobenzene	106-46-7	_	< 0.005	_
Benzyl alcohol	100-51-6	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.005	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	5
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.GC11\ 0116_CCC1a.	IGPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

D' denotes concentration confirmed by dilution

	B dollotoo oollool
Internal Standards	% Area
1,4-Dichlorobenzene-d4	103
Naphthalene-d8	109
Acenaphthene-d10	112
Phenanthrene-d10	106
Chrysene-d12	100
Perylene-d12	111

 ed by dilution	
Surrogates	% Rec
2-Fluorophenol	52
Phenol-d5	37
Nitrobenzene-d5	94
2-Fluorobiphenyl	100
2,4,6-Tribromophenol	96
Terphenyl-d14	110

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-38
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259544
 Date Extracted:
 16-Jan-12

 Job Number:
 W13_0267
 Date Analysed:
 17-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit	
		(min)	mg/l		
Phenol	108-95-2	-	< 0.020	-	
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-	
2-Chlorophenol	95-57-8	-	< 0.020	-	
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-	
Benzyl alcohol	100-51-6	-	< 0.005	-	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-	
2-Methylphenol	95-48-7	-	< 0.005	-	
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	-	
N-Nitroso-di-n-propylamine	621-64-7	_	< 0.005	_	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-	
Nitrobenzene	98-95-3	-	< 0.005	_	
Isophorone	78-59-1	-	< 0.005	_	
2-Nitrophenol	88-75-5	-	< 0.020	_	
2,4-Dimethylphenol	105-67-9	-	< 0.020	_	
Benzoic Acid	65-85-0 *	-	< 0.100	_	
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_	
2,4-Dichlorophenol	120-83-2	-	< 0.020	_	
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_	
Naphthalene	91-20-3	-	< 0.002	_	
4-Chlorophenol	106-48-9	-	< 0.020	_	
4-Chloroaniline	106-47-8 *	-	< 0.005	_	
Hexachlorobutadiene	87-68-3	_	< 0.005	_	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_	
2-Methylnaphthalene	91-57-6	-	< 0.002	_	
1-Methylnaphthalene	90-12-0	-	< 0.002	_	
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_	
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_	
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_	
2-Chloronaphthalene	91-58-7	-	< 0.002	_	
Biphenyl	92-52-4	_	< 0.002	_	
Diphenyl ether	101-84-8	_	< 0.002	_	
2-Nitroaniline	88-74-4	_	< 0.002	_	
Acenaphthylene	208-96-8	_	< 0.003	_	
Dimethylphthalate	131-11-3	_	< 0.002	_	
2,6-Dinitrotoluene	606-20-2		< 0.005	_	
Acenaphthene	83-32-9		< 0.003	_	
3-Nitroaniline	99-09-2		< 0.002	_	

Matrix:	Water	QC Batch Number:	5
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.GC11\ 0116_CCC1a	IGPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

D' denotes concentration confirmed by dilution

	D donotoo concor
Internal Standards	% Area
1,4-Dichlorobenzene-d4	112
Naphthalene-d8	117
Acenaphthene-d10	117
Phenanthrene-d10	124
Chrysene-d12	111
Perylene-d12	117

111	ed by dilution	
	Surrogates	% Rec
	2-Fluorophenol	58
	Phenol-d5	38
	Nitrobenzene-d5	91
	2-Fluorobiphenyl	97
	2,4,6-Tribromophenol	90
	Terphenyl-d14	105

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-6
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259545
 Date Extracted:
 16-Jan-12

 Job Number:
 W13_0267
 Date Analysed:
 17-Jan-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit	
Phenol	108-95-2	-	< 0.020	_	
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_	
2-Chlorophenol	95-57-8	_	< 0.020	_	
1.3-Dichlorobenzene	541-73-1	-	< 0.020	_	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_	
Benzyl alcohol	100-51-6	-	< 0.005	_	
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_	
2-Methylphenol	95-48-7	-	< 0.005	_	
bis(2-Chloroisopropyl)ether	108-60-1	_	< 0.005	_	
Hexachloroethane	67-72-1	-	< 0.005	_	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	_	
Nitrobenzene	98-95-3	-	< 0.020	_	
Isophorone	78-59-1	-	< 0.005	_	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9	-	< 0.020	_	
Benzoic Acid	65-85-0 *	-	< 0.100	_	
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_	
2,4-Dichlorophenol	120-83-2	-	< 0.020	_	
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_	
Naphthalene	91-20-3	-	< 0.002	_	
4-Chlorophenol	106-48-9	-	< 0.020	_	
4-Chloroaniline	106-47-8 *	-	< 0.005	-	
Hexachlorobutadiene	87-68-3	-	< 0.005	_	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-	
2-Methylnaphthalene	91-57-6	-	< 0.002	-	
1-Methylnaphthalene	90-12-0	7.31	0.006	77	
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-	
2-Chloronaphthalene	91-58-7	-	< 0.002	-	
Biphenyl	92-52-4	-	< 0.002	-	
Diphenyl ether	101-84-8	-	< 0.002	-	
2-Nitroaniline	88-74-4	-	< 0.005	-	
Acenaphthylene	208-96-8	-	< 0.002	-	
Dimethylphthalate	131-11-3	-	< 0.005	-	
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-	
Acenaphthene	83-32-9	-	< 0.002	-	
3-Nitroaniline	99-09-2	-	< 0.005	-	

Matrix:	Water	QC Batch Number:	5
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.GC11\	0116_CCC1a.l GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

D' denotes concentration confirmed by dilution

Internal Standards	% Area
1,4-Dichlorobenzene-d4	97
Naphthalene-d8	105
Acenaphthene-d10	110
Phenanthrene-d10	113
Chrysene-d12	110
Perylene-d12	128

Ш	ed by dilution	
	Surrogates	% Rec
	2-Fluorophenol	47
	Phenol-d5	31
	Nitrobenzene-d5	88
	2-Fluorobiphenyl	92
	2,4,6-Tribromophenol	99
	Terphenyl-d14	97

Compounds marked with a * are reported not UKAS.

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_0267

Directory: D:\TES\DATA\Y2012\0116HSA_GC09\011612 2012-01-16 07-14-13\022F2201.D

Method: Headspace GCFID

Matrix: Water

Date Booked in: 12-Jan-12
Date extracted: 16-Jan-12

Date Analysed: 16-Jan-12, 14:02:46

* Sample data with an asterisk are not UKAS accredited.

		_	Concentration, (mg/l)								
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
* EX1259537	BH-NSA-1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259538	BH-NSA-16	<0.005	< 0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259539	BH-NSA-3	<0.005	< 0.005	< 0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259540	BH-NSA-2	<0.005	< 0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259541	BH-NSA-4	<0.005	<0.005	< 0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259542	BH-NSA-5	<0.005	<0.005	< 0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259543	BH-NSA-8	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259544	BH-NSA-38	<0.005	<0.005	< 0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259545	BH-NSA-6	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford

 Job Number:
 W13_0267
 Separation:
 Silica gel

 QC Batch Number:
 120025
 Eluents:
 Hexane, DCM

 Directory:
 D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\069B2201.D

Method: Bottle

		Concentration, (mg/l)											
* This sample data is not UKAS accredited.		>C8 - C10		>C10 - C12		>C12 - C16		>C16 - C21		>C21 - C35		>C8 - C40	
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1259537	BH-NSA-1	<0.01	<0.01	<0.01	<0.01	0.017	<0.01	0.199	0.05	5.17	1.36	5.39	1.62
EX1259538	BH-NSA-16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.022	<0.01	0.031	<0.01
EX1259539	BH-NSA-3	0.012	<0.01	0.045	0.013	0.071	0.017	0.088	0.025	1.88	0.499	2.27	0.633
EX1259540	BH-NSA-2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011
EX1259541	BH-NSA-4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.016	<0.01
EX1259542	BH-NSA-5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1259543	BH-NSA-8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01
EX1259544	BH-NSA-38	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1259545	BH-NSA-6	0.043	<0.01	0.096	0.095	0.375	0.317	0.342	0.283	0.277	0.231	1.16	0.97
													1
													1
													1

Matrix:

Date Booked ir

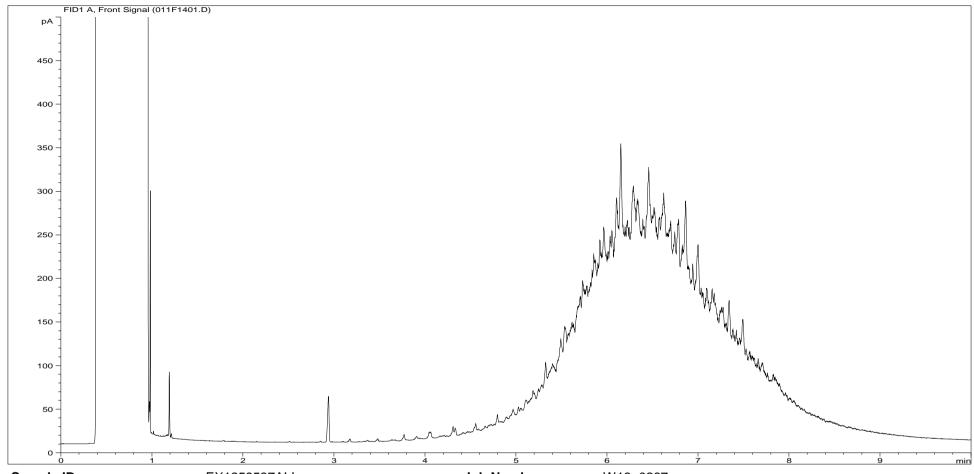
Date Extracted

Water

Date Analysed: 16-Jan-12, 19:52:29

12-Jan-12

16-Jan-12



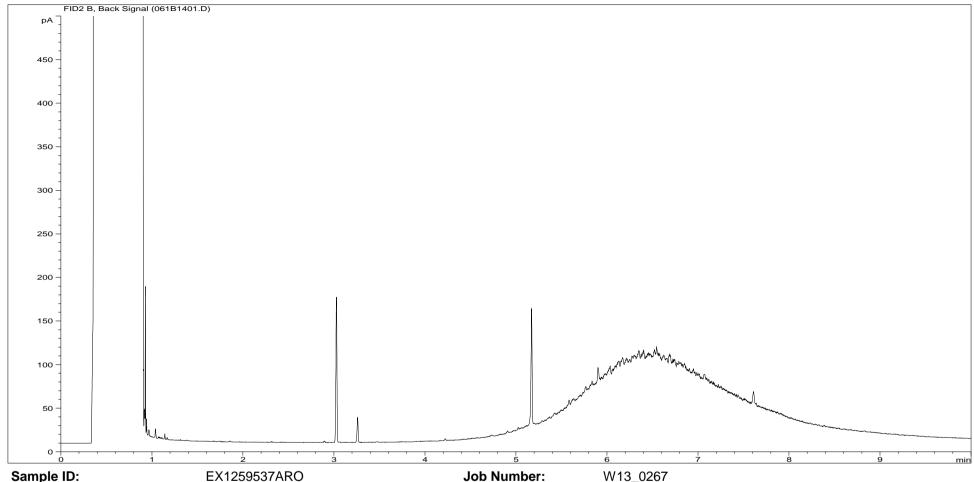
Sample ID: EX1259537ALI
Multiplier: 0.02
Dilution: 1
Acquisition Method: TPH_RUNF.M

Job Number: W13_0267
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA-1

Acquisition Date/Time: 16-Jan-12, 17:35:43

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\011F1401.D

Page 16 of 37 EXR/130267 Ver. 1



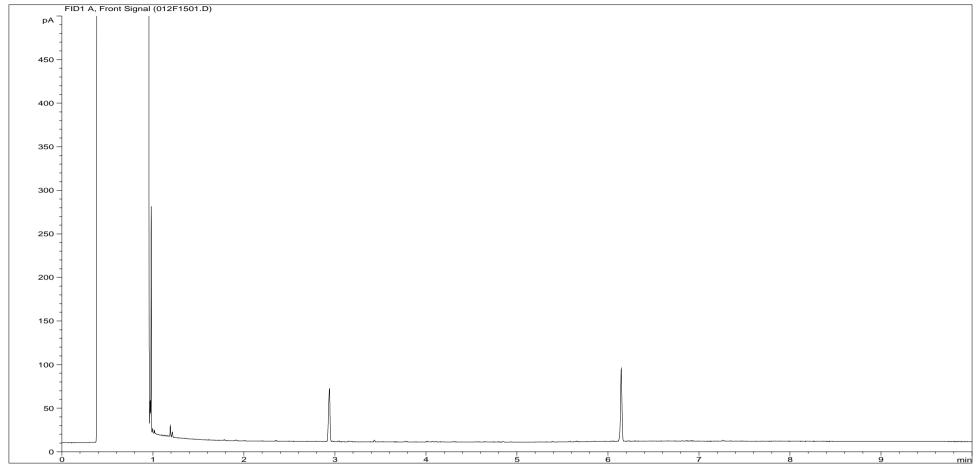
Sample ID:EX1259537AROMultiplier:0.015Dilution:1Acquisition Method:TPH_RUNF.M

Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA-1

Acquisition Date/Time: 16-Jan-12, 17:35:43

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\061B1401.D

Page 17 of 37 EXR/130267 Ver. 1

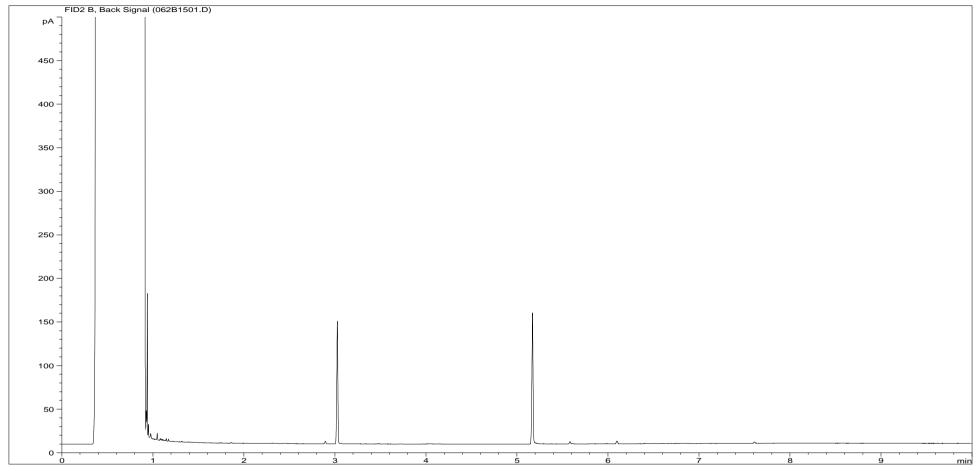


Sample ID:EX1259538ALIJob Number:W13_0267Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-16

Acquisition Date/Time: 16-Jan-12, 17:52:47

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\012F1501.D

Page 18 of 37 EXR/130267 Ver. 1

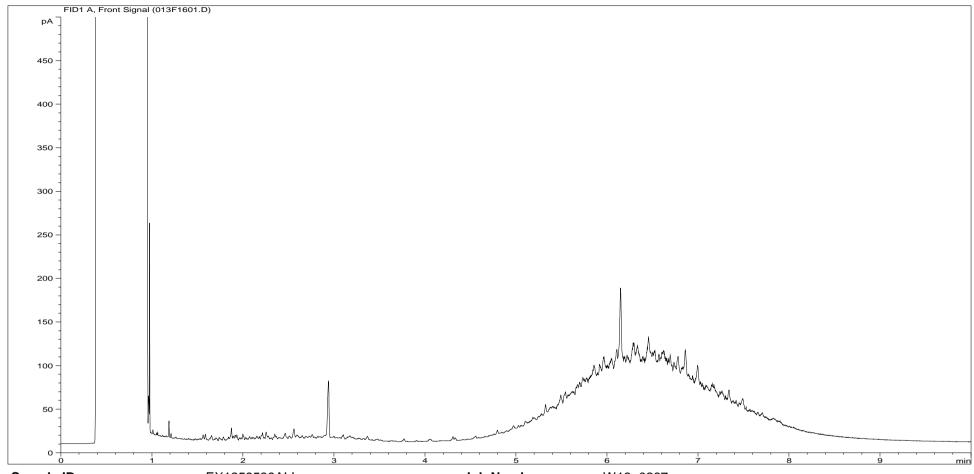


Sample ID:EX1259538AROJob Number:W13_0267Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-16

Acquisition Date/Time: 16-Jan-12, 17:52:47

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\062B1501.D

Page 19 of 37 EXR/130267 Ver. 1

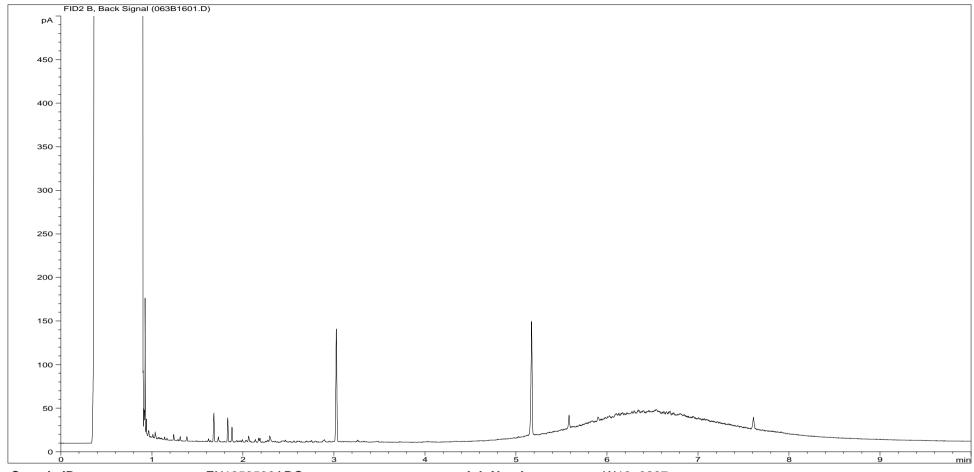


Sample ID:EX1259539ALIJob Number:W13_0267Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-3

Acquisition Date/Time: 16-Jan-12, 18:09:51

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\013F1601.D

Page 20 of 37 EXR/130267 Ver. 1

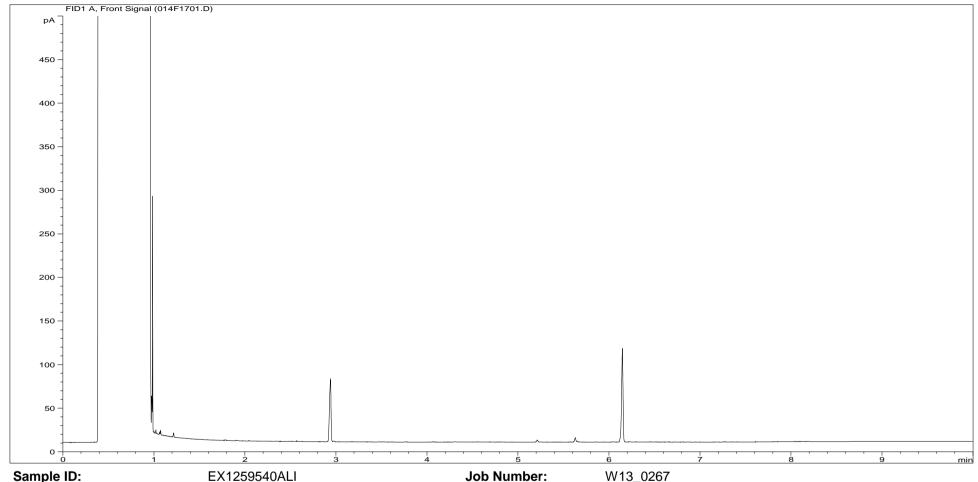


Sample ID:EX1259539AROJob Number:W13_0267Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-3

Acquisition Date/Time: 16-Jan-12, 18:09:51

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\063B1601.D

Page 21 of 37 EXR/130267 Ver. 1



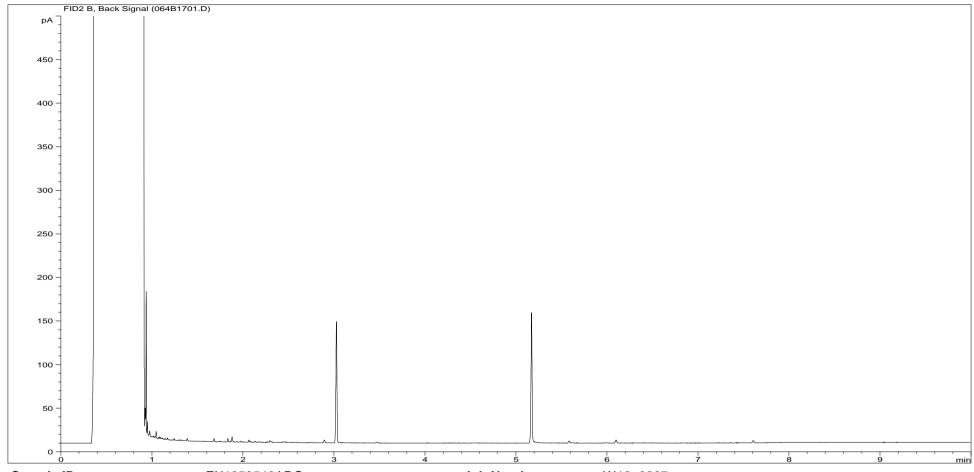
Sample ID:EX1259540ALIMultiplier:0.02Dilution:1Acquisition Method:TPH_RUNF.M

Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA-2

Acquisition Date/Time: 16-Jan-12, 18:27:02

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\014F1701.D

Page 22 of 37 EXR/130267 Ver. 1

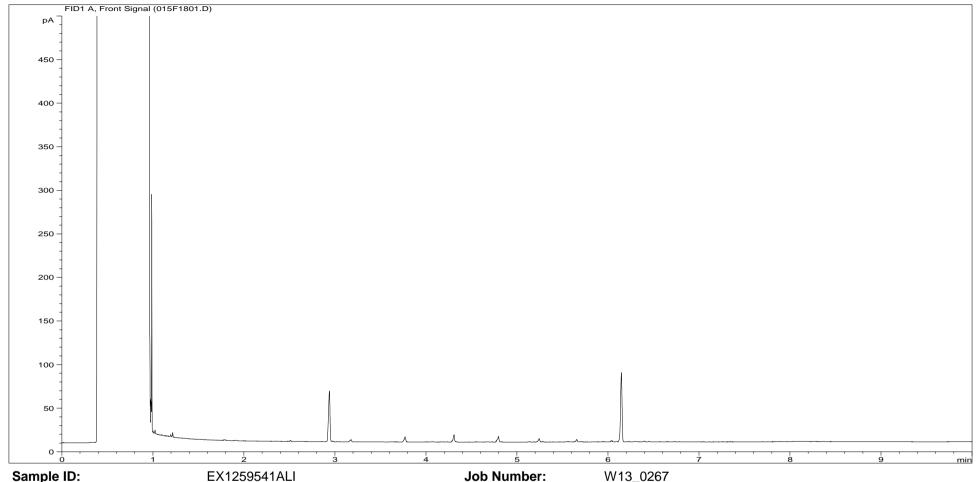


Sample ID:EX1259540AROJob Number:W13_0267Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-2

Acquisition Date/Time: 16-Jan-12, 18:27:02

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\064B1701.D

Page 23 of 37 EXR/130267 Ver. 1



Sample ID:EX1259541ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 16-Jan-12, 18:44:07

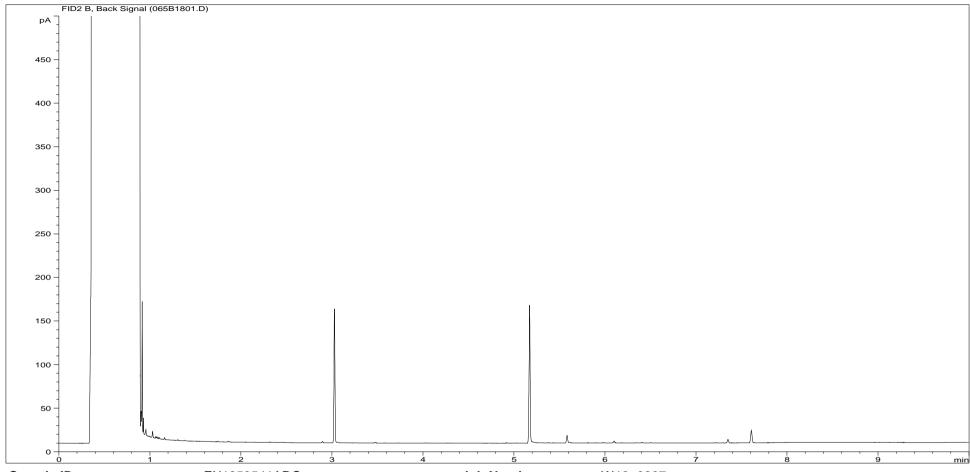
Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\015F1801.D

Waterman EED

Upper Heyford

BH-NSA-4

Page 24 of 37 EXR/130267 Ver. 1

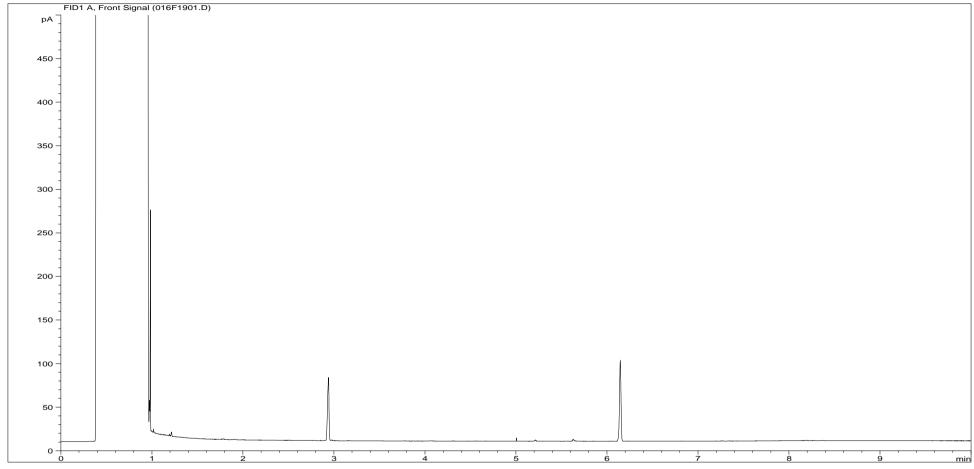


Sample ID:EX1259541AROJob Number:W13_0267Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-4

Acquisition Date/Time: 16-Jan-12, 18:44:07

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\065B1801.D

Page 25 of 37 EXR/130267 Ver. 1

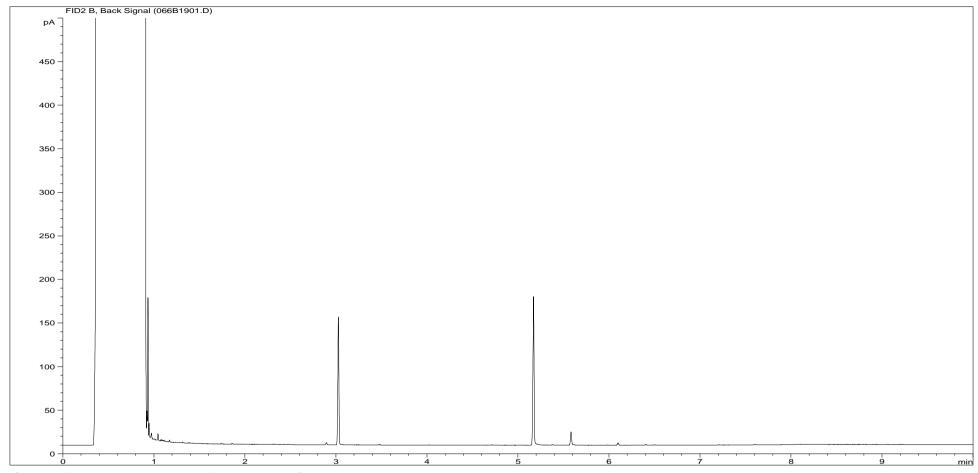


Sample ID:EX1259542ALIJob Number:W13_0267Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-5

Acquisition Date/Time: 16-Jan-12, 19:01:13

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\016F1901.D

Page 26 of 37 EXR/130267 Ver. 1

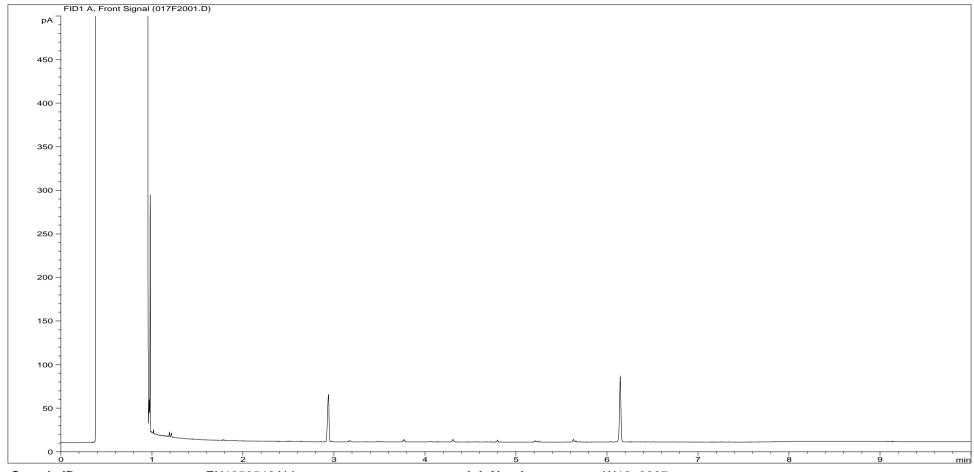


Sample ID:EX1259542AROJob Number:W13_0267Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-5

Acquisition Date/Time: 16-Jan-12, 19:01:13

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\066B1901.D

Page 27 of 37 EXR/130267 Ver. 1

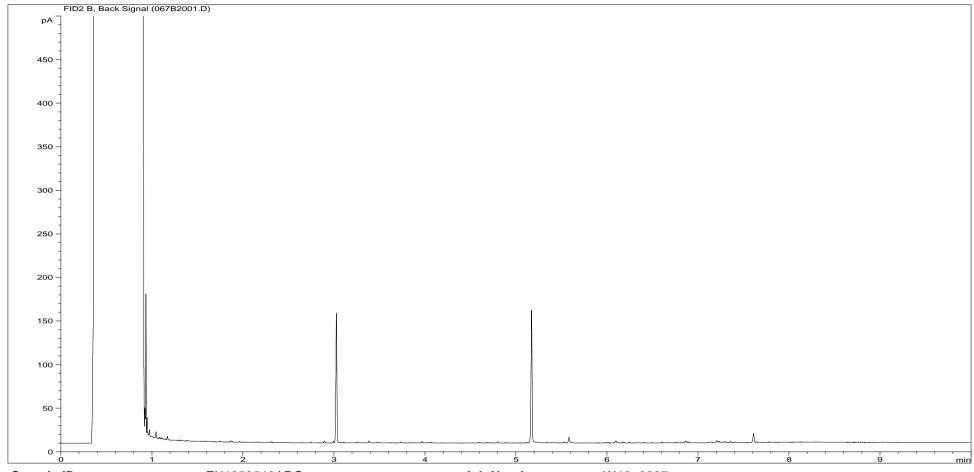


Sample ID:EX1259543ALIJob Number:W13_0267Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-8

Acquisition Date/Time: 16-Jan-12, 19:18:19

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\017F2001.D

Page 28 of 37 EXR/130267 Ver. 1

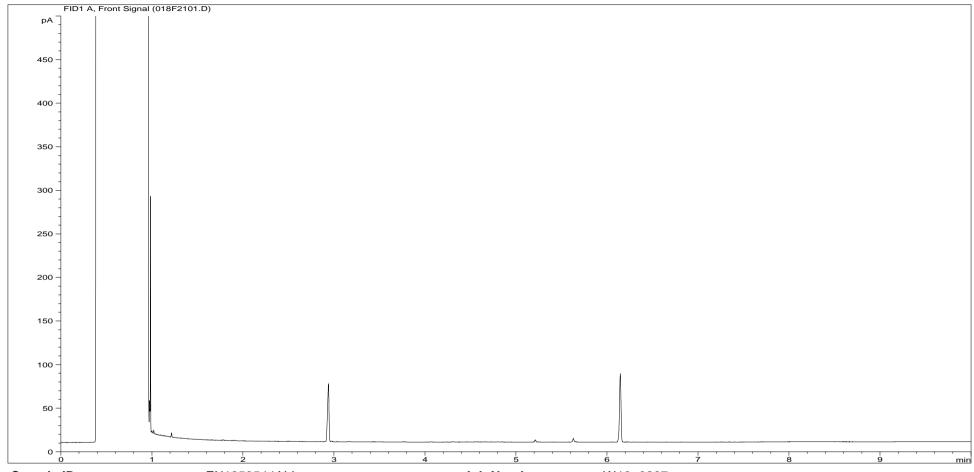


Sample ID:EX1259543AROJob Number:W13_0267Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-8

Acquisition Date/Time: 16-Jan-12, 19:18:19

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\067B2001.D

Page 29 of 37 EXR/130267 Ver. 1

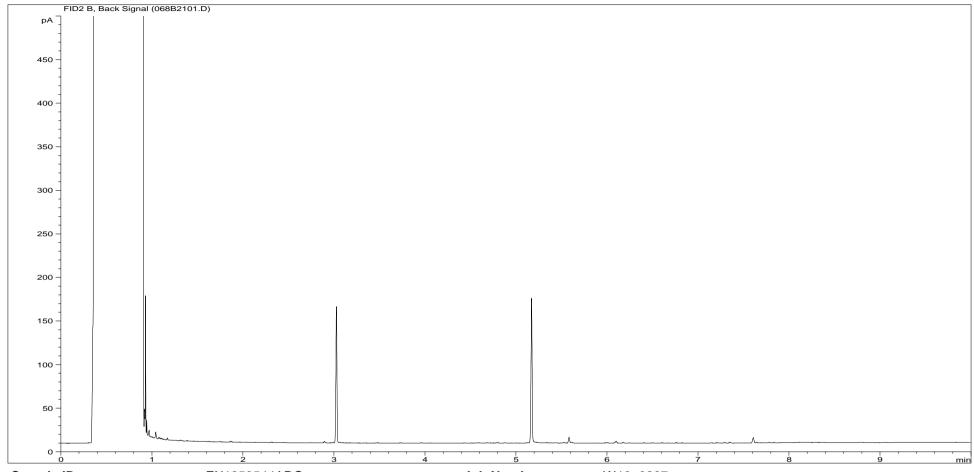


Sample ID:EX1259544ALIJob Number:W13_0267Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-38

Acquisition Date/Time: 16-Jan-12, 19:35:25

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\018F2101.D

Page 30 of 37 EXR/130267 Ver. 1

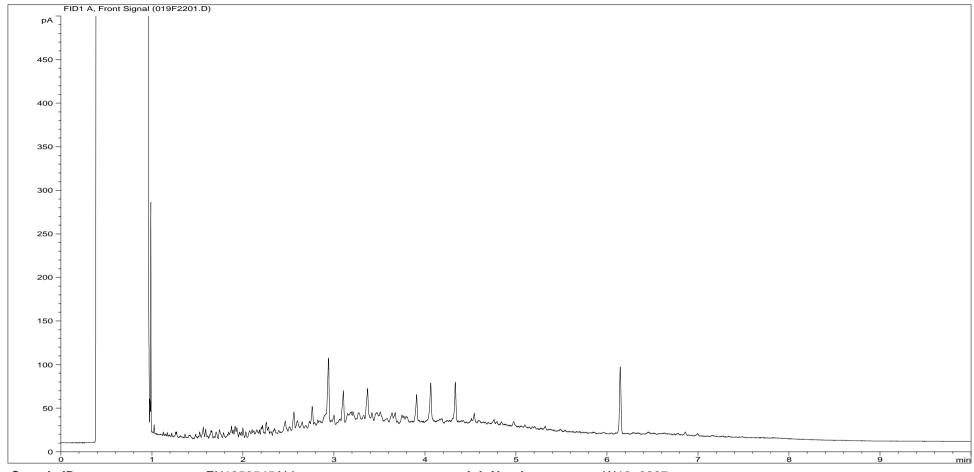


Sample ID:EX1259544AROJob Number:W13_0267Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-38

Acquisition Date/Time: 16-Jan-12, 19:35:25

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\068B2101.D

Page 31 of 37 EXR/130267 Ver. 1

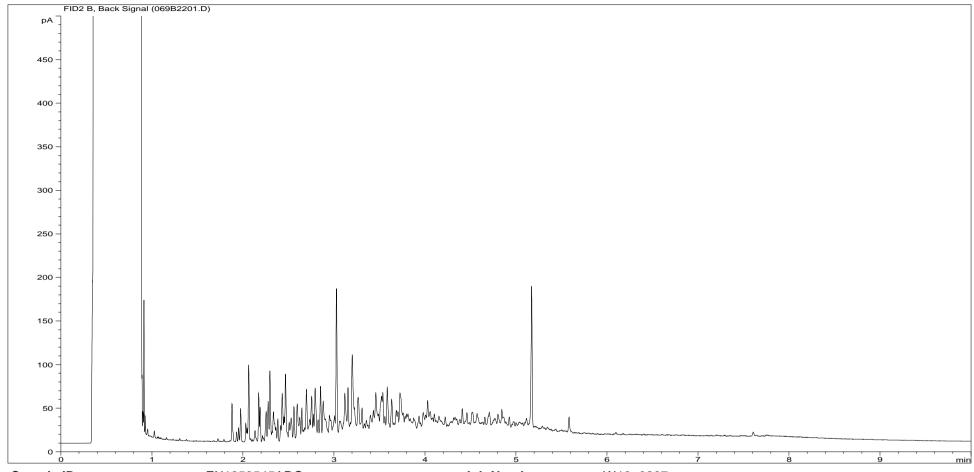


Sample ID:EX1259545ALIJob Number:W13_0267Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-6

Acquisition Date/Time: 16-Jan-12, 19:52:29

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\019F2201.D

Page 32 of 37 EXR/130267 Ver. 1



Sample ID:EX1259545AROJob Number:W13_0267Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-6

Acquisition Date/Time: 16-Jan-12, 19:52:29

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\069B2201.D

Page 33 of 37 EXR/130267 Ver. 1

Report No

W130267

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W130267

Consignment No W32569 Date Logged 12-Jan-2012

Report Due 20-Jan-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW									ICPWATVAR					KONENS				PHEHPLCVL	svocsw	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
		to ISO17025		✓	✓	✓	✓	>	>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	>			>	>	✓
EX/1259537	BH-NSA-1	11/01/12																									
EX/1259538	BH-NSA-16	11/01/12																									
EX/1259539	BH-NSA-3	11/01/12																									
EX/1259540	BH-NSA-2	11/01/12																									
EX/1259541	BH-NSA-4	11/01/12																									
EX/1259542	BH-NSA-5	11/01/12																									
EX/1259543 EX/1259544	BH-NSA-8 BH-NSA-38	11/01/12 11/01/12																									
EX/1259545	BH-NSA-6	11/01/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Site

Report No

Waterman EED **Upper Heyford**

Consignment No W32569 Date Logged 12-Jan-2012

W130267

Report Due 20-Jan-2012

	,							טוו טעו
		MethodID	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited :	to ISO17025	✓	✓	✓		✓	
EX/1259537	BH-NSA-1	11/01/12						
EX/1259538	BH-NSA-16	11/01/12						
EX/1259539	BH-NSA-3	11/01/12						
EX/1259540	BH-NSA-2	11/01/12						
EX/1259541	BH-NSA-4	11/01/12						
EX/1259542	BH-NSA-5	11/01/12						
EX/1259543	BH-NSA-8	11/01/12						
EX/1259544	BH-NSA-38	11/01/12						
EX/1259545	BH-NSA-6	11/01/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/130267

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

Symbol Reference

- ^ Sub-contracted analysis. Note: The accreditation status is that assigned by the subcontract laboratory.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only
- Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/130268 (Ver. 1) Your Ref: E10658-109

January 20, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG ESG Environmental Scientifics Group

Environmental Chemistry

ESC

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

J Elstub <u>Project Co-ordinator</u> 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/130268 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 6 samples described in this report were registered for analysis by ESG on 12-Jan-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 20-Jan-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 10)
Table of GRO Results (Page 11)
Table of TPH (Si) banding (0.01) (Page 12)
GC-FID Chromatograms (Pages 13 to 24)
Analytical and Deviating Sample Overview (Pages 25 to 26)
Table of Method Descriptions (Page 27)
Table of Report Notes (Page 28)

On behalf of ESG: Andrew Timms Operations Manager

Date of Issue: 20-Jan-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes:	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR					ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
LAB ID Number EX	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1259546	BH-NSA-12	10-Jan-12	7.5	688	268	Nil	34	36	151	5	19	0.004	0.007	<0.0001	0.001	<0.001	<0.002	<0.001
1259547	BH-NSA-10	10-Jan-12	7.4	624	293	Nil	26	29	130	4	16	0.003	0.007	<0.0001	0.001	<0.001	<0.002	<0.001
1259548	BH-NSA-11	10-Jan-12	7.5	604	244	Nil	30	38	126	4	21	0.003	0.006	<0.0001	0.001	<0.001	<0.002	<0.001
1259549	BH-NSA-9	10-Jan-12	7.4	645	297	Nil	35	35	127	4	18	0.002	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1259550	BH-NSA-7	10-Jan-12	7.9	530	190	Nil	39	38	107	6	24	0.003	0.004	<0.0001	<0.001	<0.001	<0.002	0.006
1259551	BH-NSA-13	10-Jan-12	7.7	508	254	Nil	9	28	78	17	9	0.005	0.005	<0.0001	<0.001	<0.001	<0.002	0.002
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client N		Watern Mr F Alco		er He	yford				Date Prin Report N	nted Iumber	ample		Jan-2012 XR/130268		

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW	PHEHPLCVL		
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.01 Yes	2 No	6 No	0.002 No	0.0005 No	0.0005 No	0.0005 No
LAB ID Number EX	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols
1259546	BH-NSA-12	10-Jan-12	0.05	<0.0001	<0.001	<0.01	1.2	<0.01	7	0.82	Req	Req	<2.0	<6	Req	0.0021	0.0011	<0.0005
1259547	BH-NSA-10	10-Jan-12	0.04	<0.0001	<0.001	0.08	4.3	<0.01	7	1.4	Req	Req	<2.0	7	Req	0.0017	<0.0005	<0.0005
1259548	BH-NSA-11	10-Jan-12	0.06	<0.0001	<0.001	0.02	0.2	<0.01	<5	1.3	Req	Req	<2.0	10	Req	0.0028	<0.0005	<0.0005
1259549	BH-NSA-9	10-Jan-12	0.02	<0.0001	<0.001	0.2	<0.2	<0.01	<5	1.3	Req	Req	3.7	<6	Req	0.0028	<0.0005	<0.0005
1259550	BH-NSA-7	10-Jan-12	0.03	<0.0001	<0.001	<0.01	<0.2	<0.01	33	9.8	Req	Req	13.8	13	Req	0.0027	<0.0005	<0.0005
1259551	BH-NSA-13	10-Jan-12	0.29	<0.0001	<0.001	0.09	<0.2	<0.01	12	0.69	Req	Req	2.6	10	Req	0.0024	<0.0005	<0.0005
	ESC Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client N	ame	Watern Mr F Alco		er He	yford				Date Prir Report N Table Nu	nted umber	ample		Jan-2012 XR/130268		

		Units :	mg/l							
	Method	Codes:	PHEHPLCVL							
	Method Reporting	Limits:	0.0005							
	UKAS Acc	redited :	No							
LAB ID Number EX/	Client Sample Description	Sample Date	Trimethylphenols							
1259546	BH-NSA-12	10-Jan-12	<0.0005							
1259547	BH-NSA-10	10-Jan-12	<0.0005							
1259548	BH-NSA-11	10-Jan-12	<0.0005							
1259549	BH-NSA-9	10-Jan-12	<0.0005							
1259550	BH-NSA-7	10-Jan-12	<0.0005							
1259551	BH-NSA-13	10-Jan-12	<0.0005							
	ESG 🚱		Client N	Waterma		<u> </u>	Water S	ample Analysi	s	
	Environmental Scientifics Group		Contact	Mr F Alcock				1		
	Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422			ı	Upper He	yford	Date Printed Report Number Table Number		Jan-2012 (R/130268 1	

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-12
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259546
 Date Extracted:
 18-Jan-12

 Job Number:
 W13_0268
 Date Analysed:
 18-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
DI I	400.05.0	(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	_	< 0.002	<u> </u>
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.002	
2.6-Dinitrotoluene	606-20-2	<u> </u>	< 0.005	
Acenaphthene	83-32-9		< 0.003	-
3-Nitroaniline	99-09-2		< 0.002	-
Companyed marked with a * are			< 0.000	_

Matrix:	Water	QC Batch Number:	6
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	18SVOC.GC11\	0118_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted D' denotes concentration confirmed by dilution

111	ed by dilution	
	Surrogates	% Rec
	2-Fluorophenol	46
	Phenol-d5	35
	Nitrobenzene-d5	90
	2-Fluorobiphenyl	88
	2,4,6-Tribromophenol	75
	Terphenyl-d14	98

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-10
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259547
 Date Extracted:
 18-Jan-12

 Job Number:
 W13_0268
 Date Analysed:
 18-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	6
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	18SVOC.GC11\	0118_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

D' denotes concentration confirmed by dilution

Internal Standards	% Area
1,4-Dichlorobenzene-d4	103
Naphthalene-d8	103
Acenaphthene-d10	102
Phenanthrene-d10	100
Chrysene-d12	90
Perylene-d12	87

me	a by allution	
	Surrogates	% Rec
2	-Fluorophenol	44
Р	Phenol-d5	33
Ν	litrobenzene-d5	88
2	-Fluorobiphenyl	86
2	,4,6-Tribromophenol	75
T	erphenyl-d14	98

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-11
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259548
 Date Extracted:
 18-Jan-12

 Job Number:
 W13_0268
 Date Analysed:
 18-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	_	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *		< 0.005	_
2,4,6-Trichlorophenol	88-06-2		< 0.020	_
2,4,5-Trichlorophenol	95-95-4		< 0.020	_
2-Chloronaphthalene	91-58-7	_	< 0.020	_
Biphenyl	92-52-4		< 0.002	_
Diphenyl ether	101-84-8		< 0.002	_
2-Nitroaniline	88-74-4		< 0.002	-
Acenaphthylene	208-96-8		< 0.003	-
Dimethylphthalate	131-11-3		< 0.002	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9		< 0.005	
Ritroaniline	99-09-2	-	< 0.002	-

Matrix:	Water	QC Batch Number:	6
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	18SVOC.GC11\	0118_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

D' denotes concentration confirmed by dilution

Internal Standards	% Area
1,4-Dichlorobenzene-d4	97
Naphthalene-d8	99
Acenaphthene-d10	101
Phenanthrene-d10	93
Chrysene-d12	80
Perylene-d12	75

111	ed by dilution	
	Surrogates	% Rec
	2-Fluorophenol	43
	Phenol-d5	33
	Nitrobenzene-d5	82
	2-Fluorobiphenyl	81
	2,4,6-Tribromophenol	71
	Terphenyl-d14	95

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-9
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259549
 Date Extracted:
 18-Jan-12

 Job Number:
 W13_0268
 Date Analysed:
 18-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.005	_
2,6-Dinitrotoluene	606-20-2		< 0.005	_
Acenaphthene	83-32-9	_	< 0.003	_
3-Nitroaniline	99-09-2		< 0.002	_

Matrix:	Water	QC Batch Number:	6
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	18SVOC.GC11\	0118_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted D' denotes concentration confirmed by dilution

111	ed by dilution	
	Surrogates	% Rec
	2-Fluorophenol	39
	Phenol-d5	30
	Nitrobenzene-d5	86
	2-Fluorobiphenyl	82
	2,4,6-Tribromophenol	69
	Terphenyl-d14	89

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-7
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259550
 Date Extracted:
 18-Jan-12

 Job Number:
 W13_0268
 Date Analysed:
 18-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
B-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	6
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	18SVOC.GC11\	0118_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted D' denotes concentration confirmed by dilution

111	ed by dilution	
	Surrogates	% Rec
	2-Fluorophenol	45
	Phenol-d5	34
	Nitrobenzene-d5	84
	2-Fluorobiphenyl	81
	2,4,6-Tribromophenol	81
	Terphenyl-d14	89

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-13
 Date Booked in:
 12-Jan-12

 LIMS ID Number:
 EX1259551
 Date Extracted:
 18-Jan-12

 Job Number:
 W13_0268
 Date Analysed:
 18-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	_	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	6
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	18SVOC.GC11\	0118_CCC2.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted D' denotes concentration confirmed by dilution

111	ed by dilution	
	Surrogates	% Rec
	2-Fluorophenol	44
	Phenol-d5	27
	Nitrobenzene-d5	84
	2-Fluorobiphenyl	91
	2,4,6-Tribromophenol	74
	Terphenyl-d14	97

Compounds marked with a * are reported not UKAS.

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13 0268

Directory: D:\TES\DATA\Y2012\0116HSA_GC09\011612 2012-01-16 07-14-13\028F2801.D

Method: Headspace GCFID

Matrix: Water

Date Booked in: 12-Jan-12
Date extracted: 16-Jan-12

Date Analysed: 16-Jan-12, 15:55:29

* Sample data with an asterisk are not UKAS accredited.

			C	oncentration, (n	ng/l)			Aliphatics			
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
* EX1259546	BH-NSA-12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259547	BH-NSA-10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259548	BH-NSA-11	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259549	BH-NSA-9	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259550	BH-NSA-7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1259551	BH-NSA-13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
				busine alutes historias C							

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED: Upper Heyford Matrix: Water

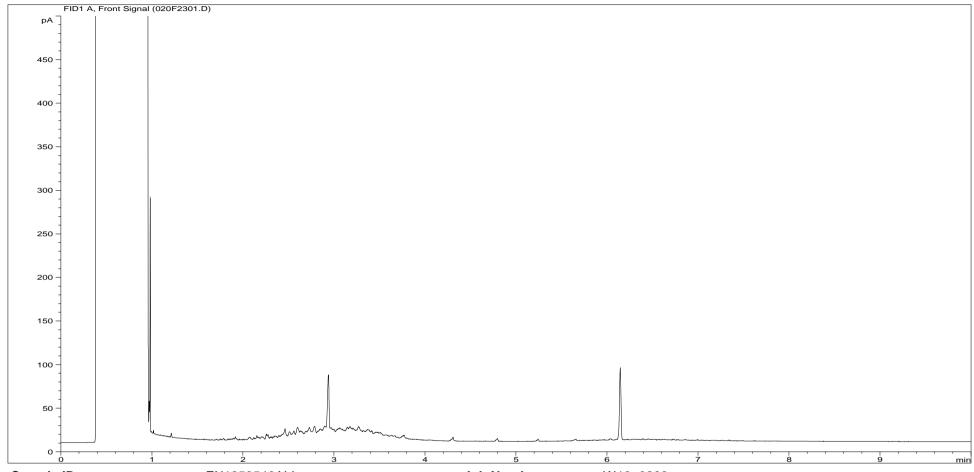
 Job Number:
 W13_0268
 Separation:
 Silica gel
 Date Booked ir
 12-Jan-12

 QC Batch Number:
 120025
 Eluents:
 Hexane, DCM
 Date Extracted
 16-Jan-12

 Directory:
 D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\075B2801.D
 Date Analysed: 16-Jan-12, 21:34:59

Method: Bottle

						Concentra	tion, (mg/l)							
* This sample data is not UK	AS accredited.	>C8	- C10	>C10	- C12	>C12	- C16	>C16	- C21	>C21	- C35	>C8	- C40	
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics Aromatics		Aliphatics Aromatics		Aliphatics Aromatics		Aliphatics	Aromatics	Aliphatics	Aromatics	
EX1259546	BH-NSA-12	0.015	<0.01	0.046	<0.01	0.176	0.016	0.032	0.011	0.07	0.025	0.346	0.062	
EX1259547	BH-NSA-10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
EX1259548	BH-NSA-11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
EX1259549	BH-NSA-9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
EX1259550	BH-NSA-7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	<0.01	0.031	<0.01	0.05	<0.01	
EX1259551	BH-NSA-13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01	0.021	<0.01	

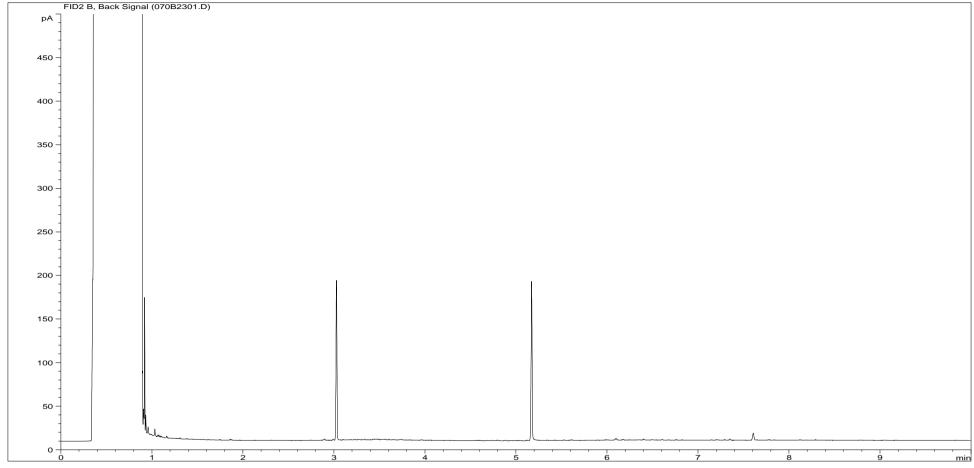


Sample ID:EX1259546ALIJob Number:W13_0268Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-12

Acquisition Date/Time: 16-Jan-12, 20:09:33

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\020F2301.D

Page 13 of 28 EXR/130268 Ver. 1

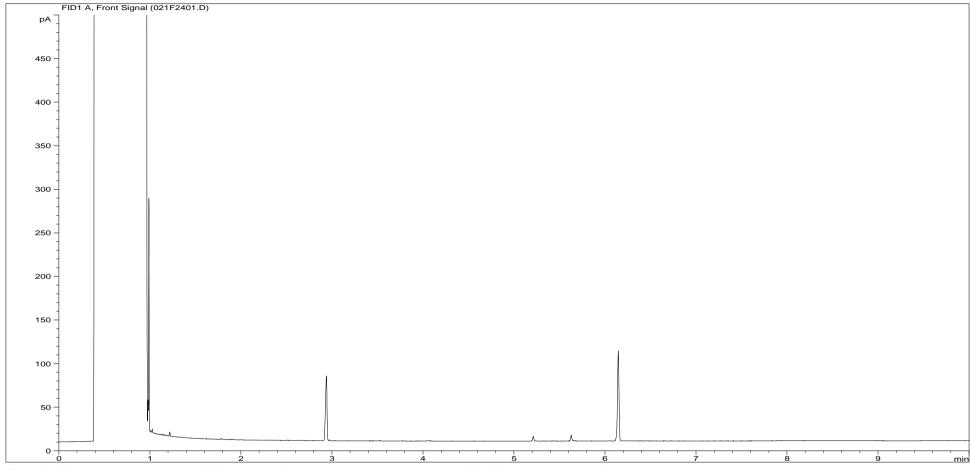


Sample ID:EX1259546AROJob Number:W13_0268Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-12

Acquisition Date/Time: 16-Jan-12, 20:09:33

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\070B2301.D

Page 14 of 28 EXR/130268 Ver. 1

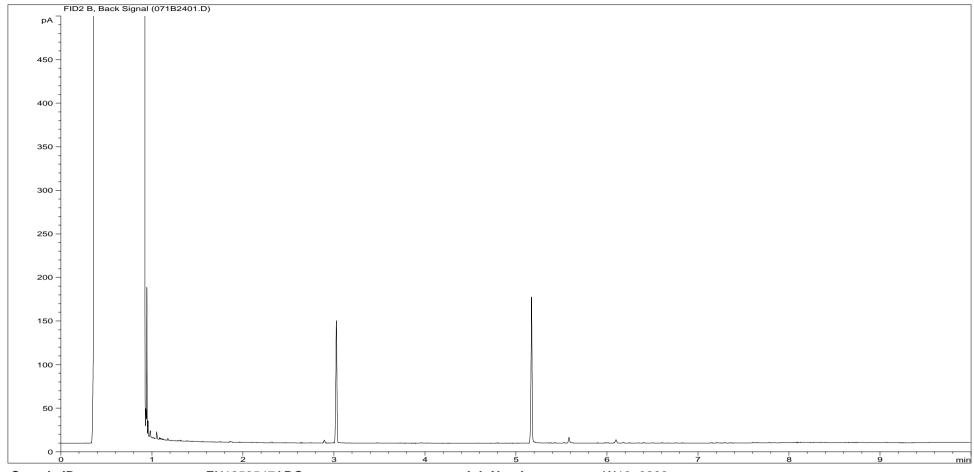


Sample ID:EX1259547ALIJob Number:W13_0268Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-10

Acquisition Date/Time: 16-Jan-12, 20:26:45

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\021F2401.D

Page 15 of 28 EXR/130268 Ver. 1

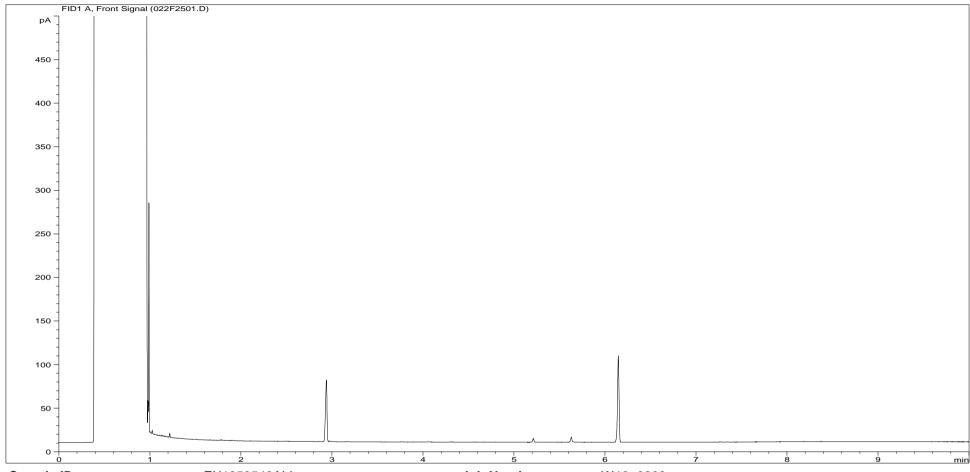


Sample ID:EX1259547AROJob Number:W13_0268Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-10

Acquisition Date/Time: 16-Jan-12, 20:26:45

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\071B2401.D

Page 16 of 28 EXR/130268 Ver. 1

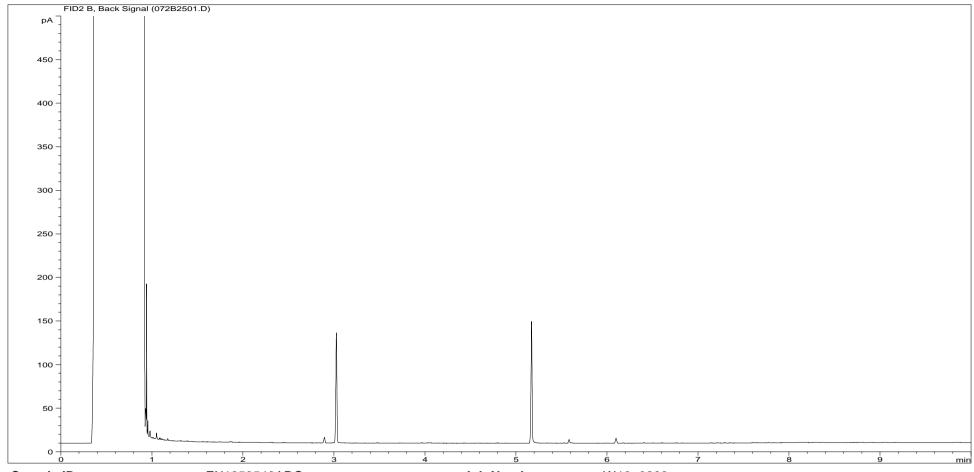


Sample ID:EX1259548ALIJob Number:W13_0268Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-11

Acquisition Date/Time: 16-Jan-12, 20:43:49

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\022F2501.D

Page 17 of 28 EXR/130268 Ver. 1

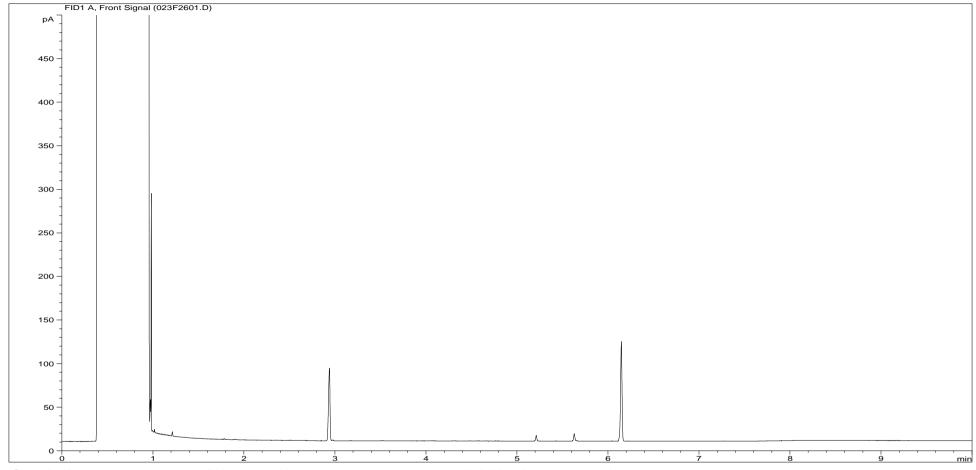


Sample ID:EX1259548AROJob Number:W13_0268Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-11

Acquisition Date/Time: 16-Jan-12, 20:43:49

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\072B2501.D

Page 18 of 28 EXR/130268 Ver. 1

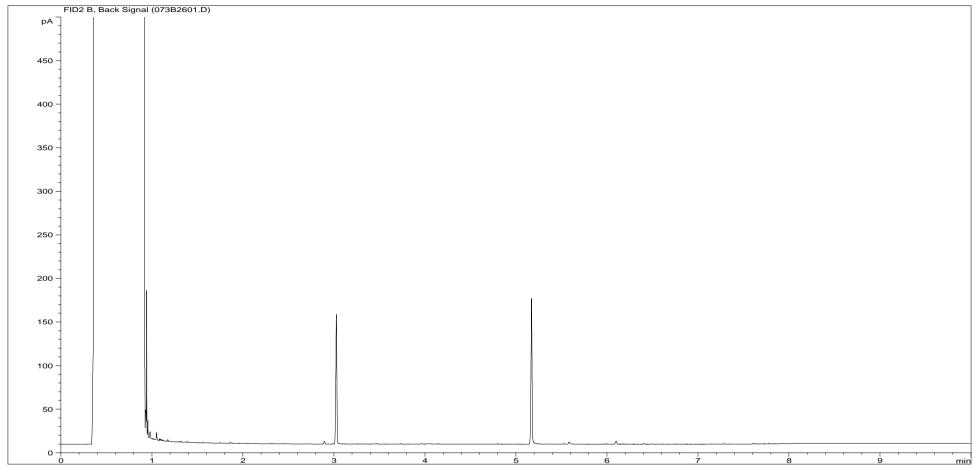


Sample ID:EX1259549ALIJob Number:W13_0268Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-9

Acquisition Date/Time: 16-Jan-12, 21:00:52

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\023F2601.D

Page 19 of 28 EXR/130268 Ver. 1

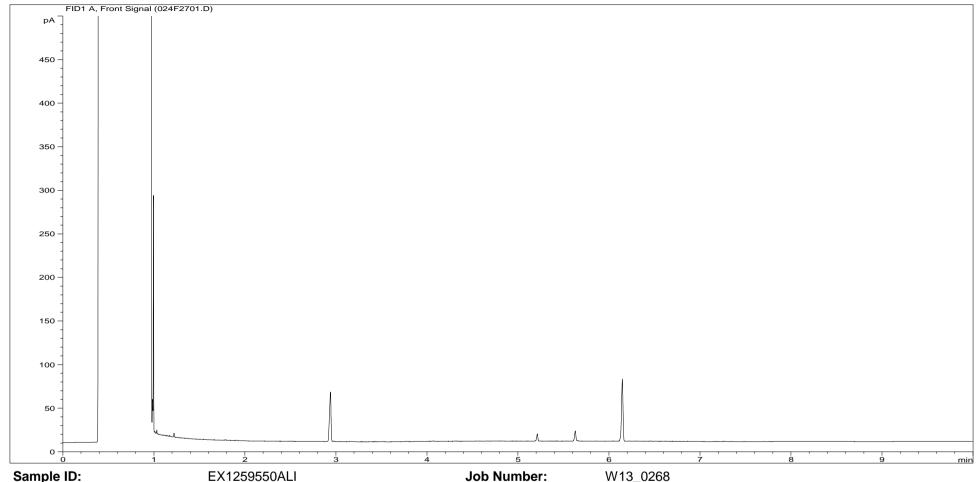


Sample ID:EX1259549AROJob Number:W13_0268Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-9

Acquisition Date/Time: 16-Jan-12, 21:00:52

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\073B2601.D

Page 20 of 28 EXR/130268 Ver. 1



Sample ID: EX1259550ALI Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

16-Jan-12, 21:17:55

Acquisition Date/Time:

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\024F2701.D

Client:

Client Sample Ref:

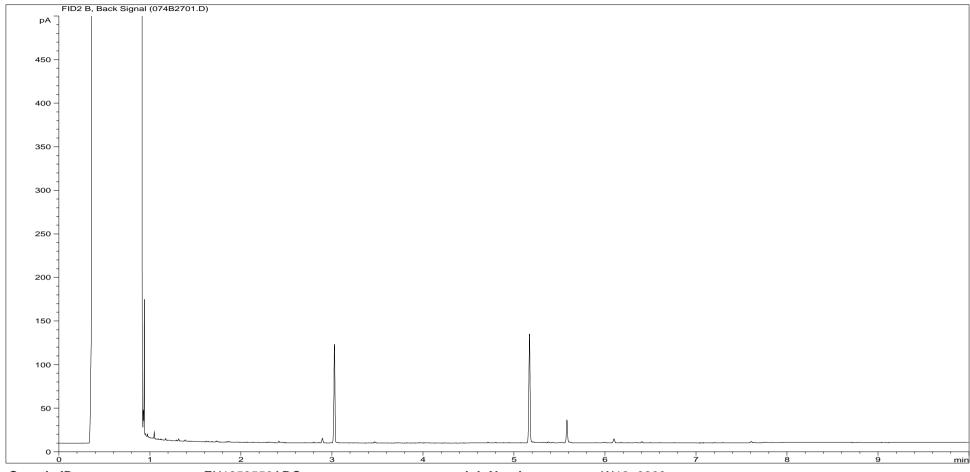
Site:

Waterman EED

Upper Heyford

BH-NSA-7

EXR/130268 Ver. 1 Page 21 of 28

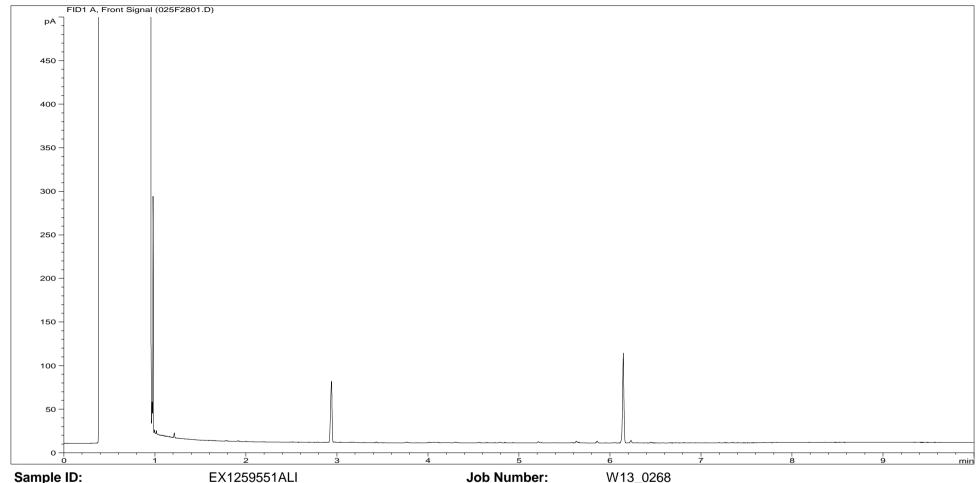


Sample ID:EX1259550AROJob Number:W13_0268Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-7

Acquisition Date/Time: 16-Jan-12, 21:17:55

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\074B2701.D

Page 22 of 28 EXR/130268 Ver. 1



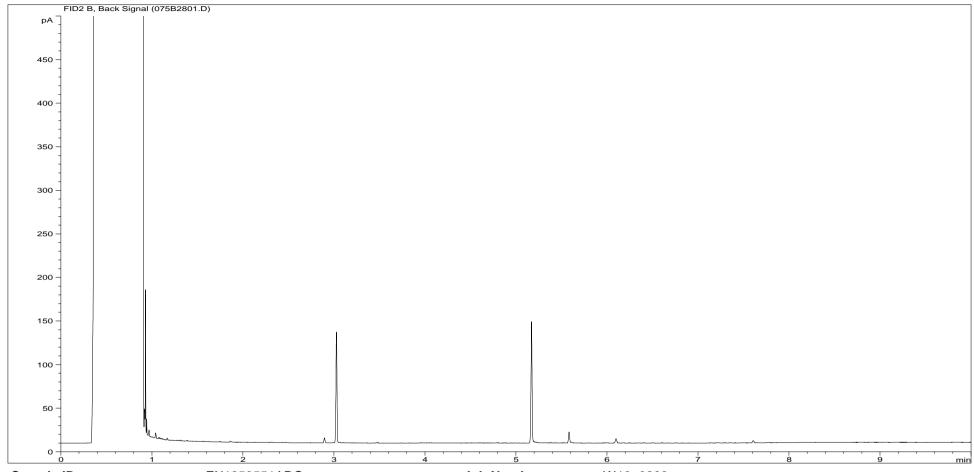
Sample ID:EX1259551ALIMultiplier:0.019Dilution:1Acquisition Method:TPH_RUNF.M

Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA-13

Acquisition Date/Time: 16-Jan-12, 21:34:59

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\025F2801.D

Page 23 of 28 EXR/130268 Ver. 1



Sample ID:EX1259551AROJob Number:W13_0268Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-13

Acquisition Date/Time: 16-Jan-12, 21:34:59

Datafile: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\075B2801.D

Page 24 of 28 EXR/130268 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED Site **Upper Heyford** W130268 Report No

Consignment No W32568 Date Logged 12-Jan-2012

Report Due 20-Jan-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW									ICPWATVAR					KONENS				PHEHPLCVL	SVOCSW	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as Cl (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
EX/1259546	BH-NSA-12	10/01/12																									
EX/1259547	BH-NSA-10	10/01/12								·			, and the second	, and the second	·	, and the second		, and the second			·			,			
EX/1259548	BH-NSA-11	10/01/12																									
EX/1259549	BH-NSA-9	10/01/12																									
EX/1259550	BH-NSA-7	10/01/12																									
EX/1259551	BH-NSA-13	10/01/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Site **Report No** Waterman EED **Upper Heyford**

W130268

Consignment No W32568 Date Logged 12-Jan-2012

Report Due 20-Jan-2012

							псрс	טע זונ
		MethodID	81W1SM	71MJSM	WSLM2	WSLM20	WSLM3	ZWTSM.
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited :	to ISO17025	✓	✓	✓		✓	
EX/1259546	BH-NSA-12	10/01/12						
EX/1259547	BH-NSA-10	10/01/12						
EX/1259548	BH-NSA-11	10/01/12						
EX/1259549	BH-NSA-9	10/01/12						
EX/1259550	BH-NSA-7	10/01/12						
EX/1259551	BH-NSA-13	10/01/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/130268

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
vvator	IOI WAT VAIC	AS RECEIVED	ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

Symbol Reference

- ^ Sub-contracted analysis. Note: The accreditation status is that assigned by the subcontract laboratory.
- **\$\$** Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only
- Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/130289 (Ver. 2) Your Ref: E10658-109

February 22, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

ES

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

Project Co-ordinator 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Amended Report Report No. EXR/130289 (Ver. 2)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 11 samples described in this report were registered for analysis by ESG on 13-Jan-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 22-Jan-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 15)
Table of GRO Results (Page 16)
Table of TPH (Si) banding (0.01) (Page 17)
GC-FID Chromatograms (Pages 18 to 39)
Analytical and Deviating Sample Overview (Pages 40 to 41)
Table of Method Descriptions (Page 42)
Table of Report Notes (Page 43)



Date of Issue: 22-Feb-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
LAB ID Number EX/	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1259613	BH-NSA-14	12-Jan-12	7.3	737	283	Nil	59	42	125	11	32	0.008	0.004	<0.0001	0.004	0.001	0.002	<0.001
1259614	BH-NSA-14X	12-Jan-12	7.3	738	251	Nil	56	38	125	10	29	0.007	0.004	<0.0001	0.003	0.001	<0.002	<0.001
1259615	BH-NSA-15	12-Jan-12	7.3	780	460	Nil	51	72	140	2	34	0.003	0.003	<0.0001	<0.001	<0.001	<0.002	<0.001
1259616	BH-NSA-17	12-Jan-12	7.4	550	320	Nil	17	36	132	2	10	0.004	0.004	<0.0001	0.001	<0.001	<0.002	<0.001
1259617	BH-NSA-18	12-Jan-12	7.5	570	236	Nil	25	35	109	2	27	0.002	<0.001	<0.0001	0.001	<0.001	<0.002	0.001
1259618	BH-NSA-19	12-Jan-12	7.4	590	237	Nil	21	35	114	4	18	0.006	0.004	<0.0001	0.001	<0.001	<0.002	0.001
1259619	BH-NSA-20	12-Jan-12	7.4	784	571	Nil	55	78	147	9	34	0.004	0.004	<0.0001	0.001	<0.001	<0.002	0.002
1259620	BH-NSA-21	12-Jan-12	7.3	613	254	Nil	16	10	163	4	11	0.006	0.006	<0.0001	0.003	0.001	0.002	0.001
1259621	BH-NSA-22	12-Jan-12	7.3	659	365	Nil	18	13	147	2	11	0.006	0.005	<0.0001	0.001	<0.001	<0.002	0.001
1259622	BH-NSA-MW1	12-Jan-12	7.8	242	106	Nil	5	<3	31	5	6	<0.001	0.002	<0.0001	<0.001	<0.001	<0.002	<0.001
1259623	BH-NSA-HPD1	12-Jan-12	7.5	520	207	Nil	26	23	100	<1	15	0.001	0.003	<0.0001	<0.001	<0.001	0.005	<0.001
	ESG Environmental Scientifics Group		Client N		Watern Mr F Alco	nan EED								ample	Analysi			
	Bretby Business Park, Ashby Road Date Printed 24-Jan-2				-Jan-2012 KR/130289 1													

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW	PHEHPLCVL	PHEHPLCVL	
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.01 Yes	2 No	1 No	0.002 No	0.0005 No	0.0005 No	0.0005 No
LAB ID Number EX/	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols
1259613	BH-NSA-14	12-Jan-12	0.16	<0.0001	<0.001	<0.01	0.7	<0.01	28	0.89	Req	Req	5.4	<6	Req	<0.0005	<0.0005	<0.0005
1259614	BH-NSA-14X	12-Jan-12	0.16	<0.0001	<0.001	<0.01	0.6	<0.01	75	1.0	Req	Req	5.1	<6	Req	<0.0005	<0.0005	<0.0005
1259615	BH-NSA-15	12-Jan-12	0.04	<0.0001	<0.001	<0.01	1.4	<0.01	17	0.71	Req	Req	4.7	7	Req	<0.0005	<0.0005	<0.0005
1259616	BH-NSA-17	12-Jan-12	0.01	<0.0001	<0.001	0.01	1.5	<0.01	21	1.2	Req	Req	5.4	10	Req	<0.0005	<0.0005	<0.0005
1259617	BH-NSA-18	12-Jan-12	0.02	<0.0001	0.001	<0.01	3.1	<0.01	22	1.6	Req	Req	5.2	10	Req	<0.0005	<0.0005	<0.0005
1259618	BH-NSA-19	12-Jan-12	0.01	<0.0001	<0.001	<0.01	1.6	<0.01	27	1.2	Req	Req	6.4	<6	Req	0.0008	<0.0005	<0.0005
1259619	BH-NSA-20	12-Jan-12	0.03	<0.0001	<0.001	0.14	0.4	<0.01	24	1.6	Req	Req	5.3	9	Req	<0.0005	<0.0005	<0.0005
1259620	BH-NSA-21	12-Jan-12	<0.01	<0.0001	<0.001	<0.01	0.2	<0.01	19	1.5	Req	Req	7.0	10	Req	<0.0005	<0.0005	<0.0005
1259621	BH-NSA-22	12-Jan-12	0.02	<0.0001	<0.001	<0.01	<0.2	<0.01	20	1.9	Req	Req	9.5	12	Req	<0.0005	<0.0005	<0.0005
1259622	BH-NSA-MW1	12-Jan-12	<0.01	<0.0001	<0.001	<0.01	0.8	<0.01	9	0.22	Req	Req	2.4	8	Req	<0.0005	<0.0005	<0.0005
1259623	BH-NSA-HPD1	12-Jan-12	<0.01	<0.0001	<0.001	<0.01	0.9	<0.01	12	1.9	Req	Req	3.2	10	Req	<0.0005	<0.0005	<0.0005
	ESG 🔗		Client Na	ame	Watern Mr F Alco	nan EED						W	later S	ample	Analys	is		
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		30111401		1		er He	yford				Date Prin Report N Table Nu	umber			-Jan-2012 XR/130289 1		

		Units :	mg/l										
		Codes:	PHEHPLCVL 0.0005		1 -								
	Method Reporting UKAS Acc	redited :	0.0005 No										
LAB ID Number EX	Client Sample Description	Sample Date	Trimethylphenols										
1259613	BH-NSA-14	12-Jan-12	<0.0005										
1259614	BH-NSA-14X	12-Jan-12	<0.0005										
1259615	BH-NSA-15	12-Jan-12	<0.0005										
1259616	BH-NSA-17	12-Jan-12	<0.0005										
1259617	BH-NSA-18	12-Jan-12	<0.0005										
1259618	BH-NSA-19	12-Jan-12	<0.0005										
1259619	BH-NSA-20	12-Jan-12	<0.0005										
1259620	BH-NSA-21	12-Jan-12	<0.0005										
1259621	BH-NSA-22	12-Jan-12	<0.0005										
1259622	BH-NSA-MW1	12-Jan-12	<0.0005										
1259623	BH-NSA-HPD1	12-Jan-12	<0.0005										
					1								
					1								
					1				1				
	ESG 😥	Client Name Waterman EED Contact Mr F Alcock			Water Sample Analysis			is					
	Environmental Scientifics Group Bretby Business Park, Ashby Road					Date Pri	nted		24-	Jan-2012			
	Burton-on-Trent, Staffordshire, DE15 0YZ	Total Chiffordiship DESC 047			Report Number EXR/130289								
	Tel +44 (0) 1283 554400			Upper Heyford			Table Nu		1				
	Fax +44 (0) 1283 554422							I able IV	annoci				
	Fax +44 (U) 1203 334422												

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-14
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259613
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
DI I	100.05.0	(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.002	<u> </u>
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.003	-
3-Nitroaniline	99-09-2		< 0.002	<u> </u>
Compared marked with a * are			< 0.000	· -

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\ 0120_CCC1.I	OGPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	89
Naphthalene-d8	89
Acenaphthene-d10	90
Phenanthrene-d10	93
Chrysene-d12	83
Perylene-d12	84

Surrogates	% Rec
2-Fluorophenol	39
Phenol-d5	29
Nitrobenzene-d5	88
2-Fluorobiphenyl	96
2,4,6-Tribromophenol	76
Terphenyl-d14	108

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-14X
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259614
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	_	< 0.005	-

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\	0120_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	74
Naphthalene-d8	79
Acenaphthene-d10	75
Phenanthrene-d10	74
Chrysene-d12	47
Perylene-d12	42

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	35
Nitrobenzene-d5	98
2-Fluorobiphenyl	106
2,4,6-Tribromophenol	83
Terphenyl-d14	141

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-15
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259615
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\	0120_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	94
Naphthalene-d8	87
Acenaphthene-d10	87
Phenanthrene-d10	87
Chrysene-d12	66
Perylene-d12	56

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	35
Nitrobenzene-d5	99
2-Fluorobiphenyl	105
2,4,6-Tribromophenol	83
Terphenyl-d14	122

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-17
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259616
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\	0120_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	89
Naphthalene-d8	83
Acenaphthene-d10	85
Phenanthrene-d10	81
Chrysene-d12	61
Perylene-d12	58

Surrogates	% Rec
2-Fluorophenol	53
Phenol-d5	35
Nitrobenzene-d5	99
2-Fluorobiphenyl	97
2,4,6-Tribromophenol	89
Terphenyl-d14	125

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-18
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259617
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\	0120_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	81
Naphthalene-d8	83
Acenaphthene-d10	79
Phenanthrene-d10	81
Chrysene-d12	73
Perylene-d12	73

Surrogates	% Rec
2-Fluorophenol	56
Phenol-d5	37
Nitrobenzene-d5	98
2-Fluorobiphenyl	102
2,4,6-Tribromophenol	86
Terphenyl-d14	112

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-19
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259618
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
DI I	100.05.0	(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.002	<u> </u>
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.003	-
3-Nitroaniline	99-09-2		< 0.002	<u> </u>
Compared marked with a * are			< 0.000	· -

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\	0120_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	81
Naphthalene-d8	79
Acenaphthene-d10	82
Phenanthrene-d10	85
Chrysene-d12	74
Perylene-d12	74

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	29
Nitrobenzene-d5	102
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	88
Terphenyl-d14	119

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-20
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259619
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\ 0120_CCC1	.DGPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	84
Naphthalene-d8	81
Acenaphthene-d10	80
Phenanthrene-d10	73
Chrysene-d12	47
Perylene-d12	45

Surrogates	% Rec
2-Fluorophenol	53
Phenol-d5	35
Nitrobenzene-d5	97
2-Fluorobiphenyl	98
2,4,6-Tribromophenol	88
Terphenyl-d14	117

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-21
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259620
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\	0120_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	90
Naphthalene-d8	84
Acenaphthene-d10	87
Phenanthrene-d10	84
Chrysene-d12	63
Perylene-d12	58

Surrogates	% Rec
2-Fluorophenol	48
Phenol-d5	31
Nitrobenzene-d5	96
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	88
Terphenyl-d14	124

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-22
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259621
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\	0120_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	93
Naphthalene-d8	89
Acenaphthene-d10	93
Phenanthrene-d10	87
Chrysene-d12	58
Perylene-d12	50

Surrogates	% Rec
2-Fluorophenol	44
Phenol-d5	35
Nitrobenzene-d5	90
2-Fluorobiphenyl	96
2,4,6-Tribromophenol	88
Terphenyl-d14	127

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-MW1
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259622
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T.	Concentration	% Fit	
		(min)	mg/l		
Phenol	108-95-2	-	< 0.020	-	
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-	
2-Chlorophenol	95-57-8	-	< 0.020	-	
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-	
Benzyl alcohol	100-51-6	-	< 0.005	-	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-	
2-Methylphenol	95-48-7	-	< 0.005	-	
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	-	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-	
Nitrobenzene	98-95-3	-	< 0.005	-	
Isophorone	78-59-1	-	< 0.005	-	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9	-	< 0.020	-	
Benzoic Acid	65-85-0 *	-	< 0.100	-	
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-	
2,4-Dichlorophenol	120-83-2	-	< 0.020	-	
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-	
Naphthalene	91-20-3	-	< 0.002	-	
4-Chlorophenol	106-48-9	-	< 0.020	-	
4-Chloroaniline	106-47-8 *	-	< 0.005	-	
Hexachlorobutadiene	87-68-3	-	< 0.005	-	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-	
2-Methylnaphthalene	91-57-6	-	< 0.002	-	
1-Methylnaphthalene	90-12-0	-	< 0.002	-	
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-	
2-Chloronaphthalene	91-58-7	-	< 0.002	-	
Biphenyl	92-52-4	-	< 0.002	-	
Diphenyl ether	101-84-8	-	< 0.002	-	
2-Nitroaniline	88-74-4	-	< 0.005	-	
Acenaphthylene	208-96-8	-	< 0.002	-	
Dimethylphthalate	131-11-3	-	< 0.005	-	
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-	
Acenaphthene	83-32-9	-	< 0.002	-	
3-Nitroaniline	99-09-2	_	< 0.005	-	

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.008
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\	0120_CCC1.D GPC (Y/N)	N
- 1			1 N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	77
Naphthalene-d8	77
Acenaphthene-d10	74
Phenanthrene-d10	71
Chrysene-d12	48
Perylene-d12	49

Surrogates	% Rec
2-Fluorophenol	48
Phenol-d5	32
Nitrobenzene-d5	83
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	84
Terphenyl-d14	129

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-HPD1
 Date Booked in:
 13-Jan-12

 LIMS ID Number:
 EX1259623
 Date Extracted:
 20-Jan-12

 Job Number:
 W13_0289
 Date Analysed:
 20-Jan-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit	
Phenol	108-95-2	-	< 0.020	_	
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_	
2-Chlorophenol	95-57-8	_	< 0.020	_	
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020		
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_	
Benzyl alcohol	100-40-7	-	< 0.005	_	
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_	
2-Methylphenol	95-48-7	-	< 0.005	_	
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_	
Hexachloroethane	67-72-1	-	< 0.005	_	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_	
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_	
Nitrobenzene	98-95-3	-	< 0.020	_	
Isophorone	78-59-1	-	< 0.005	_	
2-Nitrophenol	88-75-5	-	< 0.020	_	
2,4-Dimethylphenol	105-67-9	-	< 0.020	_	
Benzoic Acid	65-85-0 *	-	< 0.100	_	
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_	
2,4-Dichlorophenol	120-83-2	-	< 0.020	_	
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_	
Naphthalene	91-20-3	-	< 0.002	_	
4-Chlorophenol	106-48-9	_	< 0.020	_	
4-Chloroaniline	106-47-8 *	_	< 0.005	_	
Hexachlorobutadiene	87-68-3	-	< 0.005	_	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_	
2-Methylnaphthalene	91-57-6	-	< 0.002	_	
1-Methylnaphthalene	90-12-0	-	< 0.002	_	
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_	
2-Chloronaphthalene	91-58-7	-	< 0.002	_	
Biphenyl	92-52-4	-	< 0.002	_	
Diphenyl ether	101-84-8	-	< 0.002	_	
2-Nitroaniline	88-74-4	-	< 0.005	_	
Acenaphthylene	208-96-8	-	< 0.002	_	
Dimethylphthalate	131-11-3	-	< 0.005	_	
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_	
Acenaphthene	83-32-9	-	< 0.002	_	
3-Nitroaniline	99-09-2	-	< 0.005	_	

Matrix:	Water	QC Batch Number:	8
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	20SVOC.GC11\	0120_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit	
			mg/l		
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-	
Dibenzofuran	132-64-9	-	< 0.005	-	
4-Nitrophenol	100-02-7	-	< 0.050	-	
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-	
Fluorene	86-73-7	-	< 0.002	-	
Diethylphthalate	84-66-2	-	< 0.005	-	
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-	
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-	
4-Nitroaniline	100-01-6	-	< 0.005	-	
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-	
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-	
Hexachlorobenzene	118-74-1	-	< 0.005	-	
Pentachlorophenol	87-86-5	-	< 0.050	-	
Phenanthrene	85-01-8	-	< 0.002	-	
Anthracene	120-12-7	-	< 0.002	-	
Di-n-butylphthalate	84-74-2	-	< 0.005	-	
Fluoranthene	206-44-0	-	< 0.002	-	
Pyrene	129-00-0	-	< 0.002	-	
Butylbenzylphthalate	85-68-7	-	< 0.005	-	
Benzo[a]anthracene	56-55-3	-	< 0.002	-	
Chrysene	218-01-9	-	< 0.002	-	
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-	
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-	
Di-n-octylphthalate	117-84-0	-	< 0.002	-	
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-	
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-	
Benzo[a]pyrene	50-32-8	-	< 0.002	-	
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-	
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-	
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-	

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	79
Naphthalene-d8	73
Acenaphthene-d10	73
Phenanthrene-d10	74
Chrysene-d12	61
Perylene-d12	62

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	31
Nitrobenzene-d5	101
2-Fluorobiphenyl	104
2,4,6-Tribromophenol	93
Terphenyl-d14	124

Compounds marked with a * are reported not UKAS.

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED : Upper Heyford

Job Number: W13_0289

D:\TES\DATA\Y2012\0116HSA_GC09\011612 2012-01-16 07-14-13\053F5301.D

Method: Headspace GCFID

Matrix: Water
Date Booked in: 13-Jan-12

Date extracted: 16-Jan-12
Date Analysed: 16-Jan-12, 23:49

* Sample data with an asterisk are not UKAS accredited.

			Concentration, (mg/l)					Aliphatics				
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO	
* EX1259613	BH-NSA-14	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259614	BH-NSA-14X	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259615	BH-NSA-15	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259616	BH-NSA-17	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259617	BH-NSA-18	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259618	BH-NSA-19	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259619	BH-NSA-20	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259620	BH-NSA-21	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259621	BH-NSA-22	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259622	BH-NSA-MW1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX1259623	BH-NSA-HPD1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford Matrix:

 Job Number:
 W13_0289
 Separation:
 Slica gel
 Date Booked ir
 13-Jan-12

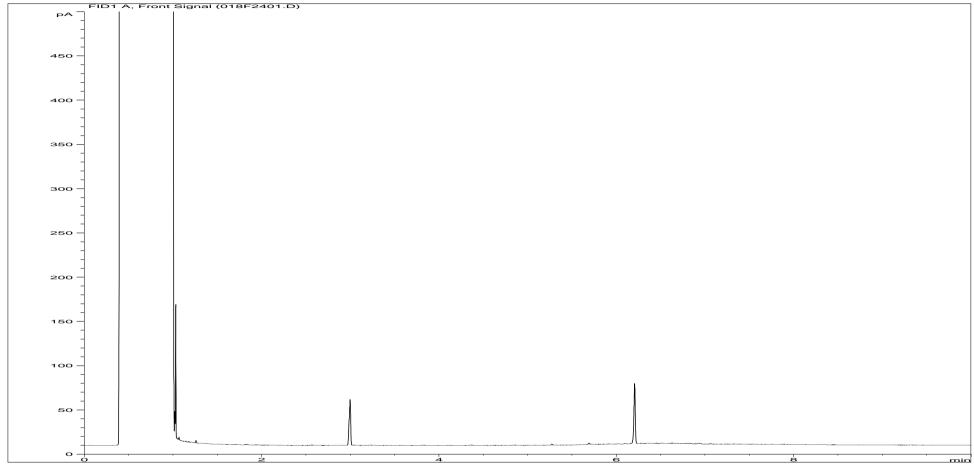
 QC Batch Number:
 120035
 Eluents:
 Hexane, DCM
 Date Extracted
 19-Jan-12

 Directory:
 D:/TES\DATA\Y2012\012012TPH_GC15\012012 012-01-20 08-42-21\078B3401.D
 Date Analysed: 20-Jan-12, 18:07:51

Method: Bottle

		Concentration, (mg/l)											
* This sample data is not UK	a is not UKAS accredited.		- C10	>C10	- C12	>C12	- C16	>C16	- C21	>C21	- C35	>C8	- C40
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1259613	BH-NSA-14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.053	0.016	0.066	0.022
EX1259614	BH-NSA-14X	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.054	0.018	0.073	0.025
EX1259615	BH-NSA-15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.024	<0.01	0.033	<0.01
EX1259616	BH-NSA-17	<0.01	0.012	<0.01	<0.01	<0.01	0.176	<0.01	0.012	0.014	0.159	0.027	0.488
EX1259617	BH-NSA-18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1259618	BH-NSA-19	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.088	0.029	0.105	0.039
EX1259619	BH-NSA-20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.032	<0.01	0.87	0.243	1	0.288
EX1259620	BH-NSA-21	<0.01	<0.01	0.011	<0.01	0.035	0.012	0.046	0.016	0.561	0.17	0.72	0.223
EX1259621	BH-NSA-22	0.022	<0.01	0.116	0.017	0.256	0.059	0.052	0.011	0.358	0.1	0.851	0.204
EX1259622	BH-NSA-MW1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011
EX1259623	BH-NSA-HPD1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011

Water

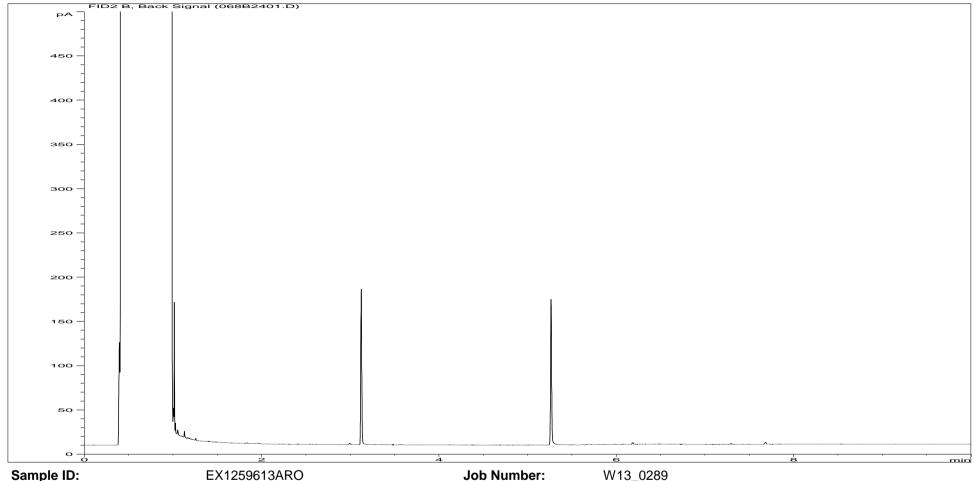


Sample ID:EX1259613ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-14

Acquisition Date/Time: 20-Jan-12, 15:15:41

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\018F2401.D

Page 18 of 43 EXR/130289 Ver. 2



Sample ID: EX1259613ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 20-Jan-12, 15:15:41

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\068B2401.D

Client:

Client Sample Ref:

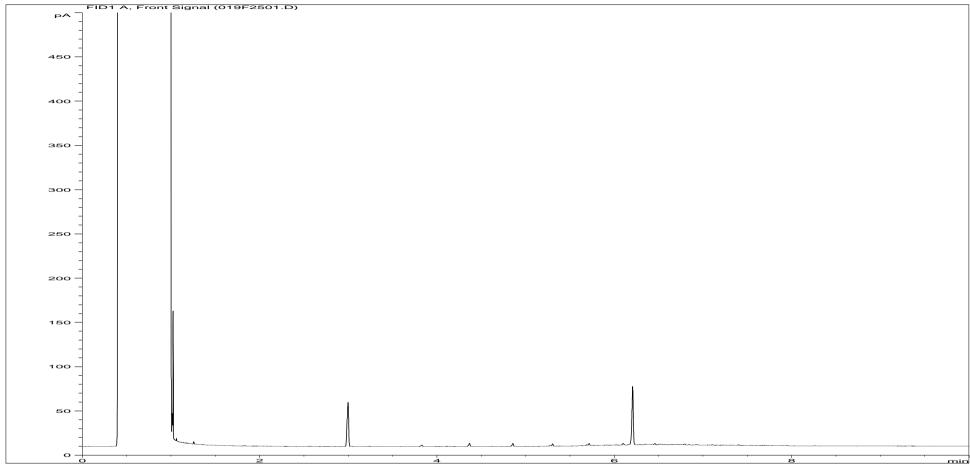
Site:

Waterman EED

Upper Heyford

BH-NSA-14

Page 19 of 43 EXR/130289 Ver. 2

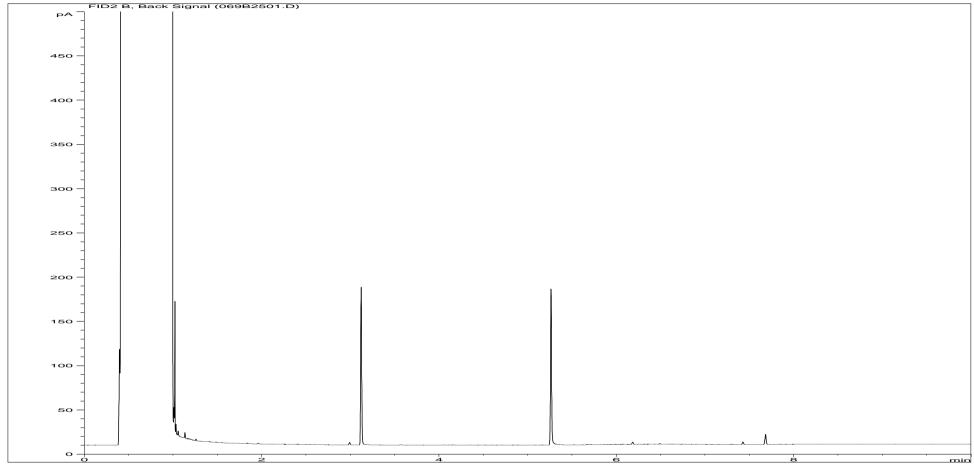


Sample ID:EX1259614ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-14X

Acquisition Date/Time: 20-Jan-12, 15:32:48

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\019F2501.D

Page 20 of 43 EXR/130289 Ver. 2

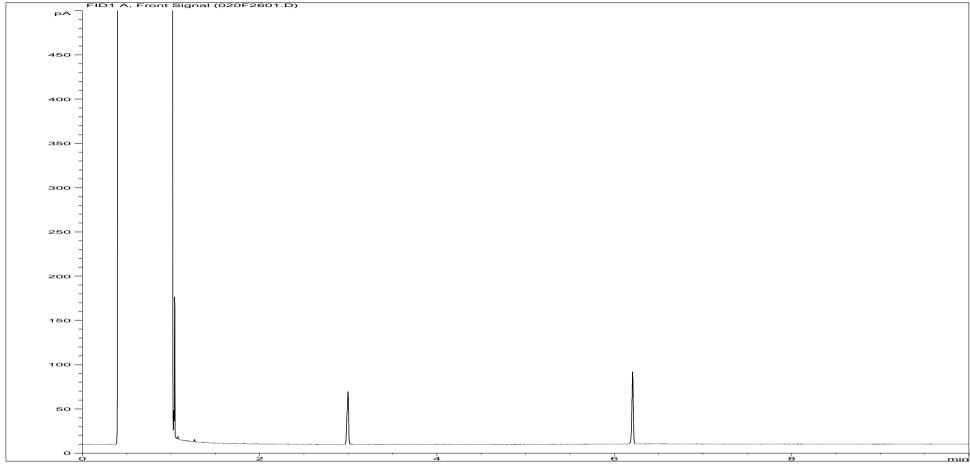


Sample ID:EX1259614AROJob Number:W13_0289Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-14X

Acquisition Date/Time: 20-Jan-12, 15:32:48

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\069B2501.D

Page 21 of 43 EXR/130289 Ver. 2

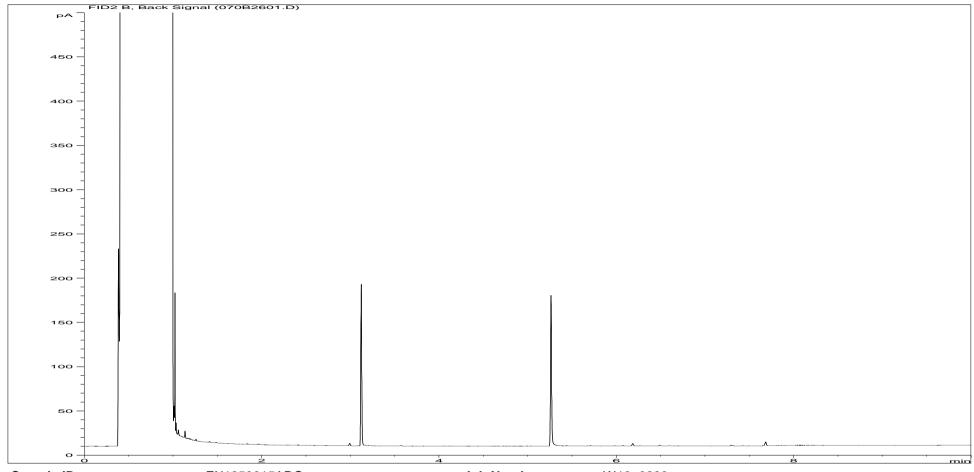


Sample ID:EX1259615ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-15

Acquisition Date/Time: 20-Jan-12, 15:50:12

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\020F2601.D

Page 22 of 43 EXR/130289 Ver. 2

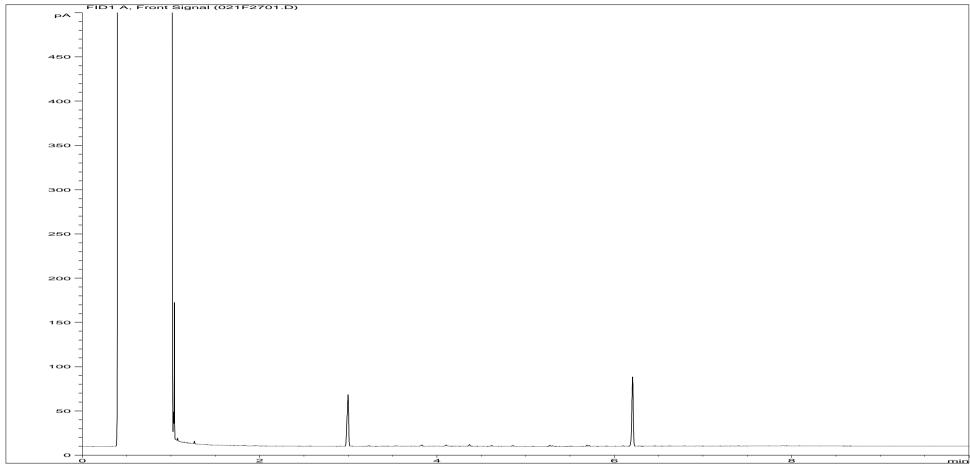


Sample ID:EX1259615AROJob Number:W13_0289Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-15

Acquisition Date/Time: 20-Jan-12, 15:50:12

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\070B2601.D

Page 23 of 43 EXR/130289 Ver. 2

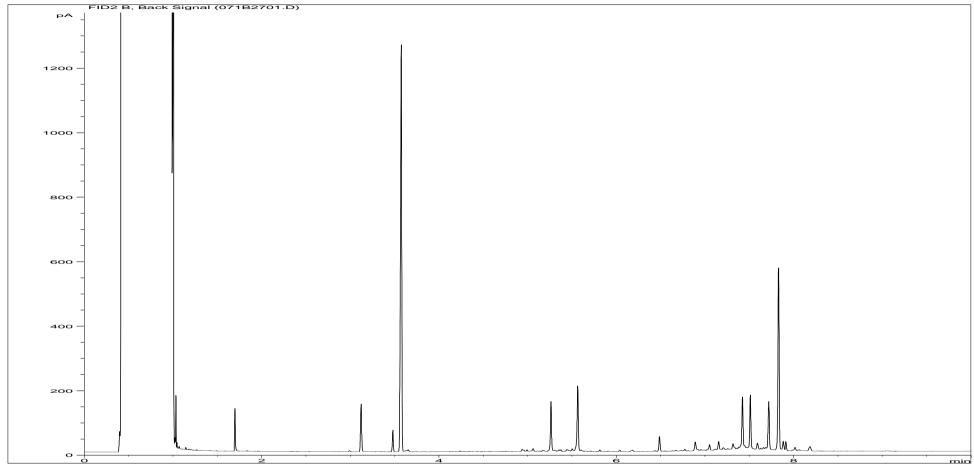


Sample ID:EX1259616ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-17

Acquisition Date/Time: 20-Jan-12, 16:07:21

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\021F2701.D

Page 24 of 43 EXR/130289 Ver. 2



Sample ID: EX1259616ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 20-Jan-12, 16:07:21

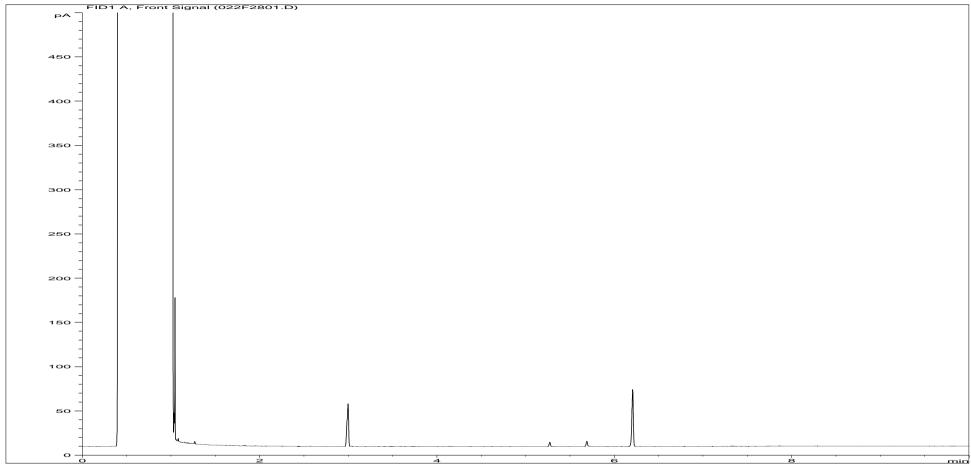
Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\071B2701.D

Job Number: W13 0289 Client: Waterman EED Site: Upper Heyford **Client Sample Ref:**

BH-NSA-17

Where individual results are flagged see report notes for status.

Page 25 of 43 EXR/130289 Ver. 2

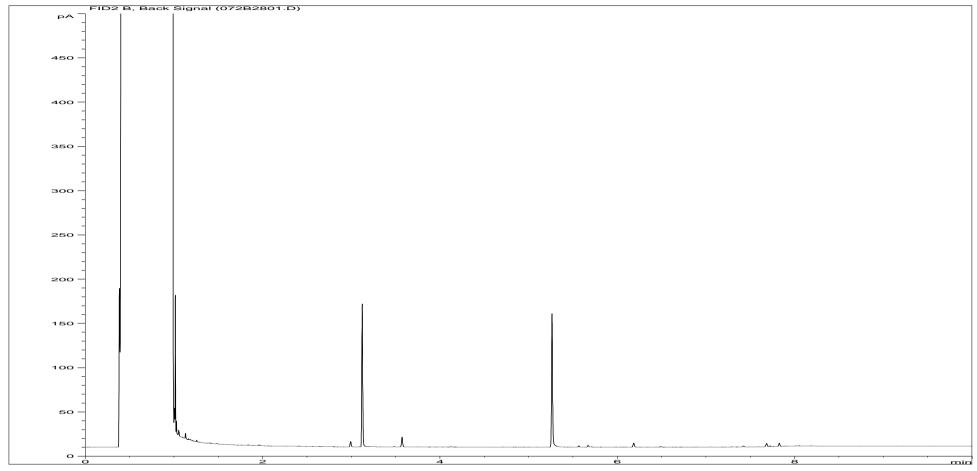


Sample ID:EX1259617ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-18

Acquisition Date/Time: 20-Jan-12, 16:24:30

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\022F2801.D

Page 26 of 43 EXR/130289 Ver. 2

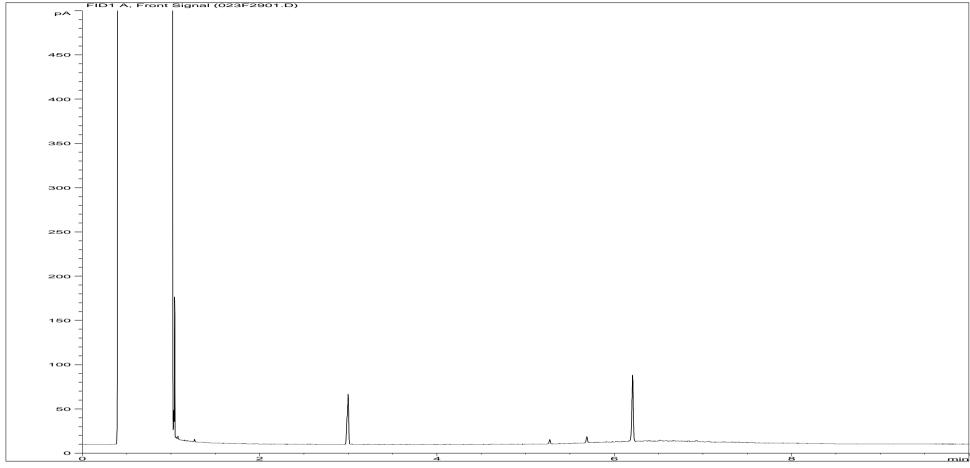


Sample ID:EX1259617AROJob Number:W13_0289Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-18

Acquisition Date/Time: 20-Jan-12, 16:24:30

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\072B2801.D

Page 27 of 43 EXR/130289 Ver. 2

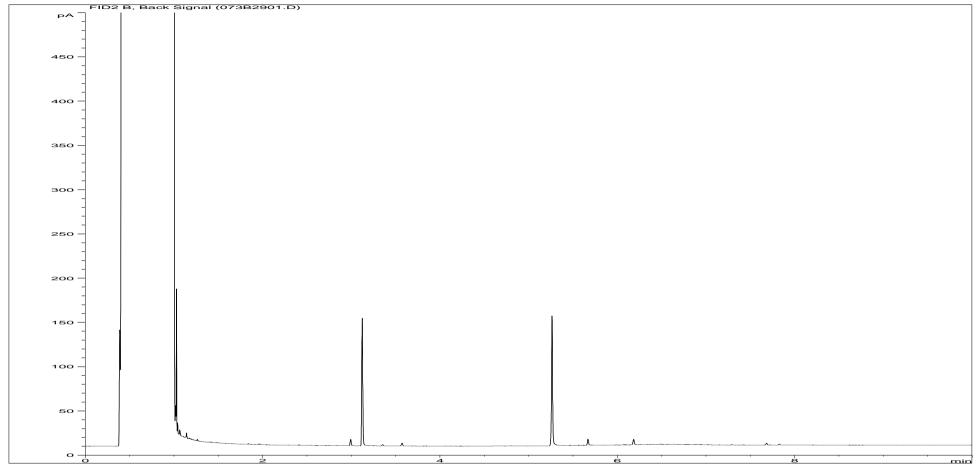


Sample ID:EX1259618ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-19

Acquisition Date/Time: 20-Jan-12, 16:41:41

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\023F2901.D

Page 28 of 43 EXR/130289 Ver. 2

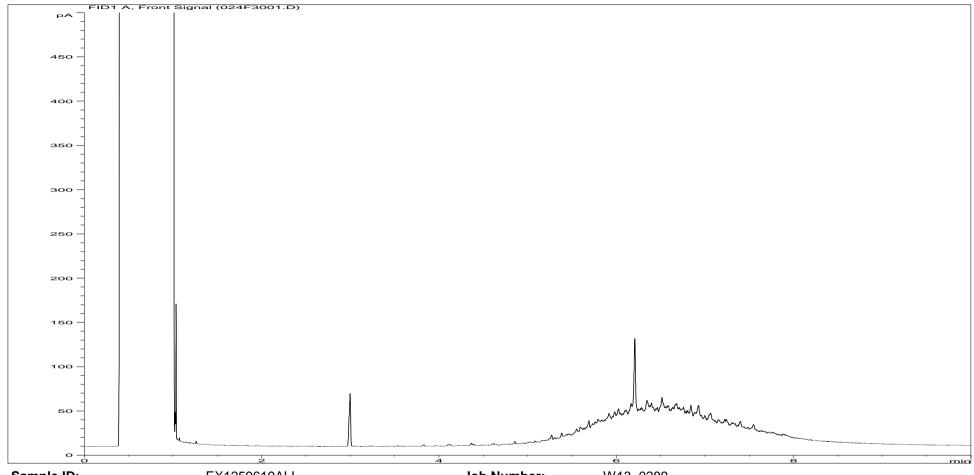


Sample ID:EX1259618AROJob Number:W13_0289Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-19

Acquisition Date/Time: 20-Jan-12, 16:41:41

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\073B2901.D

Page 29 of 43 EXR/130289 Ver. 2

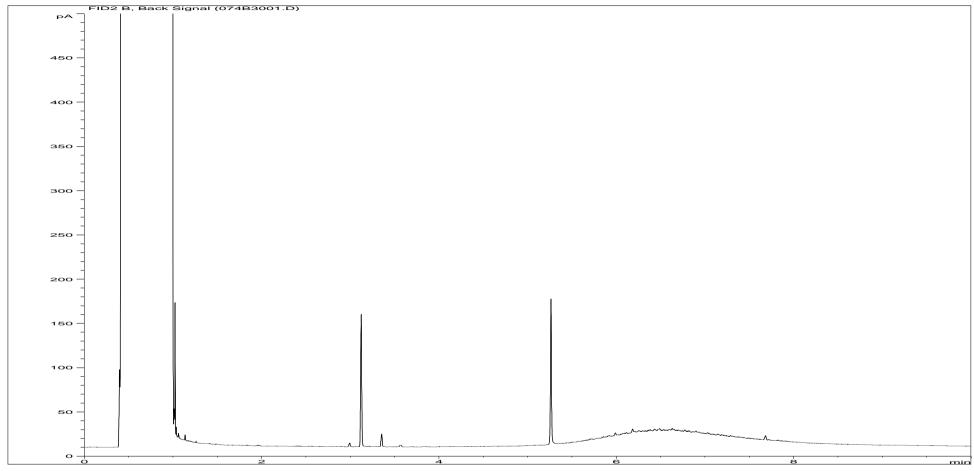


Sample ID:EX1259619ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-20

Acquisition Date/Time: 20-Jan-12, 16:59:03

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\024F3001.D

Page 30 of 43 EXR/130289 Ver. 2

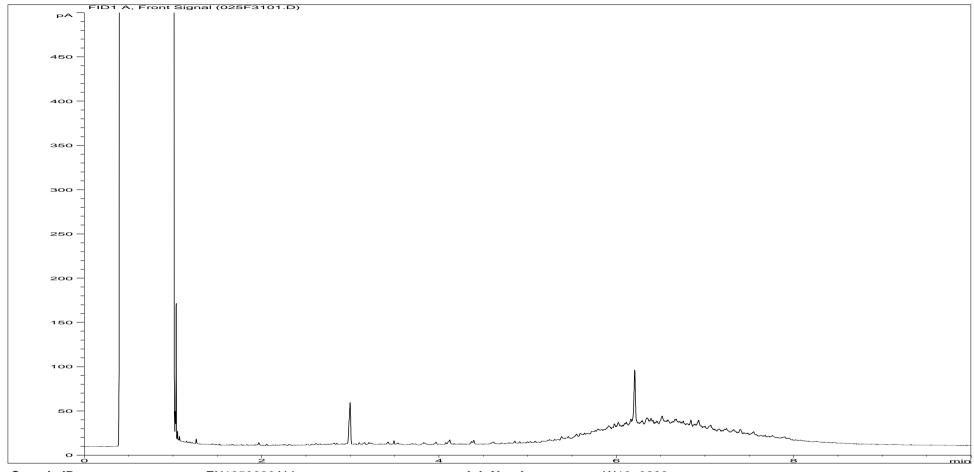


Sample ID:EX1259619AROJob Number:W13_0289Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-20

Acquisition Date/Time: 20-Jan-12, 16:59:03

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\074B3001.D

Page 31 of 43 EXR/130289 Ver. 2

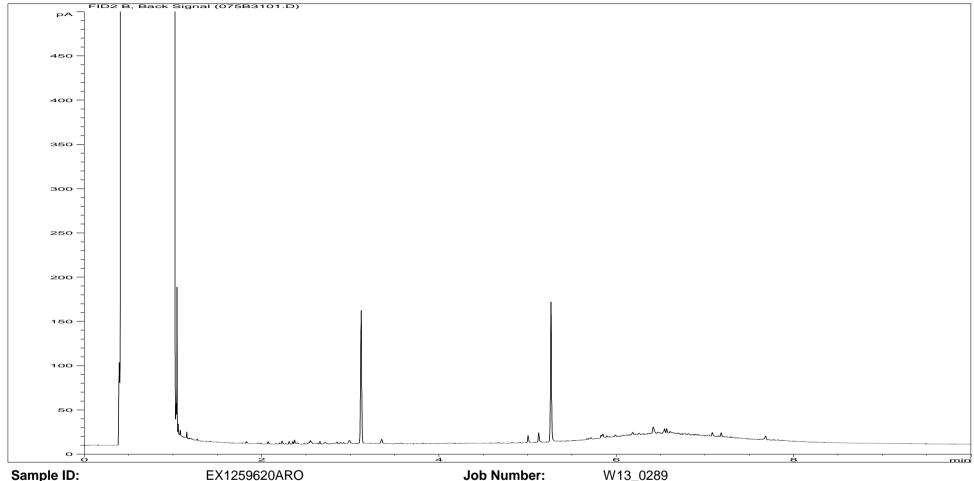


Sample ID:EX1259620ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-21

Acquisition Date/Time: 20-Jan-12, 17:16:09

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\025F3101.D

Page 32 of 43 EXR/130289 Ver. 2



Sample ID: EX1259620ARO

Multiplier: 0.015

Dilution: 1

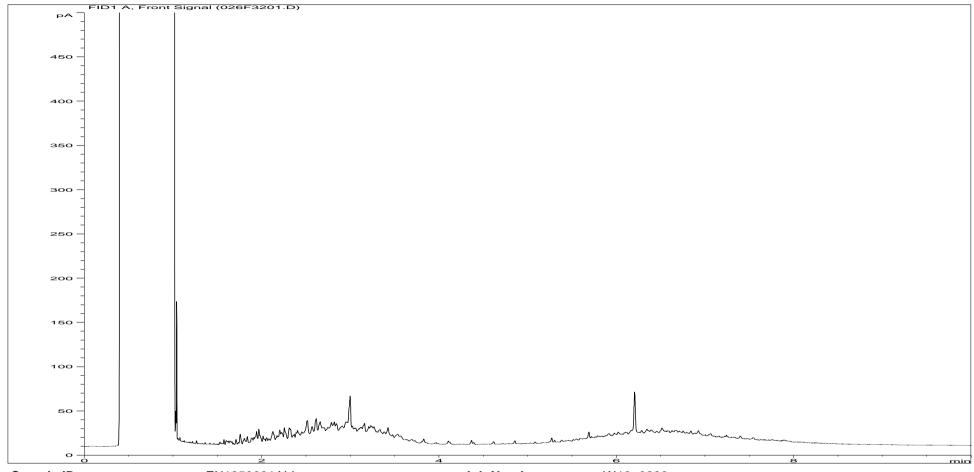
Acquisition Method: TPH_RUNF.M

0.015Client:Waterman EED1Site:Upper HeyfordTPH_RUNF.MClient Sample Ref:BH-NSA-21

Acquisition Date/Time: 20-Jan-12, 17:16:09

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\075B3101.D

Page 33 of 43 EXR/130289 Ver. 2

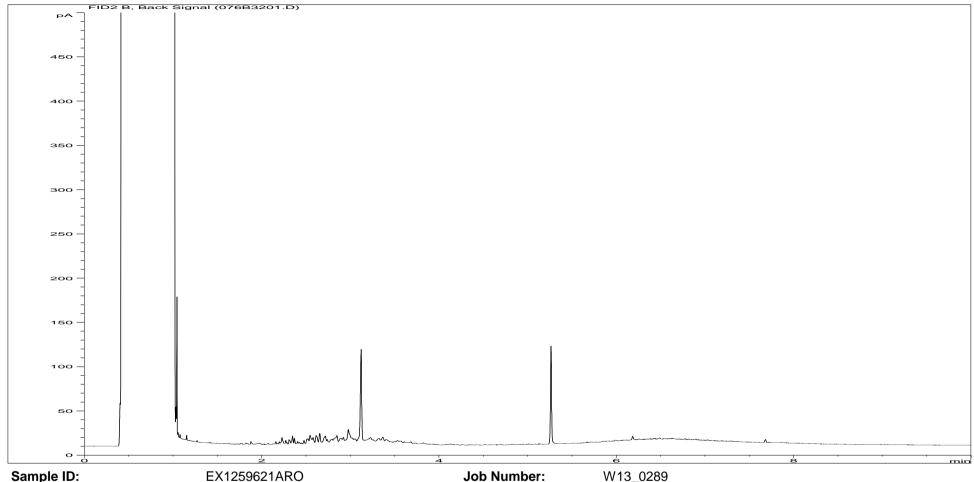


Sample ID:EX1259621ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-22

Acquisition Date/Time: 20-Jan-12, 17:33:19

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\026F3201.D

Page 34 of 43 EXR/130289 Ver. 2



Sample ID:EX1259621AROJob Number:Multiplier:0.015Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 20-Jan-12, 17:33:19

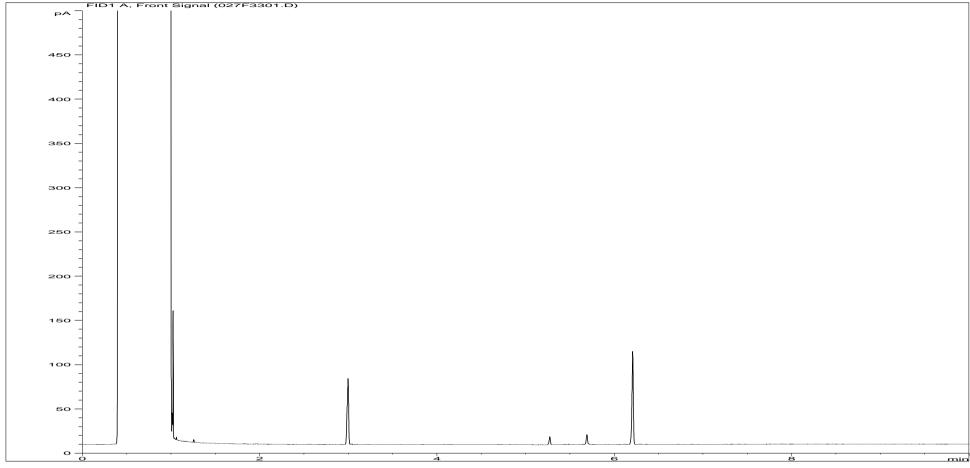
Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\076B3201.D

Waterman EED

Upper Heyford

BH-NSA-22

Page 35 of 43 EXR/130289 Ver. 2



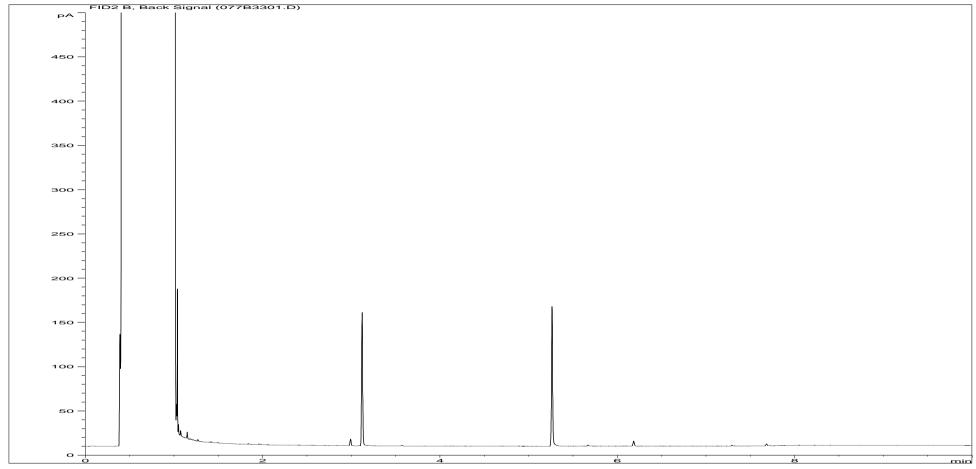
Sample ID:EX1259622ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-MW1

Acquisition Date/Time: 20-Jan-12, 17:50:30

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\027F3301.D

Page 36 of 43 EXR/130289 Ver. 2

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



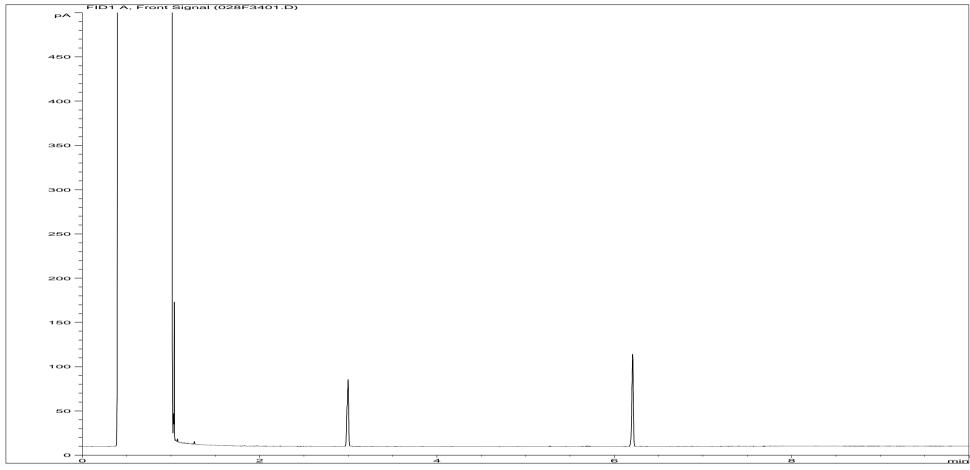
Sample ID:EX1259622AROJob Number:W13_0289Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-MW1

Acquisition Date/Time: 20-Jan-12, 17:50:30

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\077B3301.D

Page 37 of 43 EXR/130289 Ver. 2

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



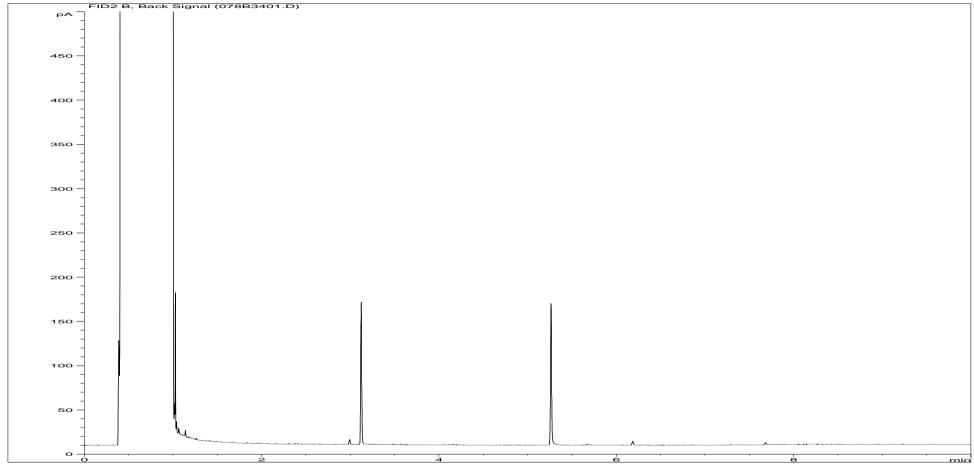
Sample ID:EX1259623ALIJob Number:W13_0289Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-HPD1

Acquisition Date/Time: 20-Jan-12, 18:07:51

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\028F3401.D

Page 38 of 43 EXR/130289 Ver. 2

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:EX1259623AROJob Number:W13_0289Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-HPD1

Acquisition Date/Time: 20-Jan-12, 18:07:51

Datafile: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\078B3401.D

Page 39 of 43 EXR/130289 Ver. 2

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W130289 Report No

Consignment No W32586 Date Logged 13-Jan-2012 Chain of Custody 618613 Report Due 23-Jan-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW									ICPWATVAR					KONENS				PHEHPLCVL	svocsw	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as Cl (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
EX/1259613	BH-NSA-14	12/01/12																									
EX/1259614	BH-NSA-14X	12/01/12																									
EX/1259615	BH-NSA-15	12/01/12																									
EX/1259616	BH-NSA-17	12/01/12																									
EX/1259617	BH-NSA-18	12/01/12																									
EX/1259618	BH-NSA-19	12/01/12																									
EX/1259619	BH-NSA-20	12/01/12																									
	BH-NSA-21	12/01/12																									
EX/1259621	BH-NSA-22	12/01/12																									
EX/1259622	BH-NSA-MW1	12/01/12																									
EX/1259623	BH-NSA-HPD1	12/01/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W130289 Report No

Consignment No W32586 Date Logged 13-Jan-2012 Chain of Custody 618613 Report Due 23-Jan-2012

							repu	ort Du
		MethodID	81WTSM	21WTSM	WSLM2	02MTSM	EWTSM	ZWTSM.
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited :	to ISO17025	✓	✓	✓		✓	
EX/1259613	BH-NSA-14	12/01/12						
EX/1259614	BH-NSA-14X	12/01/12						
EX/1259615	BH-NSA-15	12/01/12						
EX/1259616	BH-NSA-17	12/01/12						
EX/1259617	BH-NSA-18	12/01/12						
EX/1259618	BH-NSA-19	12/01/12						
EX/1259619	BH-NSA-20	12/01/12						
EX/1259620	BH-NSA-21	12/01/12						
EX/1259621	BH-NSA-22	12/01/12						
EX/1259622	BH-NSA-MW1	12/01/12						
EX/1259623	BH-NSA-HPD1	12/01/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/130289

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/131702 (Ver. 1) Your Ref: E10658-109

February 20, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

ESC

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

J Elstub <u>Project Co-ordinator</u> 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/131702 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 20 samples described in this report were registered for analysis by ESG on 09-Feb-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 20-Feb-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 24)
Table of GRO Results (Page 25)
Table of TPH (Si) banding (0.01) (Page 26)
GC-FID Chromatograms (Pages 27 to 66)
Analytical and Deviating Sample Overview (Pages 67 to 70)
Table of Method Descriptions (Page 71)
Table of Report Notes (Page 72)

On behalf of ESG:
Andrew Timms



Date of Issue: 20-Feb-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR		ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
LAB ID Number EX	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1266171	BH-NSA 1	07-Feb-12	9.1	982	271	Nil	130	28	144	3	69	0.004	0.004	<0.0001	0.002	0.002	0.004	0.001
1266172	BH-NSA 2	07-Feb-12	7.9	1030	360	Nil	76	78	196	11	44	0.01	0.006	0.0001	0.004	0.004	0.009	0.006
1266173	BH-NSA 3	07-Feb-12	7.7	732	309	Nil	37	34	152	5	20	0.002	<0.001	<0.0001	<0.001	<0.001	<0.002	0.002
1266174	BH-NSA 4	07-Feb-12	7.7	694	260	Nil	26	61	142	8	11	0.005	0.002	<0.0001	<0.001	0.001	0.004	0.001
1266175	BH-NSA 5	07-Feb-12	7.6	1140	272	Nil	152	42	168	4	73	0.003	0.001	<0.0001	<0.001	<0.001	0.003	<0.001
1266176	BH-NSA 6	07-Feb-12	7.5	757	323	Nil	32	43	163	5	18	0.007	0.002	<0.0001	<0.001	<0.001	0.002	0.001
1266177	BH-NSA 7	07-Feb-12	8.3	361	76	Nil	41	36	51	5	26	0.002	0.002	<0.0001	<0.001	<0.001	<0.002	0.004
1266178	BH-NSA 8	07-Feb-12	7.5	752	267	Nil	45	60	145	7	22	0.004	<0.001	<0.0001	<0.001	<0.001	0.003	<0.001
1266179	BH-NSA 9	07-Feb-12	7.6	623	261	Nil	31	29	120	3	17	0.001	<0.001	<0.0001	<0.001	<0.001	<0.002	<0.001
1266180	BH-NSA 10	07-Feb-12	7.6	598	257	Nil	22	28	123	3	14	0.002	0.001	<0.0001	<0.001	<0.001	<0.002	<0.001
1266181	BH-NSA 11	07-Feb-12	7.7	608	241	Nil	30	34	119	3	19	0.002	0.002	<0.0001	<0.001	<0.001	0.002	<0.001
1266182	BH-NSA 12	07-Feb-12	7.6	642	264	Nil	33	31	132	3	19	0.002	0.002	<0.0001	<0.001	<0.001	<0.002	<0.001
1266183	BH-NSA 13	07-Feb-12	7.7	539	269	Nil	9	28	97	18	8	0.001	<0.001	<0.0001	<0.001	<0.001	<0.002	<0.001
1266184	BH-NSA 14	07-Feb-12	7.7	706	251	Nil	54	45	120	10	26	0.005	0.001	<0.0001	<0.001	<0.001	<0.002	<0.001
1266185	BH-NSA 15	07-Feb-12	7.6	713	225	Nil	46	69	131	3	31	0.003	0.002	<0.0001	<0.001	<0.001	<0.002	<0.001
1266186	BH-NSA 16	07-Feb-12	7.6	654	265	Nil	29	43	135	5	15	0.002	0.002	<0.0001	<0.001	<0.001	<0.002	<0.001
1266187	BH-NSA 16X	07-Feb-12	7.6	654	266	Nil	30	42	133	5	16	0.001	<0.001	<0.0001	<0.001	<0.001	<0.002	<0.001
1266188	BH-NSA 17	07-Feb-12	7.8	497	216	Nil	16	20	104	2	9	0.002	0.003	<0.0001	<0.001	<0.001	<0.002	<0.001
1266189	BH-NSA 18	07-Feb-12	7.7	540	258	Nil	14	15	119	3	9	0.001	<0.001	<0.0001	<0.001	<0.001	<0.002	<0.001
1266190	BH-NSA 19	07-Feb-12	7.6	545	240	Nil	18	21	116	2	8	0.002	0.001	<0.0001	<0.001	<0.001	0.008	<0.001
	Environmental Scientifics Group Bretby Business Park, Ashby Road		Client N Contact		Watern Mr F Alco	nan EED						Date Prin	nted	ample /		Feb-2012		
	Burton-on-Trent, Staffordshire, DE15 0YZ					Uppe	er He	vford				Report N			EX	(R/131702		
	Tel +44 (0) 1283 554400					- 66.	 ,	,				Table Nu	ımber			1		
	Fax +44 (0) 1283 554422																	

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW		PHEHPLCVL	
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.01 Yes	2 No	No	0.002 No	0.0005 No	0.0005 No	0.0005 No
LAB ID Number EX	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols
1266171	BH-NSA 1	07-Feb-12	0.04	<0.0001	0.001	0.01	1.2	<0.01	<5	1.1	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266172	BH-NSA 2	07-Feb-12	0.07	<0.0001	0.002	0.16	<0.2	<0.01	44	12	Req	Req	4.5	<6	Req	0.0024	<0.0005	0.0026
1266173	BH-NSA 3	07-Feb-12	0.06	<0.0001	0.001	0.12	<0.2	<0.01	14	5.2	Req	Req	5.7	<6	Req	0.0011	<0.0005	0.0024
1266174	BH-NSA 4	07-Feb-12	0.04	<0.0001	0.001	0.13	<0.2	<0.01	9	1.4	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266175	BH-NSA 5	07-Feb-12	0.07	<0.0001	0.002	0.02	1.5	<0.01	13	1.3	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266176	BH-NSA 6	07-Feb-12	0.12	<0.0001	0.001	0.12	<0.2	<0.01	74	7.0	Req	Req	17.8	67	Req	<0.0005	<0.0005	<0.0005
1266177	BH-NSA 7	07-Feb-12	0.14	<0.0001	<0.001	<0.01	<0.2	<0.01	80	22	Req	Req	28.5	<6	Req	0.0007	0.0009	<0.0005
1266178	BH-NSA 8	07-Feb-12	0.09	<0.0001	0.001	<0.01	<0.2	<0.01	<5	1.2	Req	Req	3.0	<6	Req	<0.0005	<0.0005	<0.0005
1266179	BH-NSA 9	07-Feb-12	0.09	<0.0001	<0.001	0.06	<0.2	<0.01	6	1.6	Req	Req	2.5	<6	Req	<0.0005	<0.0005	<0.0005
1266180	BH-NSA 10	07-Feb-12	0.07	<0.0001	0.001	0.02	0.2	<0.01	8	1.3	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266181	BH-NSA 11	07-Feb-12	0.07	<0.0001	<0.001	0.01	1.3	<0.01	9	1.1	Req	Req	<2.0	22	Req	<0.0005	<0.0005	<0.0005
1266182	BH-NSA 12	07-Feb-12	0.05	<0.0001	0.001	<0.01	2.5	<0.01	<5	0.83	Req	Req	<2.0	73	Req	<0.0005	<0.0005	<0.0005
1266183	BH-NSA 13	07-Feb-12	0.32	<0.0001	<0.001	0.19	<0.2	<0.01	<5	0.69	Req	Req	2.8	<6	Req	<0.0005	<0.0005	<0.0005
1266184	BH-NSA 14	07-Feb-12	0.1	<0.0001	<0.001	<0.01	0.5	<0.01	<5	0.58	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266185	BH-NSA 15	07-Feb-12	0.05	<0.0001	<0.001	0.01	1.7	<0.01	<5	0.58	Req	Req	2.1	<6	Req	<0.0005	<0.0005	<0.0005
1266186	BH-NSA 16	07-Feb-12	0.06	<0.0001	<0.001	0.02	<0.2	<0.01	<5	0.56	Req	Req	<2.0	16	Req	<0.0005	<0.0005	<0.0005
1266187	BH-NSA 16X	07-Feb-12	0.06	<0.0001	0.001	0.02	<0.2	<0.01	<5	0.57	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266188	BH-NSA 17	07-Feb-12	0.03	<0.0001	0.001	<0.01	1.3	<0.01	7	0.81	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266189	BH-NSA 18	07-Feb-12	0.03	<0.0001	0.001	<0.01	0.9	<0.01	<5	0.94	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266190	BH-NSA 19	07-Feb-12	0.03	<0.0001	0.001	0.01	2.1	<0.01	<5	0.76	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ		Client Na	ame	Watern Mr F Alco		er He	vford				Date Prir Report N	ited umber	ample		-Feb-2012 XR/131702		
	Tel +44 (0) 1283 554400					Spp	J. 110	, . O . G				Table Nu	mber			1		
	Fax +44 (0) 1283 554422																	

		Units :	mg/l					
	Method	Codes :	PHEHPLCVL					
	Method Reporting		0.0005					
	UKAS Acc	redited :	No					
LAB ID Number EX/	Client Sample Description	Sample Date	Trimethylphenols					
1266171	BH-NSA 1	07-Feb-12	<0.0005					
1266172	BH-NSA 2	07-Feb-12	0.0056					
1266173	BH-NSA 3	07-Feb-12	<0.0005					
1266174	BH-NSA 4	07-Feb-12	<0.0005					
1266175	BH-NSA 5	07-Feb-12	<0.0005					
1266176	BH-NSA 6	07-Feb-12	<0.0005					
1266177	BH-NSA 7	07-Feb-12	<0.0005					
1266178	BH-NSA 8	07-Feb-12	<0.0005					
1266179	BH-NSA 9	07-Feb-12	<0.0005					
1266180	BH-NSA 10	07-Feb-12	<0.0005					
1266181	BH-NSA 11	07-Feb-12	<0.0005					
1266182	BH-NSA 12	07-Feb-12	<0.0005					
1266183	BH-NSA 13	07-Feb-12	<0.0005					
1266184	BH-NSA 14	07-Feb-12	<0.0005					
1266185	BH-NSA 15	07-Feb-12	<0.0005					
1266186	BH-NSA 16	07-Feb-12	<0.0005					
1266187	BH-NSA 16X	07-Feb-12	<0.0005					
1266188	BH-NSA 17	07-Feb-12	<0.0005					
1266189	BH-NSA 18	07-Feb-12	<0.0005					
1266190	BH-NSA 19	07-Feb-12	<0.0005					
	ESG 🔗		Client Name	Waterman EED		Water S	ample Analysis	
	Environmental Scientifics Group		Contact	Mr F Alcock		5 . 5		
	Bretby Business Park, Ashby Road					Date Printed	20-Feb-20 ⁻	
	Burton-on-Trent, Staffordshire, DE15 0YZ			Upper He	vford	Report Number	EXR/1317	02
	Tel +44 (0) 1283 554400			oppor rie	yioia	Table Number		1
	Fax +44 (0) 1283 554422							

UKAS accredited?: No

Waterman EED: Upper Heyford **Customer and Site Details:**

Sample Details:

BH-NSA 1

Date Booked in: 09-Feb-12 Date Extracted: 13-Feb-12

LIMS ID Number: EX1266171 13-Feb-12 Job Number: W13_1702 Date Analysed:

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	92
Naphthalene-d8	93
Acenaphthene-d10	90
Phenanthrene-d10	91
Chrysene-d12	94
Perylene-d12	94

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	37
Nitrobenzene-d5	99
2-Fluorobiphenyl	101
2,4,6-Tribromophenol	88
Terphenyl-d14	106

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Waterman EED: Upper Heyford **Customer and Site Details:**

Sample Details:

BH-NSA 2 Date Booked in: 09-Feb-12 EX1266172 Date Extracted: 13-Feb-12

LIMS ID Number: 13-Feb-12 Job Number: W13_1702 Date Analysed:

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	93
Naphthalene-d8	93
Acenaphthene-d10	93
Phenanthrene-d10	92
Chrysene-d12	89
Perylene-d12	94

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	35
Nitrobenzene-d5	93
2-Fluorobiphenyl	94
2,4,6-Tribromophenol	100
Terphenyl-d14	105

16

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

BH-NSA 3

09-Feb-12 Date Booked in: Date Extracted: 13-Feb-12

LIMS ID Number: EX1266173 Job Number: W13_1702

13-Feb-12 Date Analysed:

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	vvater	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	100
Naphthalene-d8	102
Acenaphthene-d10	99
Phenanthrene-d10	101
Chrysene-d12	91
Perylene-d12	94

Surrogates	% Rec
2-Fluorophenol	54
Phenol-d5	38
Nitrobenzene-d5	95
2-Fluorobiphenyl	97
2,4,6-Tribromophenol	99
Terphenyl-d14	110

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

LIMS ID Number: Job Number: BH-NSA 4

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12

EX1266174	Date Extracted:	13-Feb-12
W13_1702	Date Analysed:	13-Feb-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	93
Naphthalene-d8	93
Acenaphthene-d10	93
Phenanthrene-d10	92
Chrysene-d12	95
Perylene-d12	95

Surrogates	% Rec
2-Fluorophenol	52
Phenol-d5	38
Nitrobenzene-d5	98
2-Fluorobiphenyl	97
2,4,6-Tribromophenol	83
Terphenyl-d14	106

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Waterman EED: Upper Heyford **Customer and Site Details:**

Sample Details:

BH-NSA 5

Date Booked in: 09-Feb-12

Date Extracted: 13-Feb-12

LIMS ID Number: EX1266175 13-Feb-12 Job Number: W13_1702 Date Analysed:

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	98
Naphthalene-d8	96
Acenaphthene-d10	95
Phenanthrene-d10	93
Chrysene-d12	93
Perylene-d12	93

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	36
Nitrobenzene-d5	100
2-Fluorobiphenyl	98
2,4,6-Tribromophenol	84
Terphenyl-d14	109

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Matrix:

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

EX1266176

W13_1702

Sample Details:

Job Number:

LIMS ID Number:

BH-NSA 6

09-Feb-12 Date Booked in: Date Extracted: 13-Feb-12 13-Feb-12

Date Analysed:

Ext Method: Sep. Funnel Multiplier: 0.005 Operator: DMB/SO **Dilution Factor:** Ν

QC Batch Number:

Directory/Quant File: 13SVOC.GC11\ 0213_CCC1.D GPC (Y/N)

Water

oob Number.	VV 13_1702	Date Analyseu.		10-1 60-12	
Target Compounds	CAS#	R.T. (min)	Concentration mg/l	% Fit	
Phenol	108-95-2	-	< 0.020	_	
bis(2-Chloroethyl)ether	111-44-4	_	< 0.005	_	
2-Chlorophenol	95-57-8	-	< 0.020	_	
1,3-Dichlorobenzene	541-73-1	_	< 0.005	_	
1,4-Dichlorobenzene	106-46-7	_	< 0.005	_	
Benzyl alcohol	100-51-6	_	< 0.005	_	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	 -	
2-Methylphenol	95-48-7	-	< 0.005	_	
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	_	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_	
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	+	
Nitrobenzene	98-95-3		< 0.005	-	
Isophorone	78-59-1	-	< 0.005	_	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9		< 0.020	+ -	
Benzoic Acid	65-85-0 *		< 0.100	-	
bis(2-Chloroethoxy)methane	111-91-1	<u> </u>	< 0.100	+ -	
2,4-Dichlorophenol	120-83-2		< 0.020	+	
1.2.4-Trichlorobenzene	120-82-1		< 0.005	+ -	
Naphthalene	91-20-3		< 0.003	+	
4-Chlorophenol	106-48-9	<u> </u>	< 0.002	+ -	
4-Chloroaniline	106-47-8 *		< 0.020	-	
Hexachlorobutadiene	87-68-3		< 0.005	+ -	
4-Chloro-3-methylphenol	59-50-7		< 0.005	+ -	
2-Methylnaphthalene	91-57-6		< 0.005	+ -	
2-Methylnaphthalene	90-12-0	7.61	0.002	96	
Hexachlorocyclopentadiene	77-47-4 *	7.01		- 90	
2,4,6-Trichlorophenol	88-06-2		< 0.005 < 0.020	-	
2,4,5-Trichlorophenol	95-95-4		< 0.020	+ -	
2,4,5-11ichlorophenol 2-Chloronaphthalene	91-58-7		< 0.020	+ -	
		-		-	
Biphenyl Diphenyl other	92-52-4 101-84-8	-	< 0.002 < 0.002	-	
Diphenyl ether 2-Nitroaniline	88-74-4	<u> </u>		-	
			< 0.005	-	
Acenaphthylene	208-96-8	-	< 0.002	+	
Dimethylphthalate	131-11-3	-	< 0.005	-	
2,6-Dinitrotoluene	606-20-2	-	< 0.005	+ -	
Acenaphthene	83-32-9	-	< 0.002	-	
3-Nitroaniline	99-09-2	-	< 0.005		

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	10.79	0.004	92
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	86
Naphthalene-d8	88
Acenaphthene-d10	87
Phenanthrene-d10	86
Chrysene-d12	81
Perylene-d12	91

Surrogates	% Rec
2-Fluorophenol	53
Phenol-d5	37
Nitrobenzene-d5	102
2-Fluorobiphenyl	101
2,4,6-Tribromophenol	102
Terphenyl-d14	112

16

18

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Date Booked in: 09-Feb-12 Date Extracted:

Ext Method: Sep. Funnel QC Batch Number: 18 Multiplier:

Sample Details: LIMS ID Number: Job Number:

BH-NSA 7 EX1266177 W13_1702

Date Analysed:

13-Feb-12 13-Feb-12 Operator:

Matrix:

DMB/SO

Water

0.005

16

Dilution Factor:

Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.002	_

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	89
Naphthalene-d8	92
Acenaphthene-d10	91
Phenanthrene-d10	92
Chrysene-d12	89
Perylene-d12	92

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	36
Nitrobenzene-d5	92
2-Fluorobiphenyl	97
2,4,6-Tribromophenol	103
Terphenyl-d14	106

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

Job Number:

LIMS ID Number:

BH-NSA 8

EX1266178

W13_1702

Date Booked in: 09-Feb-12

Date Extracted: 13-Feb-12

13-Feb-12 Date Analysed:

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	_	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	_	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Water	QC Batch Number:	18
Sep. Funnel	Multiplier:	0.005
DMB/SO	Dilution Factor:	1
13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N
	Sep. Funnel DMB/SO	Sep. Funnel Multiplier:

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3		< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3		< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	
Benzo[g,h,i]perylene	191-24-2		< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	92
Naphthalene-d8	91
Acenaphthene-d10	89
Phenanthrene-d10	87
Chrysene-d12	89
Perylene-d12	90

Surrogates	% Rec
2-Fluorophenol	54
Phenol-d5	38
Nitrobenzene-d5	96
2-Fluorobiphenyl	98
2,4,6-Tribromophenol	89
Terphenyl-d14	110

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

BH-NSA 9 Date Booked in: 09-Feb-12 EX1266179 Date Extracted: 13-Feb-12

LIMS ID Number: Job Number:

14-Feb-12 W13_1702 Date Analysed:

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	_	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	_	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3		< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3		< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	
Benzo[g,h,i]perylene	191-24-2		< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

% Area
90
93
90
91
89
96

Surrogates	% Rec
2-Fluorophenol	54
Phenol-d5	37
Nitrobenzene-d5	92
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	85
Terphenyl-d14	106

16

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

BH-NSA 10 **Date Booked in:** 09-Feb-12 EX1266180 **Date Extracted:** 18-Feb-12

 LIMS ID Number:
 EX1266180
 Date Extracted:
 18-Feb-12

 Job Number:
 W13_1702
 Date Analysed:
 14-Feb-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	95
Naphthalene-d8	95
Acenaphthene-d10	93
Phenanthrene-d10	95
Chrysene-d12	104
Perylene-d12	108

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	34
Nitrobenzene-d5	95
2-Fluorobiphenyl	94
2,4,6-Tribromophenol	79
Terphenyl-d14	97

16

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

BH-NSA 11

Date Booked in:

Ext Method:

Matrix:

Sep. Funnel

Water

QC Batch Number: Multiplier:

Sample Details: LIMS ID Number: Job Number:

EX1266181

Date Extracted:

09-Feb-12 13-Feb-12

_

-

Operator:

DMB/SO

Dilution Factor:

18 0.005 16

W13_1702 Date Analysed: 14-Feb-12

Directory/Quant File:

13SVOC.GC11\ 0213_CCC1.D GPC (Y/N)

1 Ν

CAS# R.T. % Fit **Target Compounds** Concentration (min) mg/l 108-95-2 < 0.020 Phenol

bis(2-Chloroethyl)ether 111-44-4 < 0.005 95-57-8 < 0.020

2-Chlorophenol 1.3-Dichlorobenzene 541-73-1 < 0.005 1.4-Dichlorobenzene 106-46-7 < 0.005

Benzyl alcohol 100-51-6 < 0.005 1,2-Dichlorobenzene 95-50-1 < 0.005 2-Methylphenol 95-48-7 < 0.005 108-60-1 < 0.005

bis(2-Chloroisopropyl)ether Hexachloroethane 67-72-1 < 0.005 621-64-7 N-Nitroso-di-n-propylamine < 0.005 < 0.020 3- & 4-Methylphenol 108-39-4/106-44-5

Nitrobenzene 98-95-3 < 0.005 78-59-1 < 0.005 Isophorone 88-75-5 < 0.020 2-Nitrophenol -_ 105-67-9 < 0.020 2.4-Dimethylphenol Benzoic Acid 65-85-0 * < 0.100 -_

87-68-3

95-95-4

606-20-2

83-32-9

111-91-1 < 0.005 120-83-2 < 0.020 -120-82-1 < 0.005 91-20-3 < 0.002 -106-48-9 < 0.020 106-47-8 * < 0.005

< 0.005

< 0.020

< 0.005

< 0.002

< 0.005

59-50-7 < 0.005 91-57-6 < 0.002 90-12-0 < 0.002 77-47-4 * < 0.005 88-06-2 < 0.020

91-58-7 < 0.002 92-52-4 < 0.002 101-84-8 < 0.002 88-74-4 < 0.005 208-96-8 < 0.002 < 0.005 131-11-3

3-Nitroaniline 99-09-2 Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis. "M" denotes that % fit has been manually interpreted

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
			T Comments of the comments of	1

"M" denotes that % fit has been manually interpreted

191-24-2

Internal Standards	% Area
1,4-Dichlorobenzene-d4	95
Naphthalene-d8	94
Acenaphthene-d10	92
Phenanthrene-d10	93
Chrysene-d12	92
Perylene-d12	93

Benzo[g,h,i]perylene

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	36
Nitrobenzene-d5	94
2-Fluorobiphenyl	97
2,4,6-Tribromophenol	84
Terphenyl-d14	109

< 0.002

bis(2-Chloroethoxy)methane

2.4-Dichlorophenol

Naphthalene

4-Chlorophenol

4-Chloroaniline

1,2,4-Trichlorobenzene

Hexachlorobutadiene

2-Methylnaphthalene

1-Methylnaphthalene

2,4,6-Trichlorophenol

2,4,5-Trichlorophenol

2-Chloronaphthalene

Biphenyl

Diphenyl ether

2-Nitroaniline

Acenaphthylene

Dimethylphthalate

2,6-Dinitrotoluene

Acenaphthene

4-Chloro-3-methylphenol

Hexachlorocyclopentadiene

UKAS accredited?: No

Waterman EED: Upper Heyford **Customer and Site Details:**

EX1266182

W13_1702

Sample Details:

Job Number:

LIMS ID Number:

BH-NSA 12

Date Booked in: 09-Feb-12

Date Extracted:	13-Feb-12
Date Analysed:	14-Feb-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Water	QC Batch Number:	18
Sep. Funnel	Multiplier:	0.005
DMB/SO	Dilution Factor:	1
13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N
	Sep. Funnel DMB/SO	Sep. Funnel Multiplier:

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3		< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3		< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	
Benzo[g,h,i]perylene	191-24-2		< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	94
Naphthalene-d8	93
Acenaphthene-d10	92
Phenanthrene-d10	94
Chrysene-d12	77
Perylene-d12	78

Surrogates	% Rec
2-Fluorophenol	48
Phenol-d5	32
Nitrobenzene-d5	89
2-Fluorobiphenyl	93
2,4,6-Tribromophenol	79
Terphenyl-d14	114

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Waterman EED: Upper Heyford **Customer and Site Details:**

Sample Details:

BH-NSA 13 Date Booked in: 09-Feb-12 EX1266183 Date Extracted: 13-Feb-12

LIMS ID Number: 14-Feb-12 Job Number: W13_1702 Date Analysed:

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1.3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N
Operator:	DMB/SO	Dilution Factor:	1

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	100
Naphthalene-d8	100
Acenaphthene-d10	99
Phenanthrene-d10	96
Chrysene-d12	97
Perylene-d12	99

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	37
Nitrobenzene-d5	97
2-Fluorobiphenyl	96
2,4,6-Tribromophenol	89
Terphenyl-d14	106

16

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Waterman EED: Upper Heyford **Customer and Site Details:**

Sample Details:

Job Number:

LIMS ID Number:

BH-NSA 14 Date Booked in: 09-Feb-12 EX1266184 Date Extracted: 13-Feb-12

14-Feb-12 W13_1702 Date Analysed:

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
B-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	103
Naphthalene-d8	103
Acenaphthene-d10	97
Phenanthrene-d10	99
Chrysene-d12	98
Perylene-d12	N.D

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	33
Nitrobenzene-d5	101
2-Fluorobiphenyl	108
2,4,6-Tribromophenol	57
Terphenyl-d14	109

16

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Matrix:

UKAS accredited?: No

Water

Customer and Site Details: Waterman EED: Upper Heyford

EX1266185

Sample Details:

LIMS ID Number:

BH-NSA 15

09-Feb-12 Date Booked in: Date Extracted: 13-Feb-12 Ext Method: Sep. Funnel Multiplier: 0.005 Operator: DMB/SO **Dilution Factor:** Ν

QC Batch Number:

Directory/Quant File: 13SVOC.GC11\ 0213_CCC1.D GPC (Y/N)

Job Number:	W13_1702		Date Analysed:	14-Feb-12
Target Compounds	CAS#	R.T.	Concentration	% Fit
raiget compounds	OAO II	(min)	mg/l	70110
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	_	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	_
2-Methylnaphthalene	91-57-6	_	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	_	< 0.002	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	94
Naphthalene-d8	91
Acenaphthene-d10	90
Phenanthrene-d10	93
Chrysene-d12	80
Perylene-d12	81

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	35
Nitrobenzene-d5	92
2-Fluorobiphenyl	97
2,4,6-Tribromophenol	62
Terphenyl-d14	115

16

18

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

Job Number:

LIMS ID Number:

BH-NSA 16

09-Feb-12 Date Booked in: EX1266186

EX1266186	Date Extracted:	13-Feb-12
W13_1702	Date Analysed:	14-Feb-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS# R.	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3		< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3		< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	
Benzo[g,h,i]perylene	191-24-2		< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	109
Naphthalene-d8	107
Acenaphthene-d10	105
Phenanthrene-d10	103
Chrysene-d12	101
Perylene-d12	102

Surrogates	% Rec
2-Fluorophenol	55
Phenol-d5	39
Nitrobenzene-d5	97
2-Fluorobiphenyl	96
2,4,6-Tribromophenol	84
Terphenyl-d14	109

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Matrix:

Ext Method:

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

BH-NSA 16X

Date Booked in: 09-Feb-12 Water QC Batch Number: 18 Sep. Funnel Multiplier: 0.005

Sample Details: LIMS ID Number: EX1266187

Date Extracted:

Operator: DMB/SO Directory/Quant File:

Dilution Factor: Ν 13SVOC.GC11\ 0213_CCC1.D GPC (Y/N)

16

13-Feb-12 Job Number: W13_1702 Date Analysed: 14-Feb-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	106
Naphthalene-d8	105
Acenaphthene-d10	99
Phenanthrene-d10	104
Chrysene-d12	87
Perylene-d12	85

Surrogates	% Rec
2-Fluorophenol	48
Phenol-d5	33
Nitrobenzene-d5	95
2-Fluorobiphenyl	100
2,4,6-Tribromophenol	79
Terphenyl-d14	122

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Waterman EED: Upper Heyford **Customer and Site Details:**

Sample Details:

Job Number:

LIMS ID Number:

BH-NSA 17

Date Booked in: 09-Feb-12

Date Extracted: 13-Feb-12

EX1266188 14-Feb-12 W13_1702 Date Analysed:

Target Compounds	CAS#	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1.3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	18
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	99
Naphthalene-d8	97
Acenaphthene-d10	93
Phenanthrene-d10	100
Chrysene-d12	90
Perylene-d12	91

Surrogates	% Rec
2-Fluorophenol	52
Phenol-d5	36
Nitrobenzene-d5	96
2-Fluorobiphenyl	98
2,4,6-Tribromophenol	75
Terphenyl-d14	110

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

BH-NSA 18

Sample Details:

LIMS ID Number: Job Number:

Date Booked in: 09-Feb-12

EX1266189	Date Extracted:	13-Feb-12
W13_1702	Date Analysed:	14-Feb-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Water	QC Batch Number:	18
Sep. Funnel	Multiplier:	0.005
DMB/SO	Dilution Factor:	1
13SVOC.GC11\	0213_CCC1.D GPC (Y/N)	N
	Sep. Funnel DMB/SO	Sep. Funnel Multiplier:

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	99
Naphthalene-d8	98
Acenaphthene-d10	96
Phenanthrene-d10	97
Chrysene-d12	86
Perylene-d12	87

Surrogates	% Rec
2-Fluorophenol	59
Phenol-d5	41
Nitrobenzene-d5	98
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	84
Terphenyl-d14	115

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Date Booked in:

Matrix: Ext Method: Water Sep. Funnel QC Batch Number:

Sample Details: LIMS ID Number: Job Number:

BH-NSA 19 EX1266190 W13_1702

Date Extracted: Date Analysed:

09-Feb-12 13-Feb-12 14-Feb-12

Operator:

DMB/SO

Multiplier: **Dilution Factor:**

0.005

18

16

Directory/Quant File:

13SVOC.GC11\ 0213_CCC1.D GPC (Y/N)

Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Target Compounds	CAS#	R.T.	Concentration	% Fit	
			mg/l		
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-	
Dibenzofuran	132-64-9	-	< 0.005	-	
4-Nitrophenol	100-02-7	-	< 0.050	-	
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-	
Fluorene	86-73-7	-	< 0.002	-	
Diethylphthalate	84-66-2	-	< 0.005	-	
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-	
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-	
4-Nitroaniline	100-01-6	-	< 0.005	-	
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-	
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-	
Hexachlorobenzene	118-74-1	-	< 0.005	-	
Pentachlorophenol	87-86-5	-	< 0.050	-	
Phenanthrene	85-01-8	-	< 0.002	-	
Anthracene	120-12-7	-	< 0.002	-	
Di-n-butylphthalate	84-74-2	-	< 0.005	-	
Fluoranthene	206-44-0	-	< 0.002	-	
Pyrene	129-00-0	-	< 0.002	-	
Butylbenzylphthalate	85-68-7	-	< 0.005	-	
Benzo[a]anthracene	56-55-3	-	< 0.002	-	
Chrysene	218-01-9	-	< 0.002	-	
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-	
bis(2-Ethylhexyl)phthalate	117-81-7	15.06	0.005	98	
Di-n-octylphthalate	117-84-0	-	< 0.002	-	
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-	
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-	
Benzo[a]pyrene	50-32-8	-	< 0.002	-	
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-	
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-	
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-	

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	98
Naphthalene-d8	96
Acenaphthene-d10	93
Phenanthrene-d10	100
Chrysene-d12	88
Perylene-d12	90

Surrogates	% Rec
2-Fluorophenol	54
Phenol-d5	37
Nitrobenzene-d5	95
2-Fluorobiphenyl	98
2,4,6-Tribromophenol	82
Terphenyl-d14	114

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_1702

D:\TES\DATA\Y2012\0217HSA GC09\021712 2012-02-17 06-11-01\028F2801.D Directory:

Method: Headspace GCFID Matrix: Water

Date Booked in: 09-Feb-12 Date extracted:

17-Feb-12

Date Analysed: 17-Feb-12. 14:51:28

* Sample data with an asterisk are not UKAS accredited.

		oup.o uu									
			С	oncentration, (n	Aliphatics						
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
EX1266171	BH-NSA 1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266172	BH-NSA 2	<0.005	<0.005	<0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266173	BH-NSA 3	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266174	BH-NSA 4	<0.005	<0.005	<0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266175	BH-NSA 5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266176	BH-NSA 6	<0.005	0.008	<0.005	0.044	<0.005	<0.1	<0.1	<0.1	1.6	1.7
EX1266177	BH-NSA 7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266178	BH-NSA 8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266179	BH-NSA 9	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266180	BH-NSA 10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266181	BH-NSA 11	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266182	BH-NSA 12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266183	BH-NSA 13	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266184	BH-NSA 14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266185	BH-NSA 15	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266186	BH-NSA 16	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266187	BH-NSA 16X	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266188	BH-NSA 17	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266189	BH-NSA 18	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1266190	BH-NSA 19	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford

 Job Number:
 W13_1702
 Separation:
 Silica gel

 QC Batch Number:
 120105
 Eluents:
 Hexane, DCM

 Directory:
 D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\095B5201.D

Method: Bottle

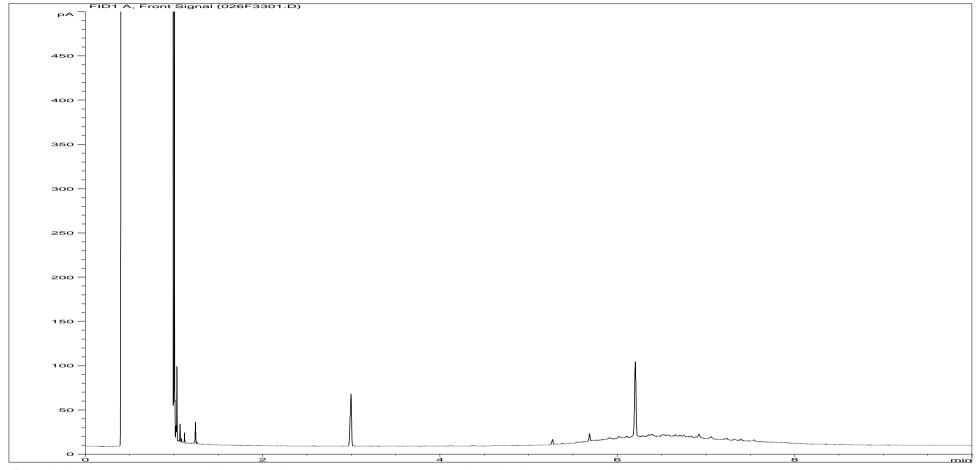
Date Booked ir 09-Feb-12
Date Extracted 14-Feb-12
Date Analysed:16-Feb-12, 00:06:54

Water

Matrix:

						Concentra	tion, (mg/l)						
* This sample data is not UP	(AS accredited.	>C8	>C8 - C10		>C12	- C16	>C16	- C21	>C21 - C35		>C8 - C40		
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1266171	BH-NSA 1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.231	0.074	0.267	0.089
EX1266172	BH-NSA 2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.017	0.012	0.032
EX1266173	BH-NSA 3	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	0.013	<0.01	0.344	0.098	0.416	0.118
EX1266174	BH-NSA 4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1266175	BH-NSA 5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1266176	BH-NSA 6	0.671	0.088	2.54	0.588	6.16	3.52	4.41	3.81	2.54	3.14	16.6	11.6
EX1266177	BH-NSA 7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.016	<0.01	0.026	<0.01	0.052	<0.01
EX1266178	BH-NSA 8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01	0.018	<0.01
EX1266179	BH-NSA 9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1266180	BH-NSA 10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1266181	BH-NSA 11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01
EX1266182	BH-NSA 12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.016	<0.01
EX1266183	BH-NSA 13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1266184	BH-NSA 14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.054	0.014	0.068	0.019
EX1266185	BH-NSA 15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.026	<0.01	0.04	0.01
EX1266186	BH-NSA 16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.03	0.014
EX1266187	BH-NSA 16X	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.032	<0.01	0.044	0.011
EX1266188	BH-NSA 17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1266189	BH-NSA 18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1266190	BH-NSA 19	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	<0.01

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



EX1266171ALI Sample ID: Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

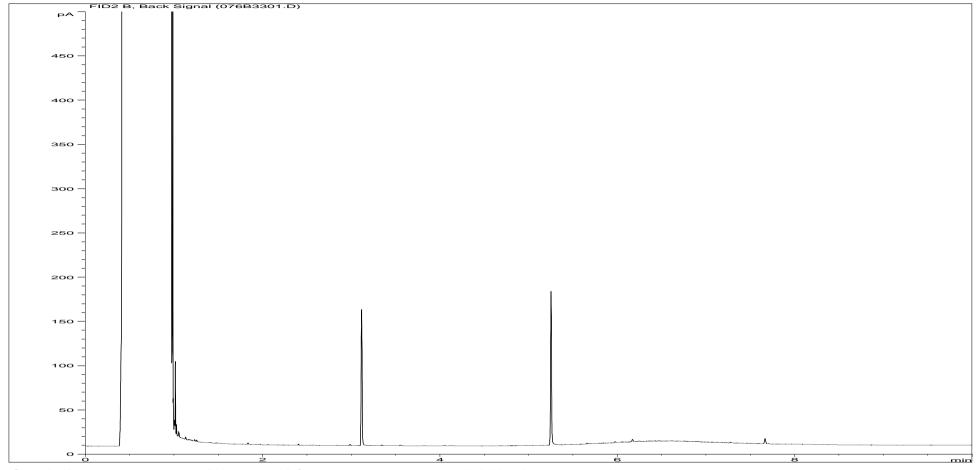
Acquisition Date/Time: 15-Feb-12, 18:43:08

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\026F3301.D

Job Number: W13 1702 Client: Waterman EED Site: Upper Heyford Client Sample Ref:

BH-NSA 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID: EX1266171ARO

Multiplier: 0.015

Dilution: 1

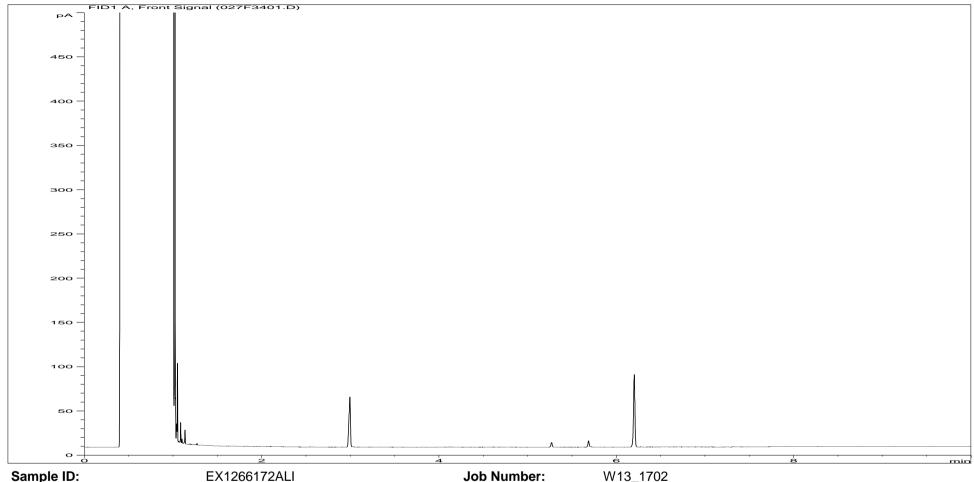
Acquisition Method: TPH_RUNF.M

Job Number: W13_1702
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA 1

Acquisition Date/Time: 15-Feb-12, 18:43:08

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\076B3301.D

Page 28 of 72 EXR/131702 Ver. 1



Sample ID:EX1266172ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 15-Feb-12, 19:00:09

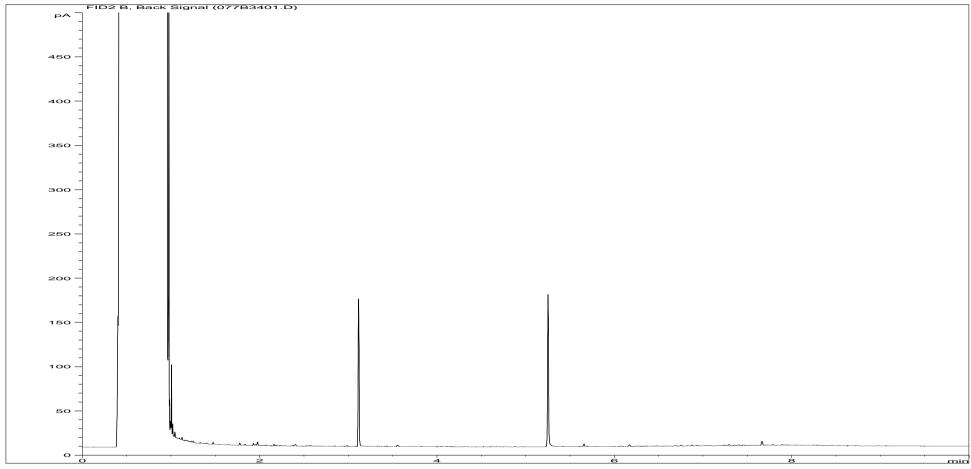
Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\027F3401.D

Waterman EED

Upper Heyford

BH-NSA 2

Page 29 of 72 EXR/131702 Ver. 1

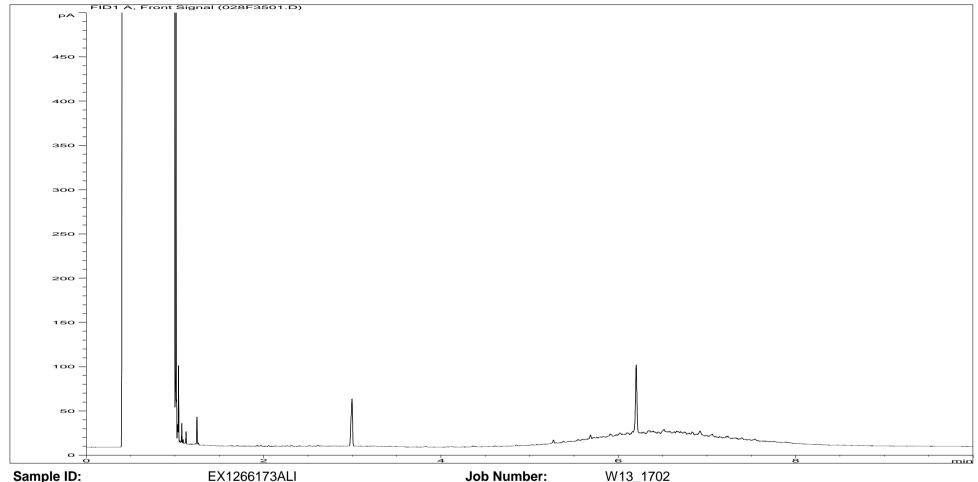


Sample ID:EX1266172AROJob Number:W13_1702Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 2

Acquisition Date/Time: 15-Feb-12, 19:00:09

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\077B3401.D

Page 30 of 72 EXR/131702 Ver. 1



EX1266173ALI Sample ID: Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time:

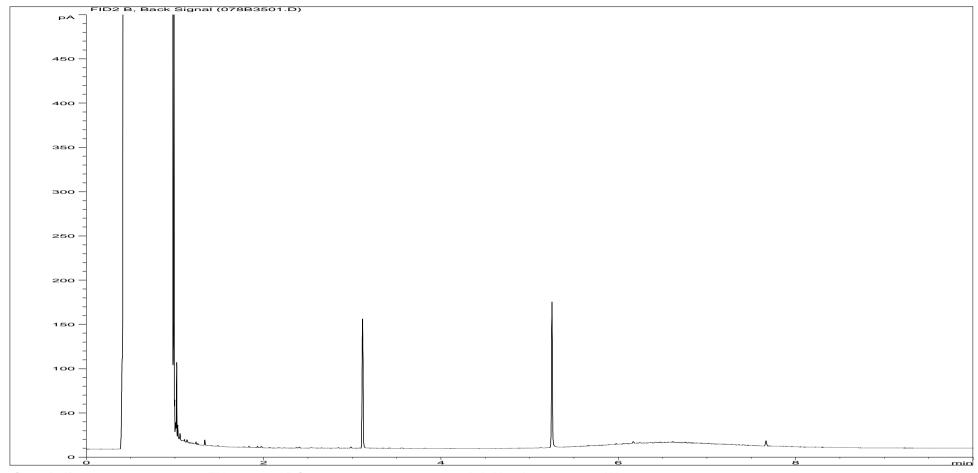
Datafile:

15-Feb-12, 19:17:11

Client: Waterman EED Site: Upper Heyford Client Sample Ref: BH-NSA 3

D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\028F3501.D

Page 31 of 72 EXR/131702 Ver. 1

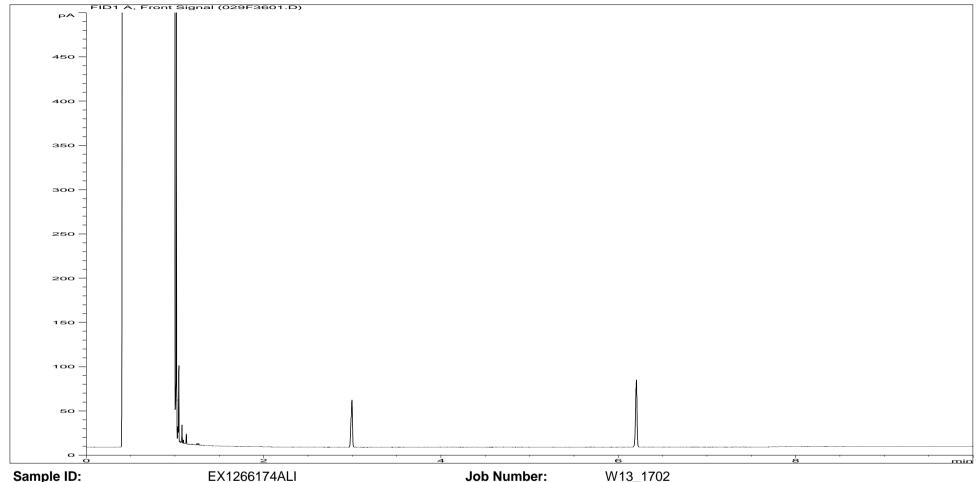


Sample ID:EX1266173AROJob Number:W13_1702Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 3

Acquisition Date/Time: 15-Feb-12, 19:17:11

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\078B3501.D

Page 32 of 72 EXR/131702 Ver. 1



Sample ID:EX1266174ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 15-Feb-12, 19:34:12

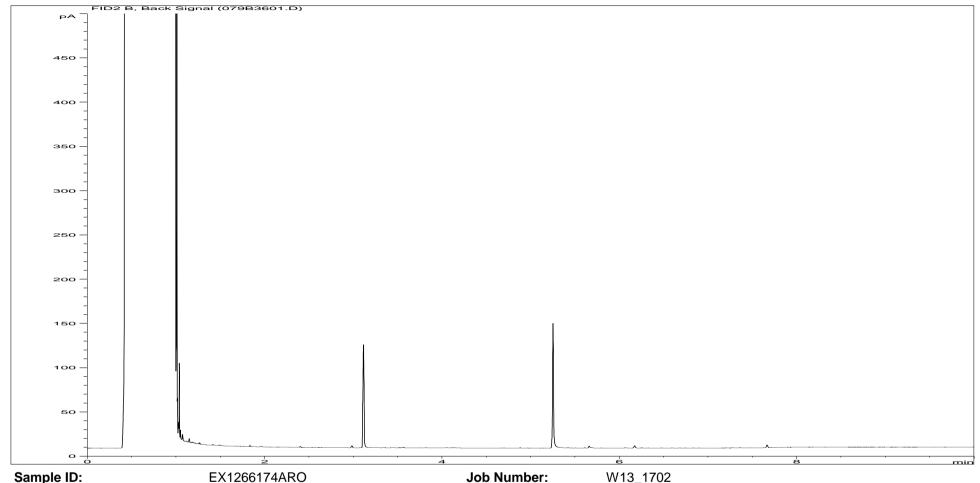
Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\029F3601.D

Waterman EED

Upper Heyford

BH-NSA 4

Page 33 of 72 EXR/131702 Ver. 1



Sample ID:EX1266174AROMultiplier:0.015Dilution:1Acquisition Method:TPH_RUNF.M

1 Site:
TPH_RUNF.M Client Sample Ref:

Acquisition Date/Time: 15-Feb-12, 19:34:12

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\079B3601.D

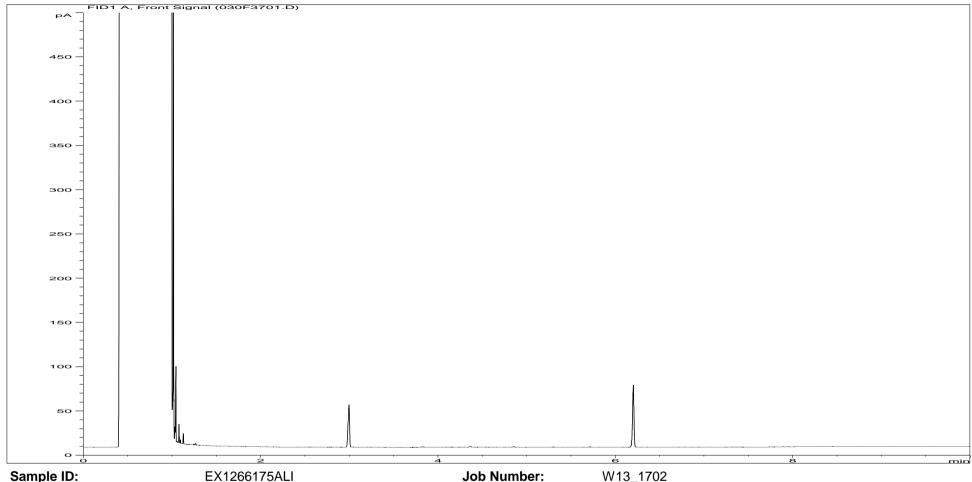
Client:

Waterman EED

Upper Heyford

BH-NSA 4

Page 34 of 72 EXR/131702 Ver. 1



EX1266175ALI Sample ID: Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

15-Feb-12, 19:51:25

Acquisition Date/Time:

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\030F3701.D

Client:

Client Sample Ref:

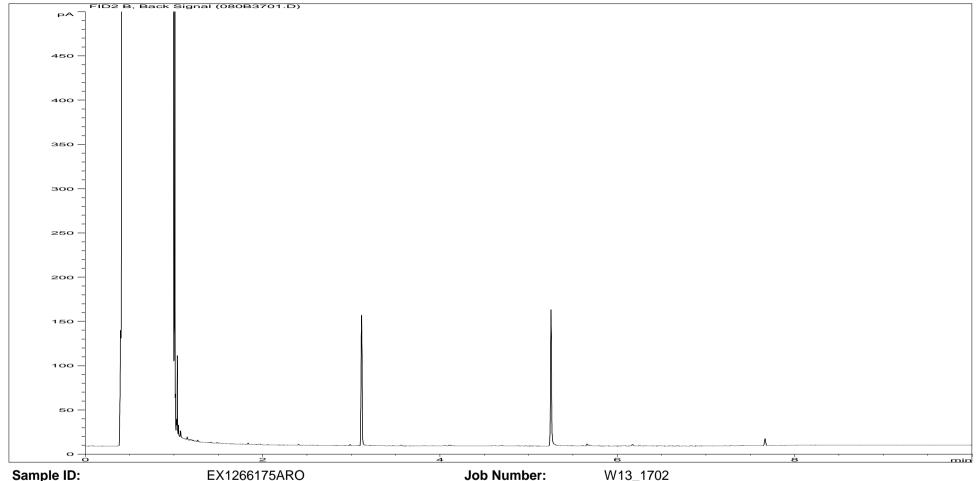
Site:

Waterman EED

Upper Heyford

BH-NSA 5

Page 35 of 72 EXR/131702 Ver. 1



EX1266175ARO Sample ID: Multiplier: 0.016 Dilution: **Acquisition Method:** TPH_RUNF.M

15-Feb-12, 19:51:25

Acquisition Date/Time:

Datafile:

D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\080B3701.D

Client:

Client Sample Ref:

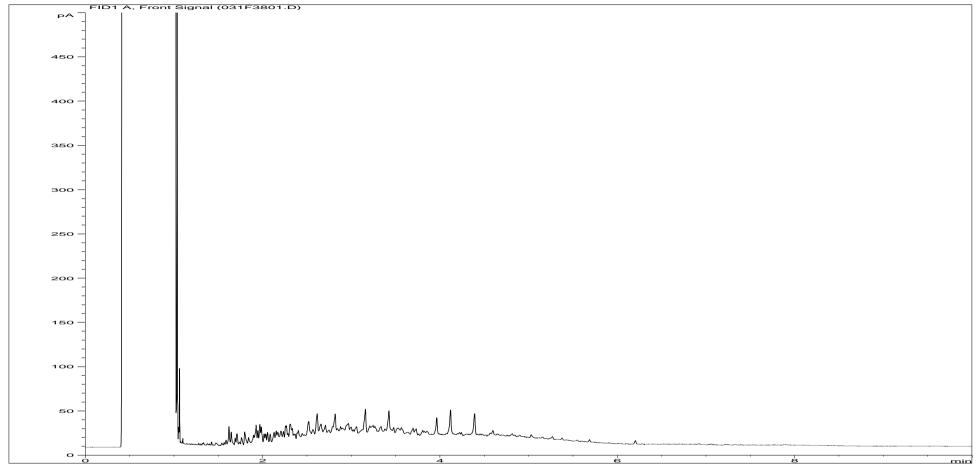
Site:

Waterman EED

Upper Heyford

BH-NSA 5

Page 36 of 72 EXR/131702 Ver. 1

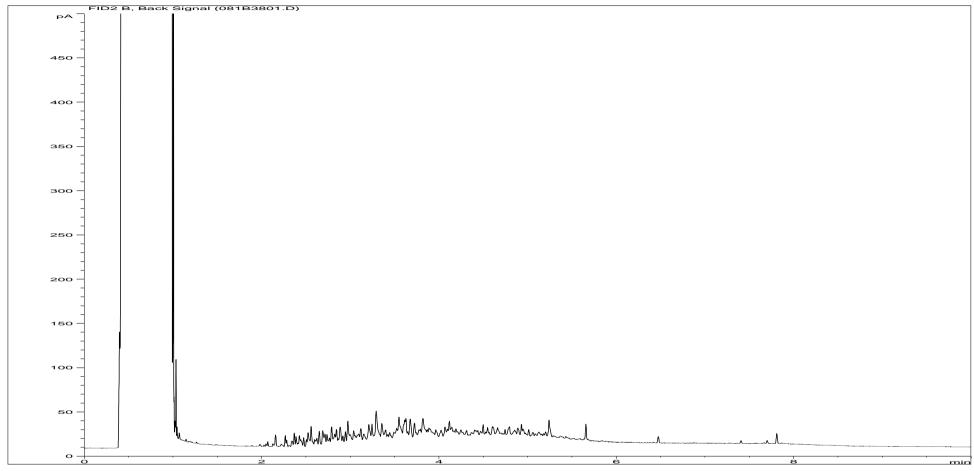


Sample ID: EX1266176ALI Job Number: W13 1702 Multiplier: 0.02 Client: Waterman EED Dilution: Site: Upper Heyford 20 **Acquisition Method:** TPH_RUNF.M Client Sample Ref: BH-NSA 6

Acquisition Date/Time: 15-Feb-12, 20:08:26

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\031F3801.D

Page 37 of 72 EXR/131702 Ver. 1

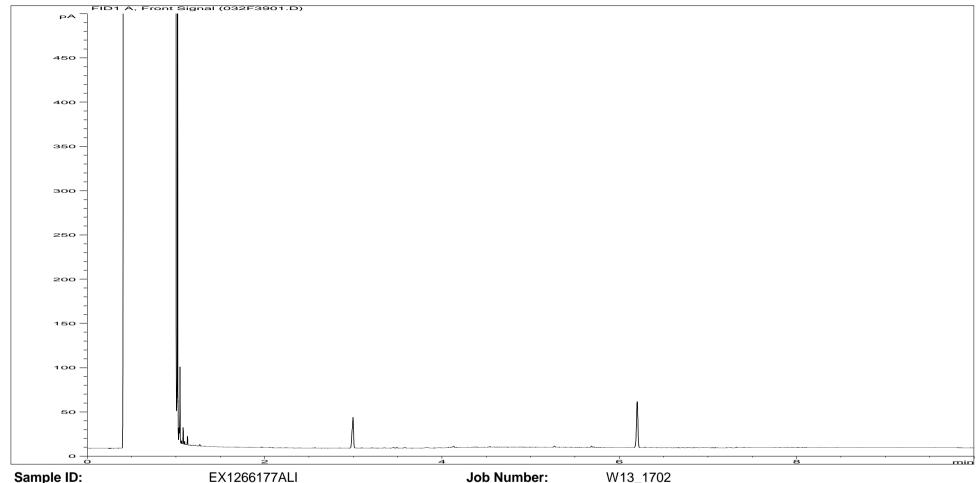


Sample ID: EX1266176ARO Job Number: W13 1702 Multiplier: Client: Waterman EED 0.016 Dilution: Site: Upper Heyford 20 **Acquisition Method:** TPH_RUNF.M Client Sample Ref: BH-NSA 6

Acquisition Date/Time: 15-Feb-12, 20:08:26

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\081B3801.D

Page 38 of 72 EXR/131702 Ver. 1



Sample ID:EX1266177ALIMultiplier:0.02Dilution:1Acquisition Method:TPH_RUNF.M

1 Site:
TPH_RUNF.M Client Sample Ref:

Acquisition Date/Time: 15-Feb-12, 20:25:29

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\032F3901.D

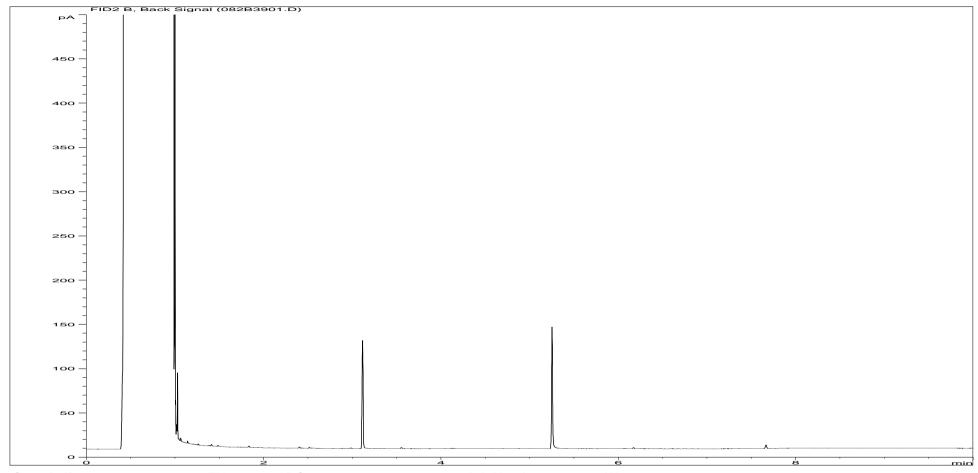
Client:

Waterman EED

Upper Heyford

BH-NSA 7

Page 39 of 72 EXR/131702 Ver. 1

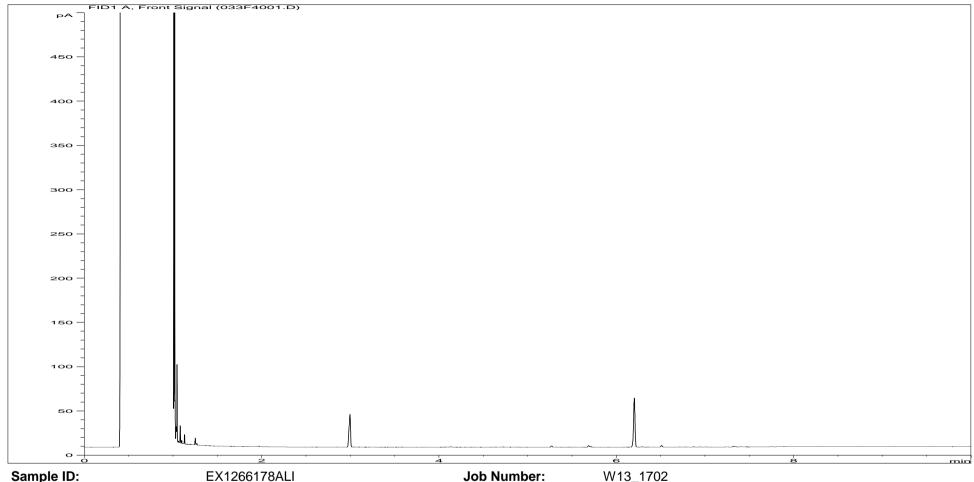


Sample ID:EX1266177AROJob Number:W13_1702Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 7

Acquisition Date/Time: 15-Feb-12, 20:25:29

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\082B3901.D

Page 40 of 72 EXR/131702 Ver. 1



Sample ID:EX1266178ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 15-Feb-12, 20:42:43

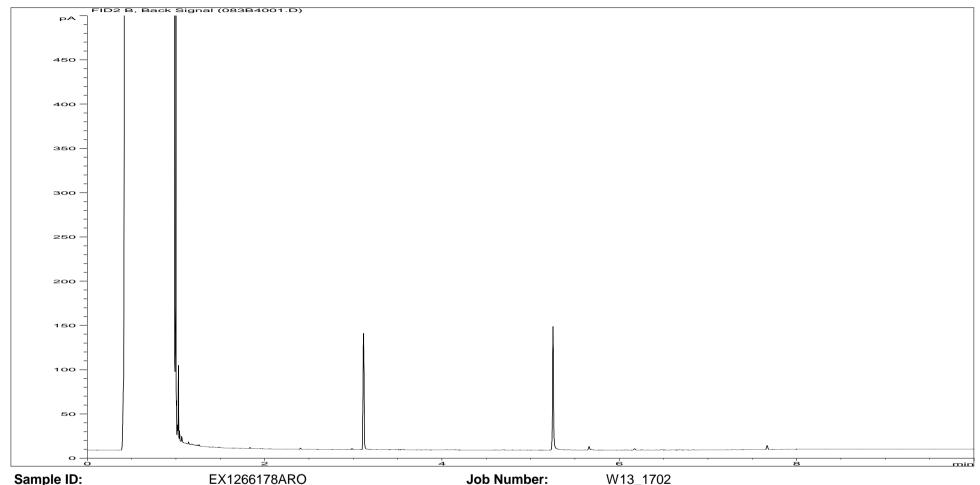
Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\033F4001.D

Waterman EED

Upper Heyford

BH-NSA 8

Page 41 of 72 EXR/131702 Ver. 1



Sample ID:EX1266178AROMultiplier:0.015Dilution:1Acquisition Method:TPH_RUNF.M

Acquisition Date/Time:

15-Feb-12, 20:42:43

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\083B4001.D

Client:

Client Sample Ref:

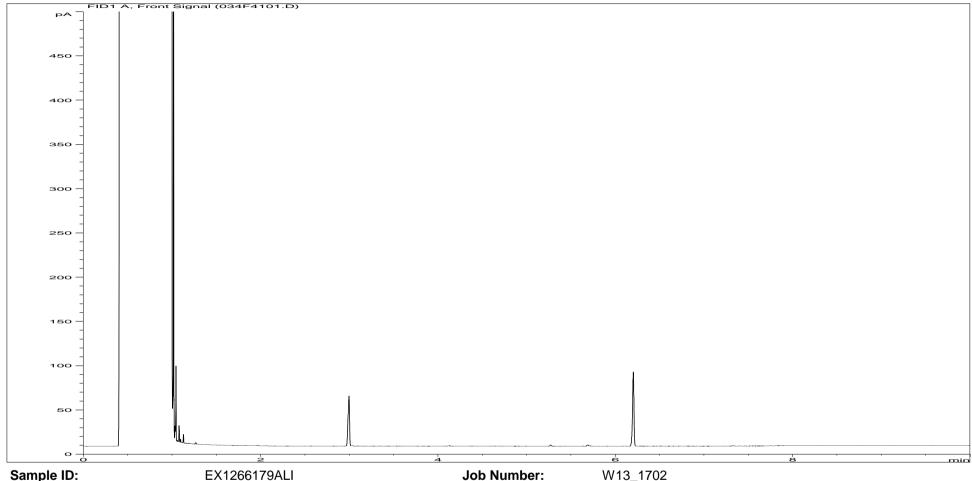
Site:

Waterman EED

Upper Heyford

BH-NSA 8

Page 42 of 72 EXR/131702 Ver. 1



Sample ID:EX1266179ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 15-Feb-12, 20:59:56

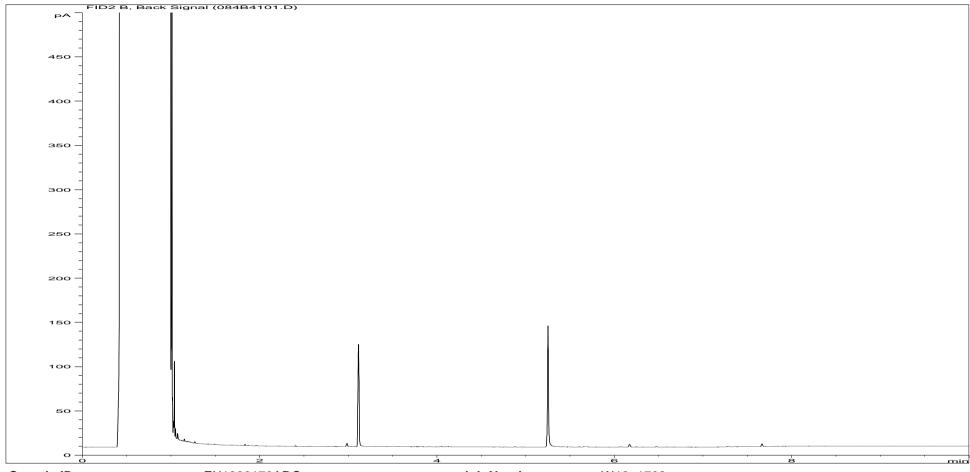
Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\034F4101.D

Waterman EED

Upper Heyford

BH-NSA 9

Page 43 of 72 EXR/131702 Ver. 1

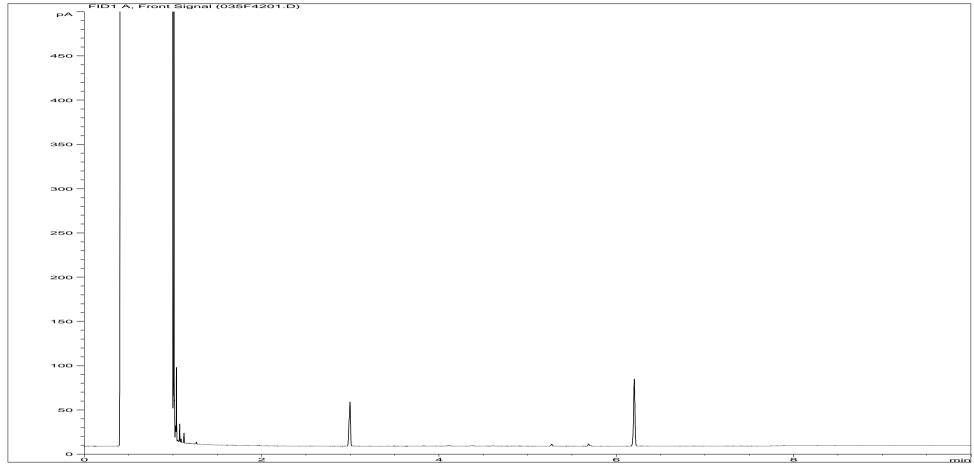


Sample ID:EX1266179AROJob Number:W13_1702Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 9

Acquisition Date/Time: 15-Feb-12, 20:59:56

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\084B4101.D

Page 44 of 72 EXR/131702 Ver. 1

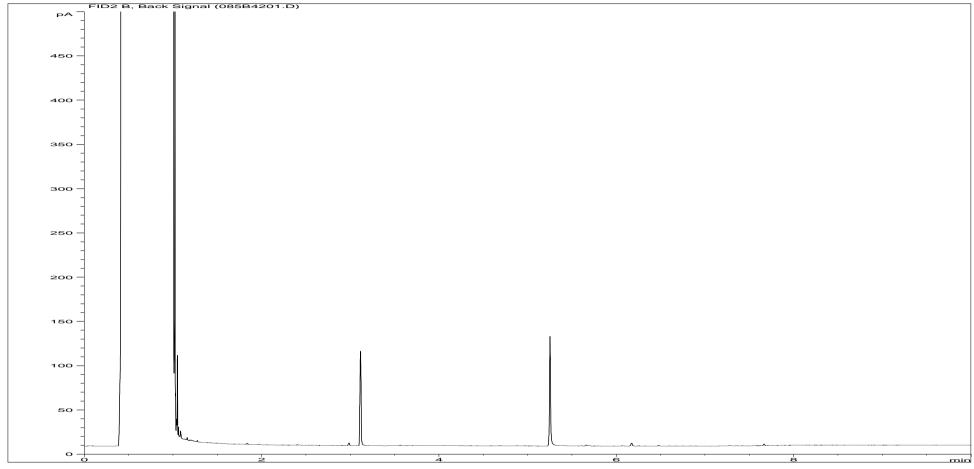


Sample ID:EX1266180ALIJob Number:W13_1702Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 10

Acquisition Date/Time: 15-Feb-12, 21:16:56

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\035F4201.D

Page 45 of 72 EXR/131702 Ver. 1



Sample ID: EX1266180ARO

Multiplier: 0.015

Dilution: 1

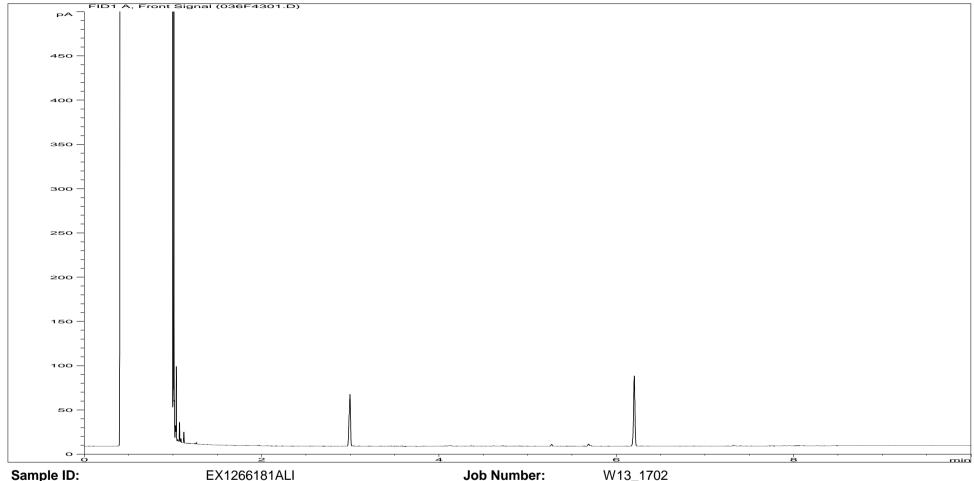
Acquisition Method: TPH_RUNF.M

Job Number: W13_1702
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA 10

Acquisition Date/Time: 15-Feb-12, 21:16:56

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\085B4201.D

Page 46 of 72 EXR/131702 Ver. 1



Sample ID:EX1266181ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 15-Feb-12, 21:33:56

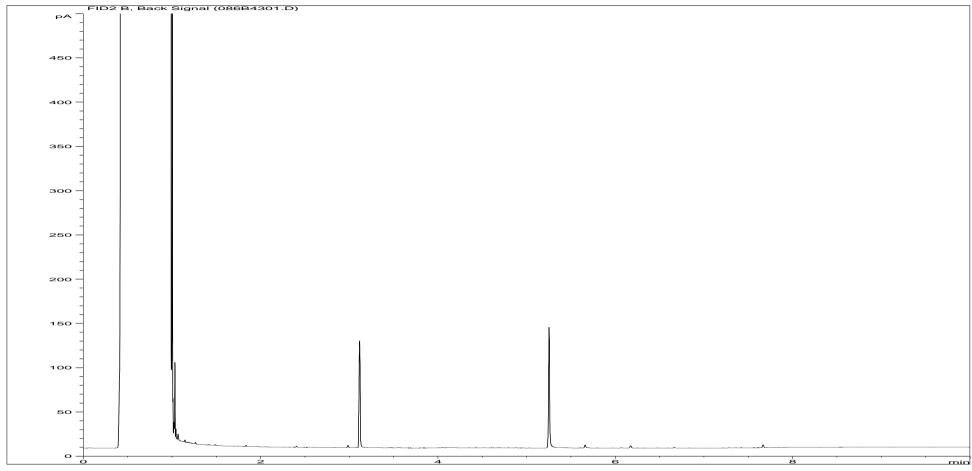
Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\036F4301.D

Waterman EED

Upper Heyford

BH-NSA 11

Page 47 of 72 EXR/131702 Ver. 1

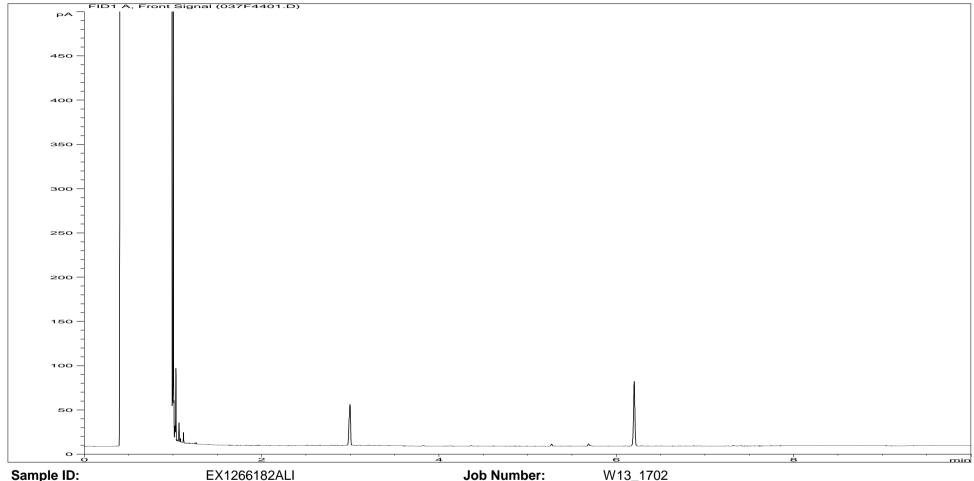


Sample ID:EX1266181AROJob Number:W13_1702Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 11

Acquisition Date/Time: 15-Feb-12, 21:33:56

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\086B4301.D

Page 48 of 72 EXR/131702 Ver. 1



Sample ID:EX1266182ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 15-Feb-12, 21:51:07

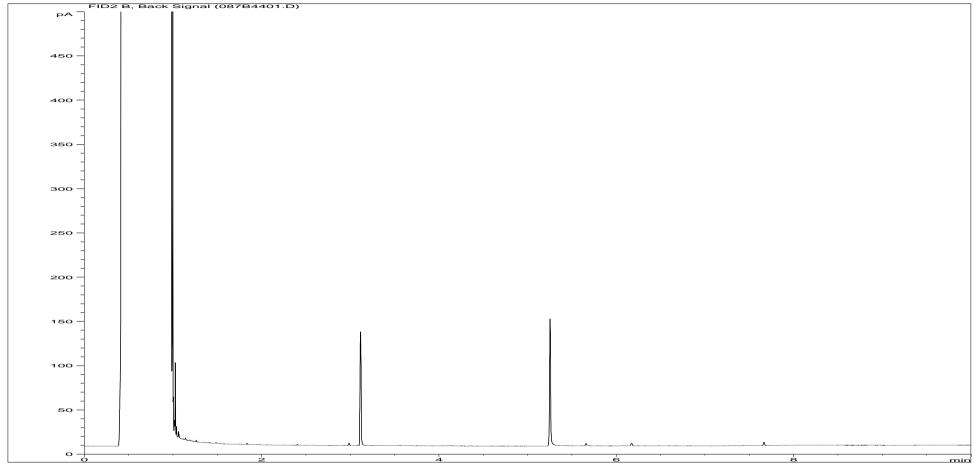
Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\037F4401.D

Waterman EED

Upper Heyford

BH-NSA 12

Page 49 of 72 EXR/131702 Ver. 1

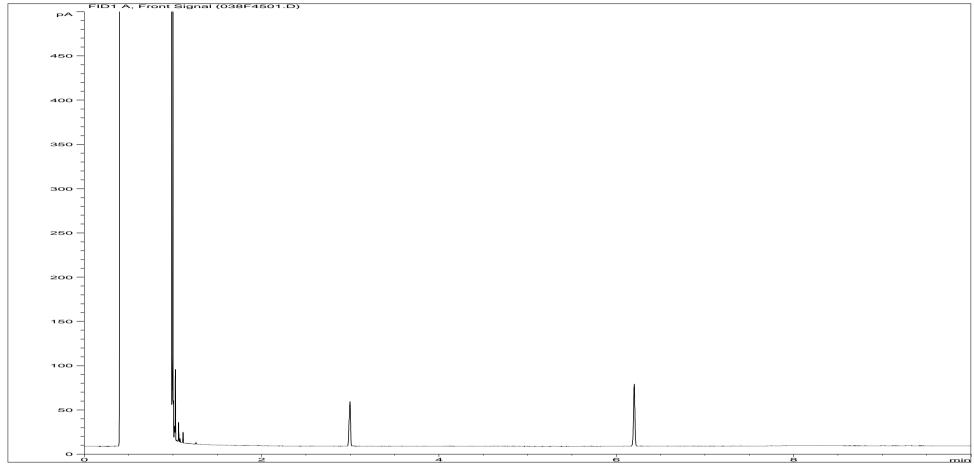


Sample ID:EX1266182AROJob Number:W13_1702Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 12

Acquisition Date/Time: 15-Feb-12, 21:51:07

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\087B4401.D

Page 50 of 72 EXR/131702 Ver. 1

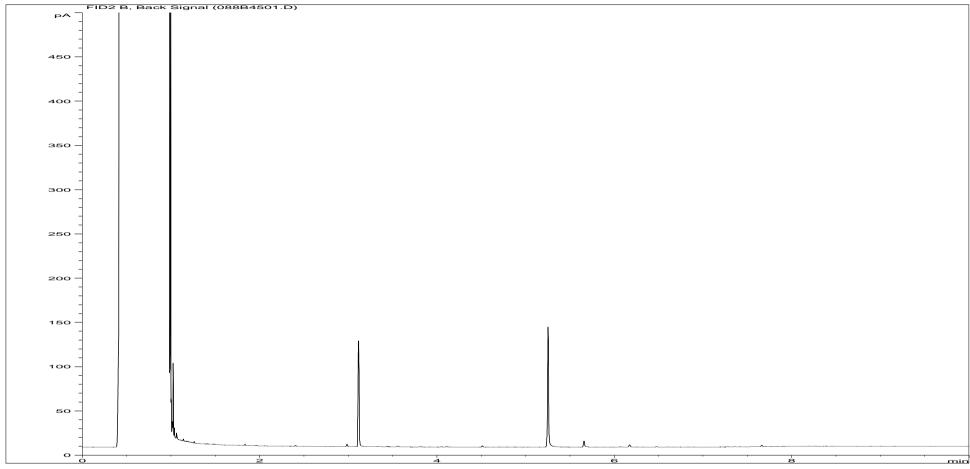


Sample ID:EX1266183ALIJob Number:W13_1702Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 13

Acquisition Date/Time: 15-Feb-12, 22:08:15

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\038F4501.D

Page 51 of 72 EXR/131702 Ver. 1

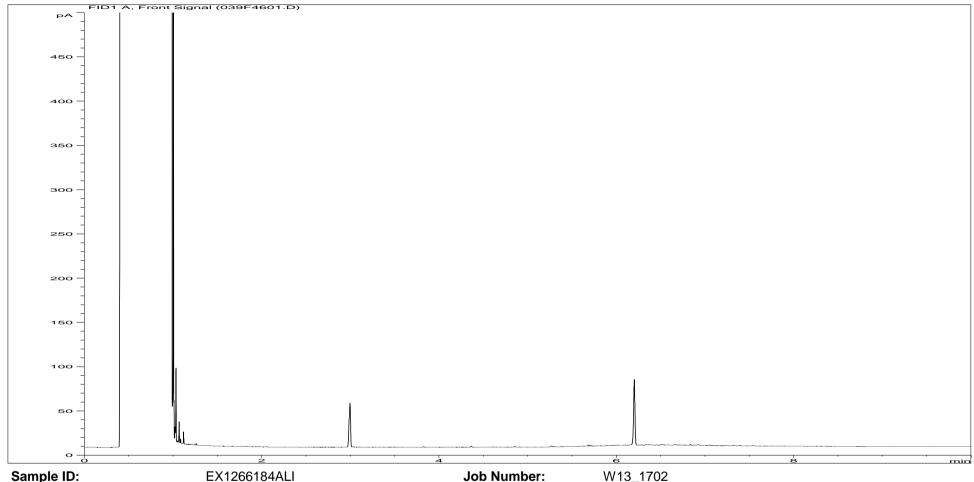


Sample ID:EX1266183AROJob Number:W13_1702Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 13

Acquisition Date/Time: 15-Feb-12, 22:08:15

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\088B4501.D

Page 52 of 72 EXR/131702 Ver. 1



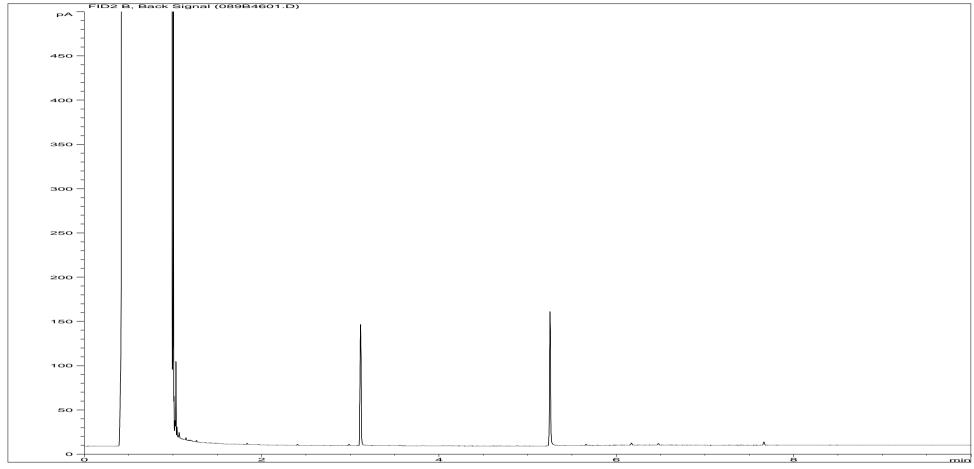
Sample ID:EX1266184ALIMultiplier:0.02Dilution:1Acquisition Method:TPH_RUNF.M

Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA 14

Acquisition Date/Time: 15-Feb-12, 22:25:14

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\039F4601.D

Page 53 of 72 EXR/131702 Ver. 1

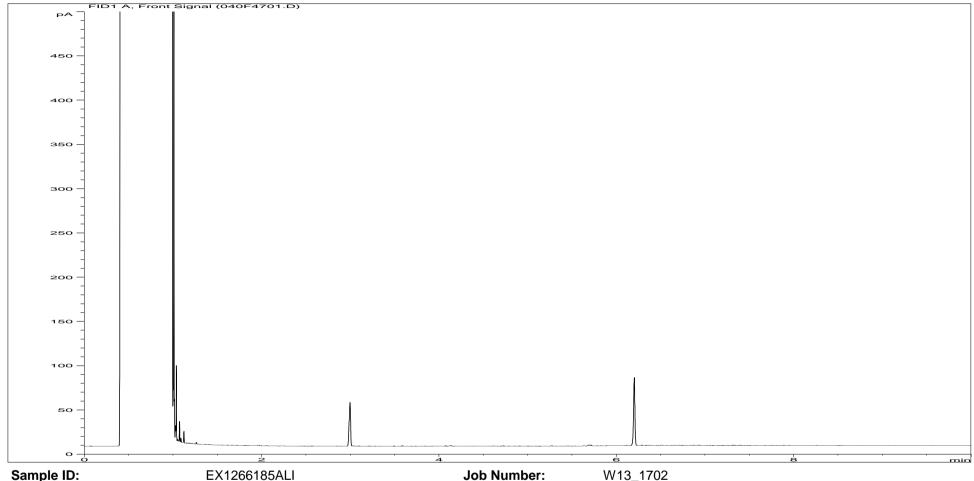


Sample ID:EX1266184AROJob Number:W13_1702Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 14

Acquisition Date/Time: 15-Feb-12, 22:25:14

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\089B4601.D

Page 54 of 72 EXR/131702 Ver. 1

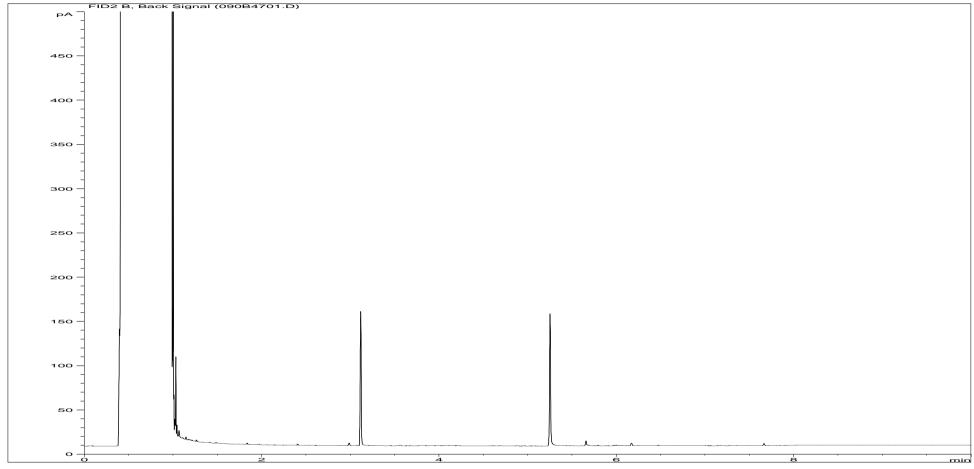


Sample ID:EX1266185ALIJob Number:W13_1702Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 15

Acquisition Date/Time: 15-Feb-12, 22:42:11

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\040F4701.D

Page 55 of 72 EXR/131702 Ver. 1

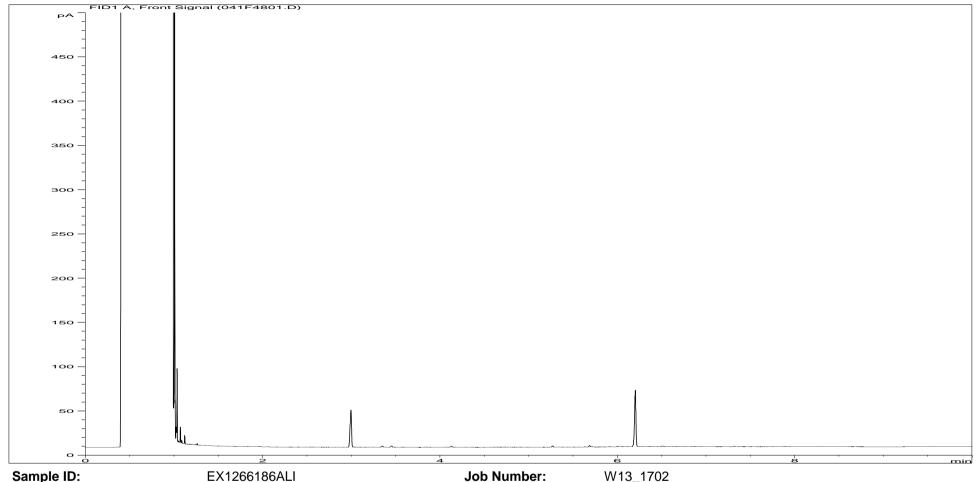


Sample ID:EX1266185AROJob Number:W13_1702Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 15

Acquisition Date/Time: 15-Feb-12, 22:42:11

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\090B4701.D

Page 56 of 72 EXR/131702 Ver. 1



Sample ID: EX1266186ALI
Multiplier: 0.019
Dilution: 1
Acquisition Method: TPH_RUNF.M

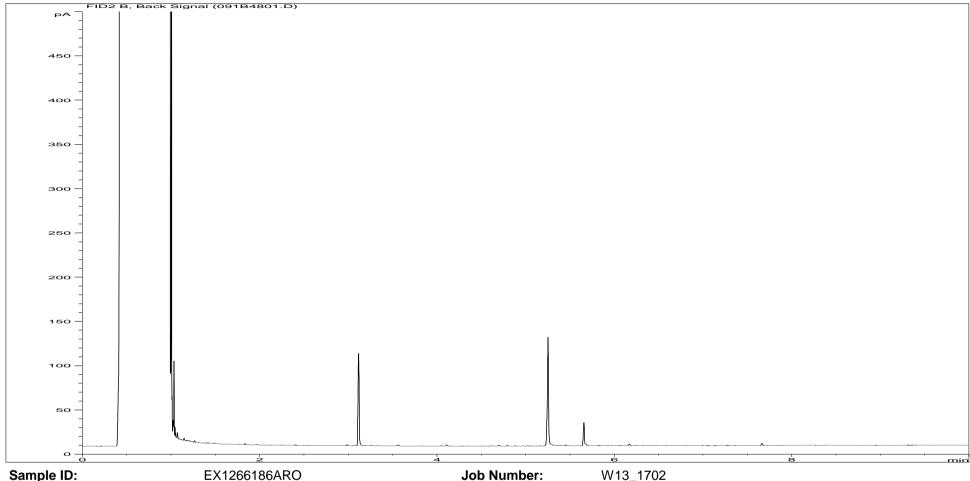
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA 16

Acquisition Date/Time: 15-Feb-12, 22:59:07

Datafile:

D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\041F4801.D

Page 57 of 72 EXR/131702 Ver. 1

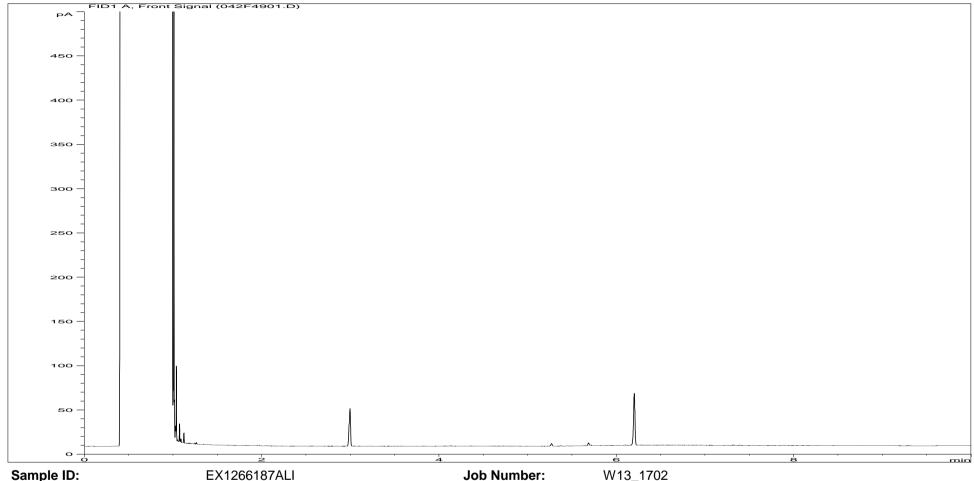


Sample ID:EX1266186AROJob Number:W13_1702Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 16

Acquisition Date/Time: 15-Feb-12, 22:59:07

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\091B4801.D

Page 58 of 72 EXR/131702 Ver. 1

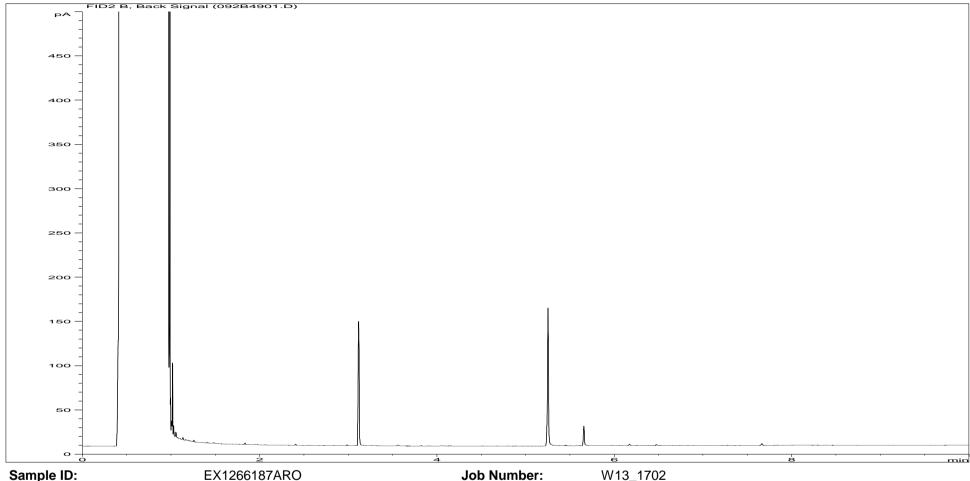


Sample ID:EX1266187ALIJob Number:W13_1702Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 16X

Acquisition Date/Time: 15-Feb-12, 23:16:15

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\042F4901.D

Page 59 of 72 EXR/131702 Ver. 1

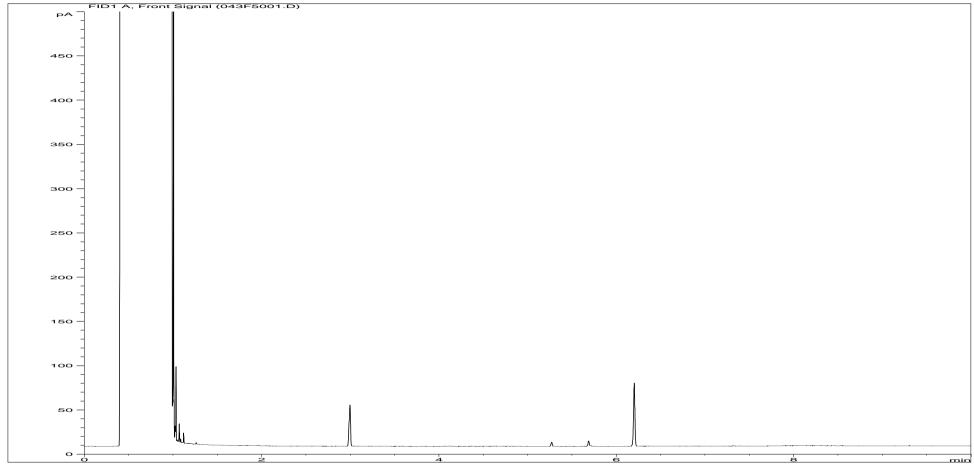


Sample ID:EX1266187AROJob Number:W13_1702Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 16X

Acquisition Date/Time: 15-Feb-12, 23:16:15

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\092B4901.D

Page 60 of 72 EXR/131702 Ver. 1

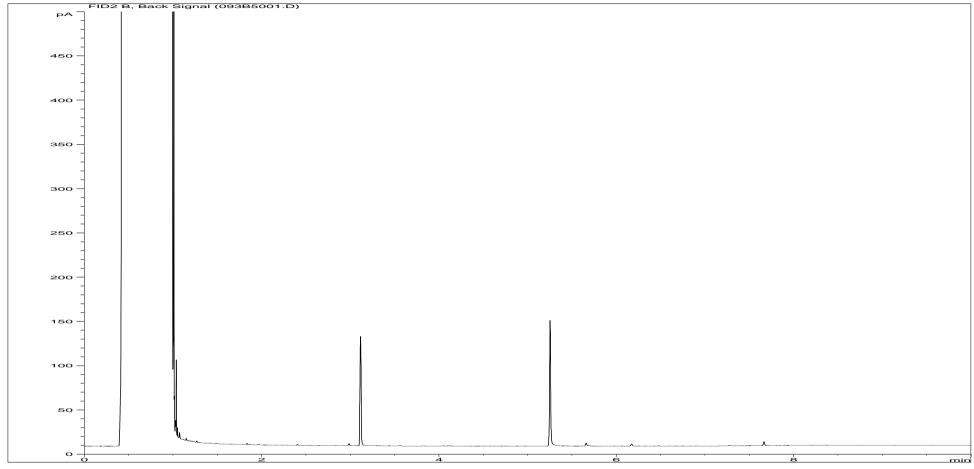


Sample ID:EX1266188ALIJob Number:W13_1702Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 17

Acquisition Date/Time: 15-Feb-12, 23:33:08

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\043F5001.D

Page 61 of 72 EXR/131702 Ver. 1

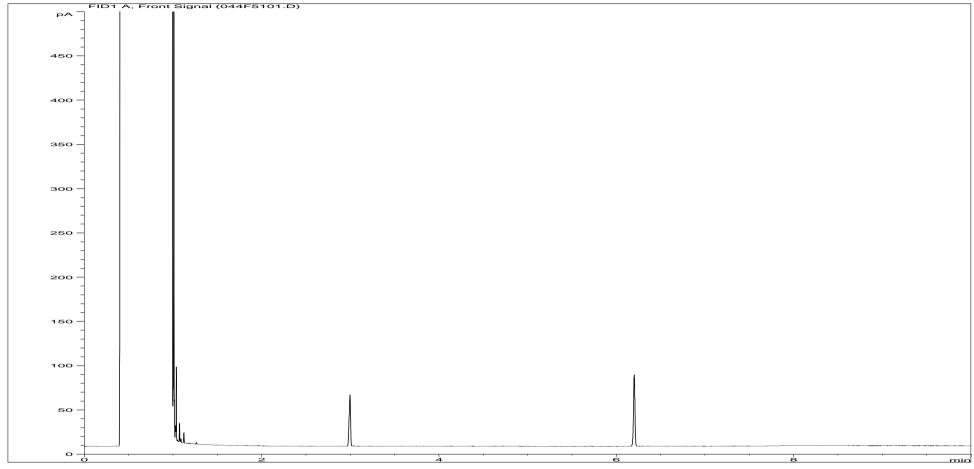


Sample ID:EX1266188AROJob Number:W13_1702Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 17

Acquisition Date/Time: 15-Feb-12, 23:33:08

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\093B5001.D

Page 62 of 72 EXR/131702 Ver. 1

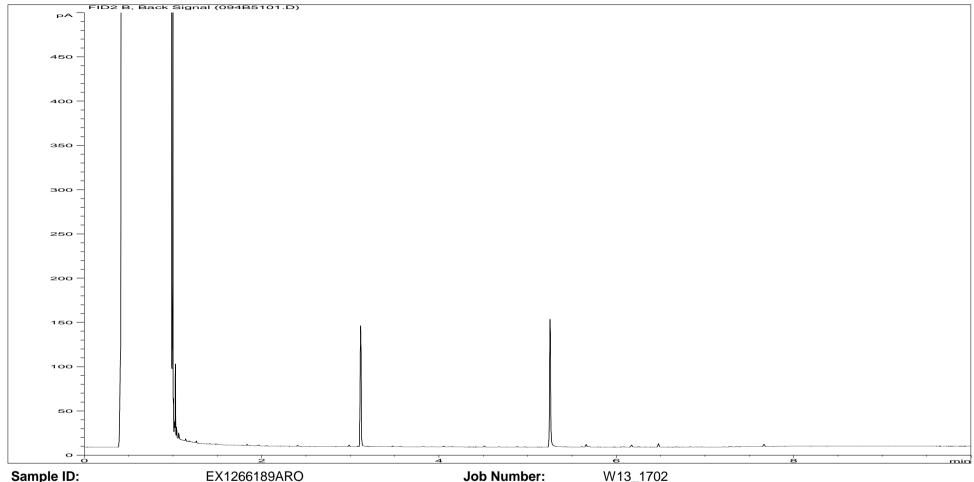


Sample ID:EX1266189ALIJob Number:W13_1702Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 18

Acquisition Date/Time: 15-Feb-12, 23:50:02

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\044F5101.D

Page 63 of 72 EXR/131702 Ver. 1



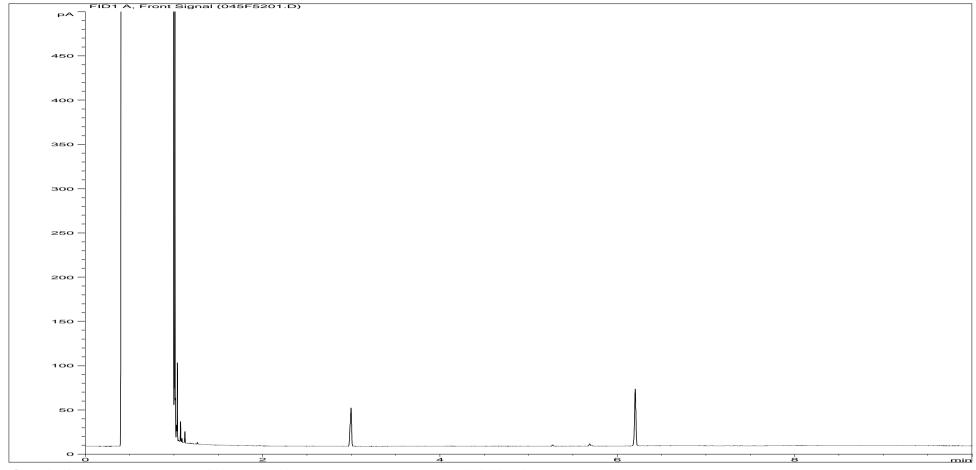
Sample ID:EX1266189AROMultiplier:0.016Dilution:1Acquisition Method:TPH_RUNF.M

0.016Client:Waterman EED1Site:Upper HeyfordTPH_RUNF.MClient Sample Ref:BH-NSA 18

Acquisition Date/Time: 15-Feb-12, 23:50:02

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\094B5101.D

Page 64 of 72 EXR/131702 Ver. 1



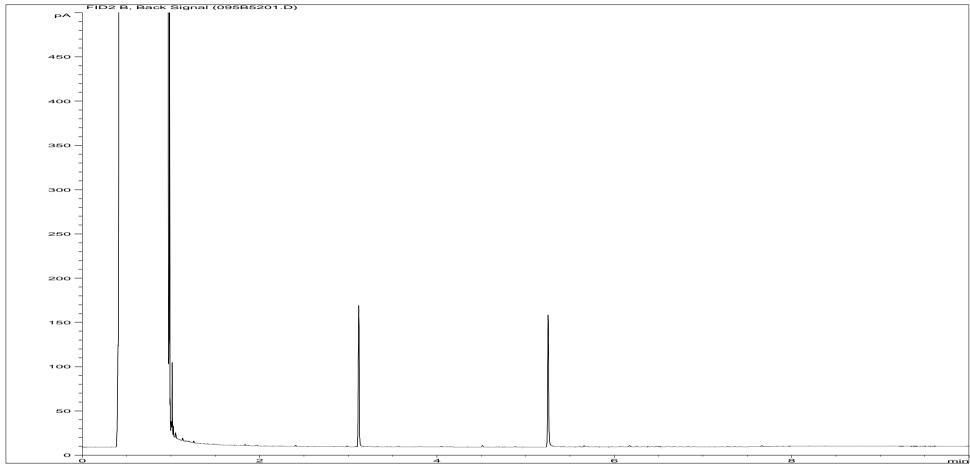
Sample ID:EX1266190ALIMultiplier:0.018Dilution:1Acquisition Method:TPH_RUNF.M

Job Number: W13_1702
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA 19

Acquisition Date/Time: 16-Feb-12, 00:06:54

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\045F5201.D

Page 65 of 72 EXR/131702 Ver. 1



Sample ID:EX1266190AROJob Number:W13_1702Multiplier:0.014Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 19

Acquisition Date/Time: 16-Feb-12, 00:06:54

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\095B5201.D

Page 66 of 72 EXR/131702 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W131702 Report No

Consignment No W33648 Date Logged 09-Feb-2012

Report Due 17-Feb-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW		•			1 00 2				ICPWATVAR					KONENS				PHEHPLCVL	svocsw	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
	Accredited	to ISO17025		✓	✓	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1	✓	✓	✓			✓	✓	✓
EX/1266171	BH-NSA 1	07/02/12																									
EX/1266172	BH-NSA 2	07/02/12																									
EX/1266173	BH-NSA 3	07/02/12																									
EX/1266174	BH-NSA 4	07/02/12																									
EX/1266175	BH-NSA 5	07/02/12																									
EX/1266176	BH-NSA 6	07/02/12																									
EX/1266177	BH-NSA 7	07/02/12	_																								
EX/1266178	DLINGAO	07/00/40																									
	BH-NSA 8	07/02/12																									
EX/1266179	BH-NSA 9	07/02/12																									
EX/1266179 EX/1266180	BH-NSA 9 BH-NSA 10	07/02/12 07/02/12																									
EX/1266179 EX/1266180 EX/1266181	BH-NSA 9 BH-NSA 10 BH-NSA 11	07/02/12 07/02/12 07/02/12																									
EX/1266179 EX/1266180 EX/1266181 EX/1266182	BH-NSA 9 BH-NSA 10 BH-NSA 11 BH-NSA 12	07/02/12 07/02/12 07/02/12 07/02/12																									
EX/1266179 EX/1266180 EX/1266181 EX/1266182 EX/1266183	BH-NSA 9 BH-NSA 10 BH-NSA 11 BH-NSA 12 BH-NSA 13	07/02/12 07/02/12 07/02/12 07/02/12 07/02/12																									
EX/1266179 EX/1266180 EX/1266181 EX/1266182	BH-NSA 9 BH-NSA 10 BH-NSA 11 BH-NSA 12	07/02/12 07/02/12 07/02/12 07/02/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Site **Report No** Waterman EED **Upper Heyford** W131702

Consignment No W33648 Date Logged 09-Feb-2012

Report Due 17-Feb-2012

							repe	מע אונ
		MethodID	81WTSM	71WTSM	WSLM2	WSLM20	EWTSM	ZWTSM.
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited	to ISO17025	✓	✓	✓		✓	
EX/1266171	BH-NSA 1	07/02/12						
EX/1266172	BH-NSA 2	07/02/12						
EX/1266173	BH-NSA 3	07/02/12						
EX/1266174	BH-NSA 4	07/02/12						
EX/1266175	BH-NSA 5	07/02/12						
EX/1266176	BH-NSA 6	07/02/12						
EX/1266177	BH-NSA 7	07/02/12						
EX/1266178	BH-NSA 8	07/02/12						
EX/1266179	BH-NSA 9	07/02/12						
EX/1266180	BH-NSA 10	07/02/12						
EX/1266181	BH-NSA 11	07/02/12						
EX/1266182	BH-NSA 12	07/02/12						
EX/1266183	BH-NSA 13	07/02/12						
EX/1266184	BH-NSA 14	07/02/12						
EX/1266185	BH-NSA 15	07/02/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

No analysis scheduled

Analysis Subcontracted

W131702

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W131702

Report No

Consignment No W33648 Date Logged 09-Feb-2012

Report Due 17-Feb-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW									ICPWATVAR					KONENS				РНЕНРССVL	svocsw	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
EX/1266186	BH-NSA 16	07/02/12																									
EX/1266187	BH-NSA 16X	07/02/12	,	·						·		·	, and the second				, and the second										
EX/1266188	BH-NSA 17	07/02/12	,	·						·		·	, and the second				, and the second										
EX/1266189	BH-NSA 18	07/02/12																									
EX/1266190	BH-NSA 19	07/02/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

W131702

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Site

Report No

Waterman EED **Upper Heyford** W131702

Consignment No W33648 Date Logged 09-Feb-2012

Report Due 17-Feb-2012

							Repo	מע או
		MethodID	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
		to ISO17025	✓	✓	✓		~	
EX/1266186	BH-NSA 16	07/02/12						
EX/1266187	BH-NSA 16X	07/02/12						
EX/1266188	BH-NSA 17	07/02/12						
EX/1266189	BH-NSA 18	07/02/12						
EX/1266190	BH-NSA 19	07/02/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/131702

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/131704 (Ver. 1) Your Ref: E10658-109

February 20, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

FS(

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/131704 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 6 samples described in this report were registered for analysis by ESG on 09-Feb-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 20-Feb-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 10)
Table of GRO Results (Page 11)
Table of TPH (Si) banding (0.01) (Page 12)
GC-FID Chromatograms (Pages 13 to 24)
Analytical and Deviating Sample Overview (Pages 25 to 26)
Table of Method Descriptions (Page 27)
Table of Report Notes (Page 28)

On behalf of ESG:
Andrew Timms

Operations Manager

Date of Issue: 20-Feb-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes:	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR		ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
LAB ID Number EX	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1266202	BH-NSA 20	07-Feb-12	7.6	560	257	Nil	13	28	133	3	9	0.011	0.017	<0.0001	<0.001	<0.001	<0.002	<0.001
1266203	BH-NSA 21	07-Feb-12	7.5	558	281	Nil	14	11	130	3	9	0.002	<0.001	<0.0001	<0.001	<0.001	0.003	<0.001
1266204	BH-NSA 22	07-Feb-12	7.5	614	304	Nil	17	4	146	4	10	0.002	<0.001	<0.0001	<0.001	<0.001	<0.002	0.001
1266205	BH-NSA 38	07-Feb-12	7.5	1660	264	Nil	344	40	201	4	159	0.003	0.004	<0.0001	0.005	<0.001	0.005	<0.001
1266206	BH-NSA HPD1	07-Feb-12	8.1	484	189	Nil	29	25	96	3	16	0.001	0.002	<0.0001	0.002	<0.001	0.007	<0.001
1266207	BH-NSA MW2	07-Feb-12	8.0	232	100	Nil	6	10	32	7	7	<0.001	0.001	<0.0001	<0.001	<0.001	0.003	<0.001
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client N Contact		Watern Mr F Alco		er He	yford				Date Prin Report N	nted lumber	ample .		Feb-2012 XR/131704		

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW	PHEHPLCVL	PHEHPLCVL	
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.01 Yes	2 No	1 No	0.002 No	0.0005 No	0.0005 No	0.0005 No
LAB ID Number EX/	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols
1266202	BH-NSA 20	07-Feb-12	0.04	<0.0001	<0.001	<0.01	1.5	<0.01	<5	2.7	Req	Req	2.8	<6	Req	<0.0005	<0.0005	<0.0005
1266203	BH-NSA 21	07-Feb-12	0.04	<0.0001	<0.001	0.01	<0.2	<0.01	<5	3.6	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266204	BH-NSA 22	07-Feb-12	0.07	<0.0001	<0.001	0.03	<0.2	<0.01	8	3.8	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
1266205	BH-NSA 38	07-Feb-12	0.04	<0.0001	<0.001	<0.01	0.3	0.07	<5	3.3	Req	Req	<2.0	<6	Req	0.0006	<0.0005	<0.0005
1266206	BH-NSA HPD1	07-Feb-12	0.03	<0.0001	<0.001	0.01	1.4	<0.01	6	2.9	Req	Req	<2.0	36	Req	<0.0005	<0.0005	<0.0005
1266207	BH-NSA MW2	07-Feb-12	0.02	<0.0001	<0.001	<0.01	3.1	<0.01	<5	0.97	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
	Environmental Scientifics Group Bretby Business Park, Ashby Road		Client N	ame	Watern Mr F Alco	nan EED						V Date Prir		ample	Analys	Feb-2012		
	Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422					Uppe	er He	yford				Report N	umber			XR/131704 1		

		Units :	mg/l	mg/l	mg/l	mg/l					
	Method	Codes :	PHEHPLCVL	PHEHPLCVL	PHEHPLCV	L PHEHPLCVL					
	Method Reporting	j Limits :	0.1	0.0005	0.1	0.1					
	UKAS Acc	redited :	No	No	No	No					
LAB ID Number EX/	Client Sample Description	Sample Date	Naphthols	Trimethylphenols	Resorcinol	Catechol					
1266202	BH-NSA 20	07-Feb-12	<0.1	<0.0005	<0.1	<0.1					
1266203	BH-NSA 21	07-Feb-12	<0.1	<0.0005	<0.1	<0.1					
1266204	BH-NSA 22	07-Feb-12	<0.1	<0.0005	<0.1	<0.1					
1266205	BH-NSA 38	07-Feb-12	<0.1	<0.0005	<0.1	<0.1					
1266206	BH-NSA HPD1	07-Feb-12	<0.1	<0.0005	<0.1	<0.1					
1266207	BH-NSA MW2	07-Feb-12	<0.1	<0.0005	<0.1	<0.1					
	ESG 🔅		Client N		Wateri Mr F Alc	man EED		Water S	ample Analysis		
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Contact	•	WIT ALC	Upper He	yford	Date Printed Report Number Table Number		0-2012 131704 1	

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

BH-NSA 20 **Date Booked in:** 09-Feb-12 EX1266202 **Date Extracted:** 14-Feb-12

 LIMS ID Number:
 EX1266202
 Date Extracted:
 14-Feb-12

 Job Number:
 W13_1704
 Date Analysed:
 14-Feb-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	19
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	14SVOC.GC11\	0214_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	106
Naphthalene-d8	104
Acenaphthene-d10	104
Phenanthrene-d10	110
Chrysene-d12	99
Perylene-d12	101

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	34
Nitrobenzene-d5	87
2-Fluorobiphenyl	92
2,4,6-Tribromophenol	69
Terphenyl-d14	99

16

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Waterman EED: Upper Heyford **Customer and Site Details:**

Sample Details:

BH-NSA 21 Date Booked in: 09-Feb-12 EX1266203 Date Extracted: 14-Feb-12

LIMS ID Number: 14-Feb-12 Job Number: W13_1704 Date Analysed:

Target Compounds	CAS#	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	19
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	14SVOC.GC11\	0214_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	100
Naphthalene-d8	98
Acenaphthene-d10	99
Phenanthrene-d10	98
Chrysene-d12	85
Perylene-d12	85

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	30
Nitrobenzene-d5	90
2-Fluorobiphenyl	92
2,4,6-Tribromophenol	81
Terphenyl-d14	109

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Waterman EED: Upper Heyford **Customer and Site Details:**

BH-NSA 22

Sample Details:

Job Number:

LIMS ID Number:

Date Booked in: 09-Feb-12 Date Extracted: 14-Feb-12

EX1266204 14-Feb-12 W13_1704 Date Analysed:

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9		< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	19
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	14SVOC.GC11\	0214_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	106
Naphthalene-d8	104
Acenaphthene-d10	103
Phenanthrene-d10	105
Chrysene-d12	96
Perylene-d12	93

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	34
Nitrobenzene-d5	91
2-Fluorobiphenyl	96
2,4,6-Tribromophenol	85
Terphenyl-d14	105

16

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

BH-NSA 38

09-Feb-12 Date Booked in: Date Extracted: 14-Feb-12

Sep. Funnel DMB/SO

Water

QC Batch Number: 19 Multiplier:

Sample Details: LIMS ID Number: Job Number:

EX1266205 W13_1704

Date Analysed:

14-Feb-12

Operator:

0.005

16

Directory/Quant File:

Matrix:

Ext Method:

14SVOC.GC11\ 0214_CCC1.D GPC (Y/N)

Dilution Factor: Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	- ′	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	95
Naphthalene-d8	94
Acenaphthene-d10	94
Phenanthrene-d10	98
Chrysene-d12	76
Perylene-d12	69

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	34
Nitrobenzene-d5	90
2-Fluorobiphenyl	98
2,4,6-Tribromophenol	75
Terphenyl-d14	117

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

 BH-NSA HPD1
 Date Booked in:
 09-Feb-12

 EX1266206
 Date Extracted:
 14-Feb-12

 LIMS ID Number:
 EX1266206
 Date Extracted:
 14-Feb-12

 Job Number:
 W13_1704
 Date Analysed:
 14-Feb-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	_	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	_	< 0.005	_

Matrix:	Water	QC Batch Number:	19
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	14SVOC.GC11\	0214_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	104
Naphthalene-d8	102
Acenaphthene-d10	100
Phenanthrene-d10	103
Chrysene-d12	85
Perylene-d12	86

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	33
Nitrobenzene-d5	90
2-Fluorobiphenyl	93
2,4,6-Tribromophenol	69
Terphenyl-d14	107

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

09-Feb-12

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

Job Number:

LIMS ID Number:

BH-NSA MW2 Date Booked in:

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	19
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	DMB/SO	Dilution Factor:	1
Directory/Quant File:	14SVOC.GC11\	0214_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	100
Naphthalene-d8	100
Acenaphthene-d10	101
Phenanthrene-d10	104
Chrysene-d12	80
Perylene-d12	78

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	31
Nitrobenzene-d5	86
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	67
Terphenyl-d14	114

16

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_1704

Directory: D:\TES\DATA\Y2012\0215HSA_GC09\021512A 2012-02-16 05-09-27\080F1001.D

Method: Headspace GCFID

Matrix:

Water 09-Feb-12

Date Booked in: 09-Feb-12
Date extracted: 15-Feb-12

Date Analysed: 16-Feb-12, 08:12:32

* Sample data with an asterisk are not UKAS accredited.

			- Campic da	u With an as	crisk are not our	o accicaitea.						
				(Concentration, (mg/l)			Aliphatics			
	Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
*	EX1266202	BH-NSA 20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1266203	BH-NSA 21	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1266204	BH-NSA 22	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1266205	BH-NSA 38	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1266206	BH-NSA HPD1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1266207	BH-NSA MW2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
			1				1				1	

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED: Upper Heyford Matrix: Water

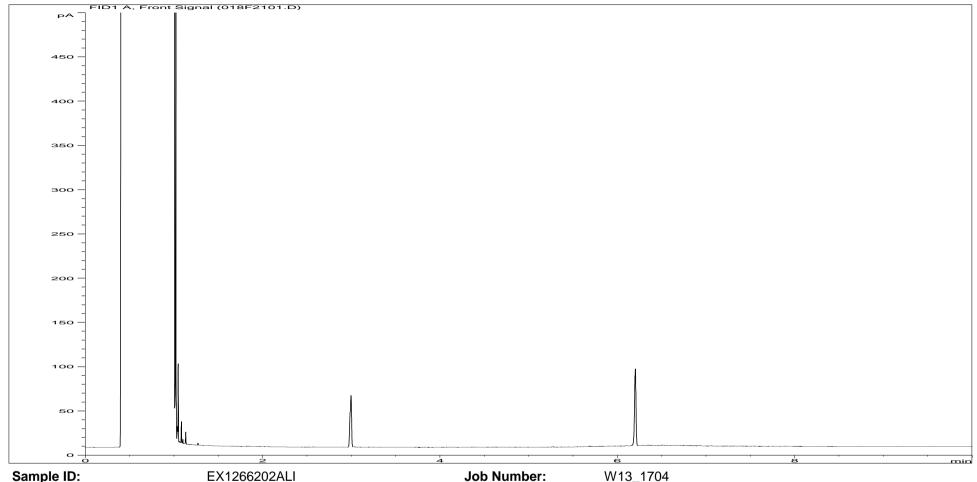
 Job Number:
 W13_1704
 Separation:
 Silica gel
 Date Booked ir
 09-Feb-12

 QC Batch Number:
 120104
 Eluents:
 Hexane, DCM
 Date Extracted
 14-Feb-12

 Directory:
 D:\TES\DATA\Y2012\021512TPH_GC15\021512 Z012-02-15 09-34-52\073B2601.D
 Date Analysed: 15-Feb-12, 16:45:07

Method: Bottle

	Dottie					Concentra	tion, (mg/l)						
* This sample data is not UI	* This sample data is not UKAS accredited.			>C10	- C12	>C12	- C16	>C16	- C21	>C21	- C35	>C8	- C40
Sample ID	Sample ID Client ID Aliphatics Aromatics Aliphatics Aromatics A		Aliphatics Aromatics		Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics			
EX1266202	BH-NSA 20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.046	0.016	0.059	0.022
EX1266203	BH-NSA 21	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	0.021	0.025
EX1266204	BH-NSA 22	0.013	<0.01	0.03	<0.01	0.058	0.032	0.015	<0.01	0.058	0.02	0.181	0.073
EX1266205	BH-NSA 38	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01
EX1266206	BH-NSA HPD1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011
EX1266207	BH-NSA MW2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	0.019	<0.01
			<u> </u>								<u> </u>		



Sample ID: EX1266202ALI Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

15-Feb-12, 15:19:42

Acquisition Date/Time:

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\018F2101.D

Client:

Client Sample Ref:

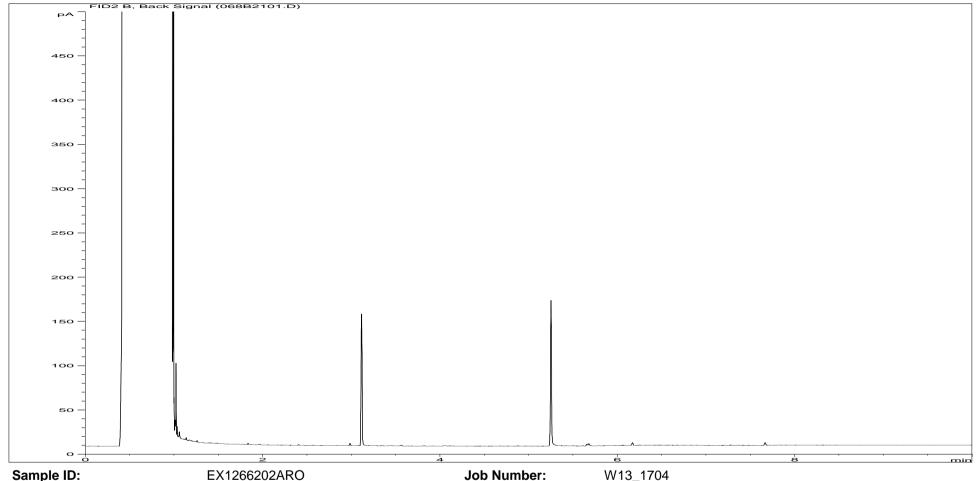
Site:

Waterman EED

Upper Heyford

BH-NSA 20

Page 13 of 28 EXR/131704 Ver. 1



Sample ID:EX1266202AROMultiplier:0.016Dilution:1Acquisition Method:TPH_RUNF.M

RUNF.M Client Sample Ref: BH-NSA 20

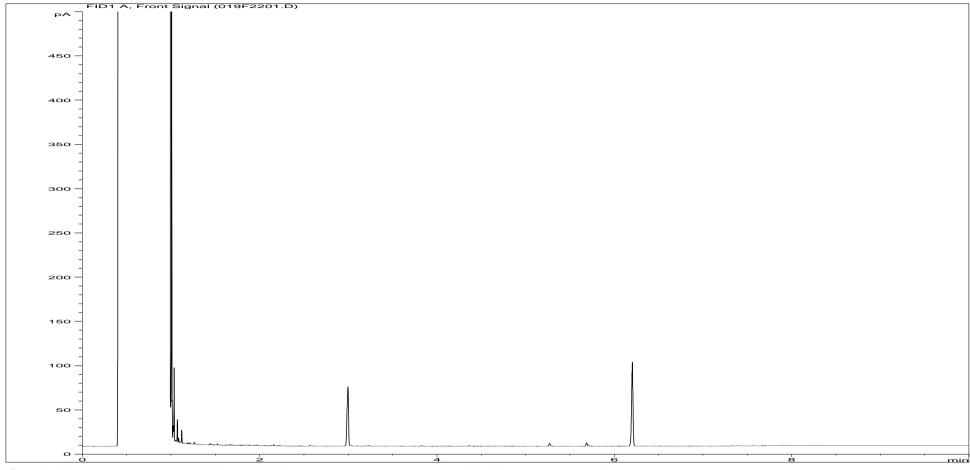
Acquisition Date/Time: 15-Feb-12, 15:19:42

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\068B2101.D

Client:

Waterman EED

Page 14 of 28 EXR/131704 Ver. 1

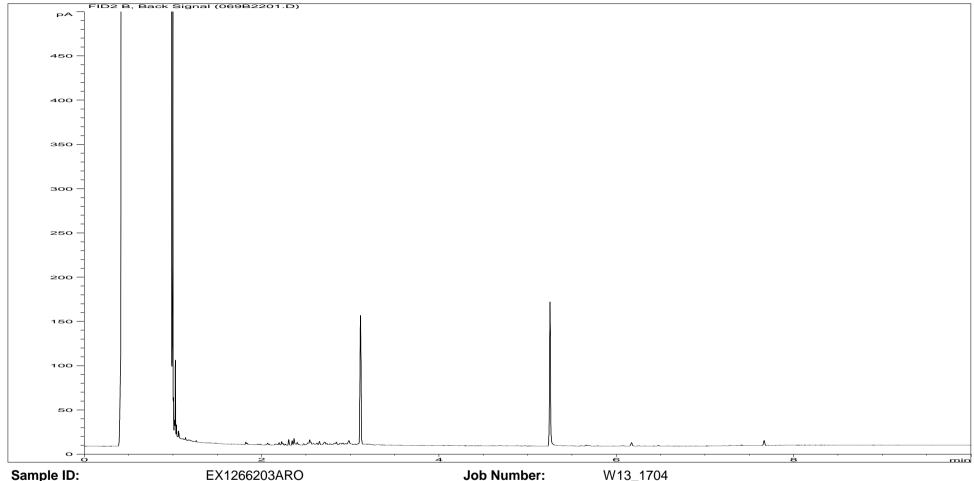


Sample ID:EX1266203ALIJob Number:W13_1704Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 21

Acquisition Date/Time: 15-Feb-12, 15:36:46

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\019F2201.D

Page 15 of 28 EXR/131704 Ver. 1



Sample ID:EX1266203AROJob Number:Multiplier:0.015Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 15-Feb-12, 15:36:46

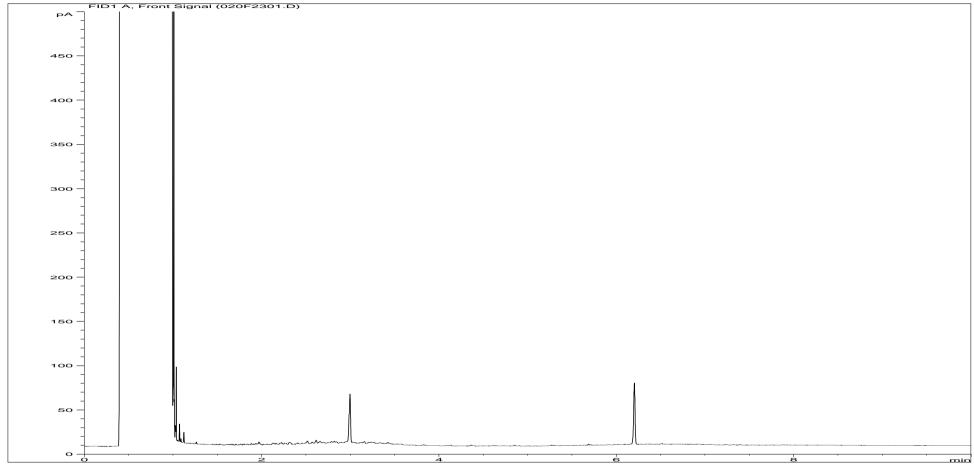
Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\069B2201.D

Waterman EED

Upper Heyford

BH-NSA 21

Page 16 of 28 EXR/131704 Ver. 1

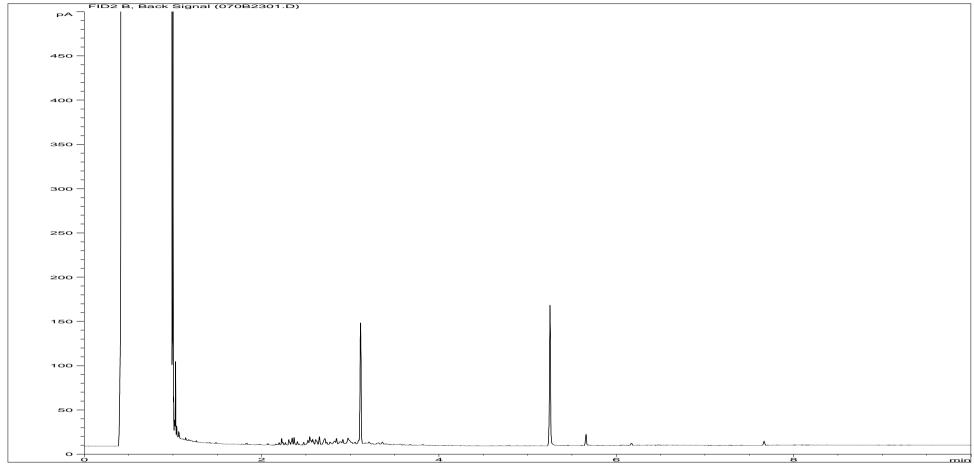


Sample ID:EX1266204ALIJob Number:W13_1704Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 22

Acquisition Date/Time: 15-Feb-12, 15:53:49

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\020F2301.D

Page 17 of 28 EXR/131704 Ver. 1

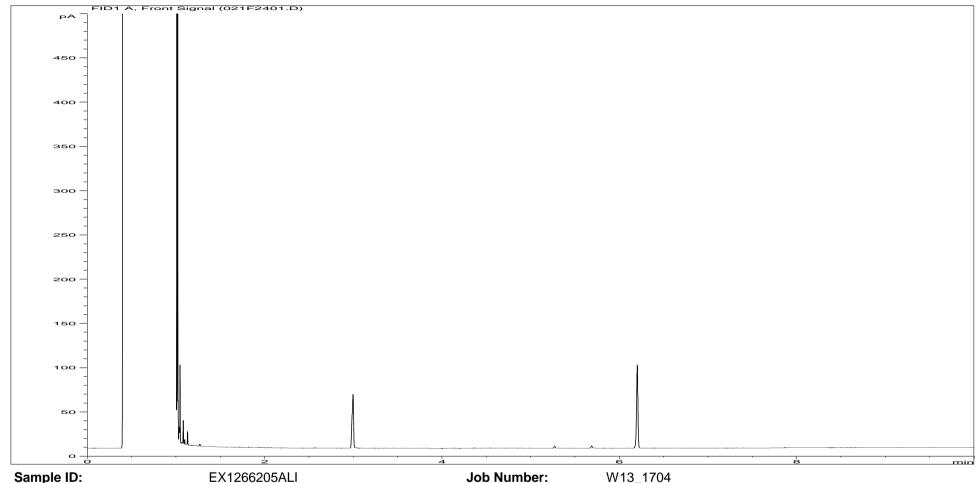


Sample ID:EX1266204AROJob Number:W13_1704Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 22

Acquisition Date/Time: 15-Feb-12, 15:53:49

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\070B2301.D

Page 18 of 28 EXR/131704 Ver. 1



Sample ID: EX1266205ALI Multiplier: 0.02 Dilution: **Acquisition Method:**

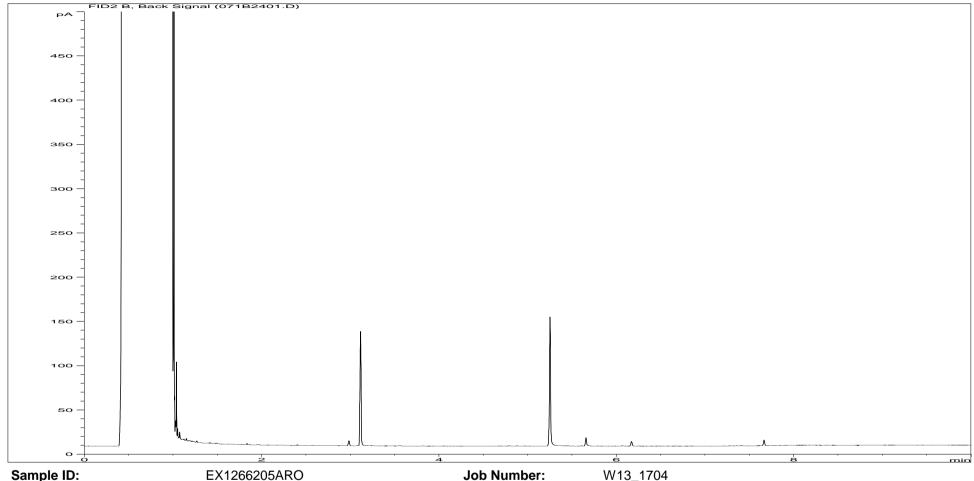
15-Feb-12, 16:10:53

Acquisition Date/Time: Datafile:

Client: Waterman EED Site: Upper Heyford TPH_RUNF.M Client Sample Ref: BH-NSA 38

D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\021F2401.D

Page 19 of 28 EXR/131704 Ver. 1



Sample ID:EX1266205AROJob Number:Multiplier:0.015Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 15-Feb-12, 16:10:53

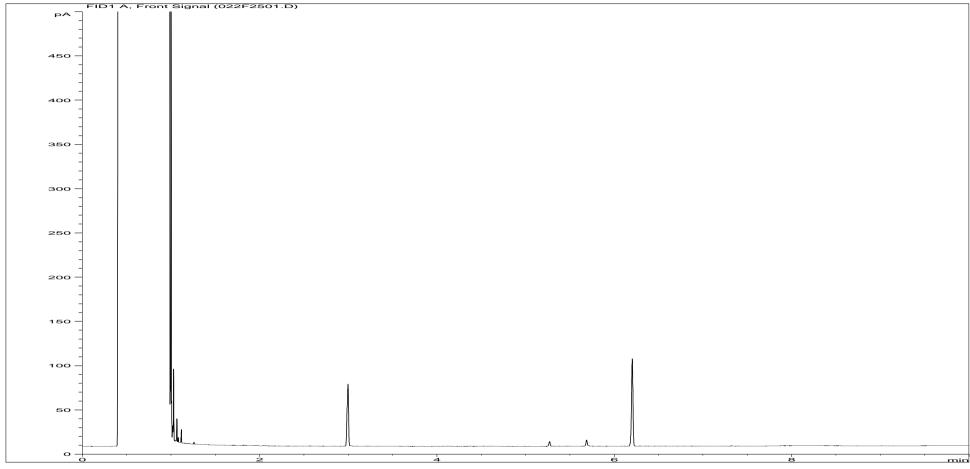
Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\071B2401.D

Waterman EED

Upper Heyford

BH-NSA 38

Page 20 of 28 EXR/131704 Ver. 1

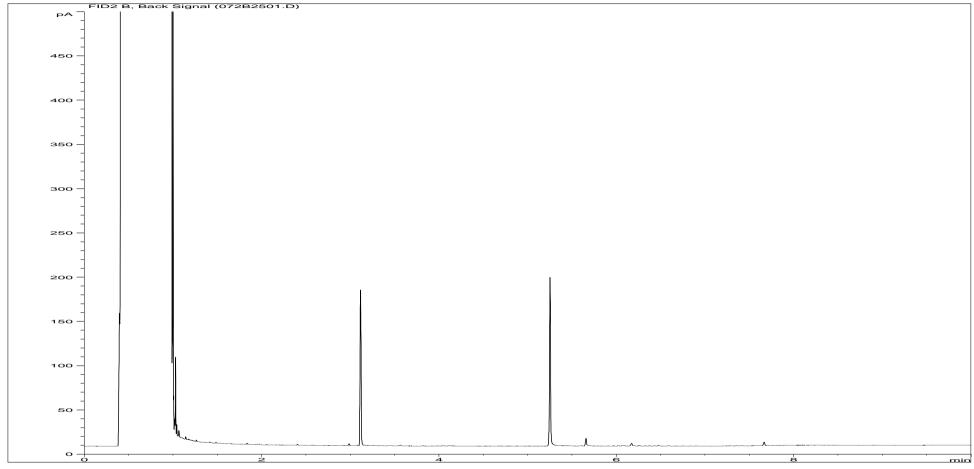


Sample ID:EX1266206ALIJob Number:W13_1704Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA HPD1

Acquisition Date/Time: 15-Feb-12, 16:28:05

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\022F2501.D

Page 21 of 28 EXR/131704 Ver. 1

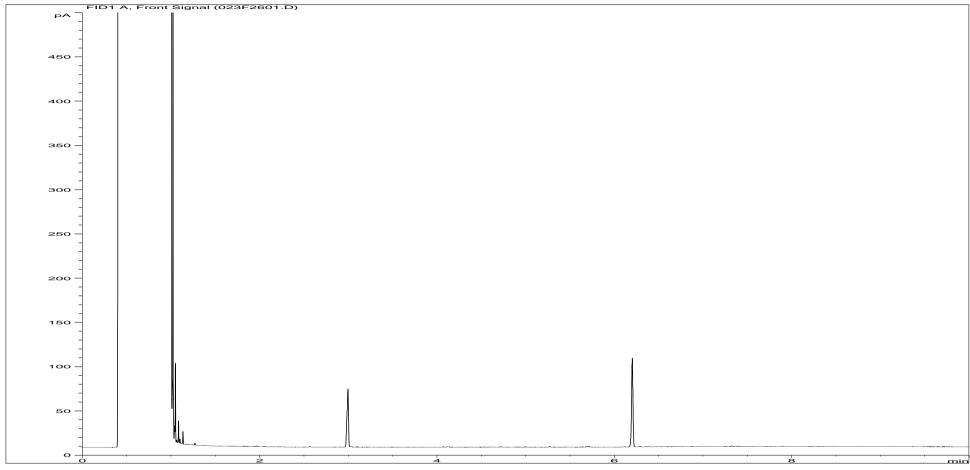


Sample ID:EX1266206AROJob Number:W13_1704Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA HPD1

Acquisition Date/Time: 15-Feb-12, 16:28:05

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\072B2501.D

Page 22 of 28 EXR/131704 Ver. 1

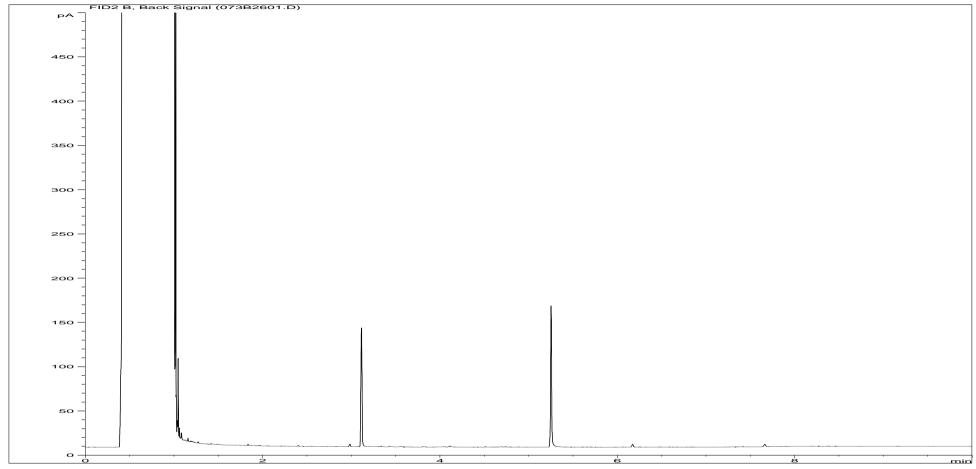


Sample ID:EX1266207ALIJob Number:W13_1704Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA MW2

Acquisition Date/Time: 15-Feb-12, 16:45:07

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\023F2601.D

Page 23 of 28 EXR/131704 Ver. 1



Sample ID:EX1266207AROJob Number:W13_1704Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA MW2

Acquisition Date/Time: 15-Feb-12, 16:45:07

Datafile: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\073B2601.D

Page 24 of 28 EXR/131704 Ver. 1

W131704

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED Site **Upper Heyford** W131704 Report No

Consignment No W33648 Date Logged 09-Feb-2012

Report Due 17-Feb-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW		·							ICPWATVAR					KONENS				PHEHPLCVL	SVOCSW	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
EX/1266202	BH-NSA 20	07/02/12		·		·			,		,	·	, in the second	, in the second	·	, in the second	·	,	,	·				,	, in the second		_
EX/1266203	BH-NSA 21	07/02/12																									
EX/1266204	BH-NSA 22	07/02/12																									
EX/1266205	BH-NSA 38	07/02/12																									
EX/1266206	BH-NSA HPD1	07/02/12																									
EX/1266207	BH-NSA MW2	07/02/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W131704 Report No

Consignment No W33648 Date Logged 09-Feb-2012

Report Due 17-Feb-2012

ì	I		_					יונ טע
		MethodID	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited	to ISO17025	✓	~	✓		✓	
EX/1266202	BH-NSA 20	07/02/12						
EX/1266203	BH-NSA 21	07/02/12						
EX/1266204	BH-NSA 22	07/02/12			·		·	
EX/1266205	BH-NSA 38	07/02/12						
EX/1266206	BH-NSA HPD1	07/02/12						
EX/1266207	BH-NSA MW2	07/02/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/131704

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
vvator	IOI WAT VAIC	AS RECEIVED	ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/133314 (Ver. 1) Your Ref: E10658-109

March 19, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

E00

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied.

The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

Project Co-ordinator 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/133314 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 20 samples described in this report were registered for analysis by ESG on 08-Mar-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 19-Mar-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 24)
Table of GRO Results (Page 25)
Table of TPH (Si) banding (0.01) (Page 26)
GC-FID Chromatograms (Pages 27 to 66)
Analytical and Deviating Sample Overview (Pages 67 to 70)
Table of Method Descriptions (Page 71)
Table of Report Notes (Page 72)

On behalf of ESG : Andrew Timms

Operations Manager

Date of Issue: 19-Mar-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR		ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
LAB ID Number EX/	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as CI w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	. Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1275730	BH225	07-Mar-12	8.0	551	307	Nil	24	167	52	89	12	0.003	0.007	<0.0001	0.001	0.002	0.006	0.001
1275731	BH226	07-Mar-12	7.7	550	259	Nil	20	30	176	3	13	0.002	0.006	<0.0001	0.001	0.002	0.007	<0.001
1275732	HPD1	06-Mar-12	8.3	637	198	Nil	42	76	133	4	24	0.001	0.004	<0.0001	<0.001	<0.001	0.006	<0.001
1275733	BHNSA20	07-Mar-12	7.8	503	493	Nil	14	28	187	4	9	0.004	0.009	<0.0001	0.002	0.002	0.006	0.003
1275734	BHNSA19	07-Mar-12	7.7	540	245	Nil	15	26	147	2	9	0.002	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1275735	BHNSA17	07-Mar-12	7.8	542	210	Nil	24	35	146	3	11	0.002	0.005	<0.0001	<0.001	<0.001	0.002	<0.001
1275736	BHNSA18	07-Mar-12	7.7	512	232	Nil	16	23	146	3	10	0.003	0.006	<0.0001	0.002	0.002	0.006	0.002
1275737	BHNSA21	07-Mar-12	7.5	549	289	Nil	15	5	168	3	9	0.002	0.006	<0.0001	<0.001	<0.001	<0.002	<0.001
1275738	BHNSA15	06-Mar-12	7.7	702	202	Nil	45	81	188	3	32	0.003	0.005	<0.0001	0.002	0.001	0.003	<0.001
1275739	BHNSA15X	06-Mar-12	7.7	708	218	Nil	50	81	159	3	32	0.002	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1275740	BHNSA14	06-Mar-12	7.7	725	233	Nil	64	50	154	8	29	0.005	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1275741	BHNSA11	06-Mar-12	7.7	591	204	Nil	31	36	154	4	19	0.002	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1275742	BHNSA10	06-Mar-12	7.7	570	227	Nil	28	27	163	4	18	0.002	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1275743	BHNSA9	06-Mar-12	7.7	628	210	Nil	40	32	152	4	19	0.001	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1275744	BHNSA6	06-Mar-12	7.6	671	254	Nil	31	41	187	5	17	0.005	0.006	<0.0001	0.001	<0.001	<0.002	<0.001
1275745	BHNSA1	06-Mar-12	7.7	758	254	Nil	84	28	156	3	50	0.002	0.005	<0.0001	<0.001	<0.001	0.003	<0.001
1275746	BHNSA16	06-Mar-12	7.6	581	221	Nil	21	44	165	4	13	0.002	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1275747	BHNSA22	06-Mar-12	7.7	630	295	Nil	17	4	169	4	10	0.003	0.006	<0.0001	<0.001	<0.001	0.003	0.001
1275748	BHNSA7	06-Mar-12	7.7	876	291	Nil	91	24	165	7	55	0.003	0.006	<0.0001	0.002	<0.001	0.003	0.005
1275749	BHNSA38	06-Mar-12	7.6	1140	260	Nil	172	42	203	4	100	0.002	0.006	<0.0001	0.002	<0.001	0.002	<0.001
	Environmental Scientifics Group Bretby Business Park, Ashby Road		Client Name Waterman EED V Contact Mr F Alcock Date Prin					Water Sample Analysis			S Mar-2012							
	Burton-on-Trent, Staffordshire, DE15 0YZ			Upper Heyford					Report N			EX	(R/133314					
	Tel +44 (0) 1283 554400					- pp	J. 1.10 _,	, . .				Table Nu	ımber			1		
	Fax +44 (0) 1283 554422																	

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW		PHEHPLCVL	
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.01 Yes	2 No	6 No	0.002 No	0.0005 No	0.0005 No	0.0005 No
LAB ID Number EX/	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols
1275730	BH225	07-Mar-12	0.45	<0.0001	<0.001	<0.01	0.5	<0.01	<5	1.7	Req	Req	8.9	<6	Req	<0.0005	<0.0005	<0.0005
1275731	BH226	07-Mar-12	0.28	<0.0001	<0.001	<0.01	1.5	<0.01	<5	0.70	Req	Req	7.1	21	Req	<0.0005	<0.0005	<0.0005
1275732	HPD1	06-Mar-12	0.21	<0.0001	<0.001	<0.01	3.6	0.06	<5	1.9	Req	Req	4.6	<6	Req	<0.0005	<0.0005	<0.0005
1275733	BHNSA20	07-Mar-12	0.16	<0.0001	0.001	<0.01	1.2	<0.01	<5	0.61	Req	Req	6.6	<6	Req	<0.0005	<0.0005	<0.0005
1275734	BHNSA19	07-Mar-12	0.14	<0.0001	<0.001	<0.01	1.7	<0.01	<5	0.75	Req	Req	6.1	<6	Req	<0.0005	<0.0005	<0.0005
1275735	BHNSA17	07-Mar-12	0.12	<0.0001	<0.001	<0.01	1.7	<0.01	<5	0.93	Req	Req	6.1	<6	Req	<0.0005	<0.0005	<0.0005
1275736	BHNSA18	07-Mar-12	0.1	<0.0001	<0.001	<0.01	1.2	<0.01	<5	0.99	Req	Req	6.3	<6	Req	<0.0005	<0.0005	<0.0005
1275737	BHNSA21	07-Mar-12	0.08	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	1.6	Req	Req	7.1	<6	Req	<0.0005	<0.0005	<0.0005
1275738	BHNSA15	06-Mar-12	0.09	<0.0001	<0.001	<0.01	2.3	<0.01	<5	<0.5	Req	Req	4.1	<6	Req	<0.0005	<0.0005	<0.0005
1275739	BHNSA15X	06-Mar-12	0.08	<0.0001	<0.001	<0.01	2.3	<0.01	<5	0.52	Req	Req	5.6	7	Req	<0.0005	<0.0005	<0.0005
1275740	BHNSA14	06-Mar-12	0.09	<0.0001	<0.001	<0.01	0.6	<0.01	<5	0.65	Req	Req	5.3	<6	Req	<0.0005	<0.0005	<0.0005
1275741	BHNSA11	06-Mar-12	0.08	<0.0001	<0.001	<0.01	0.8	<0.01	<5	0.94	Req	Req	6.4	<6	Req	<0.0005	<0.0005	<0.0005
1275742	BHNSA10	06-Mar-12	0.07	<0.0001	<0.001	<0.01	0.5	<0.01	55	1.1	Req	Req	6.4	<6	Req	<0.0005	<0.0005	<0.0005
1275743	BHNSA9	06-Mar-12	0.08	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	1.0	Req	Req	7.8	<6	Req	<0.0005	<0.0005	<0.0005
1275744	BHNSA6	06-Mar-12	0.05	<0.0001	<0.001	<0.01	<0.2	<0.01	6	3.2	Req	Req	14.7	19	Req	<0.0005	<0.0005	<0.0005
1275745	BHNSA1	06-Mar-12	0.08	<0.0001	<0.001	<0.01	0.9	<0.01	<5	1.1	Req	Req	5.6	<6	Req	<0.0005	<0.0005	<0.0005
1275746	BHNSA16	06-Mar-12	0.07	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	<0.5	Req	Req	6.4	<6	Req	<0.0005	<0.0005	<0.0005
1275747	BHNSA22	06-Mar-12	0.08	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	1.5	Req	Req	5.1	<6	Req	<0.0005	<0.0005	<0.0005
1275748	BHNSA7	06-Mar-12	0.08	<0.0001	<0.001	<0.01	<0.2	<0.01	100	32	Req	Req	36.2	<6	Req	0.0006	0.0010	<0.0005
1275749	BHNSA38	06-Mar-12	0.04	<0.0001	<0.001	<0.01	0.5	<0.01	<5	1.5	Req	Req	6.3	<6	Req	<0.0005	<0.0005	<0.0005
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400		Client N	ame	Watern Mr F Alco	<u> </u>	er He	yford				Date Prir Report N	nted umber	ample		Mar-2012 (R/133314		
	Fax +44 (0) 1283 554422															,		

		Units :	mg/l								
	Method		PHEHPLCVL								
	Method Reporting		0.0005								
	UKAS Acc	redited :	No								
LAB ID Number EX	Client Sample Description	Sample Date	Trimethylphenols								
1275730	BH225	07-Mar-12	<0.0005								
1275731	BH226	07-Mar-12	<0.0005								
1275732	HPD1	06-Mar-12	<0.0005								
1275733	BHNSA20	07-Mar-12 07-Mar-12	<0.0005								
1275734 1275735	BHNSA19 BHNSA17	07-Mar-12	<0.0005 <0.0005								
1275736	BHNSA18	07-Mar-12	<0.0005								
1275737	BHNSA21	07-Mar-12	<0.0005								
1275737	BHNSA15	07-Mar-12	<0.0005								
1275739	BHNSA15X	06-Mar-12	<0.0005								
1275740	BHNSA14	06-Mar-12	<0.0005								
1275741	BHNSA11	06-Mar-12	<0.0005								
1275742	BHNSA10	06-Mar-12	<0.0005								
1275743	BHNSA9	06-Mar-12	<0.0005								
1275744	BHNSA6	06-Mar-12	<0.0005								
1275745	BHNSA1	06-Mar-12	<0.0005								
1275746	BHNSA16	06-Mar-12	<0.0005								
1275747	BHNSA22	06-Mar-12	<0.0005								
1275748	BHNSA7	06-Mar-12	<0.0005								
1275749	BHNSA38	06-Mar-12	<0.0005								
	Client Name Waterman EED		Water S	ample Analysi	S						
	Environmental Scientifics Group Contact Mr F Alcock										
	Bretby Business Park, Ashby Road							Date Printed		Mar-2012	
	Burton-on-Trent, Staffordshire, DE15 0YZ			Upper Heyford		Report Number	E)	(R/133314			
	Tel +44 (0) 1283 554400				Oppe	 J. 01 G		Table Number		1	
	Fax +44 (0) 1283 554422										

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH225
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275730
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-51-6	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5		< 0.003	-
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.003	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.002	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	_
Dimethylphthalate	131-11-3	-	< 0.002	_
2.6-Dinitrotoluene	606-20-2	<u> </u>	< 0.005	_
Acenaphthene	83-32-9	-	< 0.003	_
3-Nitroaniline	99-09-2	-	< 0.002	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	82
Naphthalene-d8	81
Acenaphthene-d10	84
Phenanthrene-d10	75
Chrysene-d12	60
Perylene-d12	56

Surrogates	% Rec
2-Fluorophenol	52
Phenol-d5	34
Nitrobenzene-d5	96
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	86
Terphenyl-d14	124

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH226
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275731
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
B-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	83
Naphthalene-d8	78
Acenaphthene-d10	81
Phenanthrene-d10	77
Chrysene-d12	60
Perylene-d12	59

Surrogates	% Rec
2-Fluorophenol	42
Phenol-d5	27
Nitrobenzene-d5	88
2-Fluorobiphenyl	86
2,4,6-Tribromophenol	62
Terphenyl-d14	103

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 HPD1
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275732
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	_	< 0.002	_
2-Nitroaniline	88-74-4	_	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.002	<u> </u>
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9		< 0.003	
				+
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	79
Naphthalene-d8	79
Acenaphthene-d10	76
Phenanthrene-d10	72
Chrysene-d12	49
Perylene-d12	44

Surrogates	% Rec
2-Fluorophenol	56
Phenol-d5	37
Nitrobenzene-d5	92
2-Fluorobiphenyl	105
2,4,6-Tribromophenol	79
Terphenyl-d14	132

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA20
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275733
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	_	< 0.002	_
2-Nitroaniline	88-74-4	_	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.002	<u> </u>
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9		< 0.003	
				+
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	80
Naphthalene-d8	79
Acenaphthene-d10	74
Phenanthrene-d10	73
Chrysene-d12	52
Perylene-d12	45

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	32
Nitrobenzene-d5	89
2-Fluorobiphenyl	105
2,4,6-Tribromophenol	77
Terphenyl-d14	130

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA19
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275734
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-51-6	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5		< 0.003	-
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.003	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.002	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	_
Dimethylphthalate	131-11-3	-	< 0.002	_
2.6-Dinitrotoluene	606-20-2	<u> </u>	< 0.005	_
Acenaphthene	83-32-9	-	< 0.003	_
3-Nitroaniline	99-09-2	-	< 0.002	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	76
Naphthalene-d8	77
Acenaphthene-d10	71
Phenanthrene-d10	71
Chrysene-d12	56
Perylene-d12	52

Surrogates	% Rec
2-Fluorophenol	35
Phenol-d5	21
Nitrobenzene-d5	60
2-Fluorobiphenyl	75
2,4,6-Tribromophenol	49
Terphenyl-d14	80

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA17
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275735
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-51-6	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5		< 0.003	-
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.003	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.002	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	_
Dimethylphthalate	131-11-3	-	< 0.002	_
2.6-Dinitrotoluene	606-20-2	<u> </u>	< 0.005	_
Acenaphthene	83-32-9	-	< 0.003	_
3-Nitroaniline	99-09-2	-	< 0.002	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	91
Naphthalene-d8	87
Acenaphthene-d10	89
Phenanthrene-d10	81
Chrysene-d12	76
Perylene-d12	74

Surrogates	% Rec
2-Fluorophenol	41
Phenol-d5	29
Nitrobenzene-d5	90
2-Fluorobiphenyl	93
2,4,6-Tribromophenol	64
Terphenyl-d14	105

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA18
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275736
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	R.T. Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	_	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	_	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	_	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	90
Naphthalene-d8	87
Acenaphthene-d10	88
Phenanthrene-d10	84
Chrysene-d12	60
Perylene-d12	54

Surrogates	% Rec
2-Fluorophenol	56
Phenol-d5	36
Nitrobenzene-d5	98
2-Fluorobiphenyl	105
2,4,6-Tribromophenol	87
Terphenyl-d14	133

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA21
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275737
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	86
Naphthalene-d8	83
Acenaphthene-d10	83
Phenanthrene-d10	79
Chrysene-d12	65
Perylene-d12	58

Surrogates	% Rec
2-Fluorophenol	43
Phenol-d5	27
Nitrobenzene-d5	95
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	93
Terphenyl-d14	122

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA15
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275738
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	80
Naphthalene-d8	78
Acenaphthene-d10	78
Phenanthrene-d10	75
Chrysene-d12	53
Perylene-d12	46

Surrogates	% Rec
2-Fluorophenol	52
Phenol-d5	32
Nitrobenzene-d5	96
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	81
Terphenyl-d14	126

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA15X
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275739
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	77
Naphthalene-d8	75
Acenaphthene-d10	73
Phenanthrene-d10	69
Chrysene-d12	44
Perylene-d12	36

Surrogates	% Rec
2-Fluorophenol	57
Phenol-d5	37
Nitrobenzene-d5	95
2-Fluorobiphenyl	101
2,4,6-Tribromophenol	83
Terphenyl-d14	141

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA14
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275740
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-51-6	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5		< 0.003	-
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.003	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.002	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	_
Dimethylphthalate	131-11-3	-	< 0.002	_
2.6-Dinitrotoluene	606-20-2	<u> </u>	< 0.005	_
Acenaphthene	83-32-9	-	< 0.003	_
3-Nitroaniline	99-09-2	-	< 0.002	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	82
Naphthalene-d8	82
Acenaphthene-d10	77
Phenanthrene-d10	75
Chrysene-d12	56
Perylene-d12	52

Surrogates	% Rec
2-Fluorophenol	48
Phenol-d5	30
Nitrobenzene-d5	92
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	77
Terphenyl-d14	125

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA11
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275741
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	79
Naphthalene-d8	77
Acenaphthene-d10	73
Phenanthrene-d10	67
Chrysene-d12	48
Perylene-d12	45

% Rec
50
31
90
108
90
125

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA10
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275742
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-51-6	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5		< 0.003	-
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.003	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.002	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	_
Dimethylphthalate	131-11-3	-	< 0.002	_
2.6-Dinitrotoluene	606-20-2	<u> </u>	< 0.005	_
Acenaphthene	83-32-9	-	< 0.003	_
3-Nitroaniline	99-09-2	-	< 0.002	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	79
Naphthalene-d8	78
Acenaphthene-d10	75
Phenanthrene-d10	72
Chrysene-d12	51
Perylene-d12	42

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	31
Nitrobenzene-d5	91
2-Fluorobiphenyl	100
2,4,6-Tribromophenol	89
Terphenyl-d14	132

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA9
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275743
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	81
Naphthalene-d8	79
Acenaphthene-d10	79
Phenanthrene-d10	74
Chrysene-d12	58
Perylene-d12	55

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	30
Nitrobenzene-d5	94
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	87
Terphenyl-d14	117

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA6
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275744
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-51-6	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5		< 0.003	-
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.003	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.002	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	_
Dimethylphthalate	131-11-3	-	< 0.002	_
2.6-Dinitrotoluene	606-20-2	<u> </u>	< 0.005	_
Acenaphthene	83-32-9	-	< 0.003	_
3-Nitroaniline	99-09-2	-	< 0.002	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	84
Naphthalene-d8	79
Acenaphthene-d10	84
Phenanthrene-d10	76
Chrysene-d12	65
Perylene-d12	65

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	31
Nitrobenzene-d5	97
2-Fluorobiphenyl	98
2,4,6-Tribromophenol	102
Terphenyl-d14	119

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA1
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275745
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 15-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
B-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	82
Naphthalene-d8	80
Acenaphthene-d10	80
Phenanthrene-d10	79
Chrysene-d12	65
Perylene-d12	66

Surrogates	% Rec
2-Fluorophenol	53
Phenol-d5	34
Nitrobenzene-d5	99
2-Fluorobiphenyl	108
2,4,6-Tribromophenol	96
Terphenyl-d14	121

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA16
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275746
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	_	< 0.002	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8	_	< 0.002	_
2-Nitroaniline	88-74-4	_	< 0.005	_
Acenaphthylene	208-96-8	_	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.005	_
2,6-Dinitrotoluene	606-20-2		< 0.005	
Acenaphthene	83-32-9		< 0.003	
3-Nitroaniline	99-09-2		< 0.002	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	82
Naphthalene-d8	80
Acenaphthene-d10	79
Phenanthrene-d10	75
Chrysene-d12	62
Perylene-d12	59

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	34
Nitrobenzene-d5	94
2-Fluorobiphenyl	106
2,4,6-Tribromophenol	92
Terphenyl-d14	119

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA22
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275747
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	AS# R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	_	< 0.002	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8	_	< 0.002	_
2-Nitroaniline	88-74-4	_	< 0.005	_
Acenaphthylene	208-96-8	_	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.005	_
2,6-Dinitrotoluene	606-20-2		< 0.005	
Acenaphthene	83-32-9		< 0.003	
3-Nitroaniline	99-09-2		< 0.002	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	80
Naphthalene-d8	77
Acenaphthene-d10	78
Phenanthrene-d10	70
Chrysene-d12	57
Perylene-d12	52

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	31
Nitrobenzene-d5	96
2-Fluorobiphenyl	100
2,4,6-Tribromophenol	95
Terphenyl-d14	127

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA7
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275748
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-51-6	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5		< 0.003	-
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.003	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.002	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	_
Dimethylphthalate	131-11-3	-	< 0.002	_
2.6-Dinitrotoluene	606-20-2	<u> </u>	< 0.005	_
Acenaphthene	83-32-9	-	< 0.003	_
3-Nitroaniline	99-09-2	-	< 0.002	_

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\ 0315_C	CC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	84
Naphthalene-d8	83
Acenaphthene-d10	84
Phenanthrene-d10	79
Chrysene-d12	70
Perylene-d12	61

Surrogates	% Rec
2-Fluorophenol	55
Phenol-d5	38
Nitrobenzene-d5	94
2-Fluorobiphenyl	102
2,4,6-Tribromophenol	120
Terphenyl-d14	123

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA38
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275749
 Date Extracted:
 15-Mar-12

 Job Number:
 W13_3314
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit	
		(min)	mg/l		
Phenol	108-95-2	-	< 0.020	-	
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-	
2-Chlorophenol	95-57-8	-	< 0.020	-	
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-	
Benzyl alcohol	100-51-6	-	< 0.005	-	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-	
2-Methylphenol	95-48-7	-	< 0.005	-	
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	-	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-	
Nitrobenzene	98-95-3	-	< 0.005	-	
sophorone	78-59-1	-	< 0.005	-	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9	-	< 0.020	-	
Benzoic Acid	65-85-0 *	-	< 0.100	-	
bis(2-Chloroethoxy)methane 111-91-1		-	< 0.005	-	
2,4-Dichlorophenol	120-83-2	-	< 0.020	-	
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-	
Naphthalene	91-20-3	-	< 0.002	-	
4-Chlorophenol	106-48-9	-	< 0.020	-	
4-Chloroaniline	106-47-8 *	-	< 0.005	-	
Hexachlorobutadiene	87-68-3	-	< 0.005	-	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-	
2-Methylnaphthalene	91-57-6	-	< 0.002	-	
1-Methylnaphthalene	90-12-0	-	< 0.002	-	
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-	
2-Chloronaphthalene	91-58-7	-	< 0.002	-	
Biphenyl	92-52-4	-	< 0.002	-	
Diphenyl ether	101-84-8	-	< 0.002	-	
2-Nitroaniline	88-74-4	-	< 0.005	-	
Acenaphthylene	208-96-8	-	< 0.002	-	
Dimethylphthalate	131-11-3	-	< 0.005	-	
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-	
Acenaphthene	83-32-9	-	< 0.002	-	
3-Nitroaniline	99-09-2	-	< 0.005	_	

Matrix:	Water	QC Batch Number:	32
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	15SVOC.MS16\	0315_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	78
Naphthalene-d8	78
Acenaphthene-d10	75
Phenanthrene-d10	71
Chrysene-d12	57
Perylene-d12	55

Surrogates	% Rec
2-Fluorophenol	53
Phenol-d5	35
Nitrobenzene-d5	92
2-Fluorobiphenyl	100
2,4,6-Tribromophenol	104
Terphenyl-d14	122

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED : Upper Heyford

Job Number: W13_3314

D:\TES\DATA\Y2012\0314HSA GC09\031412A 2012-03-15 08-48-39\130F6801.D

Method: Headspace GCFID

Matrix:WaterDate Booked in:08-Mar-12Date extracted:14-Mar-12

Date Analysed: 16-Mar-12, 05:5

* Sample data with an asterisk are not UKAS accredited.

			Concentration, (mg/l)						Aliphatics		
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
EX1275730	BH225	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275731	BH226	<0.005	<0.005	<0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275732	HPD1	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275733	BHNSA20	<0.005	<0.005	<0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275734	BHNSA19	<0.005	<0.005	<0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275735	BHNSA17	<0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275736	BHNSA18	< 0.005	<0.005	< 0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275737	BHNSA21	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275738	BHNSA15	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275739	BHNSA15X	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275740	BHNSA14	<0.005	< 0.005	<0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275741	BHNSA11	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275742	BHNSA10	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275743	BHNSA9	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275744	BHNSA6	< 0.005	<0.005	< 0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275745	BHNSA1	< 0.005	<0.005	< 0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275746	BHNSA16	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275747	BHNSA22	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275748	BHNSA7	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1275749	BHNSA38	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford

 Job Number:
 W13_3314
 Separation:
 Silica gel

 QC Batch Number:
 120198
 Eluents:
 Hexane, DCM

 Directory:
 D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\100B6101.D

Method: Bottle

 Date Booked ir
 08-Mar-12

 Date Extracted
 14-Mar-12

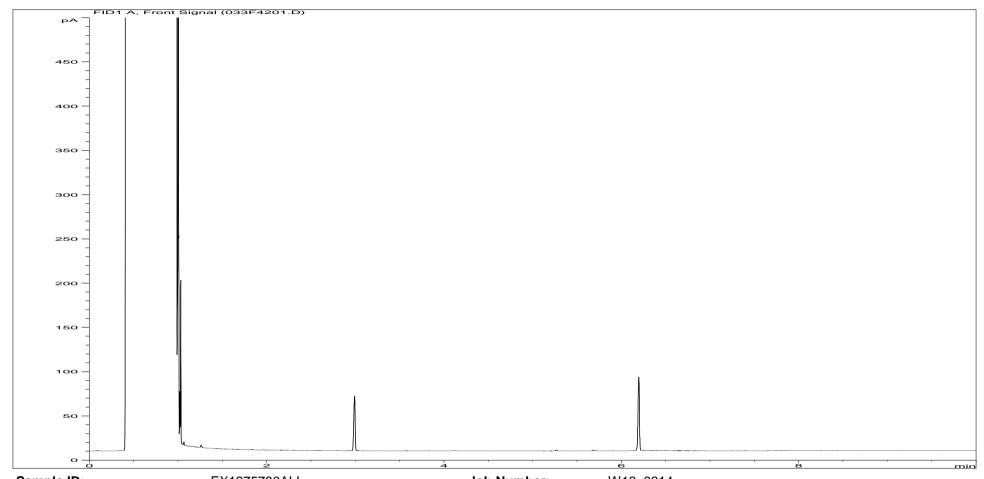
 Date Analysed: 15-Mar-12, 01:19:27

Water

Matrix:

				<u> </u>		Concentra	tion, (mg/l)				<u> </u>	<u> </u>	
This sample data is not Uk	(AS accredited.	>C8	>C8 - C10		- C12	>C12	- C16	>C16	- C21	>C21	- C35	>C8	- C40
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1275730	BH225	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275731	BH226	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014
EX1275732	HPD1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275733	BHNSA20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.016	<0.01	0.02	<0.01
EX1275734	BHNSA19	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
EX1275735	BHNSA17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012
EX1275736	BHNSA18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	0.01
EX1275737	BHNSA21	<0.01	<0.01	<0.01	0.023	<0.01	0.039	<0.01	0.011	<0.01	<0.01	0.025	0.089
EX1275738	BHNSA15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	0.017
EX1275739	BHNSA15X	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275740	BHNSA14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	0.011
EX1275741	BHNSA11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	0.01
EX1275742	BHNSA10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012
EX1275743	BHNSA9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275744	BHNSA6	0.018	<0.01	0.067	0.03	0.345	0.183	0.31	0.233	0.204	0.186	0.97	0.664
EX1275745	BHNSA1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.025	<0.01	0.034	0.012
EX1275746	BHNSA16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275747	BHNSA22	<0.01	<0.01	0.016	0.013	0.036	0.034	<0.01	<0.01	0.063	0.023	0.134	0.083
EX1275748	BHNSA7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	0.013
EX1275749	BHNSA38	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID: EX1275730ALI Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

14-Mar-12, 19:52:48

Acquisition Date/Time:

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\033F4201.D

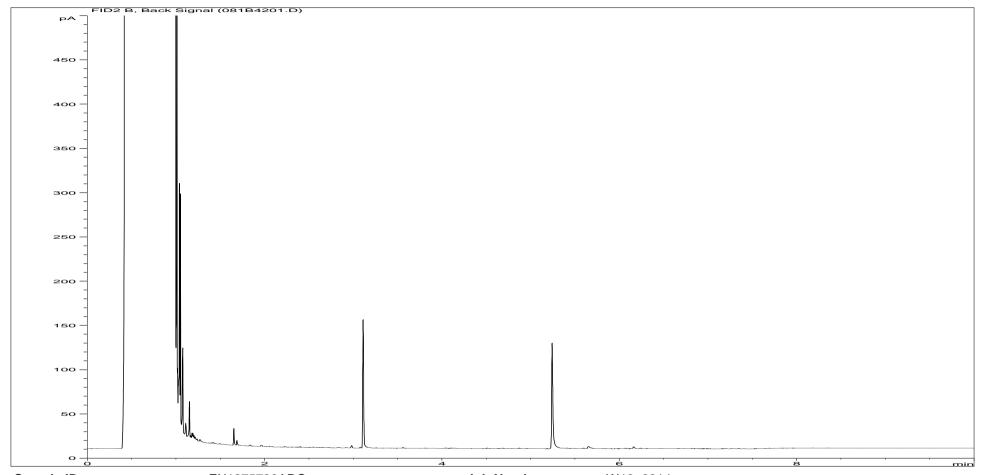
Job Number: W13 3314 Client: Waterman EED Site: Upper Heyford

Client Sample Ref:

BH225

Page 27 of 72 EXR/133314 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID: EX1275730ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 19:52:48

Datafile:

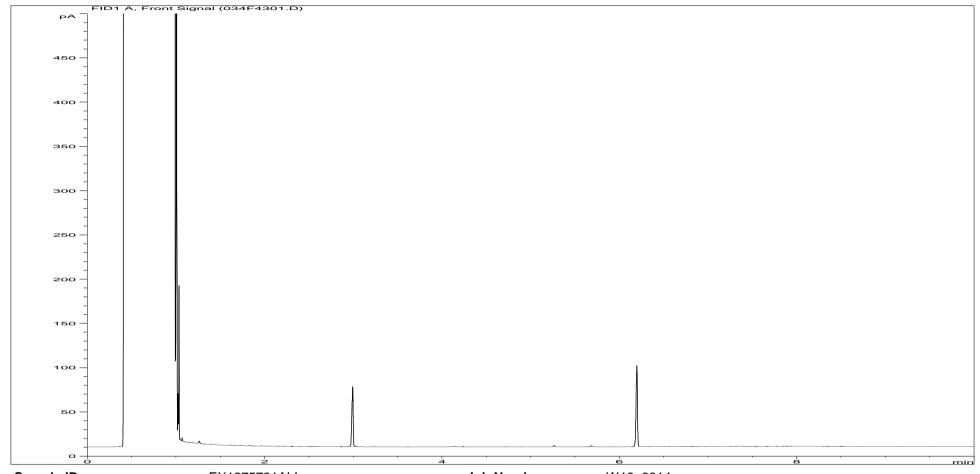
Job Number: W13 3314 Client: Waterman EED Site: Upper Heyford

Client Sample Ref: BH225

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\081B4201.D

Page 28 of 72 EXR/133314 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID: EX1275731ALI Multiplier: 0.02 Dilution:

Acquisition Method: TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 20:10:01

Datafile:

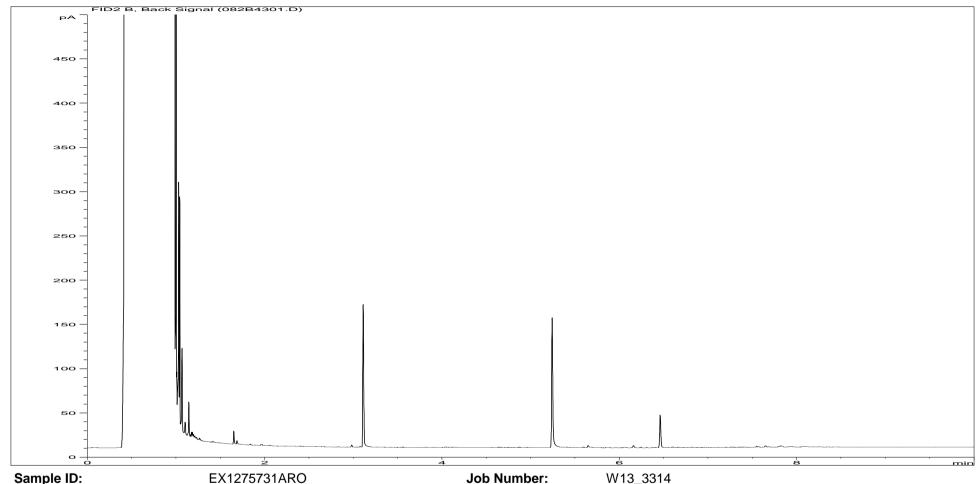
Job Number: W13 3314 Client: Waterman EED Site: Upper Heyford

Client Sample Ref: BH226

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\034F4301.D

Page 29 of 72 EXR/133314 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID: EX1275731ARO Multiplier: 0.015 Dilution:

Acquisition Method: TPH_RUNF.M **Acquisition Date/Time:** 14-Mar-12, 20:10:01

Datafile:

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\082B4301.D

Client:

Client Sample Ref:

Site:

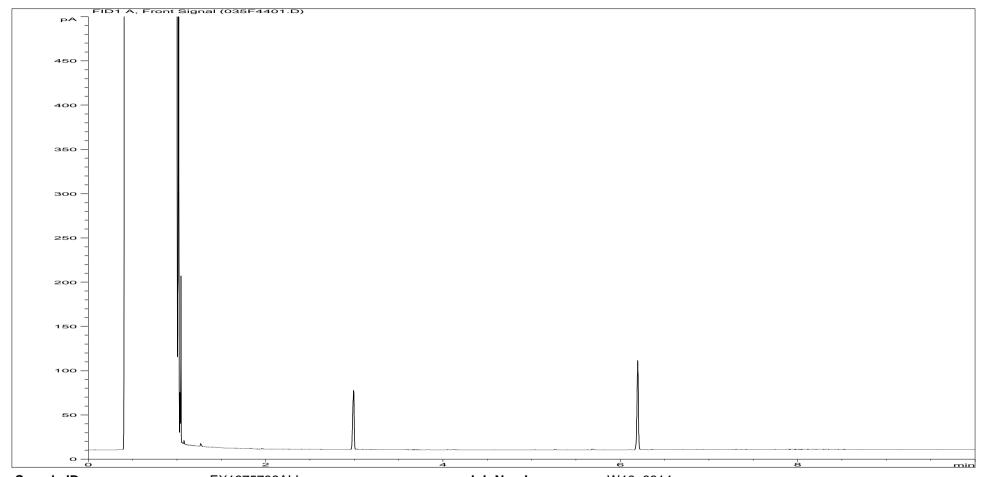
Waterman EED

Upper Heyford

BH226

Page 30 of 72 EXR/133314 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID: EX1275732ALI Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

Job Number: W13 3314 Client: Waterman EED Site: Upper Heyford

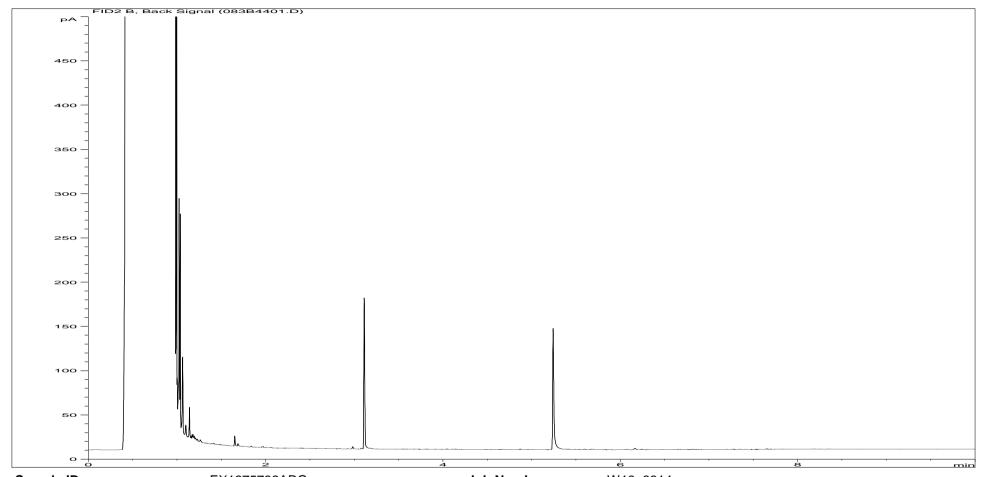
Client Sample Ref: HPD1

Acquisition Date/Time: 14-Mar-12, 20:27:07

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\035F4401.D

Page 31 of 72 EXR/133314 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID: EX1275732ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 20:27:07

Datafile:

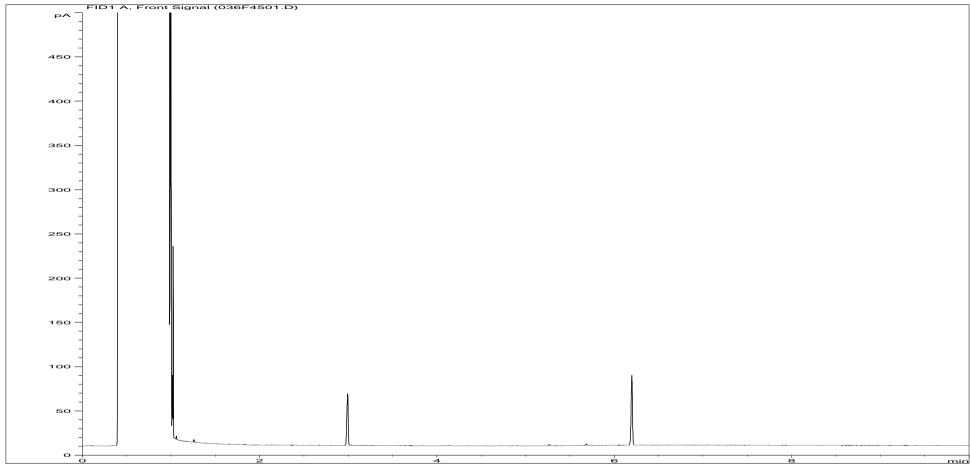
Job Number: W13 3314 Client: Waterman EED Site: Upper Heyford

Client Sample Ref: HPD1

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\083B4401.D

Page 32 of 72 EXR/133314 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



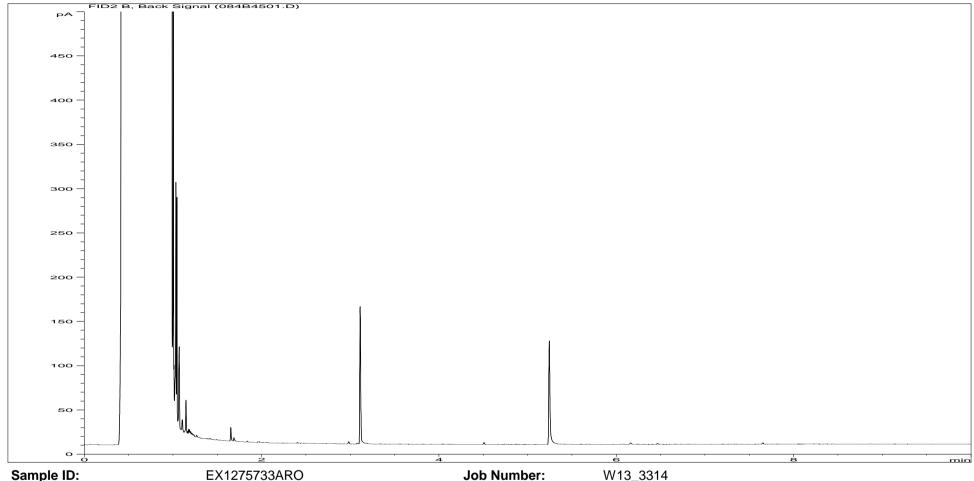
Sample ID:EX1275733ALIJob Number:W13_3314Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA20

Acquisition Date/Time: 14-Mar-12, 20:44:25

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\036F4501.D

Page 33 of 72 EXR/133314 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID: EX1275733ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

14-Mar-12, 20:44:25

Acquisition Date/Time:

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\084B4501.D

Client:

Client Sample Ref:

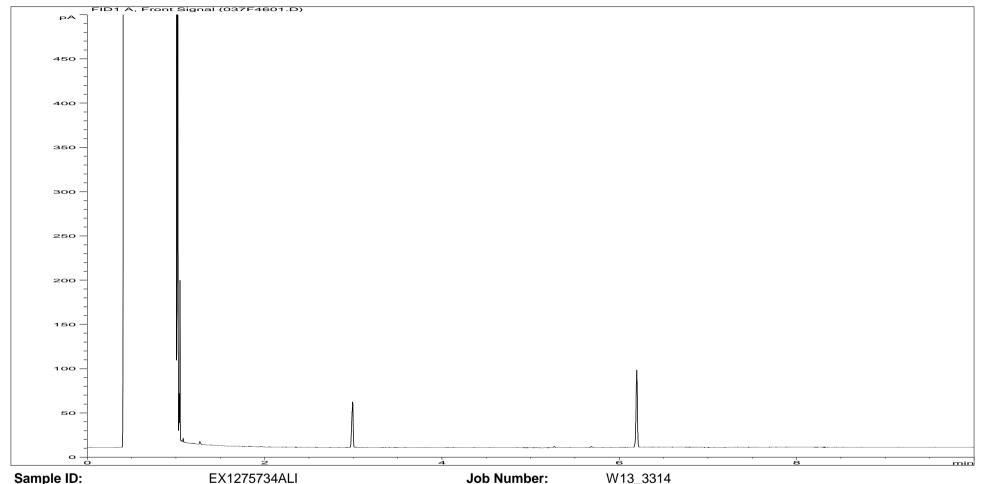
Site:

Waterman EED

Upper Heyford

BHNSA20

Page 34 of 72 EXR/133314 Ver. 1



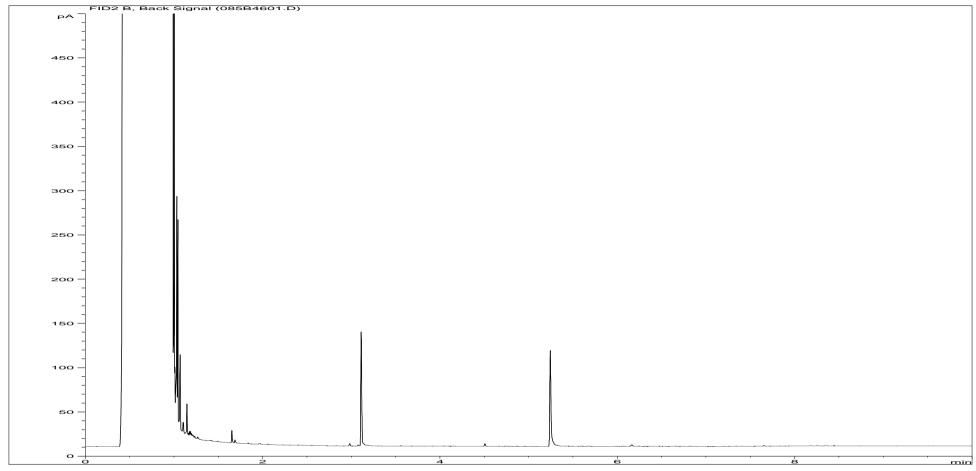
Sample ID:EX1275734ALIMultiplier:0.02Dilution:1Acquisition Method:TPH_RUNF.M

Client: Waterman EED
Site: Upper Heyford
RUNF.M Client Sample Ref: BHNSA19

Acquisition Date/Time: 14-Mar-12, 21:01:43

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\037F4601.D

Page 35 of 72 EXR/133314 Ver. 1

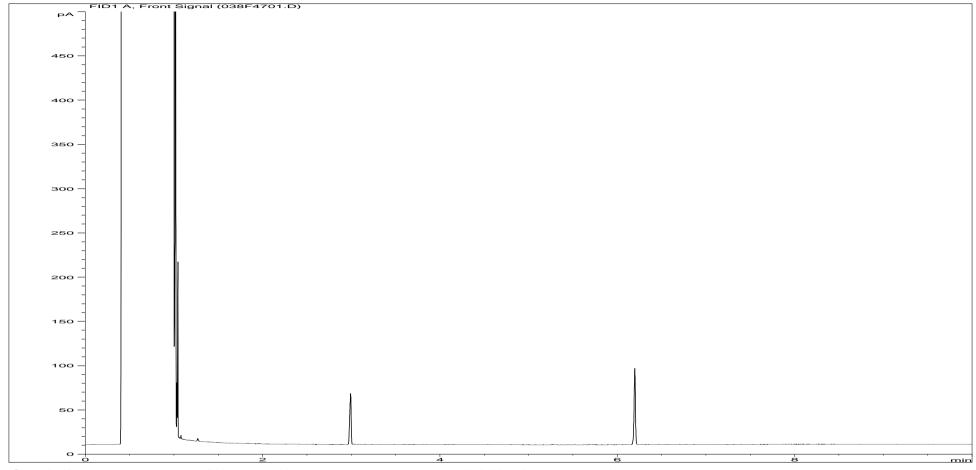


Sample ID:EX1275734AROJob Number:W13_3314Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA19

Acquisition Date/Time: 14-Mar-12, 21:01:43

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\085B4601.D

Page 36 of 72 EXR/133314 Ver. 1



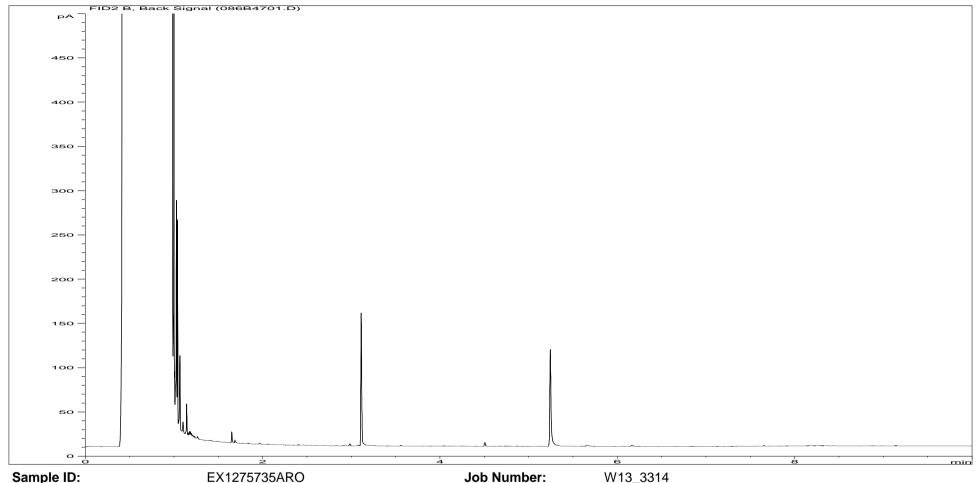
Sample ID:EX1275735ALIMultiplier:0.02Dilution:1Acquisition Method:TPH_RUNF.M

Job Number: W13_3314
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BHNSA17

Acquisition Date/Time: 14-Mar-12, 21:18:51

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\038F4701.D

Page 37 of 72 EXR/133314 Ver. 1



Sample ID:EX1275735AROMultiplier:0.015Dilution:1Acquisition Method:TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 21:18:51

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\086B4701.D

Client:

Client Sample Ref:

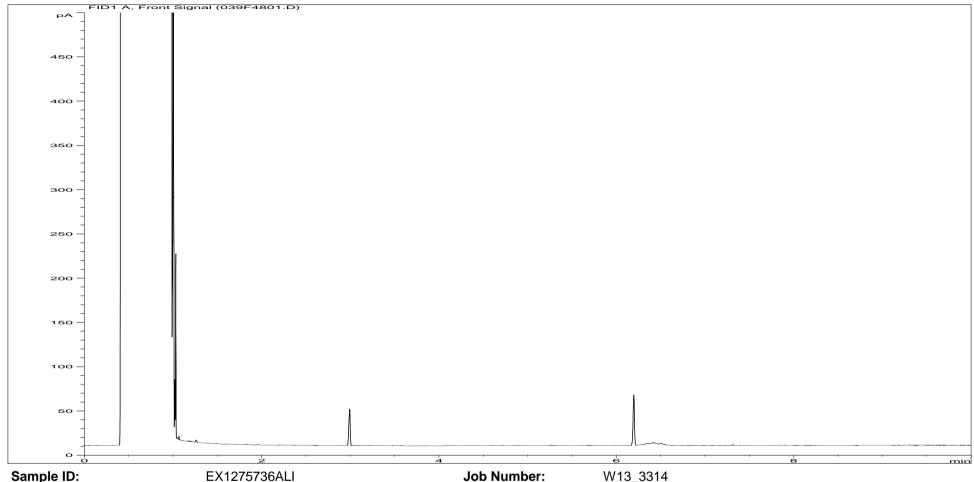
Site:

Waterman EED

Upper Heyford

BHNSA17

Page 38 of 72 EXR/133314 Ver. 1



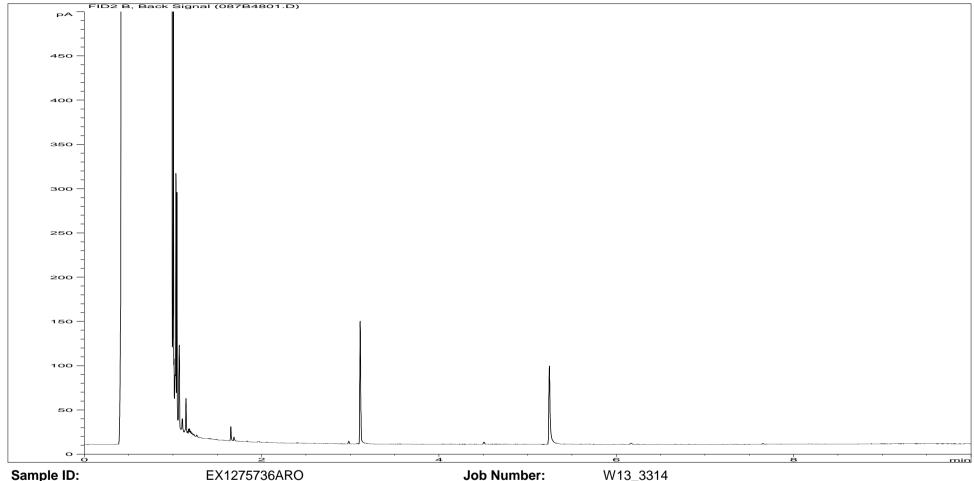
Sample ID:EX1275736ALIMultiplier:0.02Dilution:1Acquisition Method:TPH_RUNF.M

Client: Waterman EED
Site: Upper Heyford
JNF.M Client Sample Ref: BHNSA18

Acquisition Date/Time: 14-Mar-12, 21:36:03

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\039F4801.D

Page 39 of 72 EXR/133314 Ver. 1



Sample ID: EX1275736ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 21:36:03

Datafile:

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\087B4801.D

Client:

Client Sample Ref:

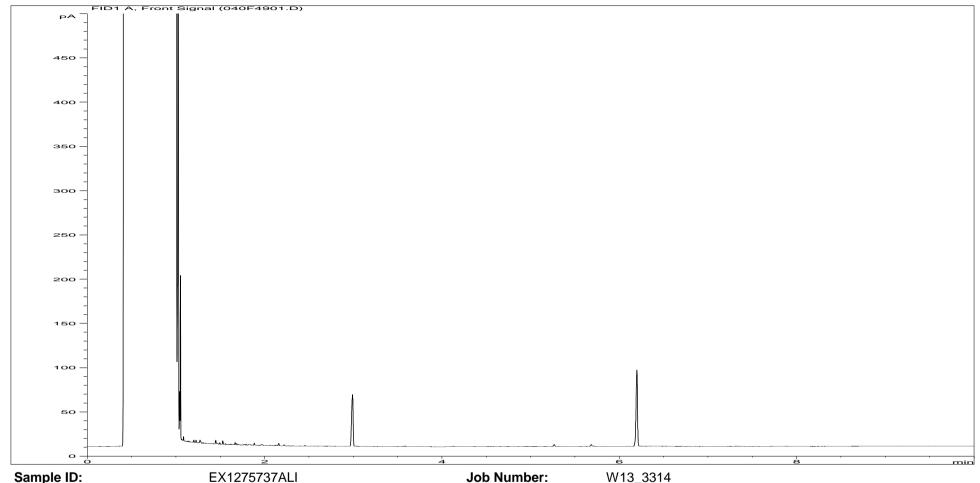
Site:

Waterman EED

Upper Heyford

BHNSA18

Page 40 of 72 EXR/133314 Ver. 1



Sample ID: EX1275737ALI Multiplier: 0.02 Dilution: **Acquisition Method:**

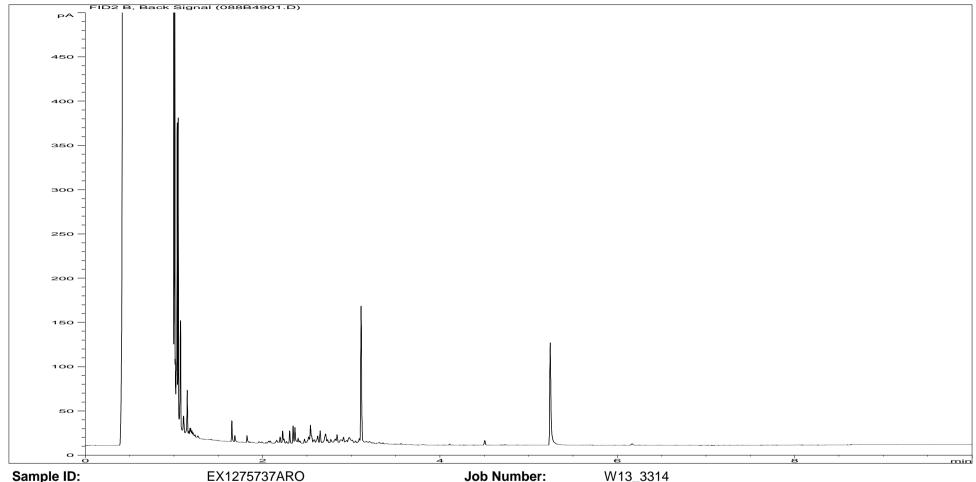
14-Mar-12, 21:53:16

Acquisition Date/Time: Datafile:

Client: Waterman EED Site: Upper Heyford TPH_RUNF.M Client Sample Ref: BHNSA21

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\040F4901.D

Page 41 of 72 EXR/133314 Ver. 1



Sample ID:EX1275737AROMultiplier:0.015Dilution:1Acquisition Method:TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 21:53:16

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\088B4901.D

Client:

Client Sample Ref:

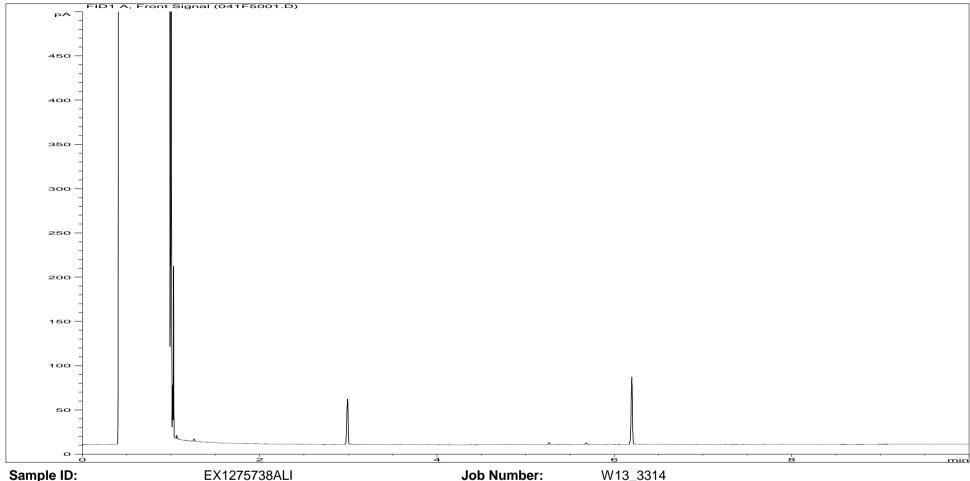
Site:

Waterman EED

Upper Heyford

BHNSA21

Page 42 of 72 EXR/133314 Ver. 1



Sample ID:EX1275738ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 14-Mar-12, 22:10:31

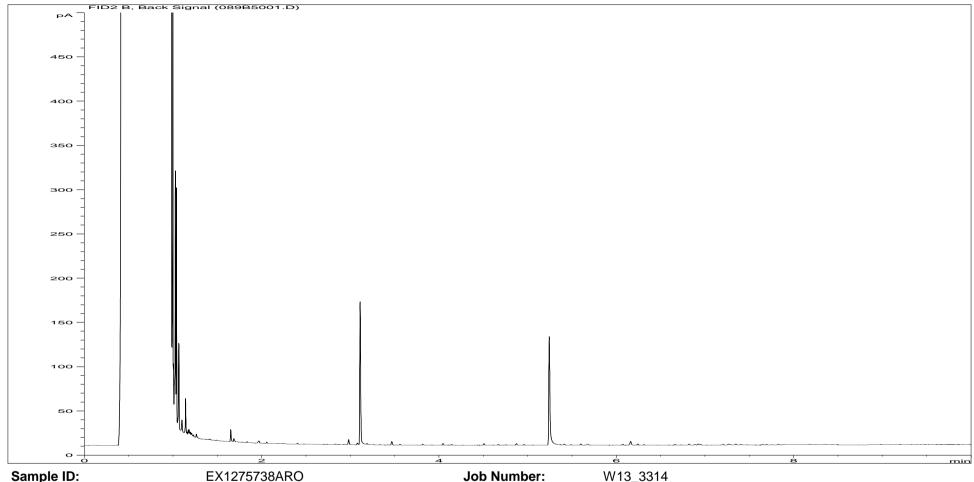
Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\041F5001.D

Waterman EED

Upper Heyford

BHNSA15

Page 43 of 72 EXR/133314 Ver. 1



Sample ID:EX1275738AROJob Number:Multiplier:0.015Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 14-Mar-12, 22:10:31

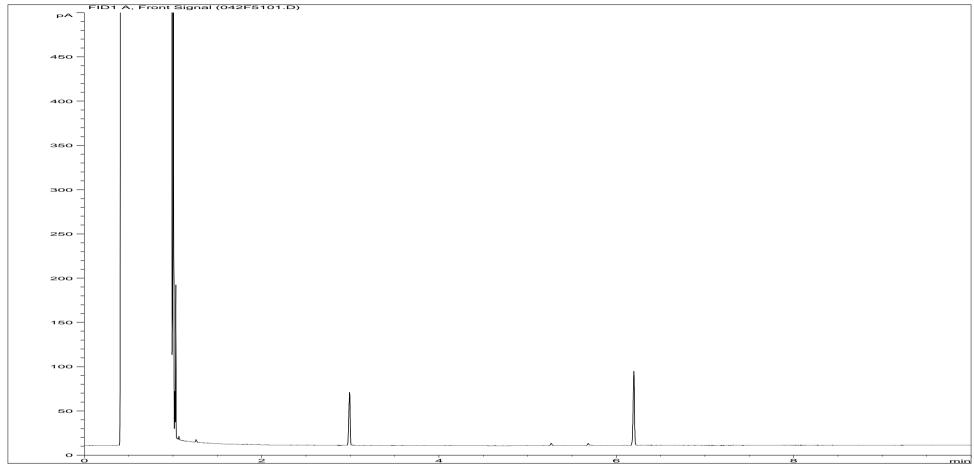
Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\089B5001.D

Waterman EED

Upper Heyford

BHNSA15

Page 44 of 72 EXR/133314 Ver. 1

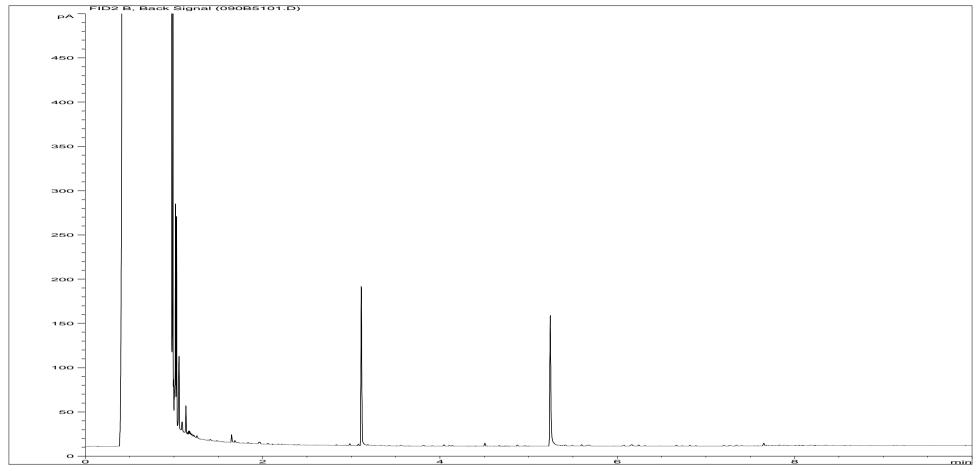


Sample ID:EX1275739ALIJob Number:W13_3314Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA15X

Acquisition Date/Time: 14-Mar-12, 22:27:40

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\042F5101.D

Page 45 of 72 EXR/133314 Ver. 1

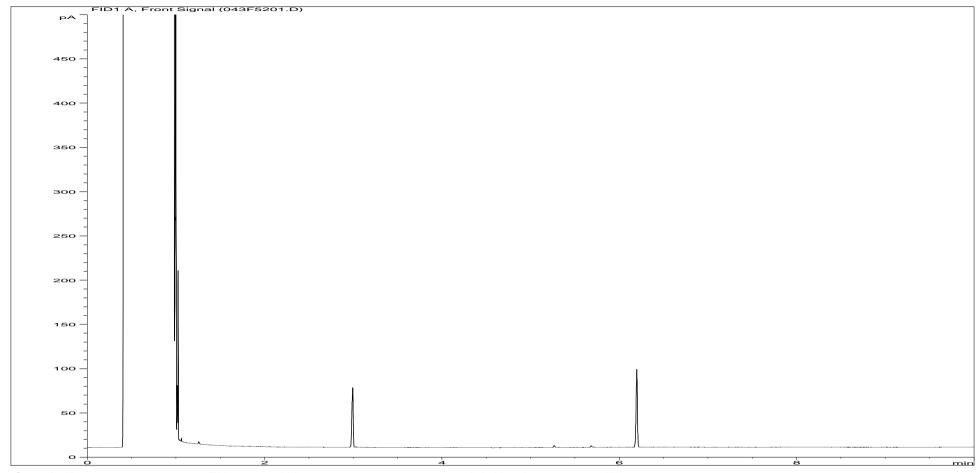


Sample ID:EX1275739AROJob Number:W13_3314Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA15X

Acquisition Date/Time: 14-Mar-12, 22:27:40

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\090B5101.D

Page 46 of 72 EXR/133314 Ver. 1

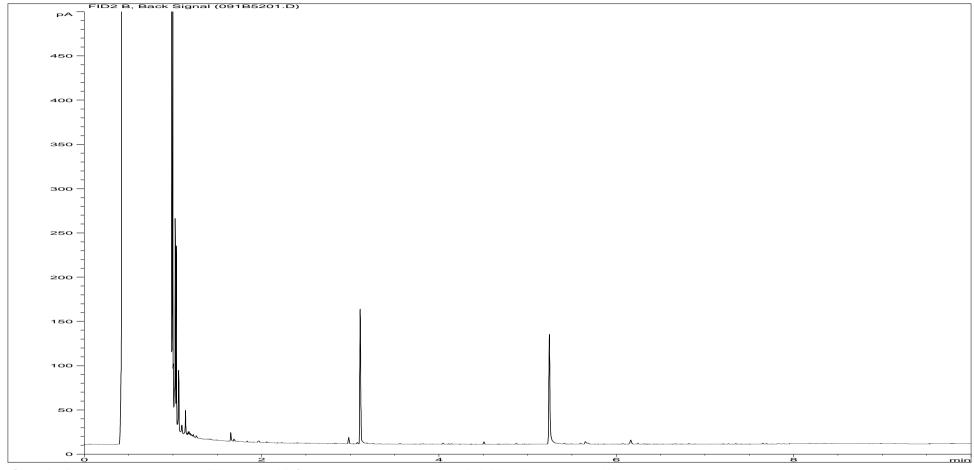


Sample ID:EX1275740ALIJob Number:W13_3314Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA14

Acquisition Date/Time: 14-Mar-12, 22:44:48

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\043F5201.D

Page 47 of 72 EXR/133314 Ver. 1



Sample ID: EX1275740ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 22:44:48

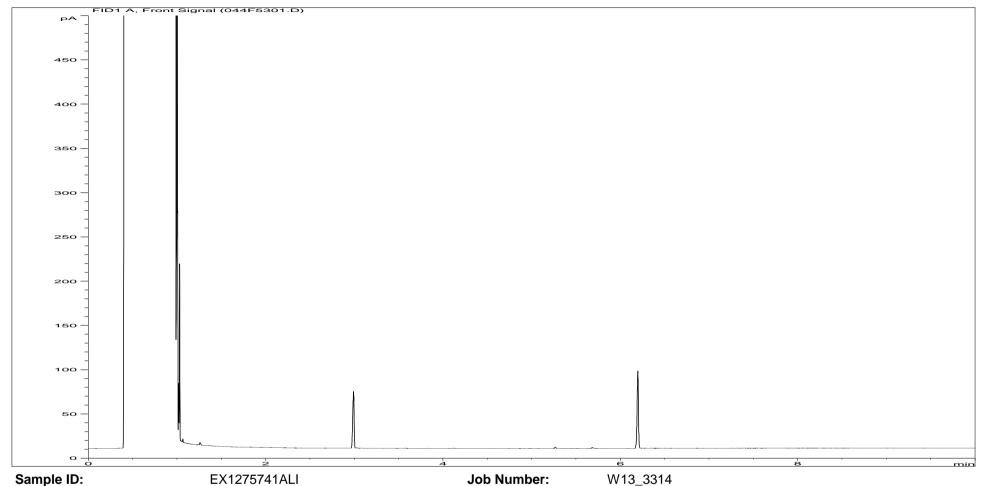
Datafile:

Job Number: W13 3314 Client: Waterman EED Site: Upper Heyford

Client Sample Ref: BHNSA14

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\091B5201.D

Page 48 of 72 EXR/133314 Ver. 1



Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 23:02:02

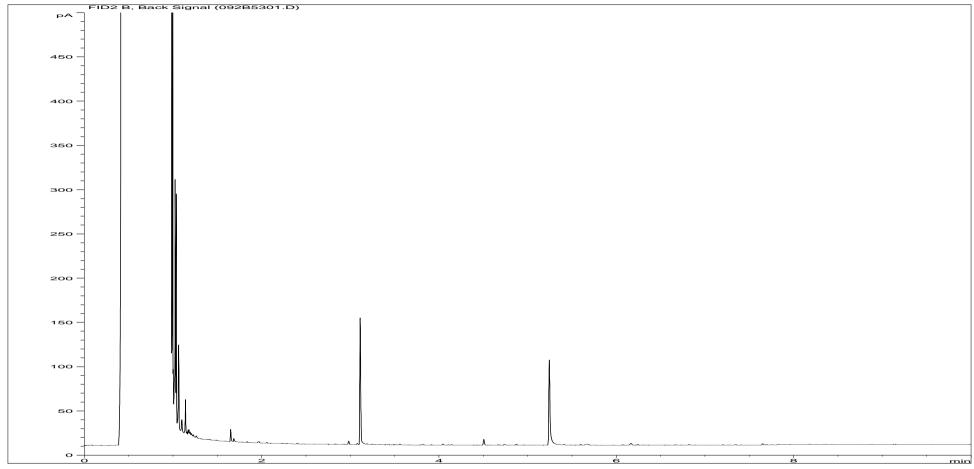
Datafile:

Waterman EED Site: Upper Heyford Client Sample Ref: BHNSA11

Client:

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\044F5301.D

Page 49 of 72 EXR/133314 Ver. 1

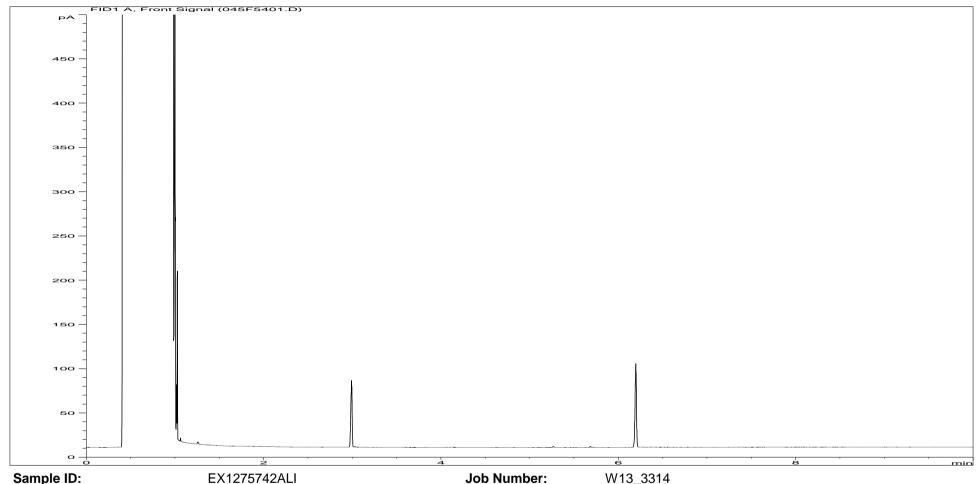


Sample ID:EX1275741AROJob Number:W13_3314Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA11

Acquisition Date/Time: 14-Mar-12, 23:02:02

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\092B5301.D

Page 50 of 72 EXR/133314 Ver. 1



Sample ID:EX1275742ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 14-Mar-12, 23:19:17

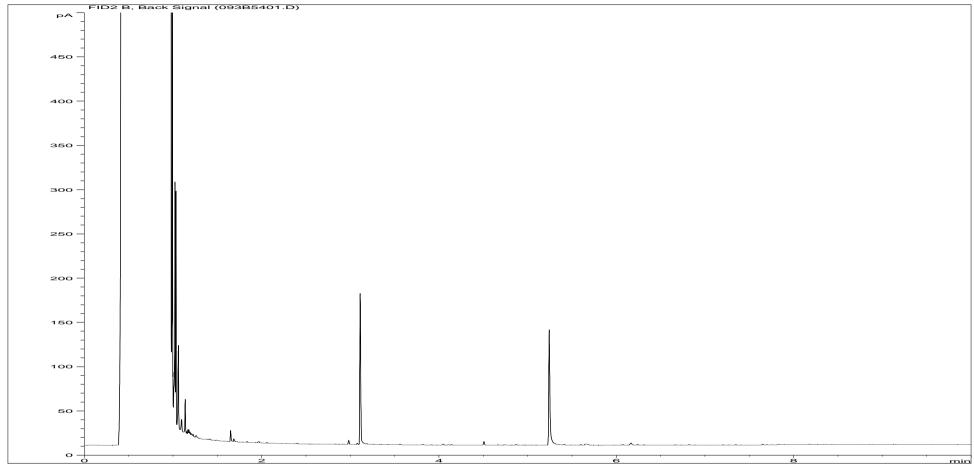
Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\045F5401.D

Waterman EED

Upper Heyford

BHNSA10

Page 51 of 72 EXR/133314 Ver. 1

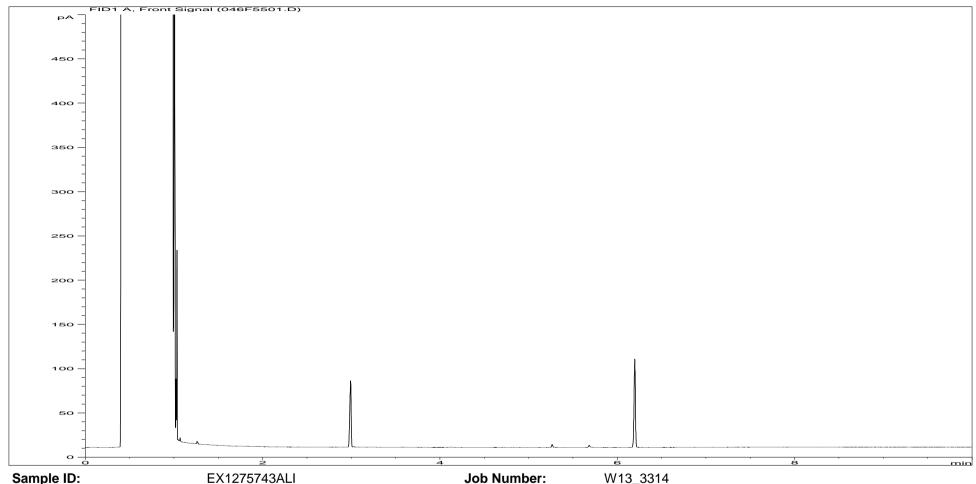


Sample ID:EX1275742AROJob Number:W13_3314Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA10

Acquisition Date/Time: 14-Mar-12, 23:19:17

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\093B5401.D

Page 52 of 72 EXR/133314 Ver. 1



EX1275743ALI Sample ID: Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 23:36:23

Datafile:

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\046F5501.D

Client:

Client Sample Ref:

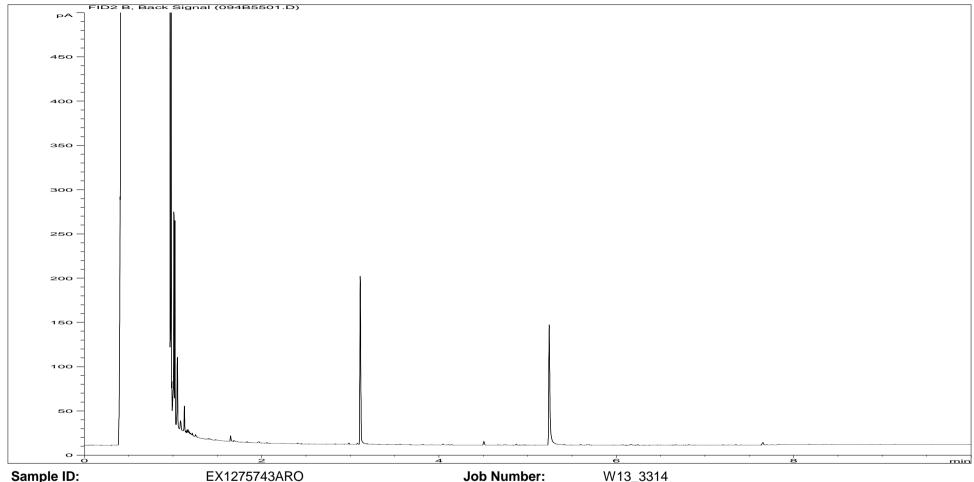
Site:

Waterman EED

Upper Heyford

BHNSA9

Page 53 of 72 EXR/133314 Ver. 1



Sample ID:EX1275743AROMultiplier:0.015Dilution:1Acquisition Method:TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 23:36:23

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\094B5501.D

Client:

Client Sample Ref:

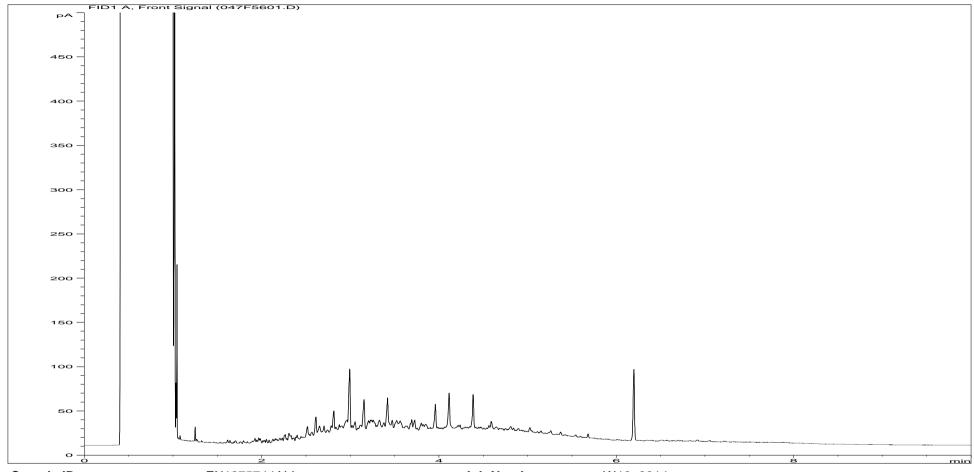
Site:

Waterman EED

Upper Heyford

BHNSA9

Page 54 of 72 EXR/133314 Ver. 1

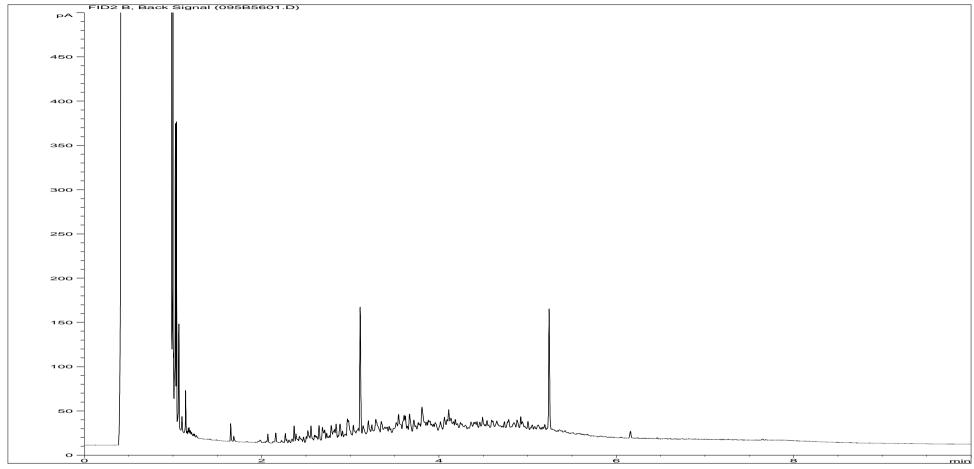


Sample ID:EX1275744ALIJob Number:W13_3314Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA6

Acquisition Date/Time: 14-Mar-12, 23:53:33

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\047F5601.D

Page 55 of 72 EXR/133314 Ver. 1

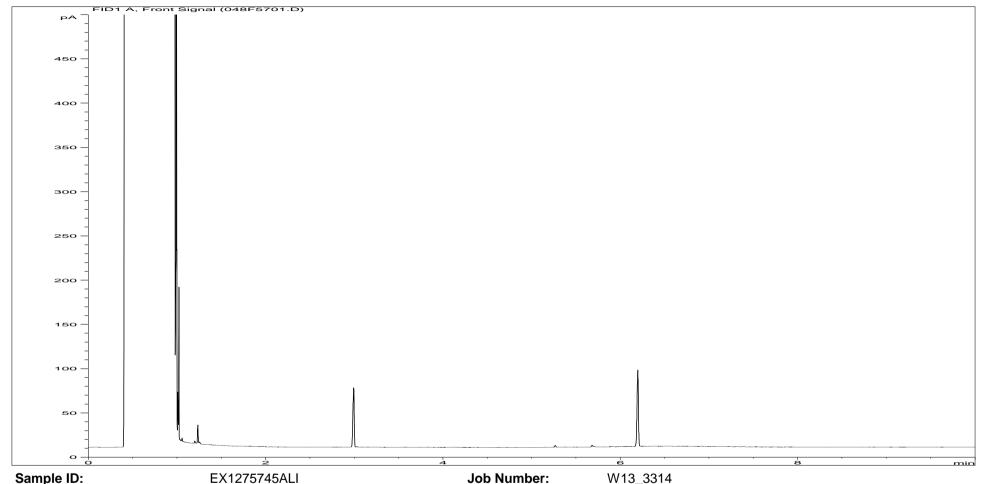


Sample ID:EX1275744AROJob Number:W13_3314Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA6

Acquisition Date/Time: 14-Mar-12, 23:53:33

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\095B5601.D

Page 56 of 72 EXR/133314 Ver. 1



Sample ID: EX1275745ALI Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 15-Mar-12, 00:10:49

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\048F5701.D

Client:

Client Sample Ref:

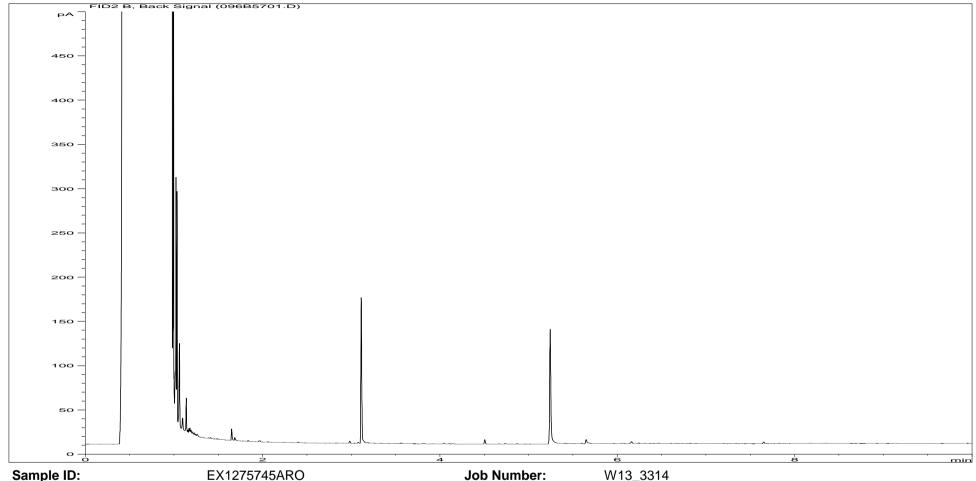
Site:

Waterman EED

Upper Heyford

BHNSA1

Page 57 of 72 EXR/133314 Ver. 1



Sample ID: EX1275745ARO Multiplier: 0.015 Dilution: **Acquisition Method:**

Acquisition Date/Time: 15-Mar-12, 00:10:49

Datafile:

TPH_RUNF.M Client Sample Ref: BHNSA1

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\096B5701.D

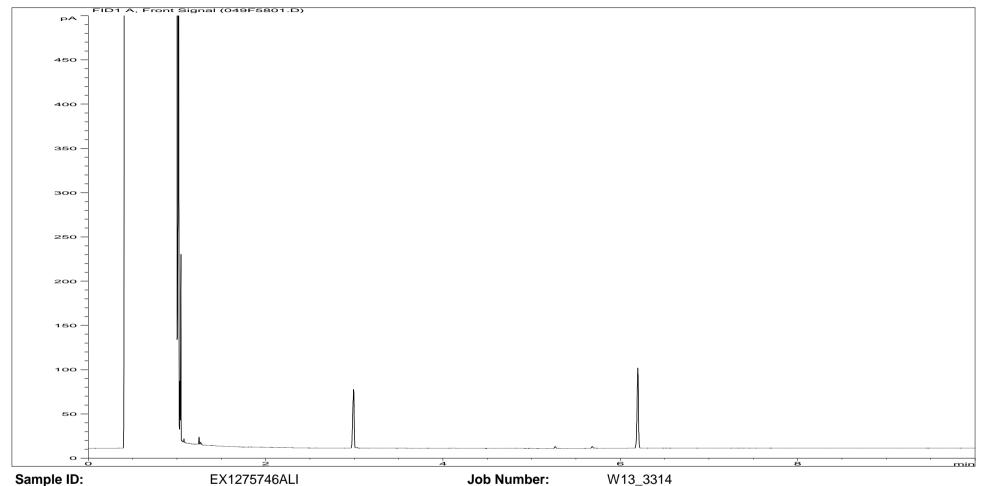
Client:

Site:

Waterman EED

Upper Heyford

Page 58 of 72 EXR/133314 Ver. 1



Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 15-Mar-12, 00:27:56

Datafile:

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\049F5801.D

Client:

Client Sample Ref:

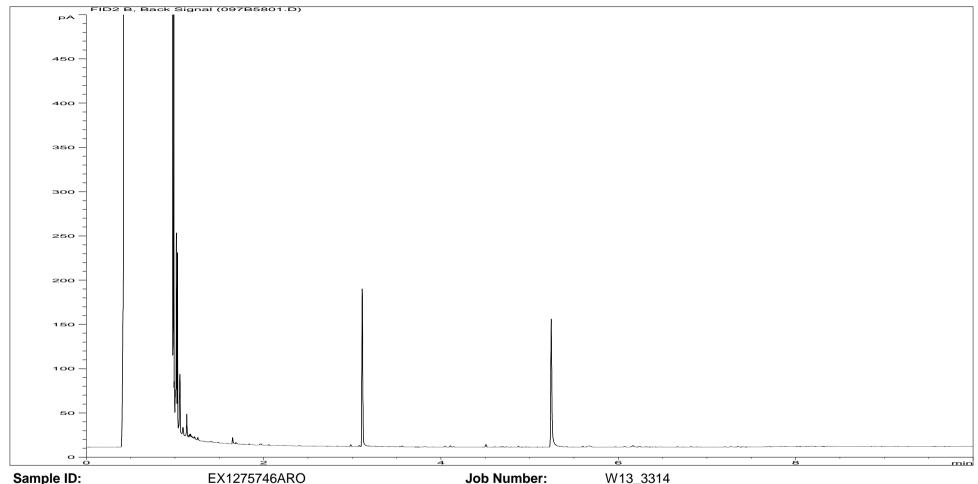
Site:

Waterman EED

Upper Heyford

BHNSA16

Page 59 of 72 EXR/133314 Ver. 1



Sample ID: EX1275746ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

15-Mar-12, 00:27:56

Acquisition Date/Time: Datafile:

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\097B5801.D

Client:

Client Sample Ref:

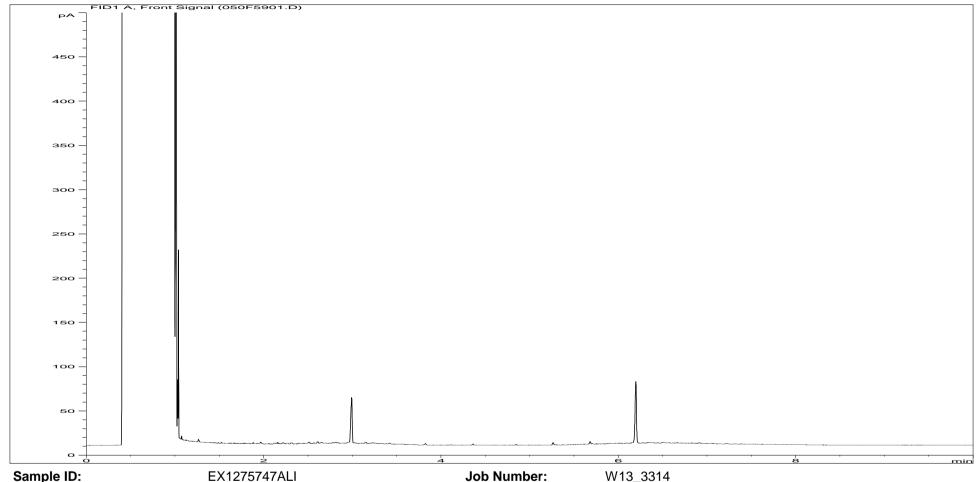
Site:

Waterman EED

Upper Heyford

BHNSA16

Page 60 of 72 EXR/133314 Ver. 1



EX1275747ALI Sample ID: Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

15-Mar-12, 00:45:04

Datafile:

Acquisition Date/Time:

D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\050F5901.D

Client:

Client Sample Ref:

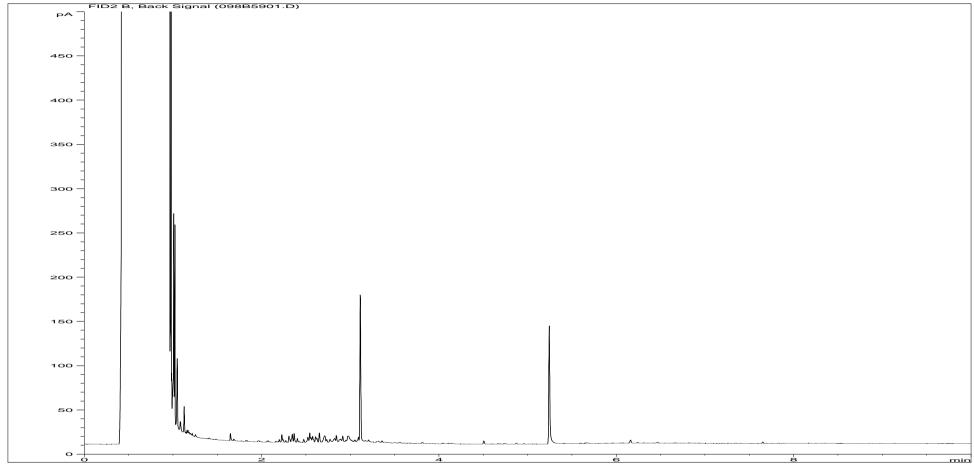
Site:

Waterman EED

Upper Heyford

BHNSA22

Page 61 of 72 EXR/133314 Ver. 1

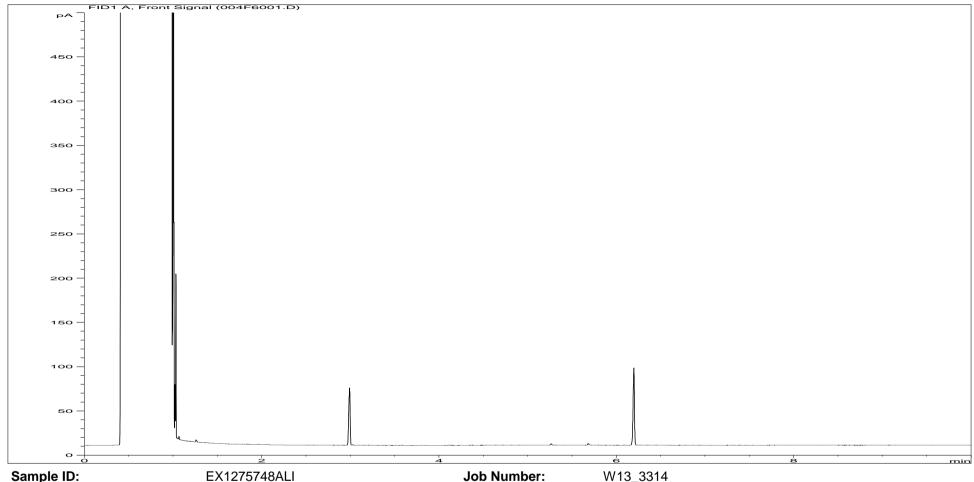


Sample ID:EX1275747AROJob Number:W13_3314Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA22

Acquisition Date/Time: 15-Mar-12, 00:45:04

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\098B5901.D

Page 62 of 72 EXR/133314 Ver. 1



EX1275748ALI Sample ID: Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 15-Mar-12, 01:02:09

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\004F6001.D

Client:

Client Sample Ref:

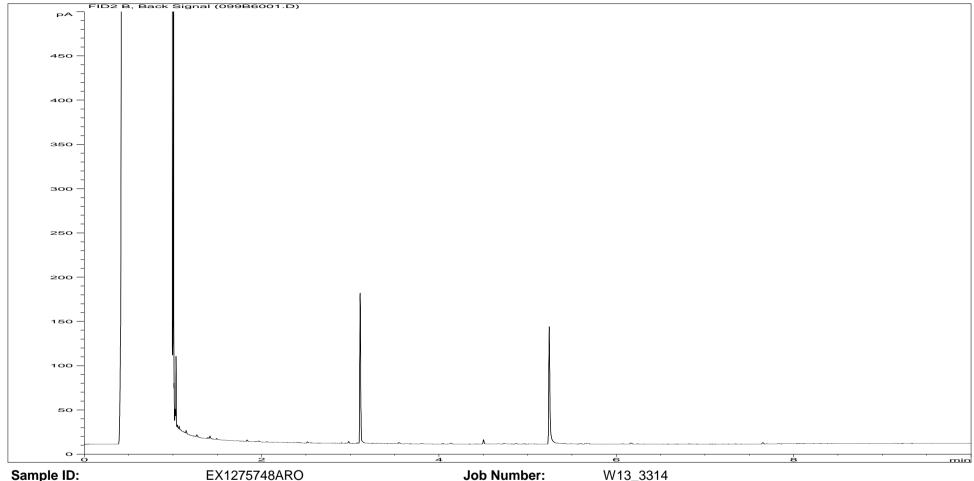
Site:

Waterman EED

Upper Heyford

BHNSA7

Page 63 of 72 EXR/133314 Ver. 1



Sample ID:EX1275748AROJob Number:Multiplier:0.015Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 15-Mar-12, 01:02:09

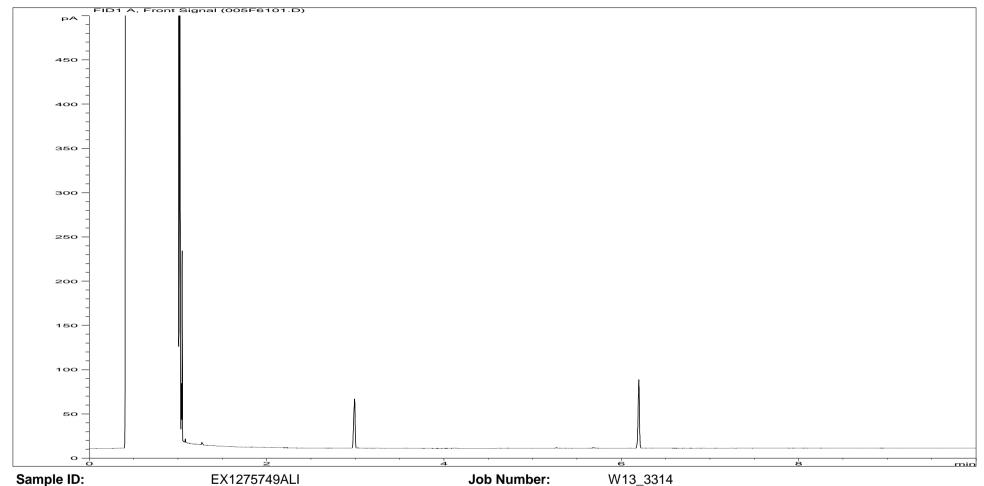
Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\099B6001.D

Waterman EED

Upper Heyford

BHNSA7

Page 64 of 72 EXR/133314 Ver. 1



Multiplier: 0.02

Dilution: 1

Acquisition Method: TPH_RUNF.M

1 Site:
TPH_RUNF.M Client Sample Ref:
15-Mar-12, 01:19:27

Acquisition Date/Time: 15-Mar-12, 01:19:27

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\005F6101.D

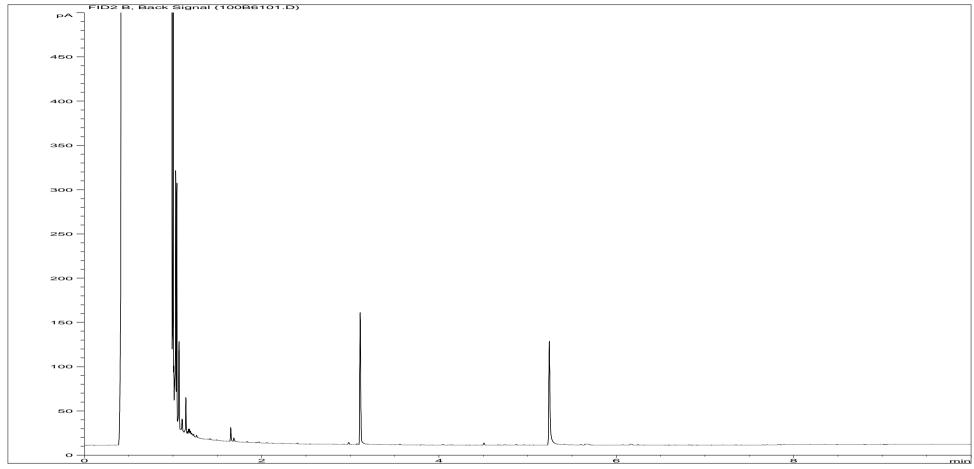
Client:

Waterman EED

Upper Heyford

BHNSA38

Page 65 of 72 EXR/133314 Ver. 1



Sample ID:EX1275749AROJob Number:W13_3314Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA38

Acquisition Date/Time: 15-Mar-12, 01:19:27

Datafile: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\100B6101.D

Page 66 of 72 EXR/133314 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED Site **Upper Heyford** W133314 **Report No**

Consignment No W34908 Date Logged 08-Mar-2012

Report Due 16-Mar-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW									ICPWATVAR					KONENS				PHEHPLCVL	svocsw	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
	Accredited	to ISO17025		✓	✓	✓	1	1	✓	✓	✓	✓	✓	✓	✓	1	✓	✓	✓	✓	✓	✓			1	✓	✓
EX/1275730	BH225	07/03/12																									
EX/1275731	BH226	07/03/12																									
EX/1275732	HPD1	06/03/12																									
EX/1275733	BHNSA20	07/03/12																									
EX/1275734	BHNSA19	07/03/12																									
EX/1275735	BHNSA17	07/03/12																									
EX/1275736	BHNSA18	07/03/12																									
		01/00/12																									
EX/1275737	BHNSA21	07/03/12																									
EX/1275738	BHNSA21 BHNSA15																										
EX/1275738 EX/1275739	BHNSA21 BHNSA15 BHNSA15X	07/03/12 06/03/12 06/03/12																									
EX/1275738 EX/1275739 EX/1275740	BHNSA21 BHNSA15 BHNSA15X BHNSA14	07/03/12 06/03/12																									
EX/1275738 EX/1275739 EX/1275740 EX/1275741	BHNSA21 BHNSA15 BHNSA15X BHNSA14 BHNSA11	07/03/12 06/03/12 06/03/12																									
EX/1275738 EX/1275739 EX/1275740 EX/1275741 EX/1275742	BHNSA21 BHNSA15 BHNSA15X BHNSA14 BHNSA11 BHNSA10	07/03/12 06/03/12 06/03/12 06/03/12 06/03/12 06/03/12																									
EX/1275738 EX/1275739 EX/1275740 EX/1275741	BHNSA21 BHNSA15 BHNSA15X BHNSA14 BHNSA11	07/03/12 06/03/12 06/03/12 06/03/12 06/03/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Site

Report No

Waterman EED **Upper Heyford** W133314

Consignment No W34908 Date Logged 08-Mar-2012

Report Due 16-Mar-2012

							repu	שט אכ
		MethodID	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited	to ISO17025	✓	✓	✓		✓	
EX/1275730	BH225	07/03/12						
EX/1275731	BH226	07/03/12						
EX/1275732	HPD1	06/03/12						
EX/1275733	BHNSA20	07/03/12						
EX/1275734	BHNSA19	07/03/12						
EX/1275735	BHNSA17	07/03/12						
EX/1275736	BHNSA18	07/03/12						
EX/1275737	BHNSA21	07/03/12						
EX/1275738	BHNSA15	06/03/12						
EX/1275739	BHNSA15X	06/03/12						
EX/1275740	BHNSA14	06/03/12						
EX/1275741	BHNSA11	06/03/12						
EX/1275742	BHNSA10	06/03/12						
EX/1275743	BHNSA9	06/03/12						
EX/1275744	BHNSA6	06/03/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
 - Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

No analysis scheduled

Analysis Subcontracted

W133314

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED Site **Upper Heyford** W133314 **Report No**

Consignment No W34908 Date Logged 08-Mar-2012

Report Due 16-Mar-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW		·							ICPWATVAR					KONENS				PHEHPLCVL	SVOCSW	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
EX/1275745	BHNSA1	06/03/12																									
EX/1275746	BHNSA16	06/03/12																									
EX/1275747	BHNSA22	06/03/12																									
EX/1275748	BHNSA7	06/03/12																									
EX/1275749	BHNSA38	06/03/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

W133314

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W133314 **Report No**

Consignment No W34908 Date Logged 08-Mar-2012

Report Due 16-Mar-2012

							πορι	טע זונ
		MethodID	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
		to ISO17025	✓	✓	✓		✓	
EX/1275745	BHNSA1	06/03/12						
EX/1275746	BHNSA16	06/03/12						
EX/1275747	BHNSA22	06/03/12						
EX/1275748	BHNSA7	06/03/12						
EX/1275749	BHNSA38	06/03/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

No analysis scheduled

Analysis Subcontracted

Report Number: W/EXR/133314

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/133316 (Ver. 1) Your Ref: E10658-109

March 20, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

ES

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

Project Co-ordinator 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/133316 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 8 samples described in this report were registered for analysis by ESG on 08-Mar-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 20-Mar-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 12)
Table of GRO Results (Page 13)
Table of TPH (Si) banding (0.01) (Page 14)
GC-FID Chromatograms (Pages 15 to 30)
Analytical and Deviating Sample Overview (Pages 31 to 32)
Table of Method Descriptions (Page 33)
Table of Report Notes (Page 34)



Date of Issue: 20-Mar-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
	UKAS ACC	realtea :	165	162	162	165	162		165	165	165	165	165	165	165	168	162	162
LAB ID Number EX/	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1275751	BHNSA12	06-Mar-12	7.7	623	238	Nil	34	34	148	3	19	0.003	0.007	<0.0001	0.003	0.002	0.004	0.002
1275752	BHNSA13	06-Mar-12	7.7	522	237	Nil	11	28	118	16	8	0.003	0.007	<0.0001	0.005	0.001	0.007	<0.001
1275753	BHNSA8	06-Mar-12	7.8	599	208	Nil	34	41	148	5	17	0.007	0.008	<0.0001	0.006	0.004	0.009	0.004
1275754	BHNSA5	06-Mar-12	7.8	870	235	Nil	102	44	165	4	46	0.004	0.007	<0.0001	0.003	0.002	0.014	0.005
1275755	BHNSA2	06-Mar-12	7.5	1080	328	Nil	116	81	206	10	55	0.005	0.007	<0.0001	<0.001	0.001	0.003	0.003
1275756	BHNSA3	06-Mar-12	7.6	737	262	Nil	49	36	164	4	23	0.003	0.007	<0.0001	0.002	0.004	0.003	0.005
1275757	BHNSA4	06-Mar-12	7.6	641	253	Nil	26	65	163	8	11	0.005	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1275758	MW1	07-Mar-12	7.9	569	284	Nil	10	16	97	28	6	<0.001	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
	ESG 😂		Client N	ame		nan EED						v	Vater S	ample <i>i</i>	Analysi	is		
	Environmental Scientifics Group		Contact		Mr F Alco	ck								ī			ı	
	Bretby Business Park, Ashby Road											Date Prin	nted		19-	Mar-2012		
	Burton-on-Trent, Staffordshire, DE15 0YZ					Hnn	er He	vford				Report N	lumber		E	XR/133316		
	Tel +44 (0) 1283 554400					opp		yıoru				Table Nu	ımber			1		
	Fax +44 (0) 1283 554422																	

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes:	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW	PHEHPLCVL	PHEHPLCVL	
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.01 Yes	2 No	6 No	0.002 No	0.0005 No	0.0005 No	0.0005 No
LAB ID Number EX/	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols
1275751	BHNSA12	06-Mar-12	0.05	<0.0001	<0.001	<0.01	1.0	<0.01	<5	0.69	Req	Req	4.1	<6	Req	<0.0005	<0.0005	<0.0005
1275752	BHNSA13	06-Mar-12	0.3	<0.0001	<0.001	0.16	<0.2	<0.01	<5	<0.5	Req	Req	3.7	<6	Req	<0.0005	<0.0005	<0.0005
1275753	BHNSA8	06-Mar-12	0.06	<0.0001	0.001	<0.01	0.4	<0.01	<5	0.54	Req	Req	4.4	<6	Req	<0.0005	<0.0005	<0.0005
1275754	BHNSA5	06-Mar-12	0.05	<0.0001	0.001	<0.01	1.9	<0.01	<5	0.98	Req	Req	3.2	<6	Req	<0.0005	<0.0005	<0.0005
1275755	BHNSA2	06-Mar-12	0.05	<0.0001	0.001	0.15	<0.2	<0.01	36	11	Req	Req	5.7	<6	Req	<0.0005	<0.0005	0.0011
1275756	BHNSA3	06-Mar-12	0.03	<0.0001	<0.001	0.07	0.3	<0.01	12	4.2	Req	Req	7.8	<6	Req	<0.0005	<0.0005	<0.0005
1275757	BHNSA4	06-Mar-12	0.02	<0.0001	<0.001	0.04	0.4	<0.01	<5	1.3	Req	Req	4.2	<6	Req	<0.0005	<0.0005	<0.0005
1275758	MW1	07-Mar-12	<0.01	<0.0001	<0.001	<0.01	0.9	<0.01	<5	<0.5	Req	Req	<2.0	<6	Req	<0.0005	<0.0005	<0.0005
ı	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400		Client N Contact	ame	Watern Mr F Alco		er He	yford				Date Prin Report N	nted umber	ample		-Mar-2012 XR/133316		
	Fax +44 (0) 1283 554422																	

		Units :	mg/l								
	Method		PHEHPLCVL								
	Method Reporting	Limits:	0.0005								
	UKAS Acc	redited :	No								
LAB ID Number EX/	Client Sample Description	Sample Date	Trimethylphenols								
1275751	BHNSA12	06-Mar-12	<0.0005								
1275752	BHNSA13	06-Mar-12	<0.0005								
1275753	BHNSA8	06-Mar-12	<0.0005								
1275754	BHNSA5	08-Mar-12	<0.0005								
1275755	BHNSA2	06-Mar-12	0.0043								
1275756	BHNSA3	06-Mar-12	<0.0005								
1275757	BHNSA4	06-Mar-12	<0.0005								
1275758	MW1	07-Mar-12	<0.0005								
	FSC. 6		Client N	lame	Waterman EED			Water S	ample Analysi	S	
	Environmental Scientifics Cross		Contact		Mr F Alcock						
	Environmental Scientifics Group Bretby Business Park, Ashby Road				•			Date Printed	19-	Mar-2012	
	Burton-on-Trent, Staffordshire, DE15 0YZ				11	11-	af a mal	Report Number	EX	(R/133316	
	Tel +44 (0) 1283 554400				Upper	He	ytora	Table Number		1	
	Fax +44 (0) 1283 554422										

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA12
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275751
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3316
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	81
Naphthalene-d8	77
Acenaphthene-d10	77
Phenanthrene-d10	81
Chrysene-d12	81
Perylene-d12	81

Surrogates	% Rec
2-Fluorophenol	53
Phenol-d5	35
Nitrobenzene-d5	109
2-Fluorobiphenyl	113
2,4,6-Tribromophenol	91
Terphenyl-d14	117

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA13
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275752
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3316
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	_
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	_
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	_
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	67
Naphthalene-d8	68
Acenaphthene-d10	65
Phenanthrene-d10	63
Chrysene-d12	49
Perylene-d12	48

Surrogates	% Rec
2-Fluorophenol	46
Phenol-d5	28
Nitrobenzene-d5	91
2-Fluorobiphenyl	102
2,4,6-Tribromophenol	79
Terphenyl-d14	124

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA8
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275753
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3316
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	73
Naphthalene-d8	72
Acenaphthene-d10	69
Phenanthrene-d10	67
Chrysene-d12	55
Perylene-d12	56

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	32
Nitrobenzene-d5	98
2-Fluorobiphenyl	105
2,4,6-Tribromophenol	78
Terphenyl-d14	121

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA5
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275754
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3316
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	_	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	_	< 0.020	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8		< 0.002	_
2-Nitroaniline	88-74-4		< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	-
Dimethylphthalate	131-11-3	-	< 0.002	
2,6-Dinitrotoluene	606-20-2		< 0.005	-
Acenaphthene	83-32-9	-	< 0.005	-
Acenaphinene 3-Nitroaniline	99-09-2		< 0.002	-

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	75
Naphthalene-d8	75
Acenaphthene-d10	71
Phenanthrene-d10	68
Chrysene-d12	50
Perylene-d12	45

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	33
Nitrobenzene-d5	95
2-Fluorobiphenyl	103
2,4,6-Tribromophenol	79
Terphenyl-d14	132

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA2
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275755
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3316
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	64
Naphthalene-d8	63
Acenaphthene-d10	65
Phenanthrene-d10	60
Chrysene-d12	56
Perylene-d12	59

Surrogates	% Rec
2-Fluorophenol	57
Phenol-d5	35
Nitrobenzene-d5	100
2-Fluorobiphenyl	104
2,4,6-Tribromophenol	110
Terphenyl-d14	116

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA3
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275756
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3316
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#		Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	_	< 0.005	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	72
Naphthalene-d8	67
Acenaphthene-d10	70
Phenanthrene-d10	66
Chrysene-d12	70
Perylene-d12	77

Surrogates	% Rec
2-Fluorophenol	52
Phenol-d5	33
Nitrobenzene-d5	101
2-Fluorobiphenyl	100
2,4,6-Tribromophenol	106
Terphenyl-d14	110

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

Job Number:

LIMS ID Number:

BHNSA4 **Date Booked in:** 08-Mar-12 EX1275757 **Date Extracted:** 16-Mar-12 W13_3316 **Date Analysed:** 16-Mar-12

CAS# % Fit **Target Compounds** R.T. Concentration (min) mg/l 108-95-2 < 0.020 Phenol bis(2-Chloroethyl)ether 111-44-4 < 0.005 2-Chlorophenol 95-57-8 < 0.020 1,3-Dichlorobenzene 541-73-1 < 0.005 1.4-Dichlorobenzene 106-46-7 < 0.005 Benzyl alcohol 100-51-6 < 0.005 1,2-Dichlorobenzene 95-50-1 < 0.005 2-Methylphenol 95-48-7 < 0.005 bis(2-Chloroisopropyl)ether 108-60-1 < 0.005 Hexachloroethane 67-72-1 < 0.005 621-64-7 N-Nitroso-di-n-propylamine < 0.005 < 0.020 3- & 4-Methylphenol 108-39-4/106-44-5 Nitrobenzene 98-95-3 < 0.005 78-59-1 < 0.005 Isophorone 88-75-5 < 0.020 2-Nitrophenol --105-67-9 < 0.020 2.4-Dimethylphenol Benzoic Acid 65-85-0 * < 0.100 -_ bis(2-Chloroethoxy)methane 111-91-1 < 0.005 120-83-2 < 0.020 2.4-Dichlorophenol -_ 1,2,4-Trichlorobenzene 120-82-1 < 0.005 Naphthalene 91-20-3 < 0.002 --4-Chlorophenol 106-48-9 < 0.020 4-Chloroaniline 106-47-8 * < 0.005 _ Hexachlorobutadiene 87-68-3 < 0.005 4-Chloro-3-methylphenol 59-50-7 < 0.005 2-Methylnaphthalene 91-57-6 < 0.002 1-Methylnaphthalene 90-12-0 < 0.002 77-47-4 * < 0.005 Hexachlorocyclopentadiene 2,4,6-Trichlorophenol 88-06-2 < 0.020 2,4,5-Trichlorophenol 95-95-4 < 0.020 2-Chloronaphthalene 91-58-7 < 0.002 Biphenyl 92-52-4 < 0.002 Diphenyl ether 101-84-8 < 0.002 2-Nitroaniline 88-74-4 < 0.005 Acenaphthylene 208-96-8 < 0.002 < 0.005 Dimethylphthalate 131-11-3 2,6-Dinitrotoluene 606-20-2 < 0.005 Acenaphthene 83-32-9 < 0.002 3-Nitroaniline 99-09-2 < 0.005

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	75
Naphthalene-d8	72
Acenaphthene-d10	72
Phenanthrene-d10	71
Chrysene-d12	62
Perylene-d12	60

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	31
Nitrobenzene-d5	101
2-Fluorobiphenyl	111
2,4,6-Tribromophenol	95
Terphenyl-d14	122

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 MW1
 Date Booked in:
 08-Mar-12

 LIMS ID Number:
 EX1275758
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3316
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	_	< 0.005	-
Naphthalene	91-20-3	_	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	_	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	-
2-Methylnaphthalene	91-57-6	_	< 0.002	-
1-Methylnaphthalene	90-12-0	_	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	_	< 0.005	-
Acenaphthene	83-32-9	_	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	71
Naphthalene-d8	71
Acenaphthene-d10	68
Phenanthrene-d10	65
Chrysene-d12	54
Perylene-d12	50

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	34
Nitrobenzene-d5	100
2-Fluorobiphenyl	108
2,4,6-Tribromophenol	85
Terphenyl-d14	126

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED : Upper Heyford

Job Number: W13_3316

Directory: D:\TES\DATA\Y2012\0314HSA GC09\031412A 2012-03-15 08-48-39\076F1401.D

Method: Headspace GCFID

Matrix: Water
Date Booked in: 08-Mar-12

Date extracted: 08-Mar-12

Date Analysed: 15-Mar-12, 13:0

* Sample data with an asterisk are not UKAS accredited.

			Cor	ncentration, (n	ng/l)				Aliphatics		
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
* EX1275751	BHNSA12	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275752	BHNSA13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275753	BHNSA8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275754	BHNSA5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275755	BHNSA2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275756	BHNSA3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275757	BHNSA4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275758	MW1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED: Upper Heyford

 Job Number:
 W13_3316
 Separation:
 Silica gel
 Date Booked ir
 08-Mar-12

 QC Batch Number:
 120193
 Eluents:
 Hexane, DCM
 Date Extracted
 13-Mar-12

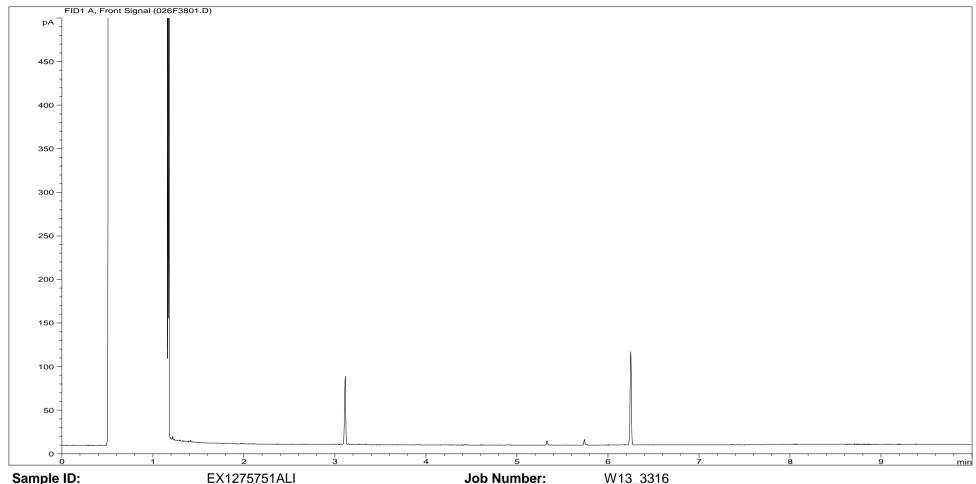
 Directory:
 D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\082B4501.D
 Date Analysed: 14-Mar-12, 03:15:59

Method: Bottle

						Concentra	tion, (mg/l)						
* This sample data is not UK	AS accredited.	>C8	- C10	>C10	- C12	>C12	- C16	>C16	- C21	>C21	- C35	>C8	- C40
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1275751	BHNSA12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011
EX1275752	BHNSA13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013
EX1275753	BHNSA8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275754	BHNSA5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275755	BHNSA2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275756	BHNSA3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.029	0.011	0.037	0.021
EX1275757	BHNSA4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011
EX1275758	MW1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
									-			-	-

Matrix:

Water



Sample ID: EX1275751ALI Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 14-Mar-12, 01:15:40

Datafile:

D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\026F3801.D

Client:

Client Sample Ref:

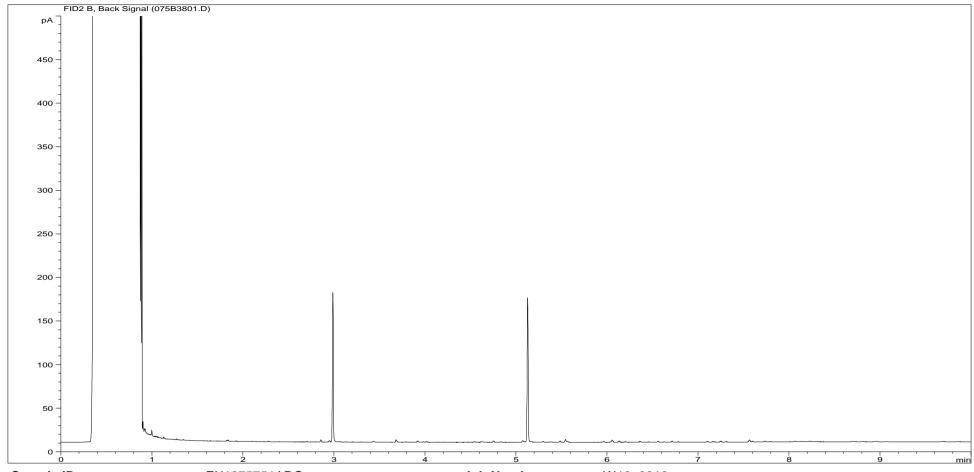
Site:

Waterman EED

Upper Heyford

BHNSA12

EXR/133316 Ver. 1 Page 15 of 34

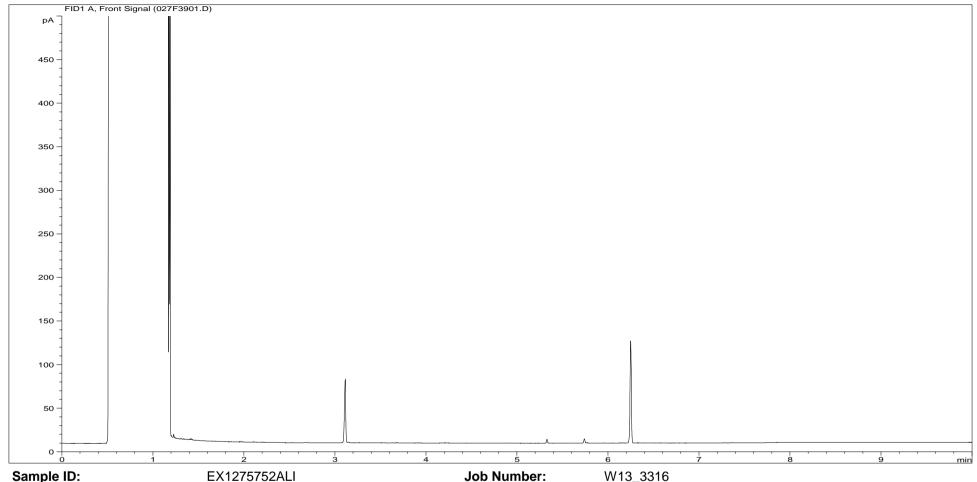


Sample ID:EX1275751AROJob Number:W13_3316Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA12

Acquisition Date/Time: 14-Mar-12, 01:15:40

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\075B3801.D

Page 16 of 34 EXR/133316 Ver. 1



Sample ID:EX1275752ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 14-Mar-12, 01:32:45

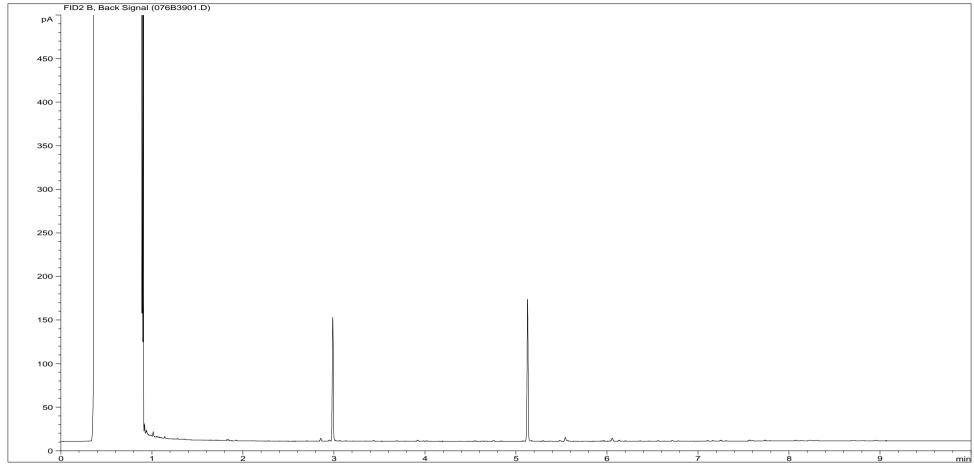
Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\027F3901.D

Waterman EED

Upper Heyford

BHNSA13

Page 17 of 34 EXR/133316 Ver. 1

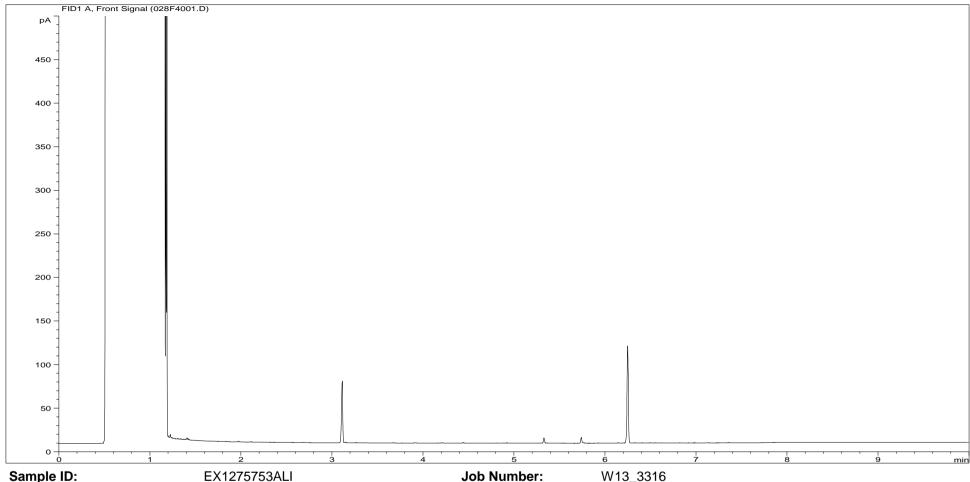


Sample ID:EX1275752AROJob Number:W13_3316Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA13

Acquisition Date/Time: 14-Mar-12, 01:32:45

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\076B3901.D

Page 18 of 34 EXR/133316 Ver. 1

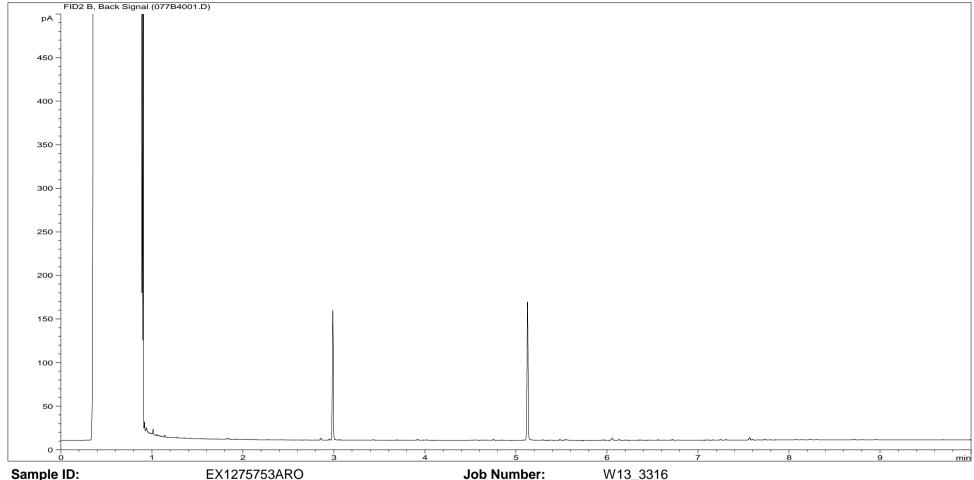


Sample ID:EX1275753ALIJob Number:W13_3316Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA8

Acquisition Date/Time: 14-Mar-12, 01:49:53

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\028F4001.D

Page 19 of 34 EXR/133316 Ver. 1



Sample ID:EX1275753AROJob Number:Multiplier:0.015Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 14-Mar-12, 01:49:53

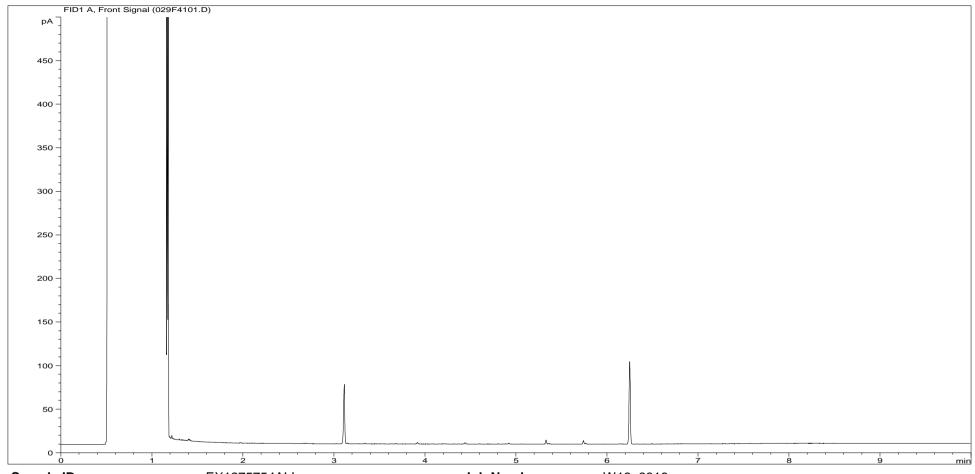
Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\077B4001.D

Waterman EED

Upper Heyford

BHNSA8

Page 20 of 34 EXR/133316 Ver. 1



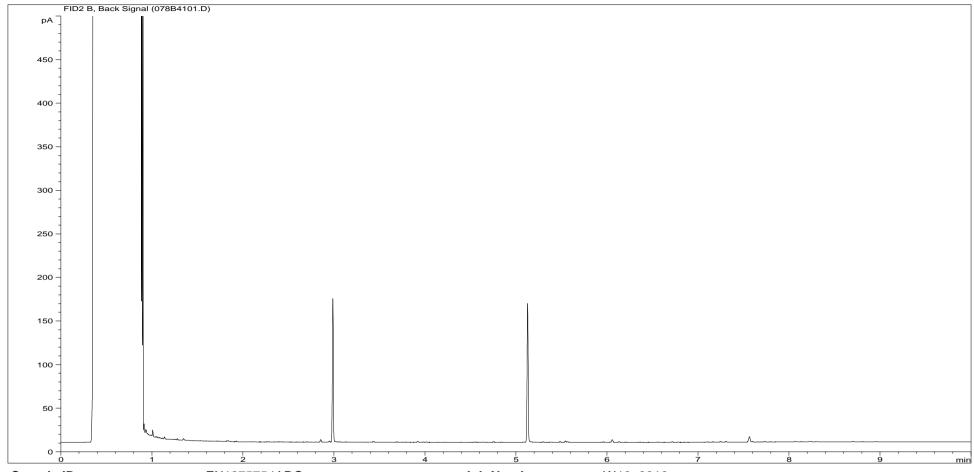
Sample ID:EX1275754ALIMultiplier:0.02Dilution:1Acquisition Method:TPH_RUNF.M

Job Number: W13_3316
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BHNSA5

Acquisition Date/Time: 14-Mar-12, 02:07:01

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\029F4101.D

Page 21 of 34 EXR/133316 Ver. 1

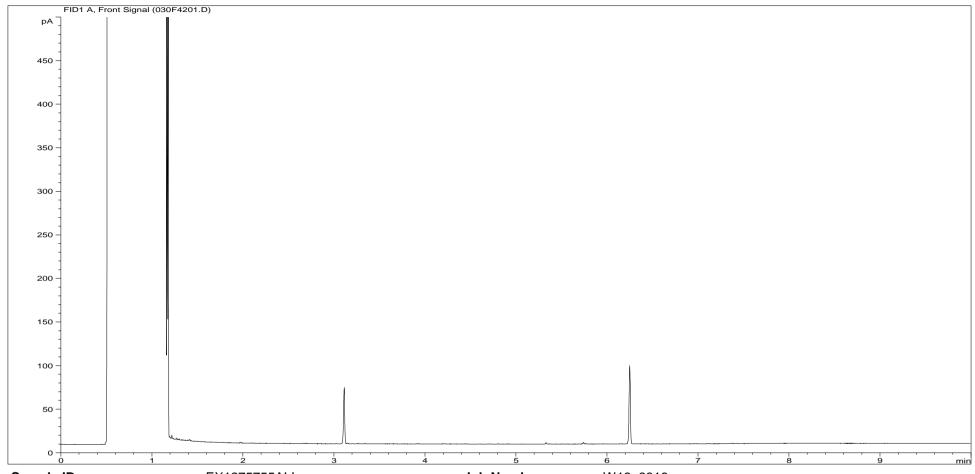


Sample ID:EX1275754AROJob Number:W13_3316Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA5

Acquisition Date/Time: 14-Mar-12, 02:07:01

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\078B4101.D

Page 22 of 34 EXR/133316 Ver. 1



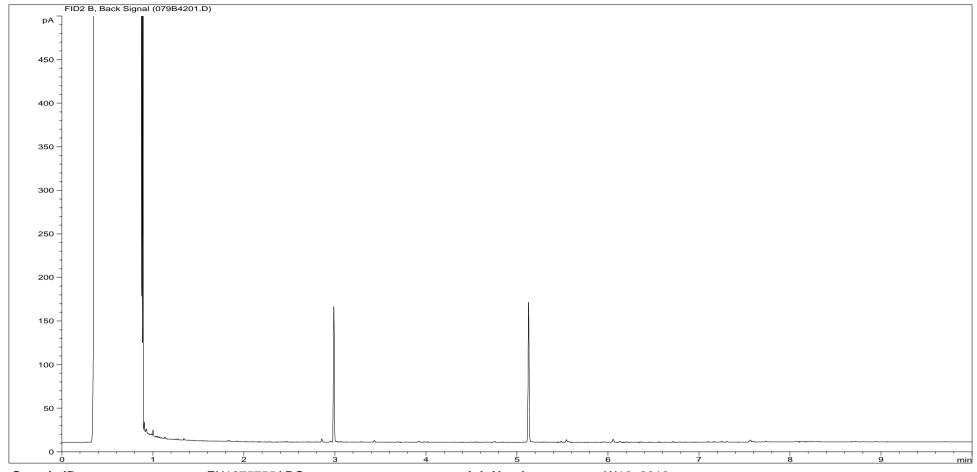
Sample ID:EX1275755ALIMultiplier:0.02Dilution:1Acquisition Method:TPH_RUNF.M

Job Number: W13_3316
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BHNSA2

Acquisition Date/Time: 14-Mar-12, 02:24:15

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\030F4201.D

Page 23 of 34 EXR/133316 Ver. 1

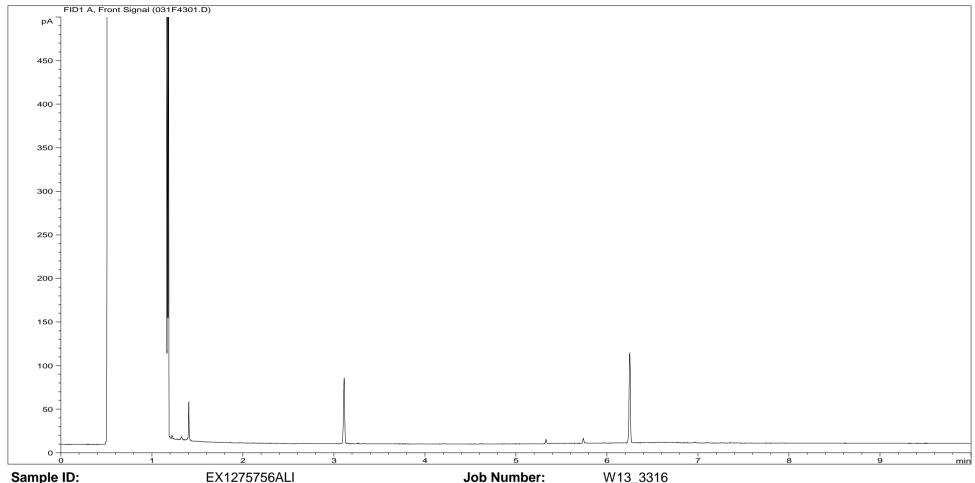


Sample ID:EX1275755AROJob Number:W13_3316Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA2

Acquisition Date/Time: 14-Mar-12, 02:24:15

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\079B4201.D

Page 24 of 34 EXR/133316 Ver. 1



Sample ID: EX1275756ALI Multiplier: 0.02 Dilution: **Acquisition Method:** TPH_RUNF.M

14-Mar-12, 02:41:28

Acquisition Date/Time: Datafile:

D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\031F4301.D

Client:

Client Sample Ref:

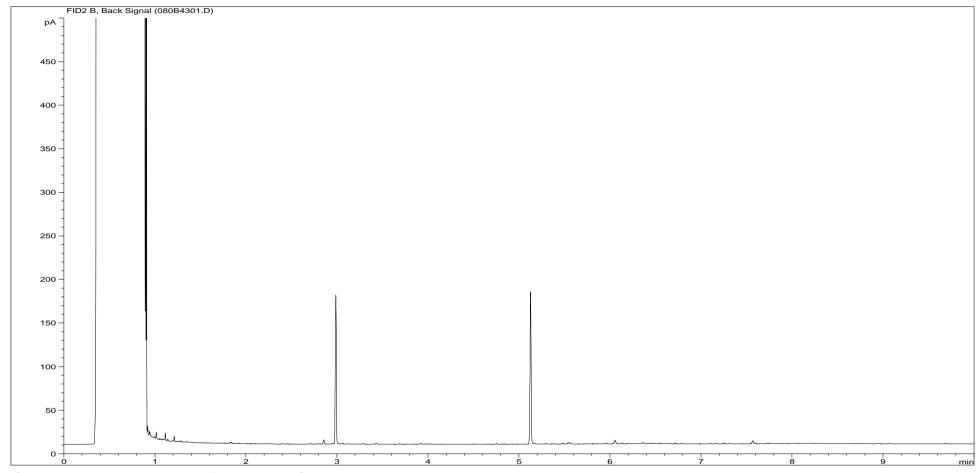
Site:

Waterman EED

Upper Heyford

BHNSA3

EXR/133316 Ver. 1 Page 25 of 34

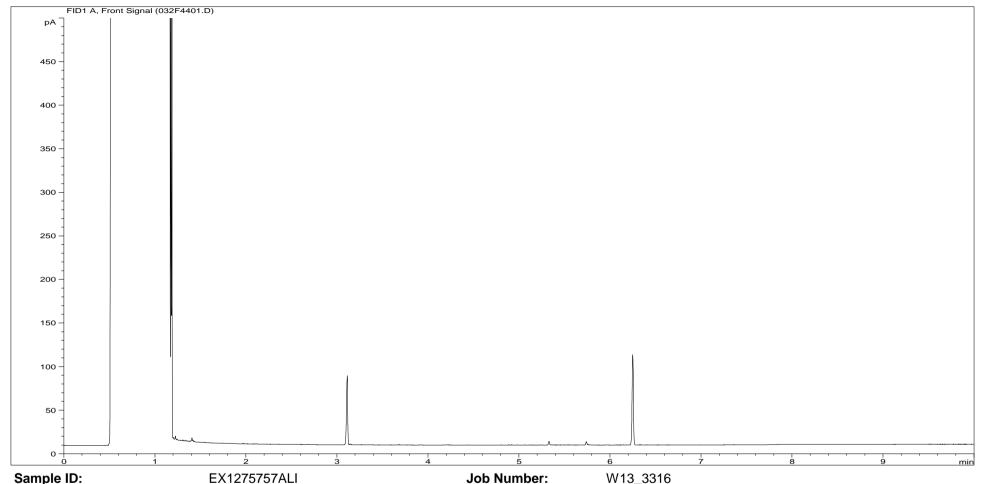


Sample ID:EX1275756AROJob Number:W13_3316Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA3

Acquisition Date/Time: 14-Mar-12, 02:41:28

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\080B4301.D

Page 26 of 34 EXR/133316 Ver. 1



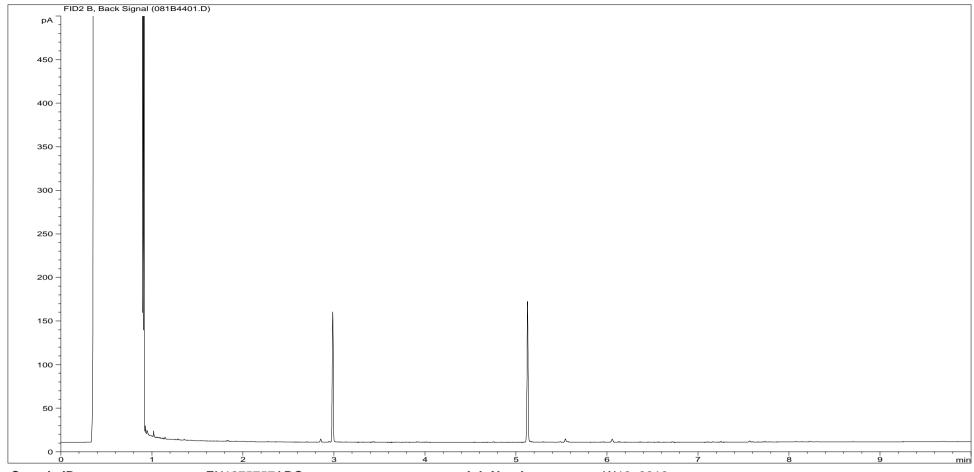
Sample ID:EX1275757ALIMultiplier:0.02Dilution:1Acquisition Method:TPH_RUNF.M

0.02Client:Waterman EED1Site:Upper HeyfordTPH_RUNF.MClient Sample Ref:BHNSA4

Acquisition Date/Time: 14-Mar-12, 02:58:48

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\032F4401.D

Page 27 of 34 EXR/133316 Ver. 1

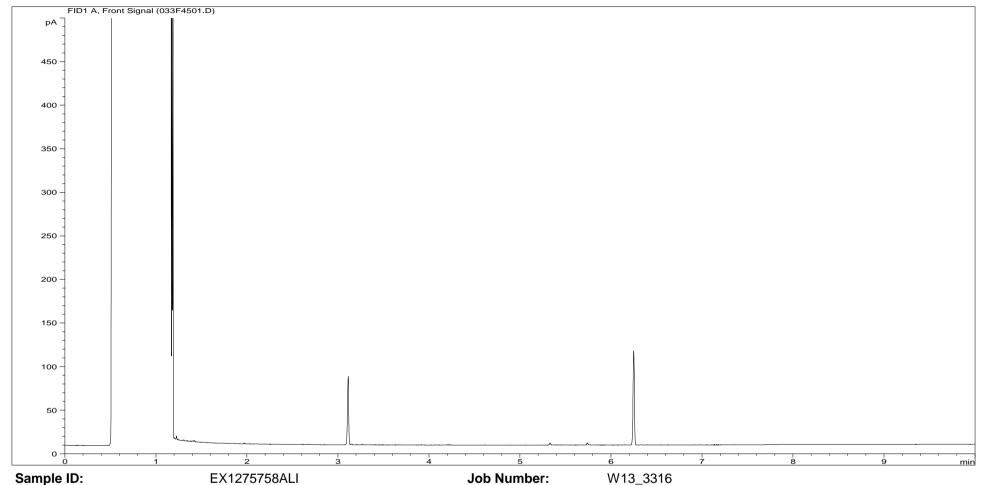


Sample ID:EX1275757AROJob Number:W13_3316Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA4

Acquisition Date/Time: 14-Mar-12, 02:58:48

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\081B4401.D

Page 28 of 34 EXR/133316 Ver. 1



Multiplier: 0.02

Dilution: 1

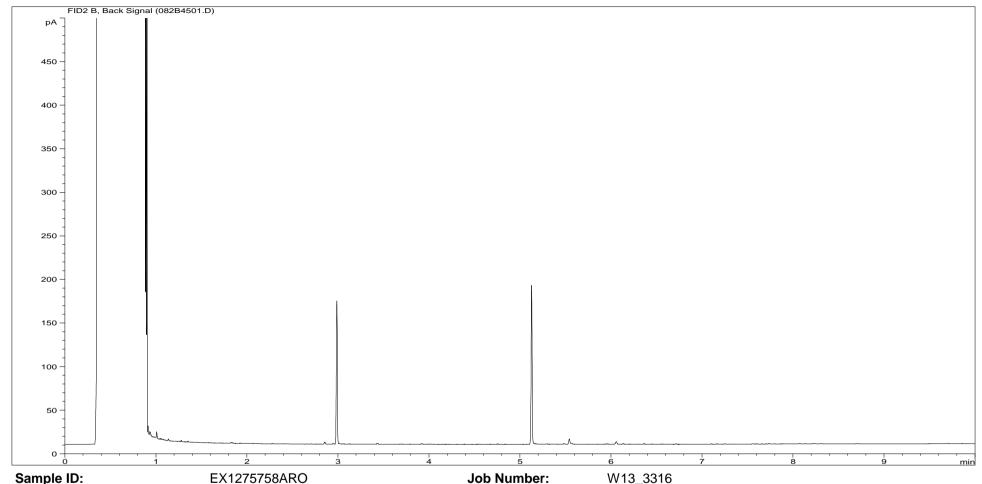
Job Number: W13_3316
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: MW1

Acquisition Method: TPH_RUNF.M Client Sample Ref:

Acquisition Date/Time: 14-Mar-12, 03:15:59

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\033F4501.D

Page 29 of 34 EXR/133316 Ver. 1



Sample ID: EX1275758ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

Client: Waterman EED Site: Upper Heyford

Client Sample Ref: MW1

Acquisition Date/Time: 14-Mar-12, 03:15:59

Datafile: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\082B4501.D

EXR/133316 Ver. 1 Page 30 of 34

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W133316 Report No

Consignment No W34910 Date Logged 08-Mar-2012

Report Due 16-Mar-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW		·			iviai z				ICPWATVAR					KONENS				PHEHPLCVL	svocsw	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as Cl (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
	Accredited	to ISO17025		✓	✓	✓	\	\	\	✓	✓	>	✓	✓	✓	✓	✓	✓	✓	✓	✓	\			>	\	✓
EX/1275751	BHNSA12	06/03/12																									
EX/1275752	BHNSA13	06/03/12																									
EX/1275753	BHNSA8	06/03/12																									
EX/1275754	BHNSA5	06/03/12																									
EX/1275755	BHNSA2	06/03/12																									
EX/1275756	BHNSA3	06/03/12																									
EX/1275757	BHNSA4	06/03/12																									
EX/1275758	MW1	07/03/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED Site **Upper Heyford** W133316

Report No

Consignment No W34910 Date Logged 08-Mar-2012

Report Due 16-Mar-2012

								nt Du
		MethodID	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited :	to ISO17025	✓	✓	✓		✓	
EX/1275751	BHNSA12	06/03/12						
EX/1275752	BHNSA13	06/03/12						
EX/1275753	BHNSA8	06/03/12						
EX/1275754	BHNSA5	06/03/12						
EX/1275755	BHNSA2	06/03/12						
EX/1275756	BHNSA3	06/03/12						
EX/1275757	BHNSA4	06/03/12						
EX/1275758	MW1	07/03/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/133316

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **P** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/133354 (Ver. 1) Your Ref: E10658-109

March 26, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

FSC

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

J Elstub <u>Project Co-ordinator</u> 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/133354 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 8 samples described in this report were registered for analysis by ESG on 09-Mar-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 26-Mar-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 12)
Table of GRO Results (Page 13)
Table of TPH (Si) banding (0.01) (Page 14)
GC-FID Chromatograms (Pages 15 to 30)
Analytical and Deviating Sample Overview (Pages 31 to 32)
Table of Method Descriptions (Page 33)
Table of Report Notes (Page 34)

On behalf of ESG:
Andrew Timms



Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 26-Mar-2012

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
	UKAS ACC	realtea :	162	162	162	165	162		162	162	165	165	165	162	165	162	165	162
LAB ID Number EX/	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as CI w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1275991	BH-NSA 45	08-Mar-12	7.6	1160	359	Nil	119	50	190	4	49	0.006	0.004	0.0007	0.012	0.009	0.141	0.001
1275992	BH-NSA 32	08-Mar-12	7.8	749	292	Nil	61	37	142	2	36	0.002	0.003	<0.0001	<0.001	<0.001	<0.002	<0.001
1275993	BH-NSA 42	08-Mar-12	7.7	785	274	Nil	82	33	154	4	37	0.004	0.003	<0.0001	<0.001	<0.001	<0.002	<0.001
1275994	BH-NSA 43	08-Mar-12	7.7	746	266	Nil	60	38	144	4	28	0.003	0.003	<0.0001	<0.001	<0.001	<0.002	0.001
1275995	BH-NSA 44	08-Mar-12	7.7	713	271	Nil	50	37	141	4	21	0.005	0.003	<0.0001	0.002	<0.001	<0.002	0.001
1275996	BH-NSA 37	08-Mar-12	7.7	1140	275	Nil	184	36	162	3	104	0.005	0.003	<0.0001	<0.001	<0.001	<0.002	<0.001
1275997	BH-NSA 28A	08-Mar-12	7.8	561	222	Nil	12	47	123	8	5	0.004	0.002	<0.0001	<0.001	<0.001	<0.002	<0.001
1275998	BH-NSA 27	08-Mar-12	7.9	555	242	Nil	12	47	119	7	5	0.004	0.002	<0.0001	<0.001	<0.001	<0.002	<0.001
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client N Contact	ame	Watern Mr F Alco		er He	yford				Date Prin Report N	nted Iumber	ample		Mar-2012 XR/133354		

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	μg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW	PHEHPLCVL	
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	10 Yes	0.01 Yes	2 No	6 No	0.002 No	0.0005 No	0.0005 No
LAB ID Number EX	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	MTBE-HSA o	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols
1275991	BH-NSA 45	08-Mar-12	0.38	<0.0001	<0.001	<0.01	0.2	<0.01	9	3.9	Req	<10	Req	7.2	<6	Req	<0.0005	<0.0005
1275992	BH-NSA 32	08-Mar-12	0.21	<0.0001	<0.001	<0.01	0.3	<0.01	<5	2.3	Req	<10	Req	7.0	<6	Req	<0.0005	<0.0005
1275993	BH-NSA 42	08-Mar-12	0.21	<0.0001	<0.001	<0.01	0.4	<0.01	6	2.4	Req	<10	Req	7.8	<6	Req	<0.0005	<0.0005
1275994	BH-NSA 43	08-Mar-12	0.16	<0.0001	<0.001	0.17	<0.2	<0.01	15	4.9	Req	<10	Req	7.4	<6	Req	<0.0005	<0.0005
1275995	BH-NSA 44	08-Mar-12	0.14	<0.0001	<0.001	0.06	<0.2	<0.01	11	3.7	Req	<10	Req	8.1	<6	Req	<0.0005	<0.0005
1275996	BH-NSA 37	08-Mar-12	0.1	<0.0001	<0.001	<0.01	0.2	<0.01	6	1.8	Req	<10	Req	7.0	<6	Req	<0.0005	<0.0005
1275997	BH-NSA 28A	08-Mar-12	0.08	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	0.64	Req	<10	Req	6.6	6	Req	<0.0005	<0.0005
1275998	BH-NSA 27	08-Mar-12	0.07	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	<0.5	Req	<10	Req	6.6	<6	Req	<0.0005	<0.0005
	Environmental Scientifics Group Bretby Business Park, Ashby Road		Client N	ame	Watern Mr F Alco	nan EED						V Date Pri	Vater Santed	ample .		is -Mar-2012		
	Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422					Uppe	er He	yford				Report N	lumber			XR/133354		

	Method Reporting	Units : Codes :	mg/l PHEHPLCVL	mg/l		+ + + + + + + + + + + + + + + + + + + +			1	
	Method Reporting	Method Codes :		I LIELLI LOVE						
	Method Reporting Limits :		0.0005	0.0005						
	UKAS Acc	redited :	No	No						
LAB ID Number EX/	Client Sample Description	Sample Date	Dimethylphenols	Trimethylphenols						
1275991	BH-NSA 45	08-Mar-12	<0.0005	<0.0005						
1275992	BH-NSA 32	08-Mar-12	<0.0005	<0.0005						
1275993	BH-NSA 42	08-Mar-12	<0.0005	<0.0005						
1275994	BH-NSA 43	08-Mar-12	<0.0005	<0.0005						
1275995	BH-NSA 44	08-Mar-12	<0.0005	<0.0005						
1275996	BH-NSA 37	08-Mar-12	<0.0005	<0.0005						
1275997	BH-NSA 28A	08-Mar-12	<0.0005	<0.0005						
1275998	BH-NSA 27	08-Mar-12	<0.0005	<0.0005						
FSG &		Client Name		Waterman EED		Water Sample Analysis				
	Environmental Scientifics Group		Contact		Mr F Alcock					
	Environmental Scientifics Group Bretby Business Park, Ashby Road						Date Printed	26-Ma	ar-2012	
В	Burton-on-Trent, Staffordshire, DE15 0YZ					Report Number	EXR	/133354		
-	Tel +44 (0) 1283 554400				Upper He	ytora	Table Number		1	
	Fax +44 (0) 1283 554422						2			

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 45
 Date Booked in:
 09-Mar-12

 LIMS ID Number:
 EX1275991
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3354
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	81
Naphthalene-d8	77
Acenaphthene-d10	77
Phenanthrene-d10	73
Chrysene-d12	69
Perylene-d12	67

Surrogates	% Rec
2-Fluorophenol	52
Phenol-d5	33
Nitrobenzene-d5	108
2-Fluorobiphenyl	107
2,4,6-Tribromophenol	99
Terphenyl-d14	123

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 32
 Date Booked in:
 09-Mar-12

 LIMS ID Number:
 EX1275992
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3354
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	77
Naphthalene-d8	73
Acenaphthene-d10	73
Phenanthrene-d10	74
Chrysene-d12	64
Perylene-d12	63

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	34
Nitrobenzene-d5	105
2-Fluorobiphenyl	109
2,4,6-Tribromophenol	79
Terphenyl-d14	120

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 42
 Date Booked in:
 09-Mar-12

 LIMS ID Number:
 EX1275993
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3354
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.005	_
2,6-Dinitrotoluene	606-20-2		< 0.005	_
Acenaphthene	83-32-9		< 0.003	_
3-Nitroaniline	99-09-2		< 0.002	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	84
Naphthalene-d8	80
Acenaphthene-d10	81
Phenanthrene-d10	82
Chrysene-d12	90
Perylene-d12	94

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	34
Nitrobenzene-d5	106
2-Fluorobiphenyl	110
2,4,6-Tribromophenol	95
Terphenyl-d14	110

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 43
 Date Booked in:
 09-Mar-12

 LIMS ID Number:
 EX1275994
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3354
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.005	_
2,6-Dinitrotoluene	606-20-2		< 0.005	_
Acenaphthene	83-32-9		< 0.003	_
3-Nitroaniline	99-09-2		< 0.002	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	69
Naphthalene-d8	67
Acenaphthene-d10	67
Phenanthrene-d10	64
Chrysene-d12	64
Perylene-d12	69

Surrogates	% Rec
2-Fluorophenol	54
Phenol-d5	35
Nitrobenzene-d5	100
2-Fluorobiphenyl	103
2,4,6-Tribromophenol	101
Terphenyl-d14	113

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 44
 Date Booked in:
 09-Mar-12

 LIMS ID Number:
 EX1275995
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3354
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	75
Naphthalene-d8	73
Acenaphthene-d10	73
Phenanthrene-d10	74
Chrysene-d12	73
Perylene-d12	79

Surrogates	% Rec
2-Fluorophenol	56
Phenol-d5	38
Nitrobenzene-d5	108
2-Fluorobiphenyl	105
2,4,6-Tribromophenol	91
Terphenyl-d14	113

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 37
 Date Booked in:
 09-Mar-12

 LIMS ID Number:
 EX1275996
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3354
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	_	< 0.005	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	80
Naphthalene-d8	77
Acenaphthene-d10	78
Phenanthrene-d10	78
Chrysene-d12	76
Perylene-d12	77

Surrogates	% Rec
2-Fluorophenol	54
Phenol-d5	36
Nitrobenzene-d5	105
2-Fluorobiphenyl	106
2,4,6-Tribromophenol	83
Terphenyl-d14	110

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 28A
 Date Booked in:
 09-Mar-12

 LIMS ID Number:
 EX1275997
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3354
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	75
Naphthalene-d8	75
Acenaphthene-d10	73
Phenanthrene-d10	70
Chrysene-d12	55
Perylene-d12	50

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	29
Nitrobenzene-d5	94
2-Fluorobiphenyl	101
2,4,6-Tribromophenol	79
Terphenyl-d14	121

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 27
 Date Booked in:
 09-Mar-12

 LIMS ID Number:
 EX1275998
 Date Extracted:
 16-Mar-12

 Job Number:
 W13_3354
 Date Analysed:
 16-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	33
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0316_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	80
Naphthalene-d8	76
Acenaphthene-d10	78
Phenanthrene-d10	73
Chrysene-d12	61
Perylene-d12	58

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	34
Nitrobenzene-d5	105
2-Fluorobiphenyl	107
2,4,6-Tribromophenol	84
Terphenyl-d14	125

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_3354

Directory:

D:\TES\DATA\Y2012\0316HSA_GC09\031612A 2012-03-16 09-21-33\041F3501.D

Method: Headspace GCFID

Matrix:

Water

Date Booked in:

09-Mar-12

Date extracted:

16-Mar-12

Date Analysed: 16-Mar-12, 20:14:01

* Sample data with an asterisk are not UKAS accredited.

			C	oncentration, (r	ng/l)				Aliphatics		
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
* EX1275991	BH-NSA 45	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275992	BH-NSA 32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275993	BH-NSA 42	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275994	BH-NSA 43	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275995	BH-NSA 44	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275996	BH-NSA 37	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275997	BH-NSA 28A	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1275998	BH-NSA 27	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
	N B	1	00 107	L	07 100 1111	L		00 100	l	L	

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford

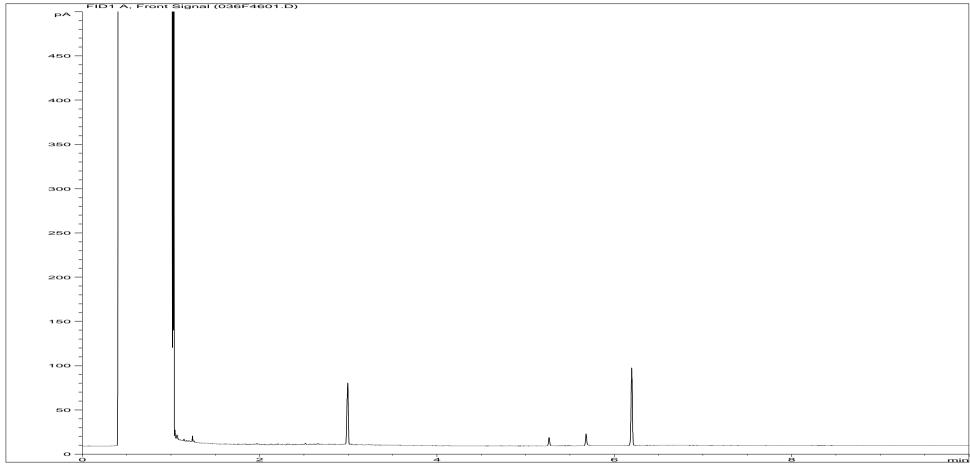
Separation: Silica gel Job Number: W13_3354 QC Batch Number: 120201 Eluents: Hexane, DCM D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\093B5301.D Directory:

Method: Bottle

Water Date Booked ir 09-Mar-12 Date Extracted 15-Mar-12 Date Analysed: 16-Mar-12, 23:38:24

Matrix:

metriou.	Dottic					Concentra	tion, (mg/l)						
* This sample data is not UK	AS accredited.	>C8	- C10	>C10	- C12	>C12	- C16	>C16	- C21	>C21	- C35	>C8	- C40
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1275991	BH-NSA 45	<0.01	<0.01	0.011	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	0.036	0.013
EX1275992	BH-NSA 32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01
EX1275993	BH-NSA 42	<0.01	<0.01	0.012	<0.01	0.026	<0.01	<0.01	<0.01	<0.01	<0.01	0.046	<0.01
EX1275994	BH-NSA 43	0.023	<0.01	0.099	0.015	0.169	0.048	<0.01	<0.01	<0.01	<0.01	0.301	0.074
EX1275995	BH-NSA 44	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275996	BH-NSA 37	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1275997	BH-NSA 28A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
EX1275998	BH-NSA 27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

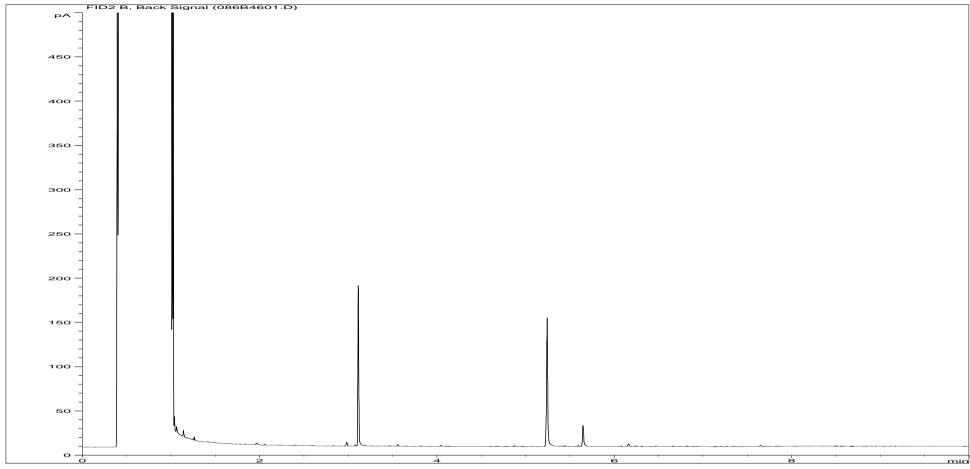


Sample ID:EX1275991ALIJob Number:W13_3354Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 45

Acquisition Date/Time: 16-Mar-12, 21:38:52

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\036F4601.D

Page 15 of 34 EXR/133354 Ver. 1

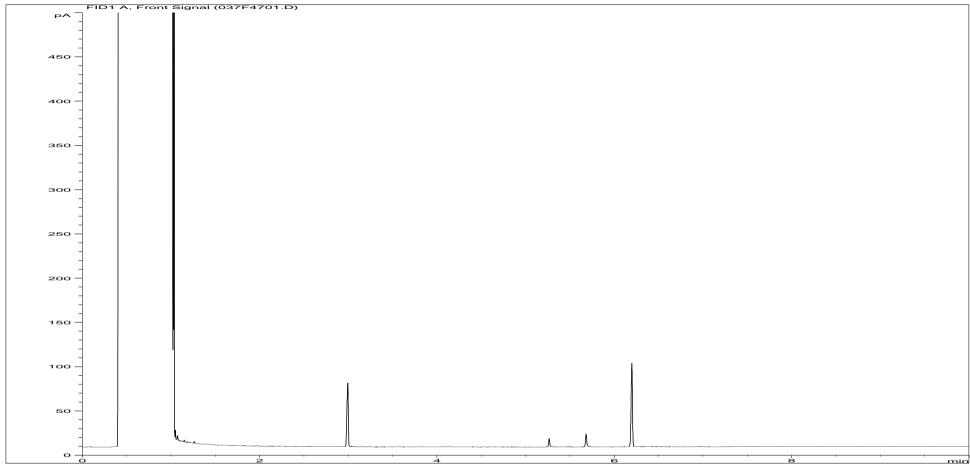


Sample ID:EX1275991AROJob Number:W13_3354Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 45

Acquisition Date/Time: 16-Mar-12, 21:38:52

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\086B4601.D

Page 16 of 34 EXR/133354 Ver. 1

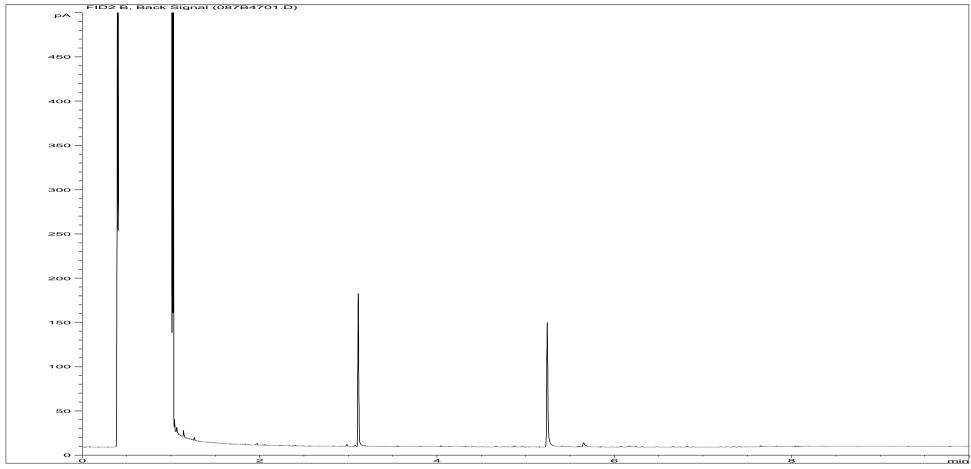


Sample ID:EX1275992ALIJob Number:W13_3354Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 32

Acquisition Date/Time: 16-Mar-12, 21:56:02

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\037F4701.D

Page 17 of 34 EXR/133354 Ver. 1

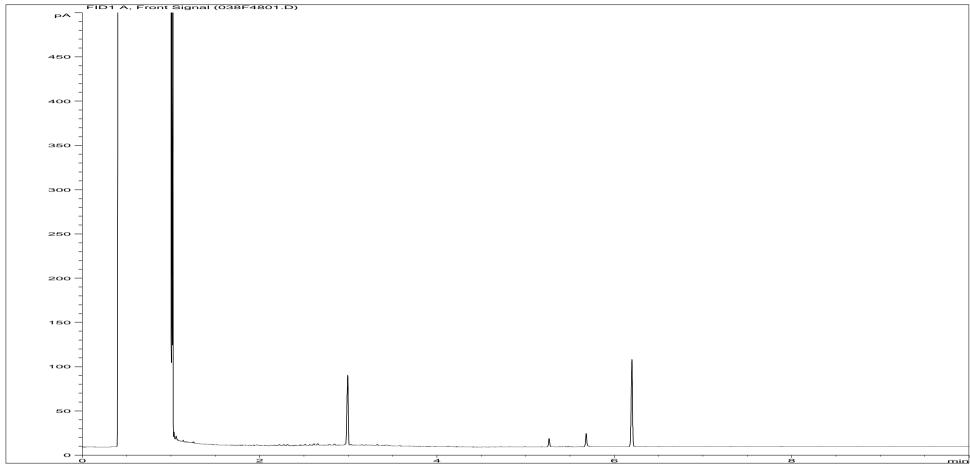


Sample ID:EX1275992AROJob Number:W13_3354Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 32

Acquisition Date/Time: 16-Mar-12, 21:56:02

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\087B4701.D

Page 18 of 34 EXR/133354 Ver. 1

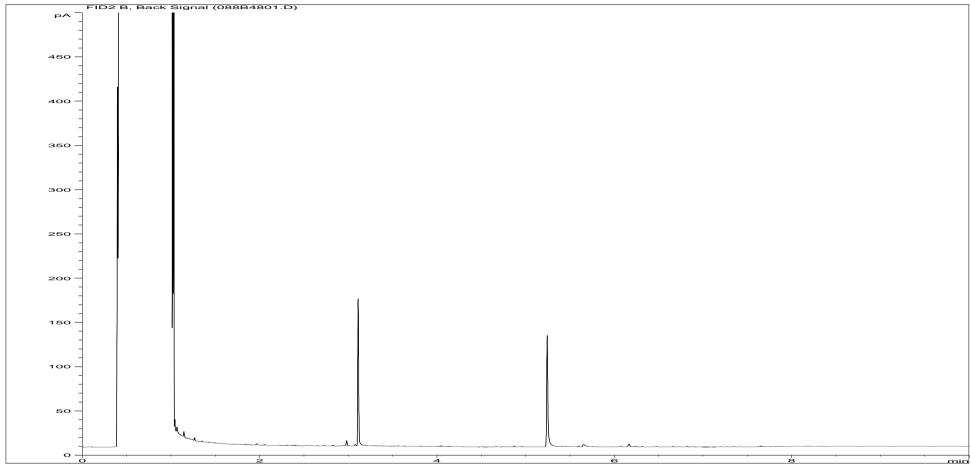


Sample ID:EX1275993ALIJob Number:W13_3354Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 42

Acquisition Date/Time: 16-Mar-12, 22:13:03

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\038F4801.D

Page 19 of 34 EXR/133354 Ver. 1

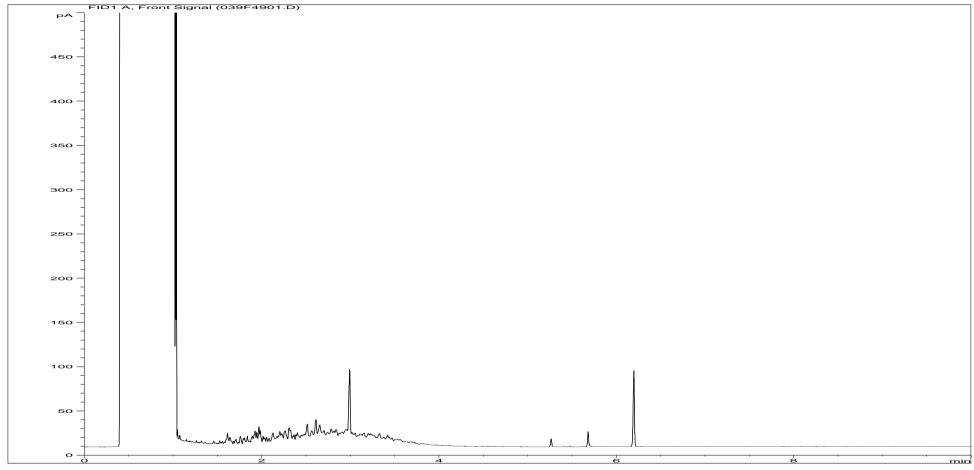


Sample ID:EX1275993AROJob Number:W13_3354Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 42

Acquisition Date/Time: 16-Mar-12, 22:13:03

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\088B4801.D

Page 20 of 34 EXR/133354 Ver. 1

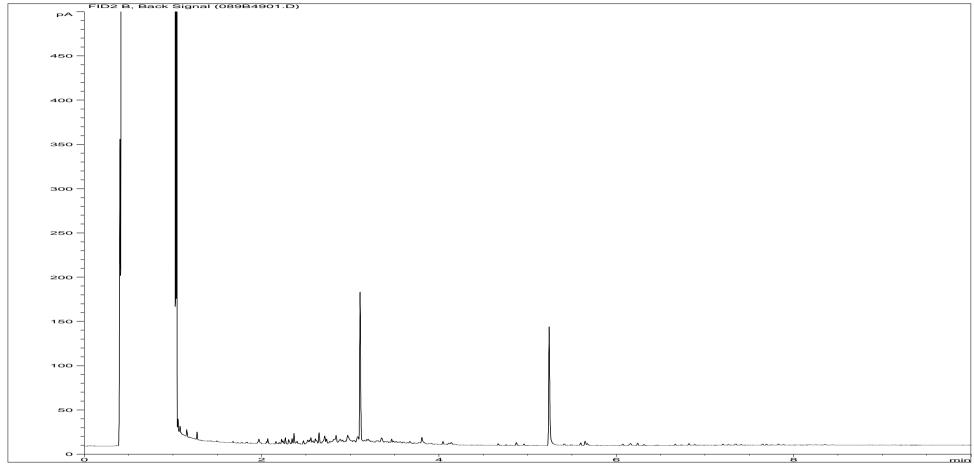


Sample ID:EX1275994ALIJob Number:W13_3354Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 43

Acquisition Date/Time: 16-Mar-12, 22:30:09

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\039F4901.D

Page 21 of 34 EXR/133354 Ver. 1

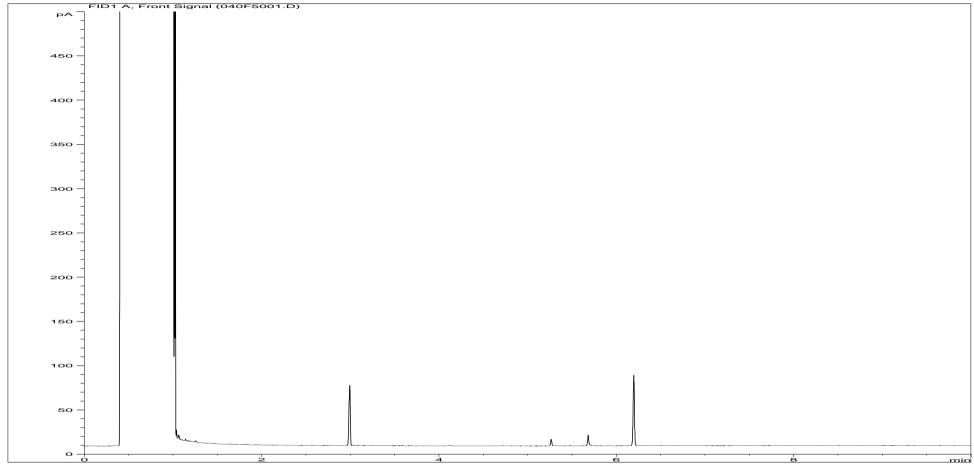


Sample ID:EX1275994AROJob Number:W13_3354Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 43

Acquisition Date/Time: 16-Mar-12, 22:30:09

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\089B4901.D

Page 22 of 34 EXR/133354 Ver. 1

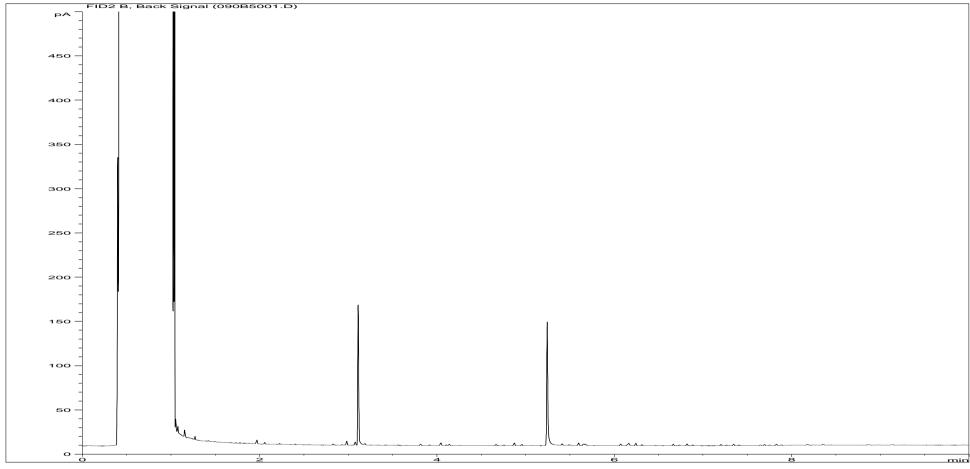


Sample ID:EX1275995ALIJob Number:W13_3354Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 44

Acquisition Date/Time: 16-Mar-12, 22:47:17

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\040F5001.D

Page 23 of 34 EXR/133354 Ver. 1

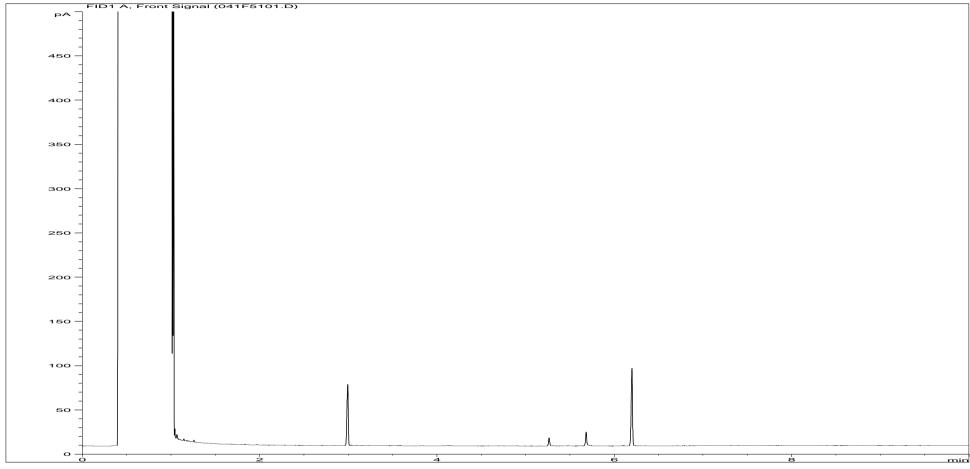


Sample ID:EX1275995AROJob Number:W13_3354Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 44

Acquisition Date/Time: 16-Mar-12, 22:47:17

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\090B5001.D

Page 24 of 34 EXR/133354 Ver. 1

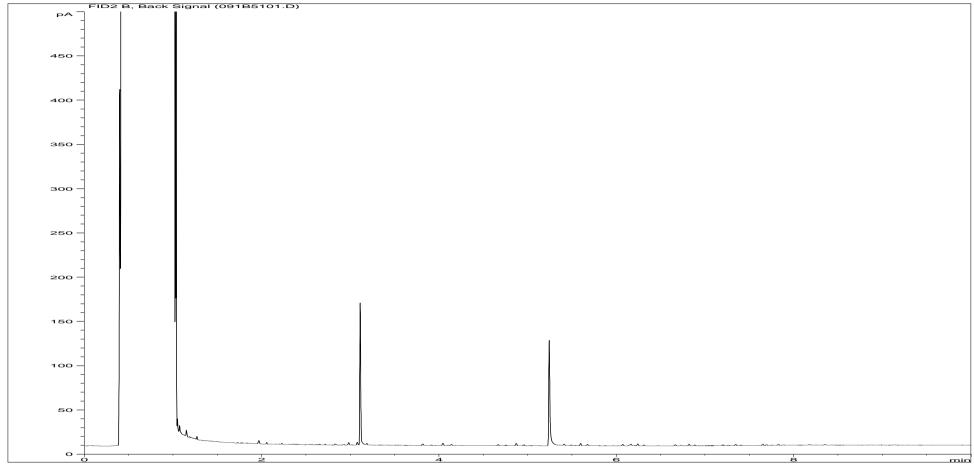


Sample ID:EX1275996ALIJob Number:W13_3354Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 37

Acquisition Date/Time: 16-Mar-12, 23:04:26

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\041F5101.D

Page 25 of 34 EXR/133354 Ver. 1

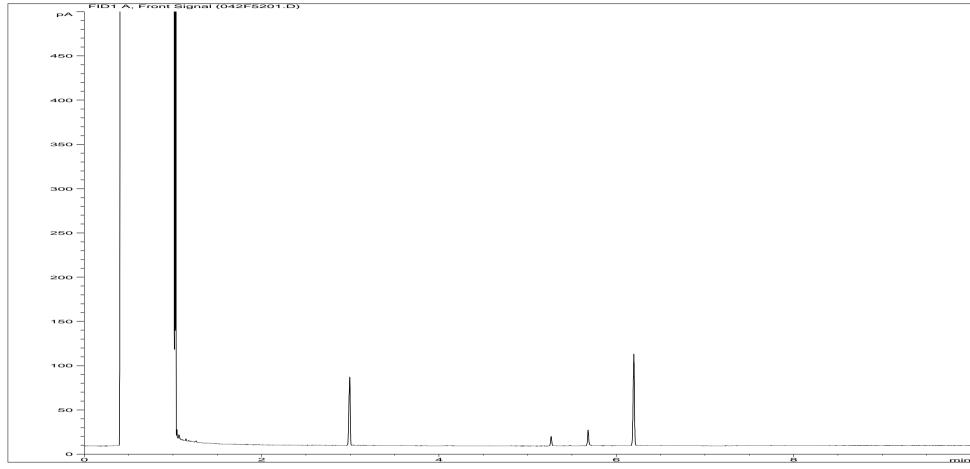


Sample ID:EX1275996AROJob Number:W13_3354Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 37

Acquisition Date/Time: 16-Mar-12, 23:04:26

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\091B5101.D

Page 26 of 34 EXR/133354 Ver. 1

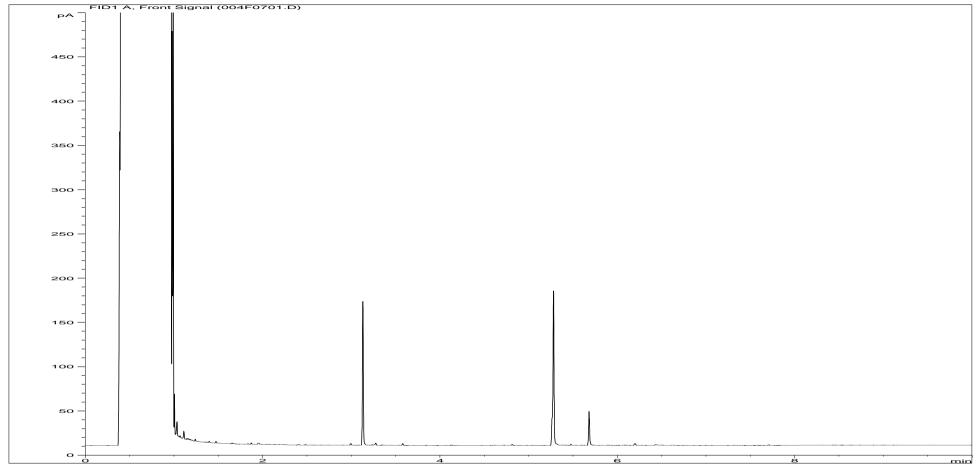


Sample ID:EX1275997ALIJob Number:W13_3354Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 28A

Acquisition Date/Time: 16-Mar-12, 23:21:25

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\042F5201.D

Page 27 of 34 EXR/133354 Ver. 1

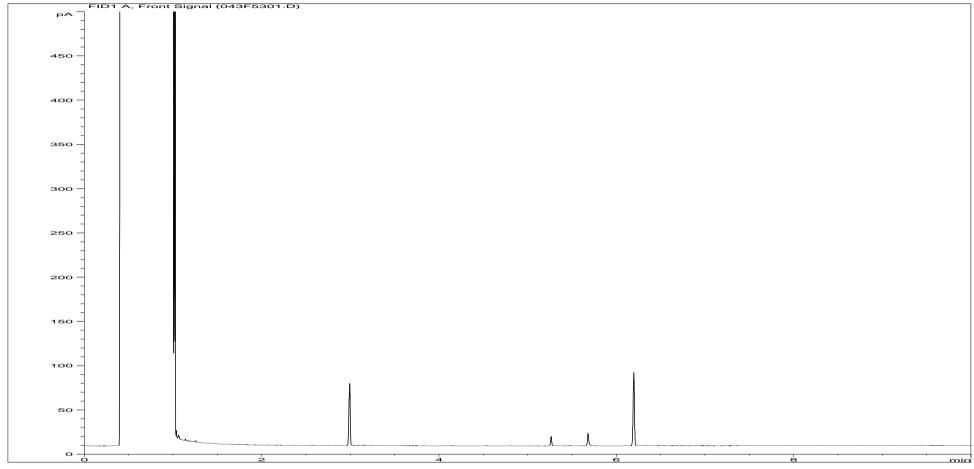


Sample ID:EX1275997AROJob Number:W13_3354Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 28A

Acquisition Date/Time: 19-Mar-12, 11:24:10

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\004F0701.D

Page 28 of 34 EXR/133354 Ver. 1

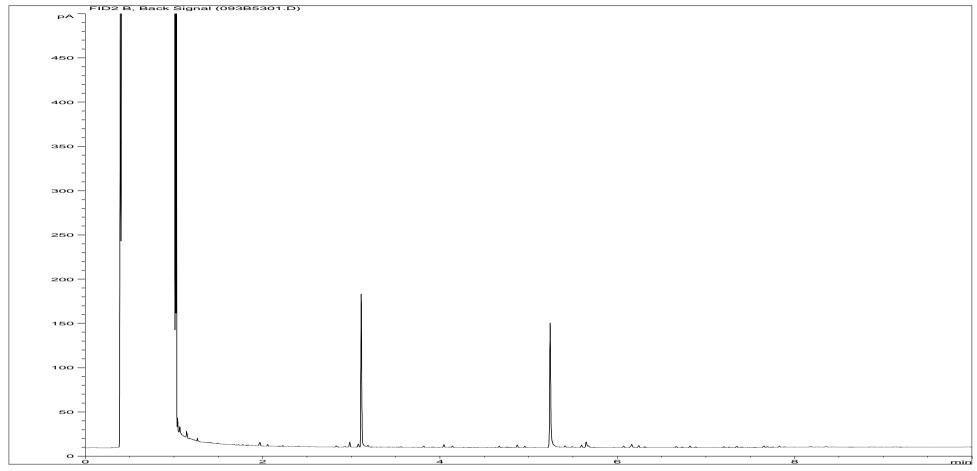


Sample ID:EX1275998ALIJob Number:W13_3354Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 27

Acquisition Date/Time: 16-Mar-12, 23:38:24

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\043F5301.D

Page 29 of 34 EXR/133354 Ver. 1



Sample ID:EX1275998AROJob Number:W13_3354Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 27

Acquisition Date/Time: 16-Mar-12, 23:38:24

Datafile: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\093B5301.D

Page 30 of 34 EXR/133354 Ver. 1

W133354

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED Site **Upper Heyford** W133354 Report No

Consignment No W34946 Date Logged 09-Mar-2012

Report Due 19-Mar-2012

		MethodID	CUSTSERV	GROHSA		ICPMSW	·								ICPWATVAR					KONENS				PHEHPLCVL	svocsw	TPHFID-Si	WSLM11
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	MTBE-HSA	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as Cl (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	\	✓	✓	✓	✓	✓	✓	✓	✓	\	✓	✓			✓	✓
EX/1275991	BH-NSA 45	08/03/12																									
EX/1275992	BH-NSA 32	08/03/12																									
EX/1275993	BH-NSA 42	08/03/12																									
EX/1275994	BH-NSA 43	08/03/12																									
EX/1275995	BH-NSA 44	08/03/12																									
EX/1275996	BH-NSA 37	08/03/12																									
EX/1275997	BH-NSA 28A	08/03/12																									
EX/1275998	BH-NSA 27	08/03/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W133354 **Report No**

Consignment No W34946 Date Logged 09-Mar-2012

Report Due 19-Mar-2012

							rtope		e 19-1
		MethodID	WSLM12	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Total Alkalinity as CaCO3	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited	to ISO17025	✓	✓	✓	✓		✓	
EX/1275991	BH-NSA 45	08/03/12							
EX/1275992	BH-NSA 32	08/03/12							
EX/1275993	BH-NSA 42	08/03/12							
EX/1275994	BH-NSA 43	08/03/12							
EX/1275995	BH-NSA 44	08/03/12							
EX/1275996	BH-NSA 37	08/03/12							
EX/1275997	BH-NSA 28A	08/03/12							
EX/1275998	BH-NSA 27	08/03/12							

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/133354

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/133436 (Ver. 1) Your Ref: E10658-109

March 23, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

ESC

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

J Elstub <u>Project Co-ordinator</u> 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/133436 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 9 samples described in this report were registered for analysis by ESG on 12-Mar-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Mar-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 13)
Table of GRO Results (Page 14)
Table of TPH (Si) banding (0.01) (Page 15)
GC-FID Chromatograms (Pages 16 to 33)
Analytical and Deviating Sample Overview (Pages 34 to 35)
Table of Method Descriptions (Page 36)
Table of Report Notes (Page 37)





Date of Issue: 23-Mar-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
	UKAS ACC	realtea :	165	162	162	162	162		165	165	165	165	165	165	165	165	165	162
LAB ID Number EX/	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1276614	BH-NFA-23	08-Mar-12	7.7	646	292	Nil	23	392	87	92	15	0.004	0.003	<0.0001	<0.001	0.001	<0.002	<0.001
1276615	BH-NFA-24	08-Mar-12	7.6	752	234	Nil	64	47	131	3	44	0.013	0.003	<0.0001	<0.001	<0.001	<0.002	<0.001
1276616	BH-NFA-25	08-Mar-12	7.6	972	250	Nil	122	41	155	3	65	0.011	0.003	<0.0001	<0.001	<0.001	<0.002	<0.001
1276617	BH-NFA-26	08-Mar-12	7.5	729	276	Nil	47	33	148	5	30	0.048	0.005	<0.0001	0.003	0.007	0.005	0.003
1276618	BH-NFA-24X	08-Mar-12	7.6	742	234	Nil	61	40	127	3	42	0.015	0.004	<0.0001	0.002	0.002	0.003	<0.001
1276619	BH-NFA-29	08-Mar-12	7.7	578	211	Nil	21	37	128	3	11	0.004	0.003	<0.0001	<0.001	0.002	0.004	<0.001
1276620	BH-NFA-30	08-Mar-12	7.8	553	254	Nil	15	39	126	3	9	0.003	0.004	<0.0001	0.001	0.002	0.002	<0.001
1276621	BH-NFA-31	08-Mar-12	7.7	599	239	Nil	20	48	125	9	12	0.002	0.003	<0.0001	<0.001	<0.001	<0.002	<0.001
1276622	BH-NFA-39	08-Mar-12	7.6	586	248	Nil	12	13	135	3	7	0.002	0.003	<0.0001	<0.001	<0.001	<0.002	<0.001
	FSG 🚱	1	Client N	ame	Watern	nan EED						V	Vater S	ample .	Analysi	is		
	Environmental Scientifics Group		Contact		Mr F Alco	ck												
	Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400					Uppe	er He	yford				Date Printed 23-Mar-2012 Report Number EXR/133436 Table Number 1						
	Fax +44 (0) 1283 554422																	

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	μg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	GROHSA	TPHFID-Si	WSLM20	WSLM7		PHEHPLCVL	
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	10 Yes	0.01 Yes	2 No	6 No	0.002 No	0.0005 No	0.0005 No
LAB ID Number EX/	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	MTBE-HSA o	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols
1276614	BH-NFA-23	08-Mar-12	<0.1	<0.0001	0.001	<0.01	0.4	0.02	<5	2.2	Req	<10	Req	<2.0	<6	Req	<0.0005	<0.0005
1276615	BH-NFA-24	08-Mar-12	0.18	<0.0001	<0.001	<0.01	2.0	0.01	<5	2.5	Req	<10	Req	<2.0	<6	Req	<0.0005	<0.0005
1276616	BH-NFA-25	08-Mar-12	0.11	<0.0001	0.001	<0.01	1.0	0.01	14	6.1	Req	<10	Req	3.0	<6	Req	<0.0005	0.0008
1276617	BH-NFA-26	08-Mar-12	0.1	<0.0001	<0.001	<0.01	0.4	0.01	<5	3.0	Req	<10	Req	<2.0	<6	Req	<0.0005	<0.0005
1276618	BH-NFA-24X	08-Mar-12	0.13	<0.0001	<0.001	<0.01	2.4	0.01	<5	2.1	Req	<10	Req	<2.0	<6	Req	<0.0005	<0.0005
1276619	BH-NFA-29	08-Mar-12	0.05	<0.0001	<0.001	<0.01	0.7	<0.01	<5	1.8	Req	<10	Req	<2.0	<6	Req	<0.0005	<0.0005
1276620	BH-NFA-30	08-Mar-12	0.04	<0.0001	<0.001	<0.01	0.8	<0.01	<5	1.6	Req	<10	Req	<2.0	<6	Req	<0.0005	<0.0005
1276621	BH-NFA-31	08-Mar-12	0.04	<0.0001	<0.001	<0.01	0.3	0.01	<5	1.7	Req	<10	Req	<2.0	20	Req	<0.0005	<0.0005
1276622	BH-NFA-39	08-Mar-12	0.03	<0.0001	<0.001	<0.01	0.6	<0.01	<5	2.4	Req	<10	Req	2.1	<6	Req	<0.0005	<0.0005
	ESG Environmental Scientifics Group		Client Na	ame	Watern Mr F Alco	nan EED						V	Vater S	ample /	Analys	is		
	Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Upper Heyford Date Printed 23-Mar-201 Report Number EXR/13343 Table Number															

		Units :	mg/l	mg/l									
	Method		PHEHPLCVL	PHEHPLCVL									
	Method Reporting UKAS Acc		0.0005 No	0.0005 No									
LAB ID Number EX/	Client Sample Description	Sample Date	Dimethylphenols	Trimethylphenols									
1276614	BH-NFA-23	08-Mar-12	<0.0005	<0.0005									
1276615	BH-NFA-24	08-Mar-12	<0.0005	<0.0005									
1276616	BH-NFA-25	08-Mar-12	<0.0005	<0.0005									
1276617	BH-NFA-26	08-Mar-12	<0.0005	<0.0005									
1276618	BH-NFA-24X	08-Mar-12	<0.0005	<0.0005									
1276619	BH-NFA-29	08-Mar-12	<0.0005	<0.0005									
1276620	BH-NFA-30	08-Mar-12	<0.0005	<0.0005									
1276621	BH-NFA-31	08-Mar-12	<0.0005	<0.0005									
1276622	BH-NFA-39	08-Mar-12	<0.0005	<0.0005									
	ESG & Environmental Scientifics Group			Client Name Waterman EED Contact Mr F Alcock				Water Sample Analysis					
	Bretby Business Park, Ashby Road							 Date Pri	nted		23-	Mar-2012	
	Burton-on-Trent, Staffordshire, DE15 0YZ			Hamar Haufaud				Report Number EXR/133436		KR/133436			
	Tel +44 (0) 1283 554400			Upper Heyford				Table Nu				1	
	Fax +44 (0) 1283 554422		Tubic Number										
			<u> </u>					I					

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NFA-23
 Date Booked in:
 12-Mar-12

 LIMS ID Number:
 EX1276614
 Date Extracted:
 20-Mar-12

 Job Number:
 W13_3436
 Date Analysed:
 21-Mar-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	36
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	21SVOC.GC11\	0321_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	85
Naphthalene-d8	82
Acenaphthene-d10	78
Phenanthrene-d10	80
Chrysene-d12	68
Perylene-d12	66

Surrogates	% Rec
2-Fluorophenol	43
Phenol-d5	28
Nitrobenzene-d5	79
2-Fluorobiphenyl	90
2,4,6-Tribromophenol	81
Terphenyl-d14	103

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NFA-24
 Date Booked in:
 12-Mar-12

 LIMS ID Number:
 EX1276615
 Date Extracted:
 20-Mar-12

 Job Number:
 W13_3436
 Date Analysed:
 21-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	36
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	21SVOC.GC11\	0321_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	90
Naphthalene-d8	86
Acenaphthene-d10	83
Phenanthrene-d10	82
Chrysene-d12	67
Perylene-d12	67

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	34
Nitrobenzene-d5	93
2-Fluorobiphenyl	100
2,4,6-Tribromophenol	91
Terphenyl-d14	114

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NFA-25
 Date Booked in:
 12-Mar-12

 LIMS ID Number:
 EX1276616
 Date Extracted:
 20-Mar-12

 Job Number:
 W13_3436
 Date Analysed:
 21-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	36
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	21SVOC.GC11\	0321_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	77
Naphthalene-d8	76
Acenaphthene-d10	76
Phenanthrene-d10	73
Chrysene-d12	57
Perylene-d12	61

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	32
Nitrobenzene-d5	98
2-Fluorobiphenyl	101
2,4,6-Tribromophenol	97
Terphenyl-d14	117

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NFA-26
 Date Booked in:
 12-Mar-12

 LIMS ID Number:
 EX1276617
 Date Extracted:
 20-Mar-12

 Job Number:
 W13_3436
 Date Analysed:
 21-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	36
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	21SVOC.GC11\	0321_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	83
Naphthalene-d8	81
Acenaphthene-d10	79
Phenanthrene-d10	80
Chrysene-d12	66
Perylene-d12	66

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	27
Nitrobenzene-d5	92
2-Fluorobiphenyl	97
2,4,6-Tribromophenol	77
Terphenyl-d14	114

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NFA-24X
 Date Booked in:
 12-Mar-12

 LIMS ID Number:
 EX1276618
 Date Extracted:
 20-Mar-12

 Job Number:
 W13_3436
 Date Analysed:
 21-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.005	_
2,6-Dinitrotoluene	606-20-2		< 0.005	_
Acenaphthene	83-32-9		< 0.003	_
3-Nitroaniline	99-09-2		< 0.002	_

Matrix:	Water	QC Batch Number:	36
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	21SVOC.GC11\	0321_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	83
Naphthalene-d8	79
Acenaphthene-d10	77
Phenanthrene-d10	77
Chrysene-d12	63
Perylene-d12	62

Surrogates	% Rec
2-Fluorophenol	36
Phenol-d5	19
Nitrobenzene-d5	87
2-Fluorobiphenyl	91
2,4,6-Tribromophenol	72
Terphenyl-d14	102

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NFA-29
 Date Booked in:
 12-Mar-12

 LIMS ID Number:
 EX1276619
 Date Extracted:
 20-Mar-12

 Job Number:
 W13_3436
 Date Analysed:
 21-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	36
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	21SVOC.GC11\	0321_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	80
Naphthalene-d8	83
Acenaphthene-d10	80
Phenanthrene-d10	79
Chrysene-d12	66
Perylene-d12	63

Surrogates	% Rec
2-Fluorophenol	56
Phenol-d5	35
Nitrobenzene-d5	94
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	86
Terphenyl-d14	121

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NFA-30
 Date Booked in:
 12-Mar-12

 LIMS ID Number:
 EX1276620
 Date Extracted:
 20-Mar-12

 Job Number:
 W13_3436
 Date Analysed:
 21-Mar-12

Target Compounds	CAS#	CAS # R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	_	< 0.005	_

Matrix:	Water	QC Batch Number:	36
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	21SVOC.GC11\	0321_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	78
Naphthalene-d8	78
Acenaphthene-d10	77
Phenanthrene-d10	75
Chrysene-d12	61
Perylene-d12	61

Surrogates	% Rec
2-Fluorophenol	53
Phenol-d5	35
Nitrobenzene-d5	92
2-Fluorobiphenyl	100
2,4,6-Tribromophenol	93
Terphenyl-d14	123

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NFA-31
 Date Booked in:
 12-Mar-12

 LIMS ID Number:
 EX1276621
 Date Extracted:
 20-Mar-12

 Job Number:
 W13_3436
 Date Analysed:
 21-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	36
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	21SVOC.GC11\	0321_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	78
Naphthalene-d8	82
Acenaphthene-d10	79
Phenanthrene-d10	77
Chrysene-d12	61
Perylene-d12	60

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	31
Nitrobenzene-d5	92
2-Fluorobiphenyl	102
2,4,6-Tribromophenol	75
Terphenyl-d14	127

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NFA-39
 Date Booked in:
 12-Mar-12

 LIMS ID Number:
 EX1276622
 Date Extracted:
 20-Mar-12

 Job Number:
 W13_3436
 Date Analysed:
 21-Mar-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	_	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	_	< 0.020	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8		< 0.002	_
2-Nitroaniline	88-74-4		< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	-
Dimethylphthalate	131-11-3	-	< 0.002	
2,6-Dinitrotoluene	606-20-2		< 0.005	-
Acenaphthene	83-32-9	-	< 0.005	-
Acenaphinene 3-Nitroaniline	99-09-2		< 0.002	-

Matrix:	Water	QC Batch Number:	36
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	21SVOC.GC11\	0321_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	86
Naphthalene-d8	85
Acenaphthene-d10	80
Phenanthrene-d10	81
Chrysene-d12	67
Perylene-d12	67

Surrogates	% Rec
2-Fluorophenol	48
Phenol-d5	33
Nitrobenzene-d5	95
2-Fluorobiphenyl	108
2,4,6-Tribromophenol	90
Terphenyl-d14	126

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_3436

Directory: D:\TES\DATA\Y2012\0319HSA_GC09\031912 2012-03-19 06-48-56\029F2901.D

Method: Headspace GCFID

Matrix:

Water

Date Booked in: 12-Mar-12
Date extracted: 19-Mar-12

Date Analysed: 19-Mar-12, 15:45:41

* Sample data with an asterisk are not UKAS accredited.

				C	Concentration, (m	ıg/l)	Aliphatics										
	Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO					
*	EX1276614	BH-NFA-23	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1					
*	EX1276615	BH-NFA-24	<0.005	<0.005	< 0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1					
*	EX1276616	BH-NFA-25	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1					
*	EX1276617	BH-NFA-26	<0.005	0.021	< 0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1					
*	EX1276618	BH-NFA-24X	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1					
*	EX1276619	BH-NFA-29	< 0.005	<0.005	< 0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1					
*	EX1276620	BH-NFA-30	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1					
*	EX1276621	BH-NFA-31	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1					
*	EX1276622	BH-NFA-39	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1					
	_																

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford

Separation: Silica gel Job Number: W13_3436 QC Batch Number: 120202 Eluents: Hexane, DCM Directory: Method: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\074B3101.D

Method:	Bottle												
						Concentra	tion, (mg/l)						•
* This sample data is not	>C8 - C10		>C10 - C12		>C12	- C16	>C16	- C21	>C21	- C35	>C8	- C40	
Sample ID	Client ID	Aliphatics Aromat		Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1276614	BH-NFA-23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1276615	BH-NFA-24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.013
EX1276616	BH-NFA-25	<0.01	<0.01	<0.01	<0.01	0.015	0.011	0.024	0.017	0.021	<0.01	0.066	0.042
EX1276617	BH-NFA-26	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.021	0.024
EX1276618	BH-NFA-24X	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	0.014	0.017	0.013	0.014	0.044	0.051
EX1276619	BH-NFA-29	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1276620	BH-NFA-30	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1276621	BH-NFA-31	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1276622	BH-NFA-39	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	0.015
·													

Matrix:

Date Booked ir

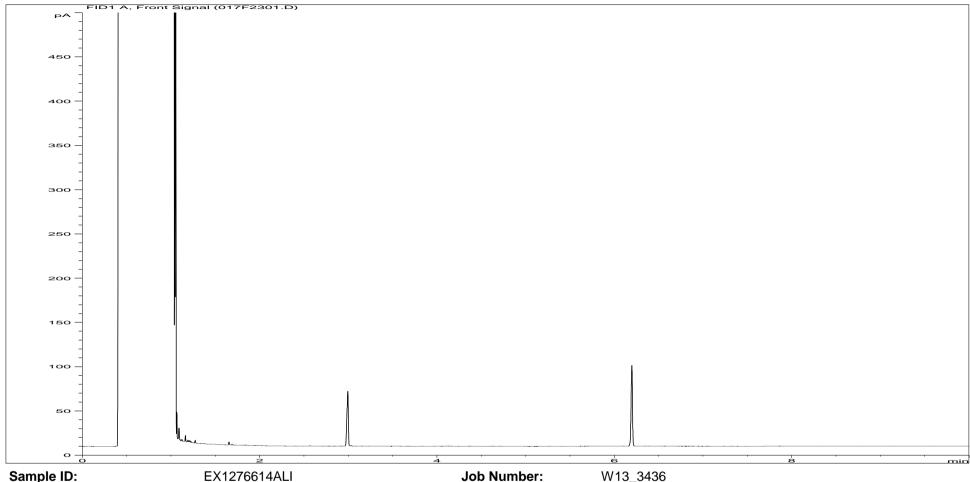
Date Extracted

Water

Date Analysed: 19-Mar-12, 18:15:27

12-Mar-12

15-Mar-12



Sample ID:EX1276614ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 19-Mar-12, 15:58:01

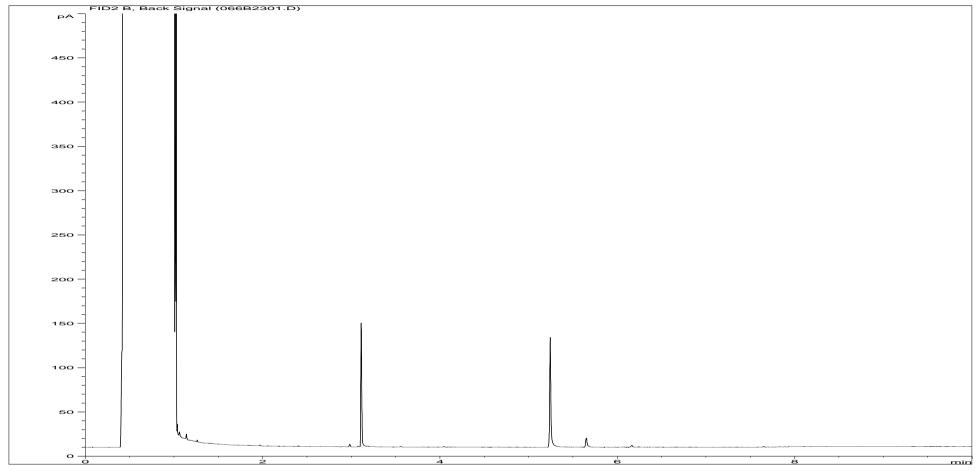
Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\017F2301.D

Waterman EED

Upper Heyford

BH-NFA-23

Page 16 of 37 EXR/133436 Ver. 1

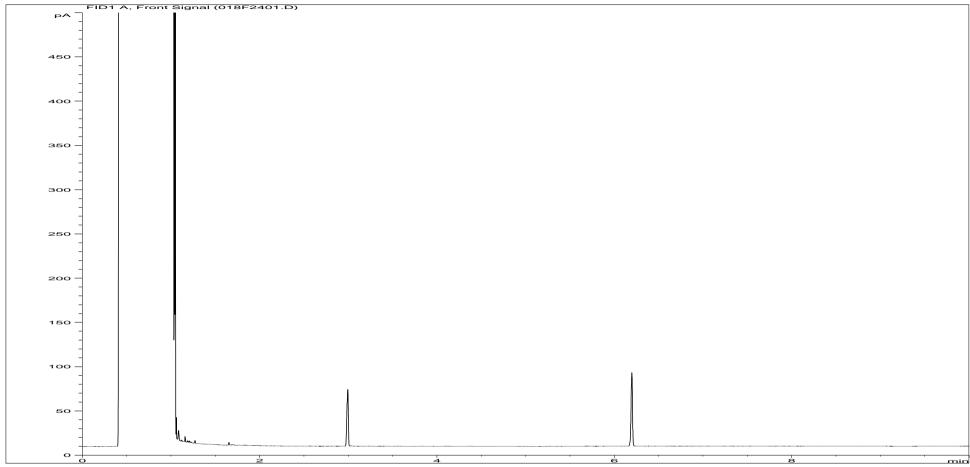


Sample ID:EX1276614AROJob Number:W13_3436Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-23

Acquisition Date/Time: 19-Mar-12, 15:58:01

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\066B2301.D

Page 17 of 37 EXR/133436 Ver. 1

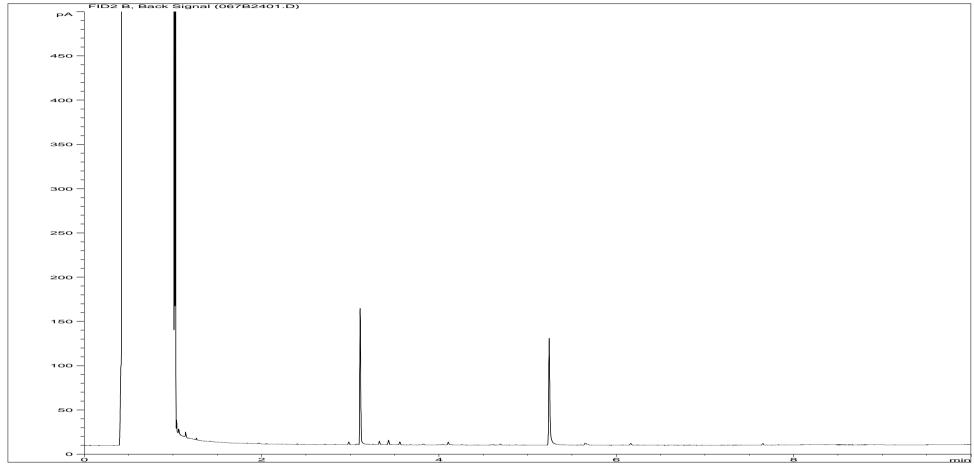


Sample ID:EX1276615ALIJob Number:W13_3436Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-24

Acquisition Date/Time: 19-Mar-12, 16:15:15

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\018F2401.D

Page 18 of 37 EXR/133436 Ver. 1

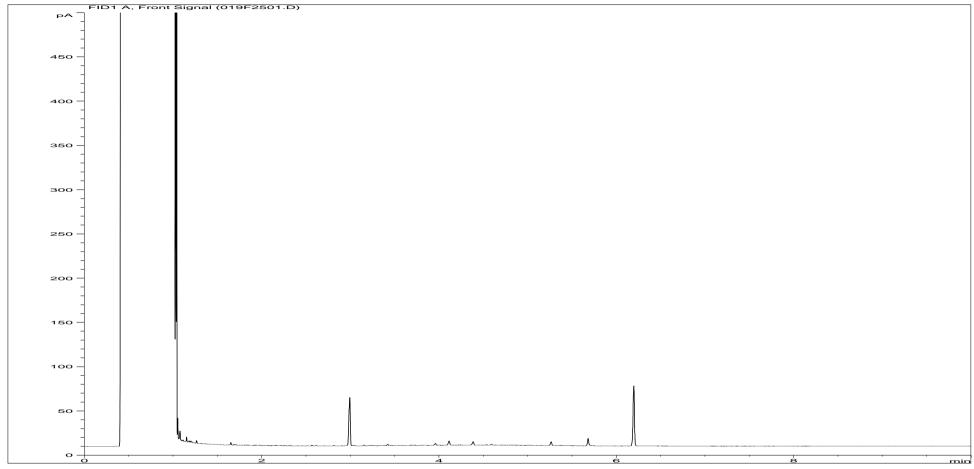


Sample ID:EX1276615AROJob Number:W13_3436Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-24

Acquisition Date/Time: 19-Mar-12, 16:15:15

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\067B2401.D

Page 19 of 37 EXR/133436 Ver. 1

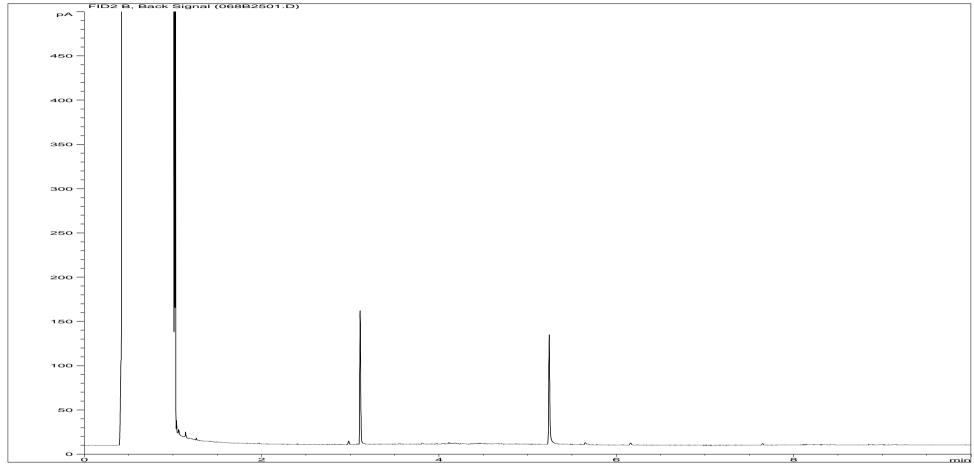


Sample ID:EX1276616ALIJob Number:W13_3436Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-25

Acquisition Date/Time: 19-Mar-12, 16:32:23

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\019F2501.D

Page 20 of 37 EXR/133436 Ver. 1

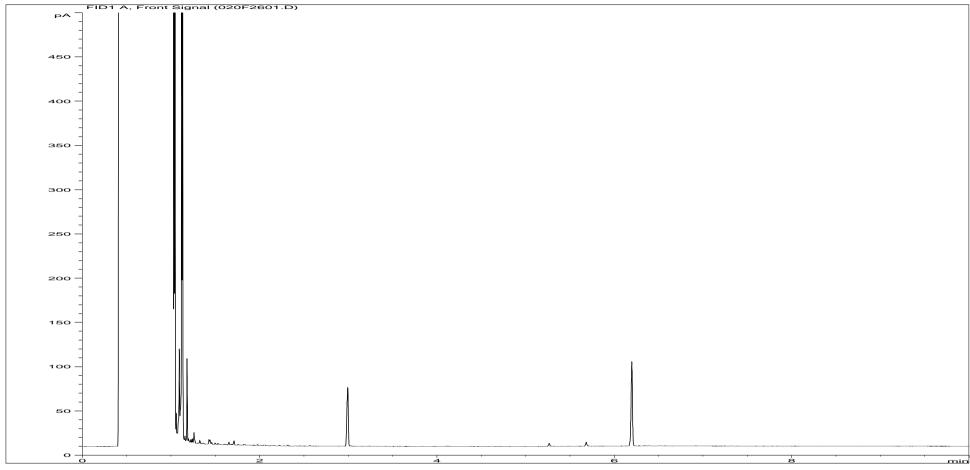


Sample ID:EX1276616AROJob Number:W13_3436Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-25

Acquisition Date/Time: 19-Mar-12, 16:32:23

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\068B2501.D

Page 21 of 37 EXR/133436 Ver. 1

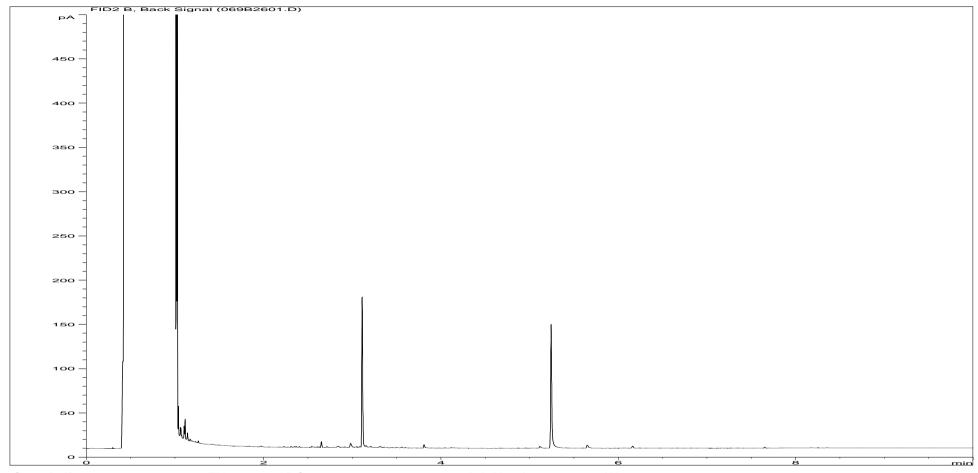


Sample ID:EX1276617ALIJob Number:W13_3436Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-26

Acquisition Date/Time: 19-Mar-12, 16:49:30

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\020F2601.D

Page 22 of 37 EXR/133436 Ver. 1



Sample ID: EX1276617ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

19-Mar-12, 16:49:30

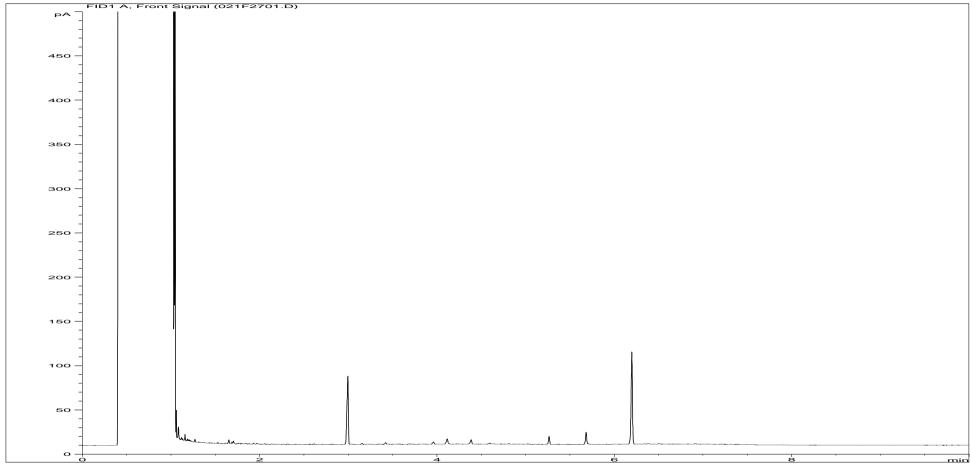
Acquisition Date/Time: Datafile:

Job Number: W13 3436 Client: Waterman EED Site: Upper Heyford

Client Sample Ref: BH-NFA-26

D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\069B2601.D

Page 23 of 37 EXR/133436 Ver. 1

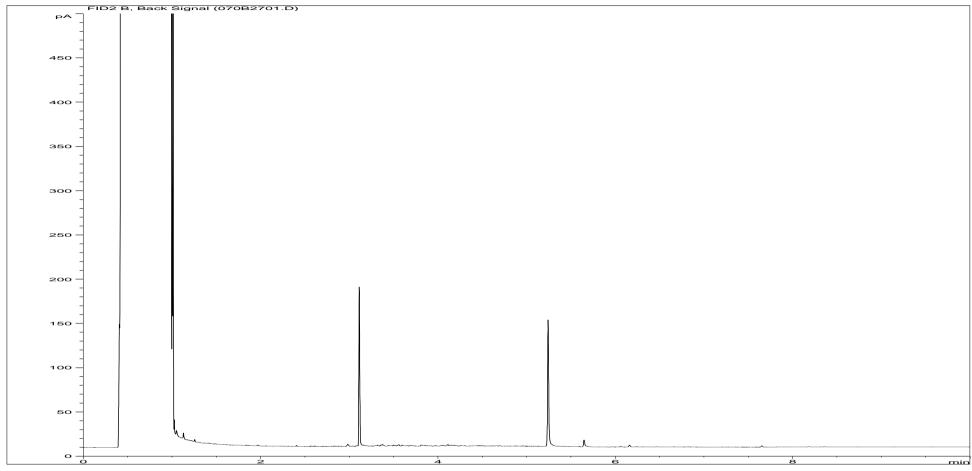


Sample ID:EX1276618ALIJob Number:W13_3436Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-24X

Acquisition Date/Time: 19-Mar-12, 17:06:42

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\021F2701.D

Page 24 of 37 EXR/133436 Ver. 1

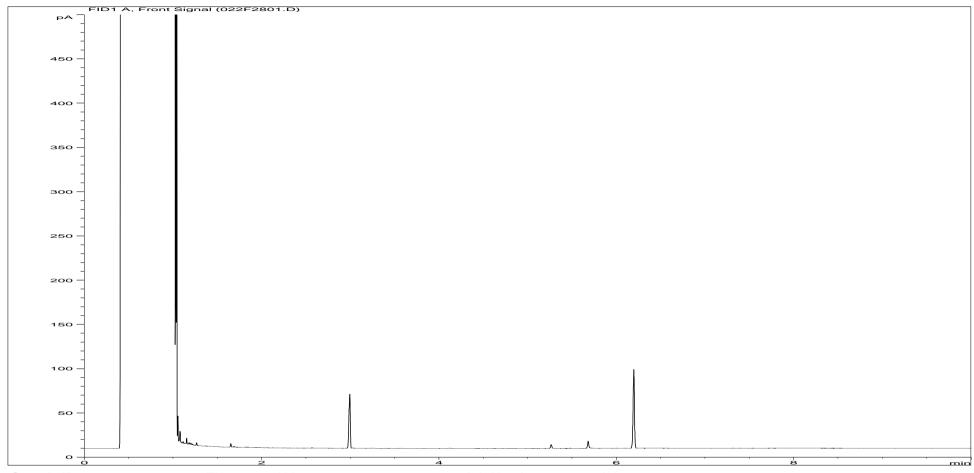


Sample ID:EX1276618AROJob Number:W13_3436Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-24X

Acquisition Date/Time: 19-Mar-12, 17:06:42

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\070B2701.D

Page 25 of 37 EXR/133436 Ver. 1

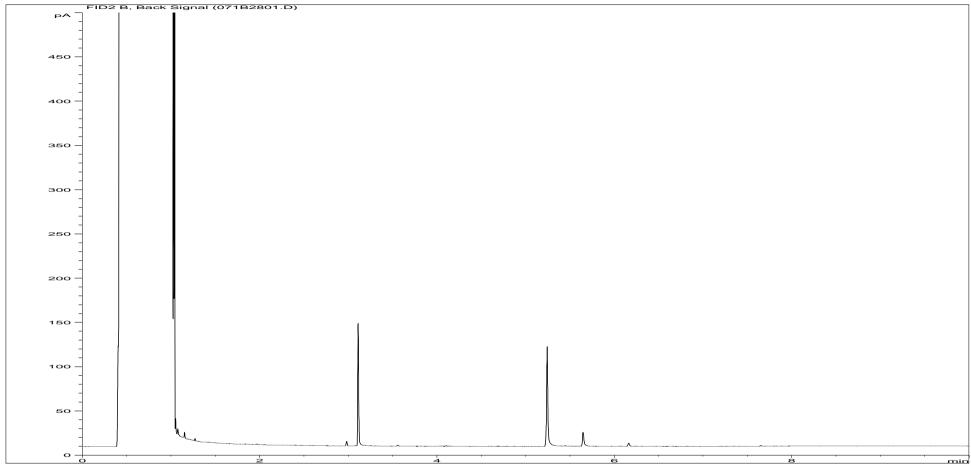


Sample ID:EX1276619ALIJob Number:W13_3436Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-29

Acquisition Date/Time: 19-Mar-12, 17:24:01

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\022F2801.D

Page 26 of 37 EXR/133436 Ver. 1

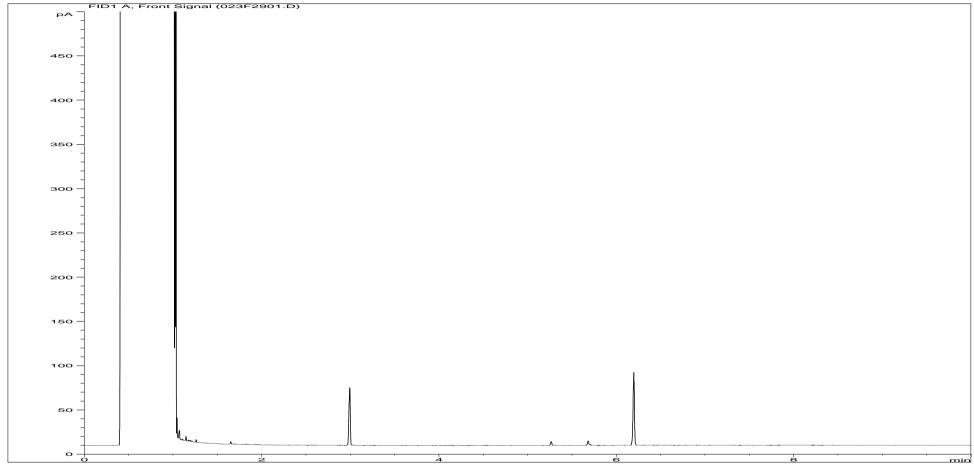


Sample ID:EX1276619AROJob Number:W13_3436Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-29

Acquisition Date/Time: 19-Mar-12, 17:24:01

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\071B2801.D

Page 27 of 37 EXR/133436 Ver. 1

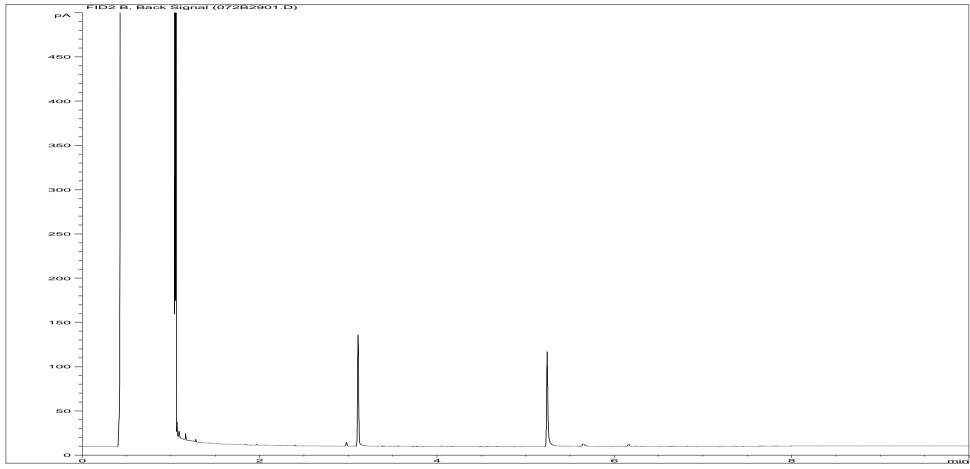


Sample ID:EX1276620ALIJob Number:W13_3436Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-30

Acquisition Date/Time: 19-Mar-12, 17:41:09

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\023F2901.D

Page 28 of 37 EXR/133436 Ver. 1

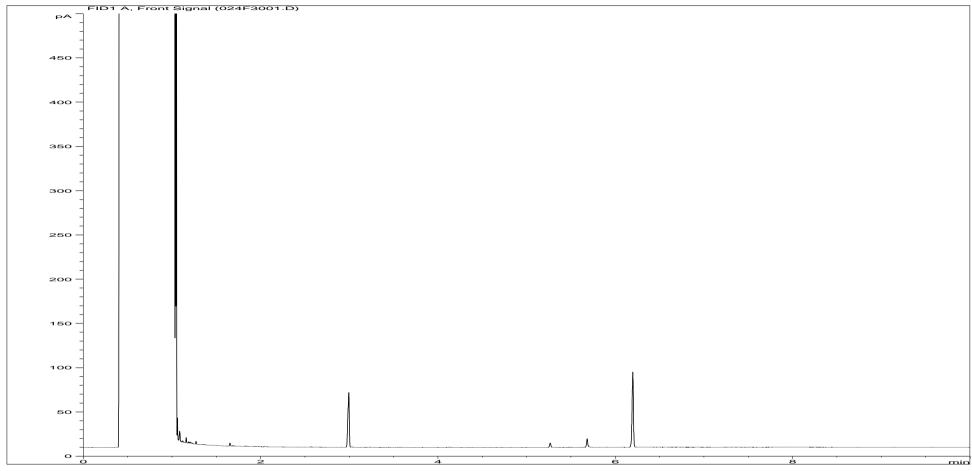


Sample ID:EX1276620AROJob Number:W13_3436Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-30

Acquisition Date/Time: 19-Mar-12, 17:41:09

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\072B2901.D

Page 29 of 37 EXR/133436 Ver. 1

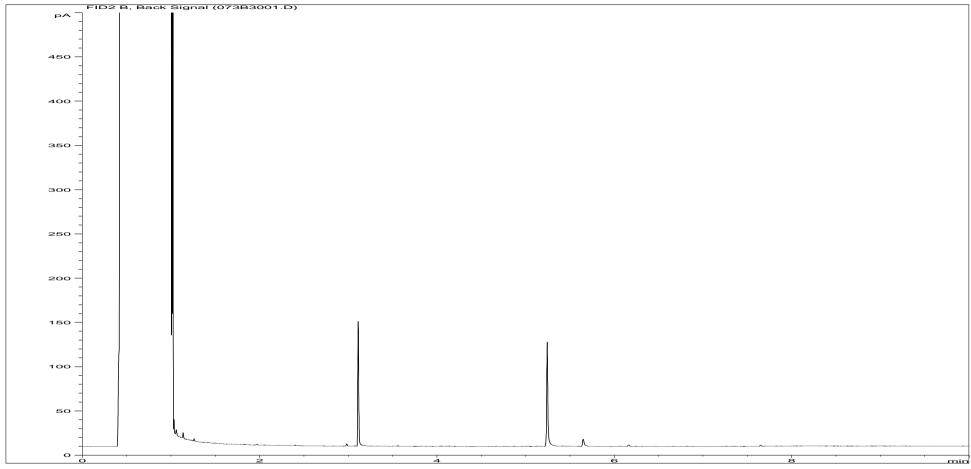


Sample ID:EX1276621ALIJob Number:W13_3436Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-31

Acquisition Date/Time: 19-Mar-12, 17:58:20

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\024F3001.D

Page 30 of 37 EXR/133436 Ver. 1

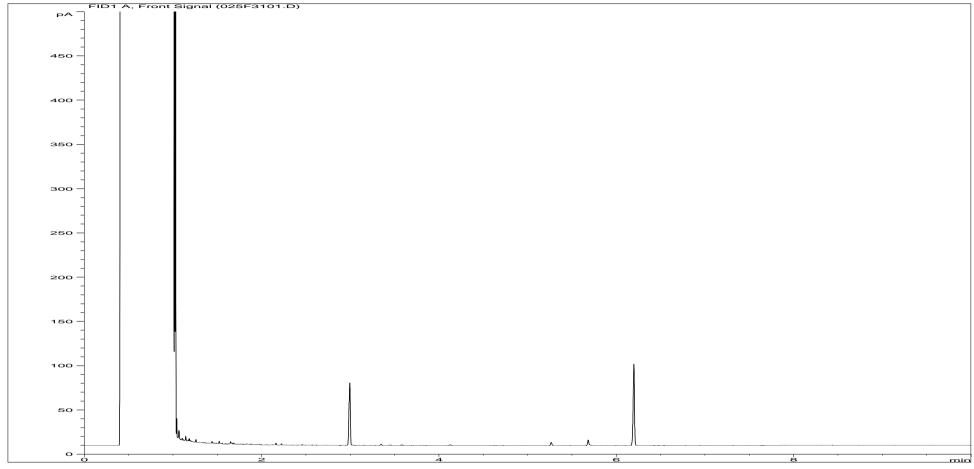


Sample ID:EX1276621AROJob Number:W13_3436Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-31

Acquisition Date/Time: 19-Mar-12, 17:58:20

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\073B3001.D

Page 31 of 37 EXR/133436 Ver. 1

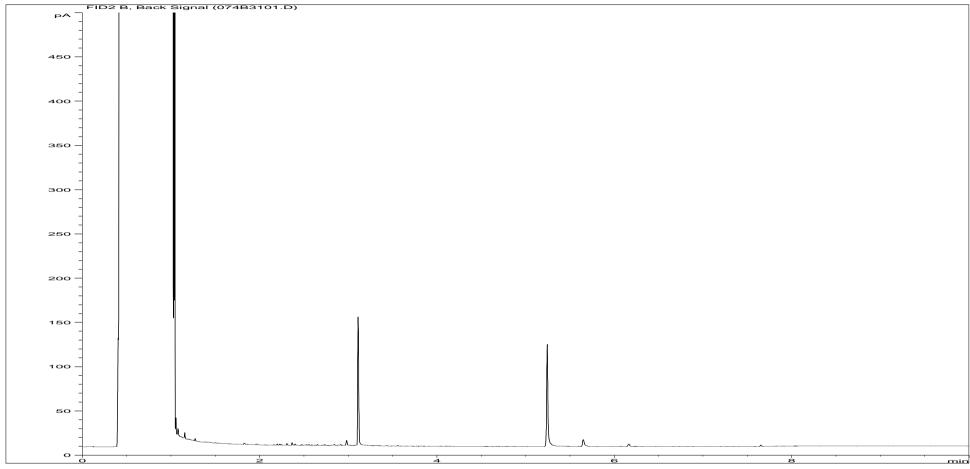


Sample ID:EX1276622ALIJob Number:W13_3436Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-39

Acquisition Date/Time: 19-Mar-12, 18:15:27

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\025F3101.D

Page 32 of 37 EXR/133436 Ver. 1



Sample ID:EX1276622AROJob Number:W13_3436Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NFA-39

Acquisition Date/Time: 19-Mar-12, 18:15:27

Datafile: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\074B3101.D

Page 33 of 37 EXR/133436 Ver. 1

W133436

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED Site **Upper Heyford** W133436 **Report No**

Consignment No W35014 Date Logged 12-Mar-2012

Report Due 20-Mar-2012

MethodID						ICPMSW				iviai 2					ICPWATVAR					KONENS				PHEHPLCVL	svocsw	TPHFID-Si	WSLM11
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	MTBE-HSA	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as Cl (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)
		to ISO17025	_	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
EX/1276614	BH-NFA-23	08/03/12																									
EX/1276615	BH-NFA-24	08/03/12																									
EX/1276616	BH-NFA-25	08/03/12																									
EX/1276617	BH-NFA-26	08/03/12																									
EX/1276618	BH-NFA-24X	08/03/12																									
EX/1276619	BH-NFA-29	08/03/12																									
EX/1276620	BH-NFA-30	08/03/12																									
EX/1276621	BH-NFA-31	08/03/12																									
EX/1276622	BH-NFA-39	08/03/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site

Consignment No W35014 Date Logged 12-Mar-2012

W133436 **Report No**

Report Due 20-Mar-2012

									C ZU-
		MethodID	WSLM12	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Total Alkalinity as CaCO3	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited	to ISO17025	✓	✓	✓	✓		✓	
EX/1276614	BH-NFA-23	08/03/12							
EX/1276615	BH-NFA-24	08/03/12							
EX/1276616	BH-NFA-25	08/03/12							
EX/1276617	BH-NFA-26	08/03/12							
EX/1276618	BH-NFA-24X	08/03/12							
EX/1276619	BH-NFA-29	08/03/12							
EX/1276620	BH-NFA-30	08/03/12							
EX/1276621	BH-NFA-31	08/03/12							
EX/1276622	BH-NFA-39	08/03/12							

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/133436

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **P** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/134273 (Ver. 1) Your Ref: E10658-109

April 13, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

ESC

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

Project Co-ordinator 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/134273 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 23 samples described in this report were registered for analysis by ESG on 27-Mar-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 13-Apr-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 3)
Table of PAH (MS-SIM) (10) Results (Pages 4 to 26)
Table of SVOC Results (Pages 27 to 49)
Table of GRO Results (Page 50)
Table of TPH (Si) banding (0.01) (Pages 51 to 52)
GC-FID Chromatograms (Pages 53 to 103)
Analytical and Deviating Sample Overview (Pages 104 to 105)
Table of Method Descriptions (Page 106)
Table of Report Notes (Page 107)

On behalf of ESG:

Andrew Timms

Operations Manager

Date of Issue: 13-Apr-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

Units :		μg/l	mg/l	μg/l	mg/l	mg/l	mg/l				
Method Codes :		PAHMSW	GROHSA	GROHSA	TPHFID	TPHFID-Si	SVOCSW				
	Method Reporting Limits : UKAS Accredited :		V	0.1	10	0.01	0.01	0.002			
	UKAS ACC	redited :	Yes	Yes	Yes	Yes	Yes	No			
LAB ID Number EX	Client Sample Description	Sample Date	PAH GC-MS (16) o	GRO-HSA (AA)	MTBE-HSA o	ТРН GC	TPH by GC(Si) o	Semi Volatile Organic Compounds			
1281637	BH-NSA-1	22-Mar-12	Req	Req	<10		Req	Req			
1281638	BH-NSA-2	22-Mar-12	Req	Req	12		Req	Req			
1281639	BH-NSA-3	22-Mar-12	Req	Req	30		Req	Req			
1281640	BH-NSA-4	22-Mar-12	Req	Req	<10		Req	Req			
1281641	BH-NSA-5	22-Mar-12	Req	Req	<10		Req	Req			
1281642	BH-NSA-6	22-Mar-12	Req	Req	<10		Req	Req			
1281643	BH-NSA-7	22-Mar-12	Req	Req	<10	0.15	Req	Req			
1281644	BH-NSA-8	22-Mar-12	Req	Req	<10	0.02	Req	Req			
1281645	BH-NSA-9	22-Mar-12	Req	Req	<10		Req	Req			
1281646	BH-NSA-10	22-Mar-12	Req	Req	<10		Req	Req			
1281647	BH-NSA-11	22-Mar-12	Req	Req	<10		Req	Req			
1281648	BH-NSA-12	22-Mar-12	Req	Req	<10		Req	Req			
1281649	BH-NSA-13	22-Mar-12	Req	Req	<10		Req	Req			
1281650	BH-NSA-14	22-Mar-12	Req	Req	<10		Req	Req			
1281651	BH-NSA-15	22-Mar-12	Req	Req	<10		Req	Req			
1281652	BH-NSA-16	22-Mar-12	Req	Req	<10		Req	Req			
1281653	BH-NSA-17	22-Mar-12	Req	Req	<10		Req	Req			
1281654	BH-NSA-18	22-Mar-12	Req	Req	<10		Req	Req			
1281655	BH-NSA-19	22-Mar-12	Req	Req	<10		Req	Req			
1281656	BH-NSA20	22-Mar-12	Req	Req	<10		Req	Req			
	ESG @		Client N		Waterm Mr F Alco	n an EED			Water S	ample Analysis	
	Environmental Scientifics Group Bretby Business Park, Ashby Road				-				Date Printed	13-Apr-20	12
	Burton-on-Trent, Staffordshire, DE15 0YZ								Report Number	EXR/134	
Tel +44 (0) 1283 554400						Upp	er He	ytord	Table Number	2,3,4,10-1	1
	Fax +44 (0) 1283 554422				Table Halling		-				
										I .	

Units:		μg/l	mg/l	μg/l	mg/l	mg/l	mg/l					
Method Codes : Method Reporting Limits :		PAHMSW	GROHSA	GROHSA	TPHFID-Si	SVOCSW	TPHFID					
	Method Reporting UKAS Acc	J Limits :	Yes	0.1 Yes	10 Yes	0.01 Yes	0.002 No	0.01 Yes				
LAB ID Number EX/	Client Sample Description	Sample Date	PAH GC-MS (16) o	GRO-HSA (AA)	MTBE-HSA o	TPH by GC(Si) o	Semi Volatile Organic Compounds	TPH GC				
1281657	BH-NSA-21	22-Mar-12	Req	Req	<10	Req	Req	0.15				
1281658	BH-NSA-22	22-Mar-12	Req	Req	<10	Req	Req	0.09				
1281659	BH-NSA-38	22-Mar-12	Req	Req	<10	Req	Req	0.03				
ESG 🚱			Client Name Waterman EED			Water S	ample Analysis	s				
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422 Contact Mr F Alcock Upper Heyford		Date Printed Report Number Table Number		Apr-2012 R/134273 1							

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-1 W13_4273 **Job Number: LIMS ID Number:** EX1281637 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	108
Acenaphthene-d10	106
Phenanthrene-d10	106
Chrysene-d12	112
Perylene-d12	115

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	74
Terphenyl-d14	87

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-2 W13_4273 **Job Number: LIMS ID Number:** EX1281638 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	110
Acenaphthene-d10	109
Phenanthrene-d10	107
Chrysene-d12	106
Perylene-d12	106

Currogatos	9/ Boo
Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	71
Terphenyl-d14	83

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-3 W13_4273 **Job Number: LIMS ID Number:** EX1281639 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	7.08	0.042	94
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.202	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	109
Acenaphthene-d10	108
Phenanthrene-d10	109
Chrysene-d12	116
Perylene-d12	117

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	72
Terphenyl-d14	86

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-4 W13_4273 **Job Number: LIMS ID Number:** EX1281640 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	108
Acenaphthene-d10	105
Phenanthrene-d10	104
Chrysene-d12	104
Perylene-d12	104

0	0/ 0
Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	73
Terphenyl-d14	84

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-5 W13_4273 **Job Number: LIMS ID Number:** EX1281641 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	110
Acenaphthene-d10	106
Phenanthrene-d10	105
Chrysene-d12	110
Perylene-d12	111

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	72
Terphenyl-d14	84

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-6 W13_4273 **Job Number: LIMS ID Number:** EX1281642 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	3.22	0.721	М
Acenaphthylene	208-96-8	4.24	0.492	М
Acenaphthene	83-32-9	4.36	2.350	86
Fluorene	86-73-7	4.73	2.730	61
Phenanthrene	85-01-8	5.53	3.220	81
Anthracene	120-12-7	5.55	0.449	М
Fluoranthene	206-44-0	6.81	0.462	59
Pyrene	129-00-0	7.08	1.240	99
Benzo[a]anthracene	56-55-3	8.71	0.244	61
Chrysene	218-01-9	8.75	0.611	80
Benzo[b]fluoranthene	205-99-2	10.22	0.193	65
Benzo[k]fluoranthene	207-08-9	10.25	0.044	65
Benzo[a]pyrene	50-32-8	10.64	0.127	95
Indeno[1,2,3-cd]pyrene	193-39-5	12.00	0.080	68
Dibenzo[a,h]anthracene	53-70-3	12.02	0.030	65
Benzo[g,h,i]perylene	191-24-2	12.29	0.102	88
Total (USEPA16) PAHs	-	-	13.095	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	106
Acenaphthene-d10	125
Phenanthrene-d10	109
Chrysene-d12	122
Perylene-d12	135

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	69
Terphenyl-d14	85

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-7 W13_4273 **Job Number: LIMS ID Number:** EX1281643 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	3.21	0.191	98
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	4.73	0.010	87
Phenanthrene	85-01-8	5.53	0.011	84
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.342	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	110
Acenaphthene-d10	113
Phenanthrene-d10	120
Chrysene-d12	137
Perylene-d12	151

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	63
Terphenyl-d14	84

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-8 W13_4273 **Job Number: LIMS ID Number:** Date Booked in: EX1281644 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	1	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	1	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	108
Acenaphthene-d10	108
Phenanthrene-d10	109
Chrysene-d12	118
Perylene-d12	127

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	72
Terphenyl-d14	86

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-9 W13_4273 **Job Number: LIMS ID Number:** EX1281645 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	111
Acenaphthene-d10	110
Phenanthrene-d10	113
Chrysene-d12	123
Perylene-d12	130

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	74
Terphenyl-d14	91

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-10 W13_4273 **Job Number: LIMS ID Number:** EX1281646 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	ı	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	1	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	1	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	1	< 0.010	-
Benzo[a]pyrene	50-32-8	1	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	12.01	0.011	86
Dibenzo[a,h]anthracene	53-70-3	12.04	0.013	88
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.174	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	109
Acenaphthene-d10	108
Phenanthrene-d10	109
Chrysene-d12	116
Perylene-d12	122

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	67
Terphenyl-d14	81

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-11 W13_4273 **Job Number: LIMS ID Number:** EX1281647 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	109
Acenaphthene-d10	108
Phenanthrene-d10	110
Chrysene-d12	122
Perylene-d12	128

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	70
Terphenyl-d14	88

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-12 W13_4273 **Job Number: LIMS ID Number:** EX1281648 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	112
Acenaphthene-d10	111
Phenanthrene-d10	111
Chrysene-d12	117
Perylene-d12	120

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	74
Terphenyl-d14	88

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-13 W13_4273 **Job Number: LIMS ID Number:** EX1281649 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 05-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	111
Acenaphthene-d10	109
Phenanthrene-d10	107
Chrysene-d12	107
Perylene-d12	106

Surrogates	% Rec
Nitrobenzene-d5	NA NA
2-Fluorobiphenyl	76
Terphenyl-d14	86

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-14 W13_4273 **Job Number: LIMS ID Number:** EX1281650 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 06-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	111
Acenaphthene-d10	109
Phenanthrene-d10	109
Chrysene-d12	115
Perylene-d12	119

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	75
Terphenyl-d14	86

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-15 W13_4273 **Job Number: LIMS ID Number:** EX1281651 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 06-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	109
Acenaphthene-d10	106
Phenanthrene-d10	104
Chrysene-d12	102
Perylene-d12	102

Cumanata	0/ Das
Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	71
Terphenyl-d14	82

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-16 W13_4273 **Job Number: LIMS ID Number:** EX1281652 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 06-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	111
Acenaphthene-d10	108
Phenanthrene-d10	107
Chrysene-d12	111
Perylene-d12	113

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	73
Terphenyl-d14	84

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-17 W13_4273 **Job Number: LIMS ID Number:** EX1281653 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 06-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	110
Acenaphthene-d10	108
Phenanthrene-d10	107
Chrysene-d12	113
Perylene-d12	117

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	39
Terphenyl-d14	46

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-18 W13_4273 **Job Number: LIMS ID Number:** EX1281654 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 06-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	112
Acenaphthene-d10	109
Phenanthrene-d10	107
Chrysene-d12	109
Perylene-d12	109

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	67
Terphenyl-d14	78

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-19 W13_4273 **Job Number: LIMS ID Number:** EX1281655 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 06-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	111
Acenaphthene-d10	110
Phenanthrene-d10	108
Chrysene-d12	115
Perylene-d12	116

Surrogates	% Rec
Nitrobenzene-d5	NA NA
2-Fluorobiphenyl	76
Terphenyl-d14	86

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA20 W13_4273 **Job Number: LIMS ID Number:** EX1281656 Date Booked in: 27-Mar-12 QC Batch Number: 120260 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 06-Apr-12 **Directory:** 405MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	98
Acenaphthene-d10	96
Phenanthrene-d10	94
Chrysene-d12	96
Perylene-d12	97

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	81
Terphenyl-d14	90

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-21 W13_4273 **Job Number: LIMS ID Number:** EX1281657 Date Booked in: 27-Mar-12 QC Batch Number: 120262 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 09-Apr-12 **Directory:** 409MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	3.47	0.158	М
Acenaphthylene	208-96-8	4.52	0.010	М
Acenaphthene	83-32-9	4.65	0.062	93
Fluorene	86-73-7	5.04	0.015	87
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	7.59	0.012	М
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.367	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	115
Acenaphthene-d10	130
Phenanthrene-d10	129
Chrysene-d12	140
Perylene-d12	149

	0/ 5
Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	75
Terphenyl-d14	88

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-22 W13_4273 **Job Number: LIMS ID Number:** EX1281658 Date Booked in: 27-Mar-12 QC Batch Number: 120262 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 09-Apr-12 **Directory:** 409MS17.PAH\ Matrix: Water **Dilution:** 1.0 **Ext Method: Bottle**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	3.47	0.054	М
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	1	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	1	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	1	< 0.010	-
Benzo[a]pyrene	50-32-8	1	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.204	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	116
Acenaphthene-d10	130
Phenanthrene-d10	126
Chrysene-d12	134
Perylene-d12	144

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	74
Terphenyl-d14	85

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-38 W13_4273 **Job Number: LIMS ID Number:** EX1281659 Date Booked in: 27-Mar-12 QC Batch Number: 120262 Date Extracted: 05-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 09-Apr-12 **Directory:** 409MS17.PAH\ Matrix: Water **Dilution:** 1.0 **Ext Method: Bottle**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	7.30	0.026	92
Pyrene	129-00-0	7.59	0.025	М
Benzo[a]anthracene	56-55-3	9.29	0.021	87
Chrysene	218-01-9	9.33	0.011	92
Benzo[b]fluoranthene	205-99-2	10.83	0.018	67
Benzo[k]fluoranthene	207-08-9	1	< 0.010	-
Benzo[a]pyrene	50-32-8	11.25	0.012	91
Indeno[1,2,3-cd]pyrene	193-39-5	1	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.223	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	109
Acenaphthene-d10	124
Phenanthrene-d10	126
Chrysene-d12	147
Perylene-d12	160

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	71
Terphenyl-d14	85

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-1
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281637
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	_	< 0.002	_
2-Nitroaniline	88-74-4	_	< 0.005	_
Acenaphthylene	208-96-8	_	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.002	_
2,6-Dinitrotoluene	606-20-2		< 0.005	_
Acenaphthene	83-32-9	_	< 0.003	_
3-Nitroaniline	99-09-2		< 0.002	_

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	107
Naphthalene-d8	105
Acenaphthene-d10	100
Phenanthrene-d10	107
Chrysene-d12	112
Perylene-d12	127

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	33
Nitrobenzene-d5	89
2-Fluorobiphenyl	91
2,4,6-Tribromophenol	74
Terphenyl-d14	89

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-2
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281638
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	97
Naphthalene-d8	98
Acenaphthene-d10	97
Phenanthrene-d10	98
Chrysene-d12	93
Perylene-d12	102

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	32
Nitrobenzene-d5	92
2-Fluorobiphenyl	94
2,4,6-Tribromophenol	95
Terphenyl-d14	101

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-3
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281639
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1.3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1.2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Water	QC Batch Number:	54
Sep. Funnel	Multiplier:	0.005
SO	Dilution Factor:	1
12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	Ν
	Sep. Funnel SO	Sep. Funnel Multiplier:

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	112
Naphthalene-d8	110
Acenaphthene-d10	110
Phenanthrene-d10	117
Chrysene-d12	126
Perylene-d12	149

Surrogates	% Rec
2-Fluorophenol	44
Phenol-d5	33
Nitrobenzene-d5	85
2-Fluorobiphenyl	84
2,4,6-Tribromophenol	76
Terphenyl-d14	84

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-4
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281640
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	_	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	_	< 0.020	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8		< 0.002	_
2-Nitroaniline	88-74-4		< 0.002	_
Acenaphthylene	208-96-8	-	< 0.003	-
Dimethylphthalate	131-11-3	-	< 0.002	
2,6-Dinitrotoluene	606-20-2		< 0.005	-
Acenaphthene	83-32-9	-	< 0.005	-
Acenaphinene 3-Nitroaniline	99-09-2		< 0.002	-

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	99
Naphthalene-d8	98
Acenaphthene-d10	96
Phenanthrene-d10	101
Chrysene-d12	103
Perylene-d12	112

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	33
Nitrobenzene-d5	93
2-Fluorobiphenyl	93
2,4,6-Tribromophenol	75
Terphenyl-d14	95

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-5
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281641
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	100
Naphthalene-d8	98
Acenaphthene-d10	96
Phenanthrene-d10	102
Chrysene-d12	106
Perylene-d12	120

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	32
Nitrobenzene-d5	94
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	72
Terphenyl-d14	88

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-6
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281642
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	-	< 0.020	_
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.003	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

[&]quot;M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	101
Naphthalene-d8	101
Acenaphthene-d10	101
Phenanthrene-d10	107
Chrysene-d12	116
Perylene-d12	138

Surrogates	% Rec
2-Fluorophenol	32
Phenol-d5	24
Nitrobenzene-d5	74
2-Fluorobiphenyl	66
2,4,6-Tribromophenol	60
Terphenyl-d14	67

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-7
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281643
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS # R.T.	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	95
Naphthalene-d8	95
Acenaphthene-d10	94
Phenanthrene-d10	101
Chrysene-d12	116
Perylene-d12	138

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	35
Nitrobenzene-d5	89
2-Fluorobiphenyl	91
2,4,6-Tribromophenol	92
Terphenyl-d14	89

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details:

BH-NSA-8 **Date Booked in:** 27-Mar-12 EX1281644 **Date Extracted:** 11-Apr-12

 LIMS ID Number:
 EX1281644
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	102
Naphthalene-d8	99
Acenaphthene-d10	97
Phenanthrene-d10	104
Chrysene-d12	110
Perylene-d12	122

Surrogates	% Rec
2-Fluorophenol	40
Phenol-d5	29
Nitrobenzene-d5	87
2-Fluorobiphenyl	88
2,4,6-Tribromophenol	73
Terphenyl-d14	88

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-9
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281645
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1.3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1.2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	105
Naphthalene-d8	104
Acenaphthene-d10	101
Phenanthrene-d10	110
Chrysene-d12	117
Perylene-d12	135

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	36
Nitrobenzene-d5	88
2-Fluorobiphenyl	90
2,4,6-Tribromophenol	77
Terphenyl-d14	89

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-10
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281646
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	103
Naphthalene-d8	102
Acenaphthene-d10	99
Phenanthrene-d10	102
Chrysene-d12	97
Perylene-d12	101

Surrogates	% Rec
2-Fluorophenol	41
Phenol-d5	29
Nitrobenzene-d5	92
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	75
Terphenyl-d14	98

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-11
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281647
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.002	_
Acenaphthylene	208-96-8		< 0.003	_
Dimethylphthalate	131-11-3		< 0.002	
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.002	-

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	110
Naphthalene-d8	108
Acenaphthene-d10	105
Phenanthrene-d10	109
Chrysene-d12	105
Perylene-d12	111

Surrogates	% Rec
2-Fluorophenol	48
Phenol-d5	34
Nitrobenzene-d5	90
2-Fluorobiphenyl	92
2,4,6-Tribromophenol	80
Terphenyl-d14	96

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-12
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281648
 Date Extracted:
 11-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 12-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	54
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.MS16\	0412_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	_
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	_
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	_
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	97
Naphthalene-d8	94
Acenaphthene-d10	93
Phenanthrene-d10	97
Chrysene-d12	99
Perylene-d12	111

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	35
Nitrobenzene-d5	90
2-Fluorobiphenyl	94
2,4,6-Tribromophenol	77
Terphenyl-d14	92

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-13
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281649
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Water	QC Batch Number:	51
Sep. Funnel	Multiplier:	0.005
SO	Dilution Factor:	1
03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	N
	Sep. Funnel SO	

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	96
Naphthalene-d8	95
Acenaphthene-d10	95
Phenanthrene-d10	92
Chrysene-d12	83
Perylene-d12	79

Surrogates	% Rec
2-Fluorophenol	56
Phenol-d5	36
Nitrobenzene-d5	96
2-Fluorobiphenyl	97
2,4,6-Tribromophenol	87
Terphenyl-d14	108

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-14
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281650
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	51
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	89
Naphthalene-d8	87
Acenaphthene-d10	86
Phenanthrene-d10	84
Chrysene-d12	74
Perylene-d12	68

Surrogates	% Rec
2-Fluorophenol	49
Phenol-d5	31
Nitrobenzene-d5	90
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	78
Terphenyl-d14	108

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-15
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281651
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	_	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	_	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	_	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	_	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	_	< 0.005	_
2,6-Dinitrotoluene	606-20-2		< 0.005	_
Acenaphthene	83-32-9		< 0.003	_
3-Nitroaniline	99-09-2		< 0.002	_

Matrix:	Water	QC Batch Number:	48
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	_
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	_
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	_
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	89
Naphthalene-d8	88
Acenaphthene-d10	87
Phenanthrene-d10	88
Chrysene-d12	80
Perylene-d12	77

Surrogates	% Rec
2-Fluorophenol	52
Phenol-d5	35
Nitrobenzene-d5	89
2-Fluorobiphenyl	92
2,4,6-Tribromophenol	79
Terphenyl-d14	102

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-16
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281652
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Water	QC Batch Number:	51
Sep. Funnel	Multiplier:	0.005
SO	Dilution Factor:	1
03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	N
	Sep. Funnel SO	

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	92
Naphthalene-d8	89
Acenaphthene-d10	90
Phenanthrene-d10	87
Chrysene-d12	75
Perylene-d12	70

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	33
Nitrobenzene-d5	93
2-Fluorobiphenyl	94
2,4,6-Tribromophenol	80
Terphenyl-d14	109

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-17
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281653
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	51
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	87
Naphthalene-d8	85
Acenaphthene-d10	84
Phenanthrene-d10	81
Chrysene-d12	73
Perylene-d12	71

Surrogates	% Rec
2-Fluorophenol	43
Phenol-d5	27
Nitrobenzene-d5	89
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	69
Terphenyl-d14	103

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-18
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281654
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	51
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	84
Naphthalene-d8	84
Acenaphthene-d10	82
Phenanthrene-d10	79
Chrysene-d12	70
Perylene-d12	65

Surrogates	% Rec
2-Fluorophenol	43
Phenol-d5	30
Nitrobenzene-d5	80
2-Fluorobiphenyl	87
2,4,6-Tribromophenol	73
Terphenyl-d14	99

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-19
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281655
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
B-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	51
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	87
Naphthalene-d8	84
Acenaphthene-d10	84
Phenanthrene-d10	83
Chrysene-d12	74
Perylene-d12	71

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	33
Nitrobenzene-d5	86
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	70
Terphenyl-d14	101

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA20
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281656
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 04-Apr-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	51
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.GC11\ 0403_CCC1.E	GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	98
Naphthalene-d8	94
Acenaphthene-d10	94
Phenanthrene-d10	92
Chrysene-d12	86
Perylene-d12	84

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	31
Nitrobenzene-d5	86
2-Fluorobiphenyl	88
2,4,6-Tribromophenol	75
Terphenyl-d14	95

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-21
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281657
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 04-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	51
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	90
Naphthalene-d8	87
Acenaphthene-d10	89
Phenanthrene-d10	87
Chrysene-d12	79
Perylene-d12	77

Surrogates	% Rec
2-Fluorophenol	40
Phenol-d5	26
Nitrobenzene-d5	90
2-Fluorobiphenyl	93
2,4,6-Tribromophenol	65
Terphenyl-d14	105

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-22
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281658
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 04-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	51
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	94
Naphthalene-d8	93
Acenaphthene-d10	92
Phenanthrene-d10	89
Chrysene-d12	79
Perylene-d12	78

Surrogates	% Rec
2-Fluorophenol	42
Phenol-d5	28
Nitrobenzene-d5	84
2-Fluorobiphenyl	85
2,4,6-Tribromophenol	72
Terphenyl-d14	96

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-38
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281659
 Date Extracted:
 03-Apr-12

 Job Number:
 W13_4273
 Date Analysed:
 04-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit	
		(min)	mg/l		
Phenol	108-95-2	-	< 0.020	-	
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-	
2-Chlorophenol	95-57-8	-	< 0.020	-	
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-	
Benzyl alcohol	100-51-6	-	< 0.005	-	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-	
2-Methylphenol	95-48-7	-	< 0.005	-	
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	-	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-	
Nitrobenzene	98-95-3	-	< 0.005	-	
Isophorone	78-59-1	-	< 0.005	-	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9	-	< 0.020	-	
Benzoic Acid	65-85-0 *	-	< 0.100	-	
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-	
2,4-Dichlorophenol	120-83-2	-	< 0.020	-	
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-	
Naphthalene	91-20-3	-	< 0.002	-	
4-Chlorophenol	106-48-9	-	< 0.020	-	
4-Chloroaniline	106-47-8 *	-	< 0.005	-	
Hexachlorobutadiene	87-68-3	-	< 0.005	-	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-	
2-Methylnaphthalene	91-57-6	-	< 0.002	-	
1-Methylnaphthalene	90-12-0	-	< 0.002	-	
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-	
2-Chloronaphthalene	91-58-7	-	< 0.002	-	
Biphenyl	92-52-4	-	< 0.002	-	
Diphenyl ether	101-84-8	-	< 0.002	-	
2-Nitroaniline	88-74-4	-	< 0.005	-	
Acenaphthylene	208-96-8	-	< 0.002	-	
Dimethylphthalate	131-11-3	-	< 0.005	-	
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-	
Acenaphthene	83-32-9	-	< 0.002	-	
3-Nitroaniline	99-09-2	-	< 0.005	_	

Matrix:	Water	QC Batch Number:	51
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.GC11\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	95
Naphthalene-d8	91
Acenaphthene-d10	91
Phenanthrene-d10	89
Chrysene-d12	80
Perylene-d12	76

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	29
Nitrobenzene-d5	87
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	79
Terphenyl-d14	101

Compounds marked with a * are reported not UKAS.

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_4273

Directory: D:\TES\DATA\Y2012\0404HSA_GC09\040412 2012-04-04 13-24-49\056F5601.D

Method: Headspace GCFID

Matrix: Water

Date Booked in: 27-Mar-1

Date Booked in: 27-Mar-12
Date extracted: 04-Apr-12

Date Analysed: 05-Apr-12, 07:02:23

* Sample data with an asterisk are not UKAS accredited.

			Col	ncentration, (r	Aliphatics						
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
EX1281637	BH-NSA-1	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281638	BH-NSA-2	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281639	BH-NSA-3	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281640	BH-NSA-4	< 0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281641	BH-NSA-5	< 0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281642	BH-NSA-6	< 0.005	<0.005	< 0.005	0.035	< 0.005	<0.1	<0.1	<0.1	2.0	2.1
EX1281643	BH-NSA-7	< 0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281644	BH-NSA-8	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281645	BH-NSA-9	< 0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281646	BH-NSA-10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281647	BH-NSA-11	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281648	BH-NSA-12	< 0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281649	BH-NSA-13	<0.005	<0.005	< 0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281650	BH-NSA-14	< 0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281651	BH-NSA-15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281652	BH-NSA-16	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281653	BH-NSA-17	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281654	BH-NSA-18	<0.005	<0.005	< 0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281655	BH-NSA-19	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281656	BH-NSA20	< 0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281657	BH-NSA-21	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281658	BH-NSA-22	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1281659	BH-NSA-38	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford Matrix:

 Job Number:
 W13_4273
 Separation:
 Silica gel
 Date Booked ir
 27-Mar-12

 QC Batch Number:
 120276
 Eluents:
 Hexane, DCM
 Date Extracted
 12-Apr-12

 Directory:
 D:/TES\DATA\Y2012\041212TPH_GC15\041212 2012-04-12 08-48-34\064B2201.D
 Date Analysed: 12-Apr-12, 17:28:11

Method: Bottle

						Concentra	tion, (mg/l)						
* This sample data is not UK	ele data is not UKAS accredited.		>C8 - C10		>C10 - C12		- C16	>C16 - C21		>C21 - C35		>C8 - C40	
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1281657	BH-NSA-21	<0.01	<0.01	<0.01	0.029	<0.01	0.043	<0.01	<0.01	<0.01	0.011	0.018	0.095
EX1281658	BH-NSA-22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011
EX1281659	BH-NSA-38	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
													

Water

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford

Separation: Silica gel Job Number: W13_4273 QC Batch Number: 120260 Eluents: Hexane, DCM D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\090B4601.D Directory:

Method:	Bottle												
						Concentra	tion, (mg/l)						
* This sample data is not	UKAS accredited.	>C8	- C10	>C10 - C12		>C12 - C16		>C16 - C21		>C21 - C35		>C8 - C40	
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1281637	BH-NSA-1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281638	BH-NSA-2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281639	BH-NSA-3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.049	<0.01	0.072	<0.01
EX1281640	BH-NSA-4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281641	BH-NSA-5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281642	BH-NSA-6	0.111	<0.01	0.673	0.154	2.6	1.31	2.14	1.69	1.27	1.24	6.93	4.54
EX1281643	BH-NSA-7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014
EX1281644	BH-NSA-8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281645	BH-NSA-9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281646	BH-NSA-10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281647	BH-NSA-11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281648	BH-NSA-12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281649	BH-NSA-13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281650	BH-NSA-14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281651	BH-NSA-15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281652	BH-NSA-16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281653	BH-NSA-17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281654	BH-NSA-18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	<0.01
EX1281655	BH-NSA-19	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281656	BH-NSA20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Matrix:

Date Booked ir

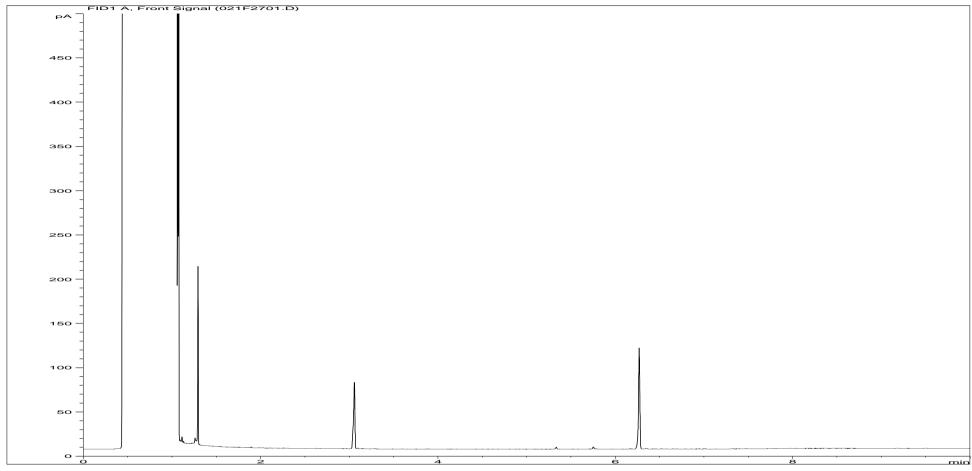
Date Extracted

Water

Date Analysed: 10-Apr-12, 05:46:58

27-Mar-12

05-Apr-12

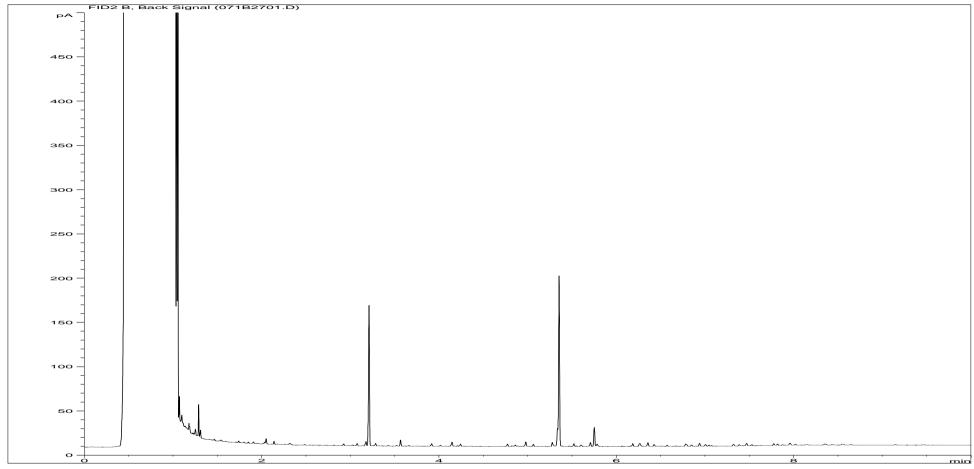


Sample ID:EX1281637ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-1

Acquisition Date/Time: 10-Apr-12, 00:26:15

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\021F2701.D

Page 53 of 107 EXR/134273 Ver. 1

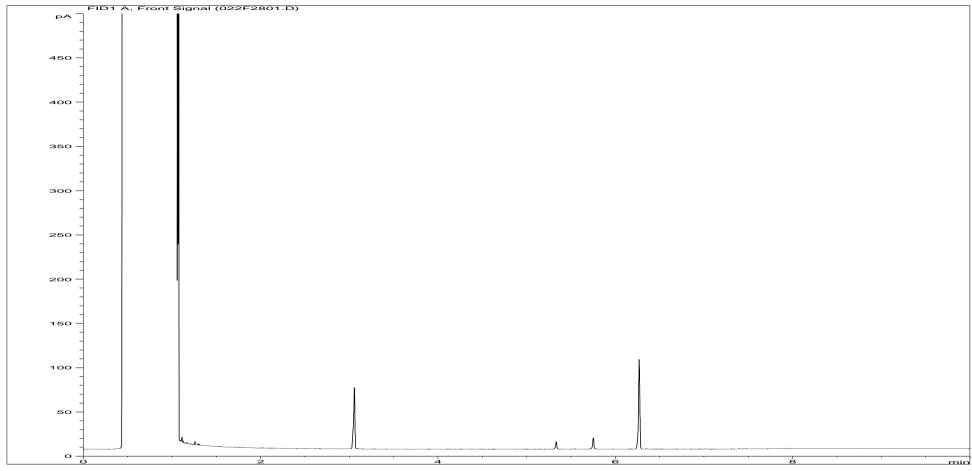


Sample ID:EX1281637AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-1

Acquisition Date/Time: 10-Apr-12, 00:26:15

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\071B2701.D

Page 54 of 107 EXR/134273 Ver. 1

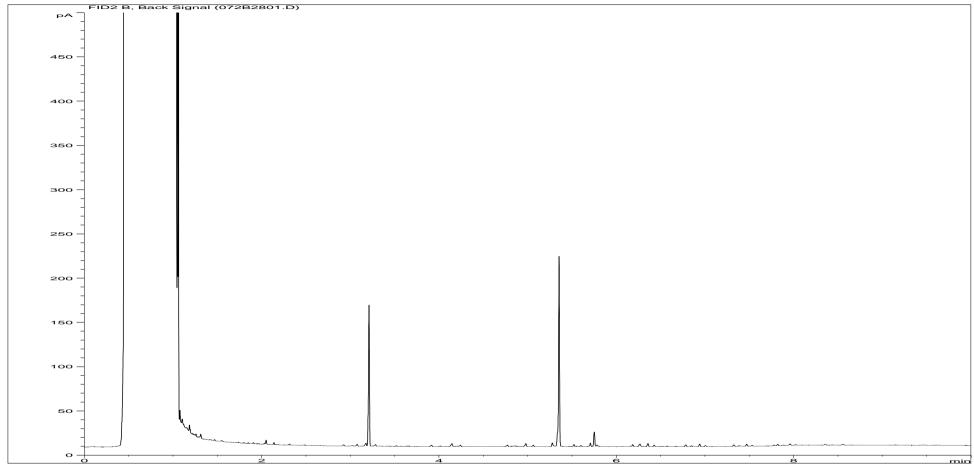


Sample ID:EX1281638ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-2

Acquisition Date/Time: 10-Apr-12, 00:43:06

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\022F2801.D

Page 55 of 107 EXR/134273 Ver. 1

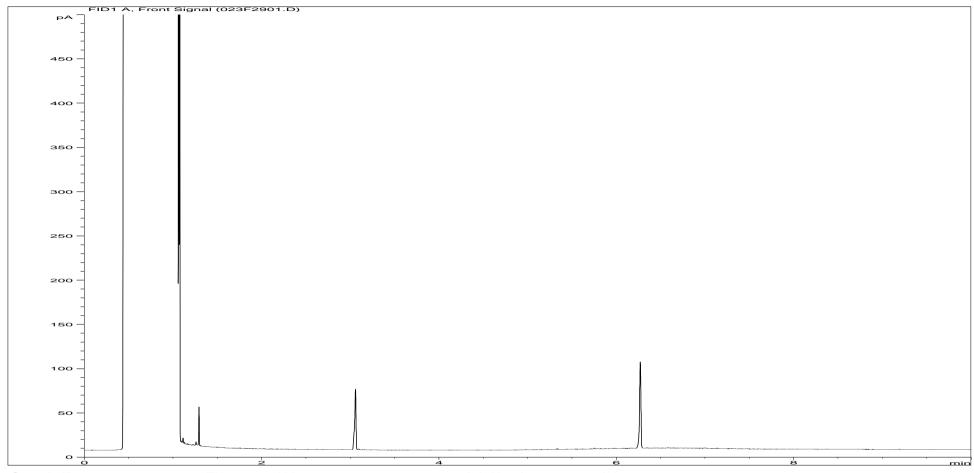


Sample ID:EX1281638AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-2

Acquisition Date/Time: 10-Apr-12, 00:43:06

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\072B2801.D

Page 56 of 107 EXR/134273 Ver. 1

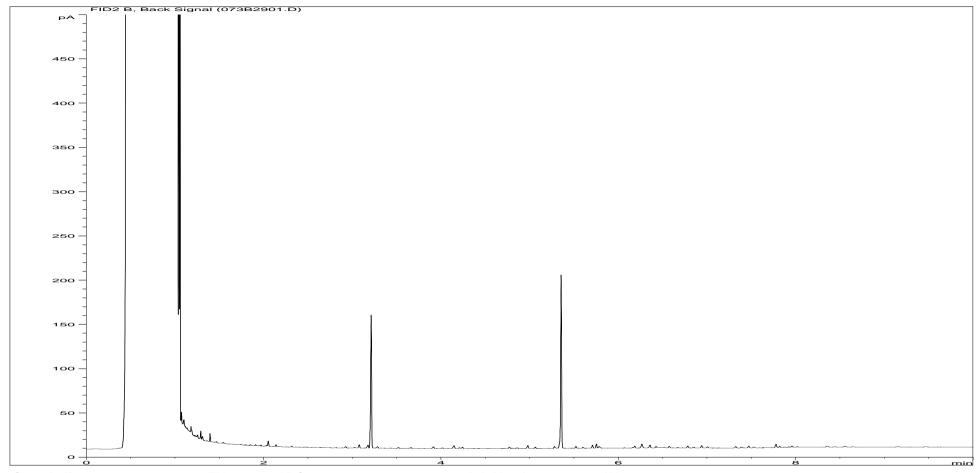


Sample ID:EX1281639ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-3

Acquisition Date/Time: 10-Apr-12, 01:00:04

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\023F2901.D

Page 57 of 107 EXR/134273 Ver. 1

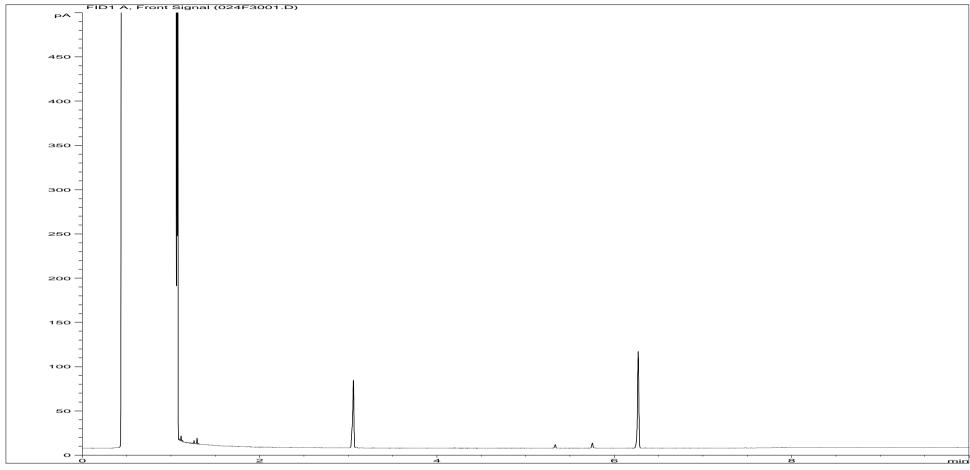


Sample ID:EX1281639AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-3

Acquisition Date/Time: 10-Apr-12, 01:00:04

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\073B2901.D

Page 58 of 107 EXR/134273 Ver. 1

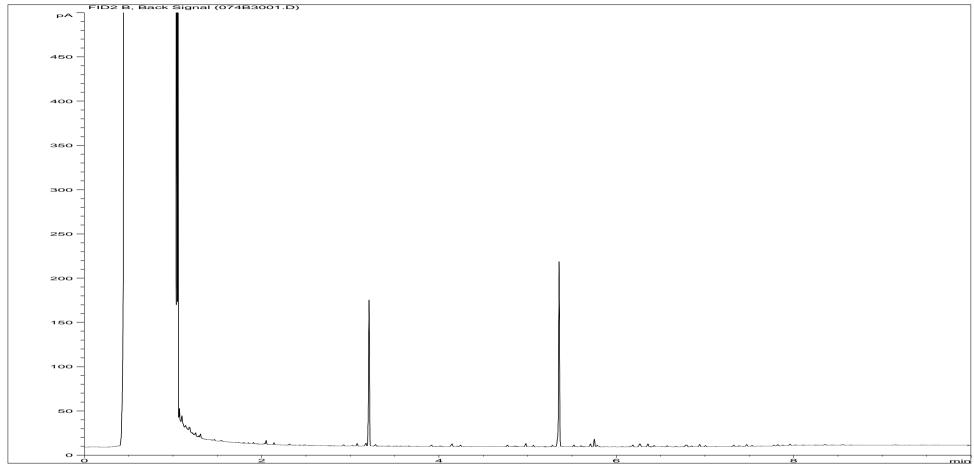


Sample ID:EX1281640ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-4

Acquisition Date/Time: 10-Apr-12, 01:17:02

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\024F3001.D

Page 59 of 107 EXR/134273 Ver. 1

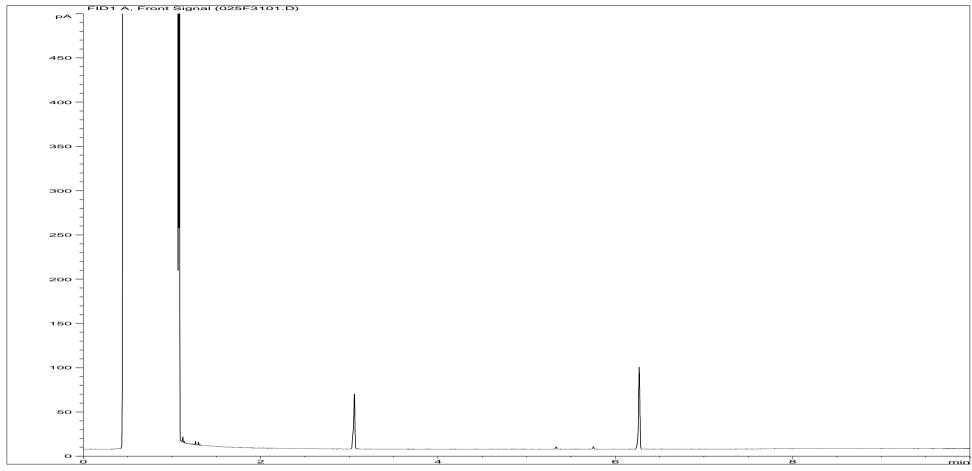


Sample ID:EX1281640AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-4

Acquisition Date/Time: 10-Apr-12, 01:17:02

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\074B3001.D

Page 60 of 107 EXR/134273 Ver. 1

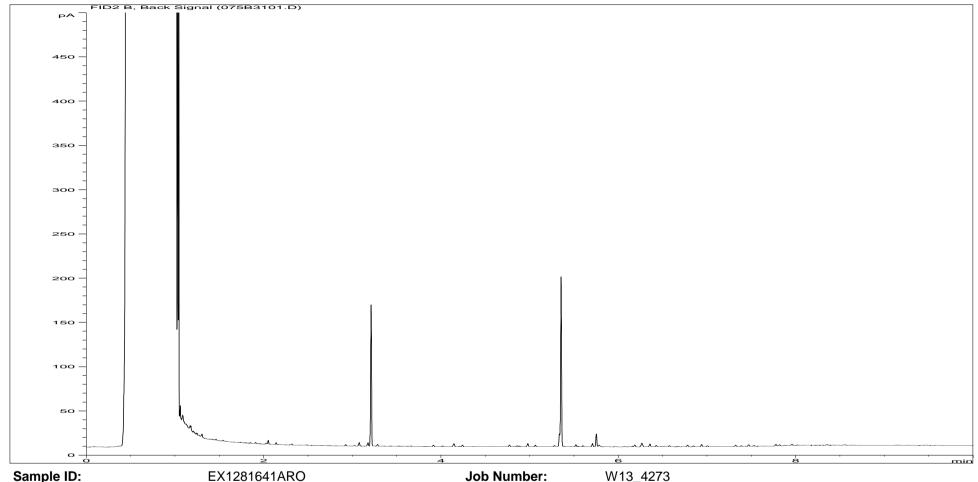


Sample ID:EX1281641ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-5

Acquisition Date/Time: 10-Apr-12, 01:33:52

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\025F3101.D

Page 61 of 107 EXR/134273 Ver. 1



Sample ID: EX1281641ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

10-Apr-12, 01:33:52

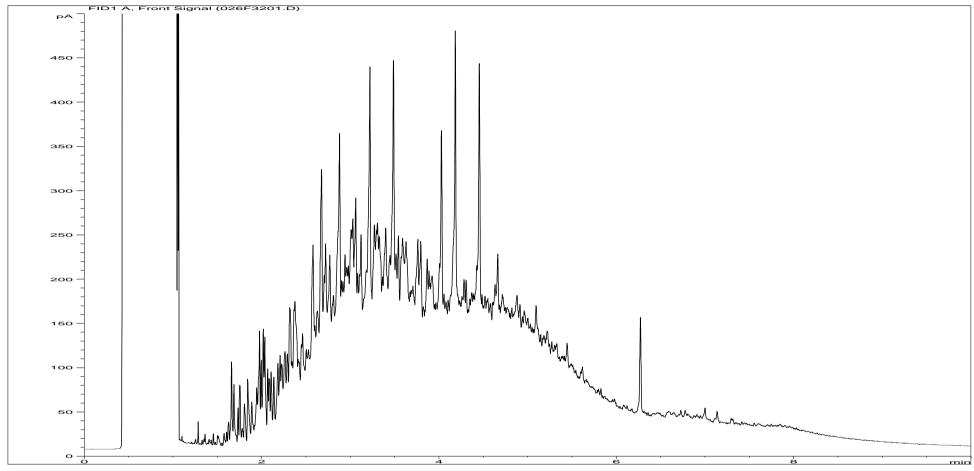
Acquisition Date/Time: Datafile:

Client: Waterman EED Site: Upper Heyford Client Sample Ref:

BH-NSA-5

D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\075B3101.D

Page 62 of 107 EXR/134273 Ver. 1



Sample ID: EX1281642ALI Multiplier: 0.019 Dilution: **Acquisition Method:** TPH_RUNF.M

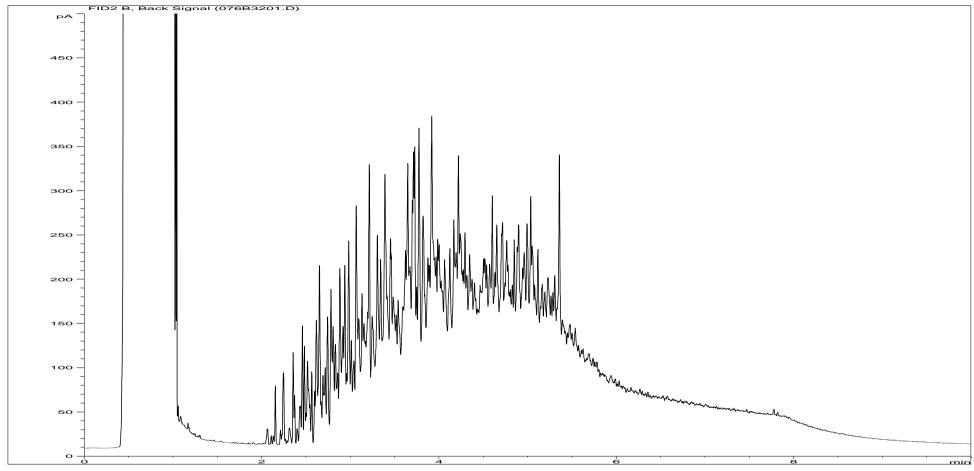
Acquisition Date/Time: 10-Apr-12, 01:50:43

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\026F3201.D

Job Number: W13 4273 Client: Waterman EED Site: Upper Heyford **Client Sample Ref:**

BH-NSA-6

Page 63 of 107 EXR/134273 Ver. 1



Sample ID: EX1281642ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 10-Apr-12, 01:50:43

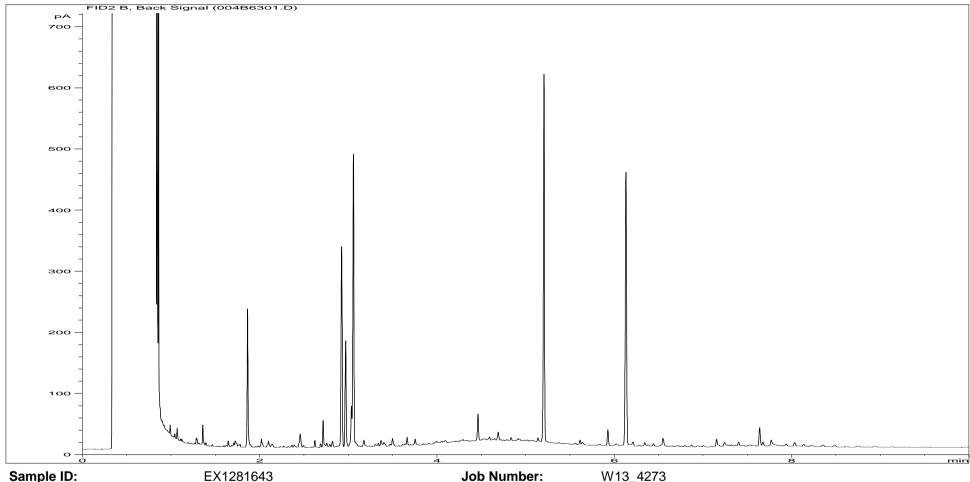
Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\076B3201.D

Job Number: W13 4273 Client: Waterman EED Site: Upper Heyford

Client Sample Ref: BH-NSA-6

Page 64 of 107 EXR/134273 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



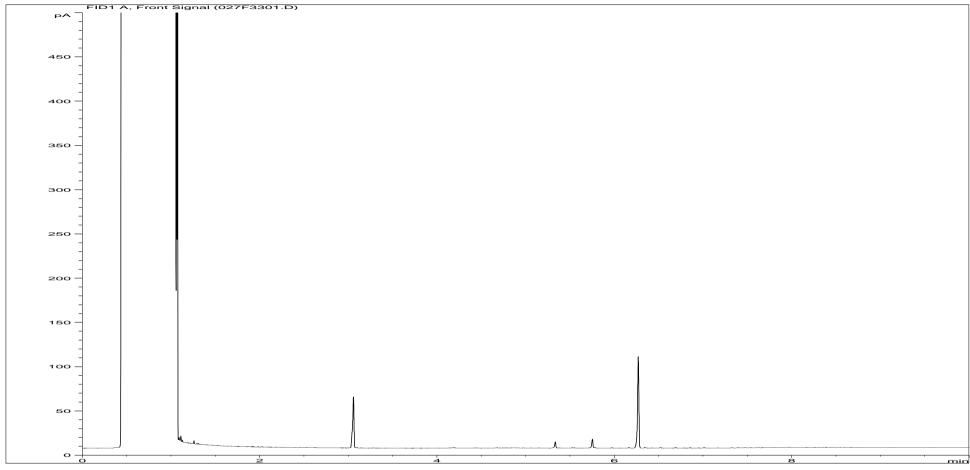
Sample ID:EX1281643Multiplier:0.005Dilution:1Acquisition Method:TPH_RUNF.M

.005 Client: Waterman EED
Site: Upper Heyford
PH_RUNF.M Client Sample Ref: BH-NSA-7

Acquisition Date/Time: 06-Apr-12, 08:28:57

Datafile: D:\TES\DATA\Y2012\040512TPH_GC17\004B6301.D

Page 65 of 107 EXR/134273 Ver. 1

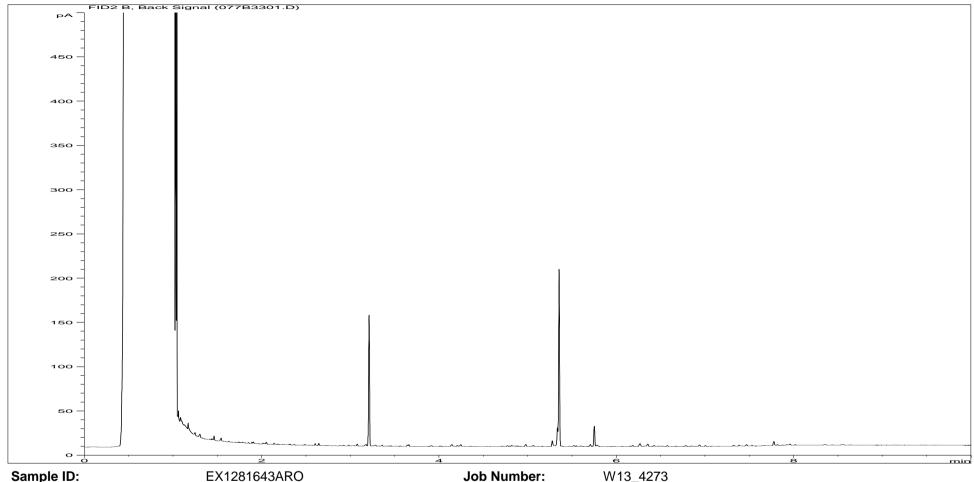


Sample ID:EX1281643ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-7

Acquisition Date/Time: 10-Apr-12, 02:07:39

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\027F3301.D

Page 66 of 107 EXR/134273 Ver. 1



Sample ID: EX1281643ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 10-Apr-12, 02:07:39

Datafile:

D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\077B3301.D

Client:

Client Sample Ref:

Site:

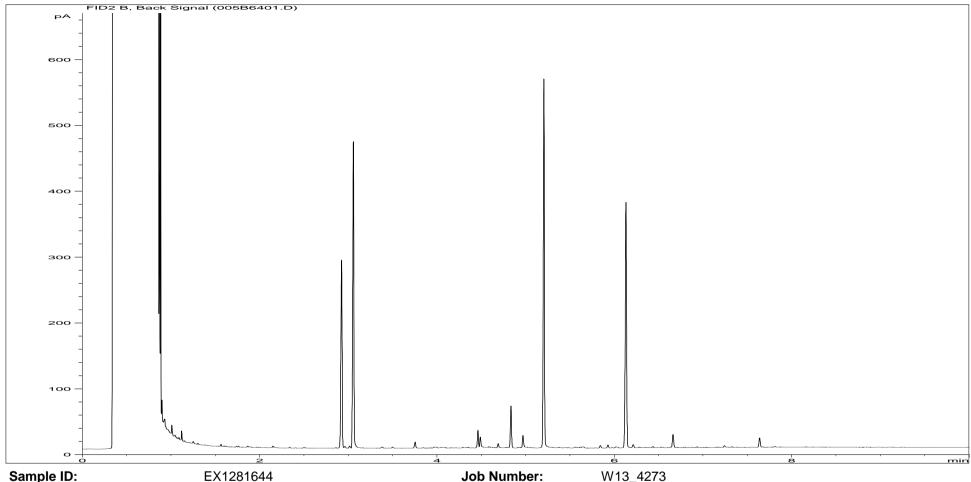
Waterman EED

Upper Heyford

BH-NSA-7

Page 67 of 107 EXR/134273 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:EX1281644Multiplier:0.005Dilution:1Acquisition Method:TPH_RUNF.M

Acquisition Date/Time: 06-Apr-12, 08:45:31

Datafile: D:\TES\DATA\Y2012\040512TPH_GC17\005B6401.D

Client:

Client Sample Ref:

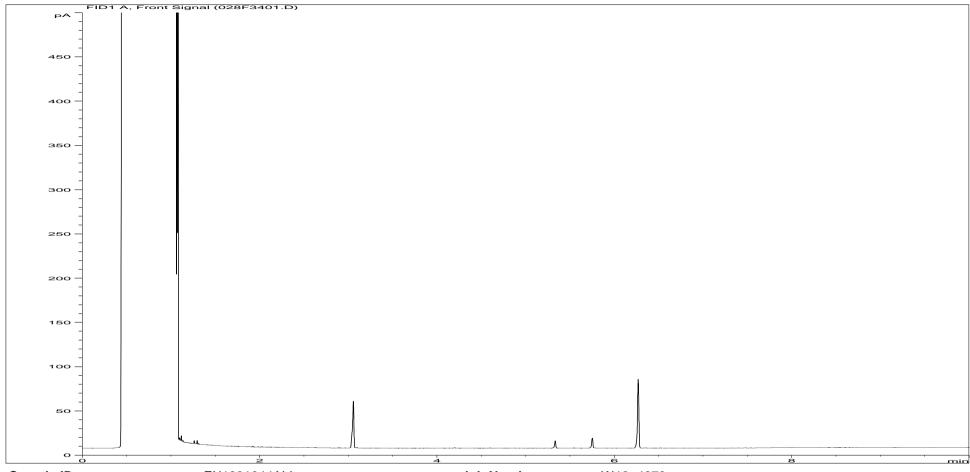
Site:

Waterman EED

Upper Heyford

BH-NSA-8

Page 68 of 107 EXR/134273 Ver. 1

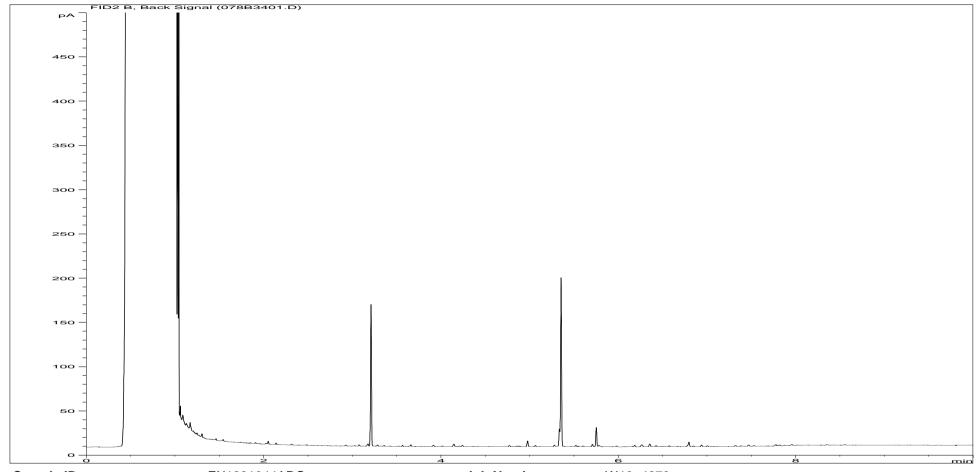


Sample ID:EX1281644ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-8

Acquisition Date/Time: 10-Apr-12, 02:24:33

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\028F3401.D

Page 69 of 107 EXR/134273 Ver. 1



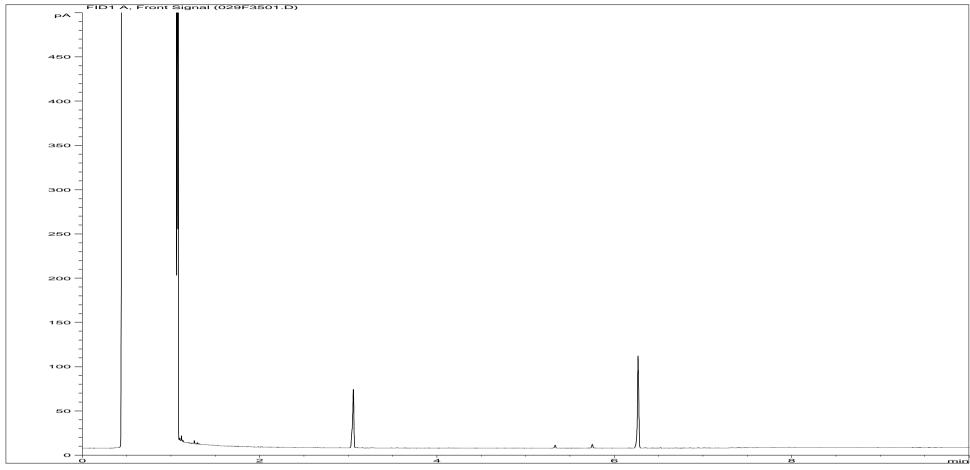
Sample ID:EX1281644AROMultiplier:0.015Dilution:1Acquisition Method:TPH_RUNF.M

Job Number: W13_4273
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA-8

Acquisition Date/Time: 10-Apr-12, 02:24:33

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\078B3401.D

Page 70 of 107 EXR/134273 Ver. 1

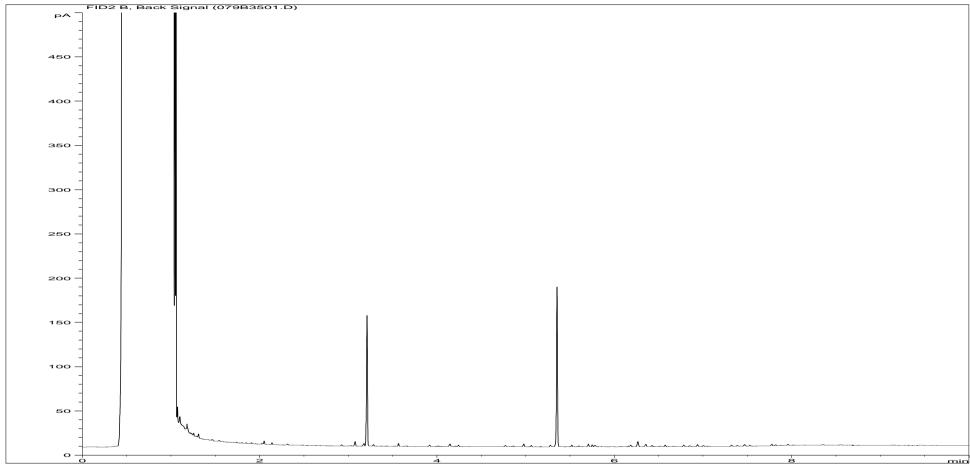


Sample ID:EX1281645ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-9

Acquisition Date/Time: 10-Apr-12, 02:41:20

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\029F3501.D

Page 71 of 107 EXR/134273 Ver. 1

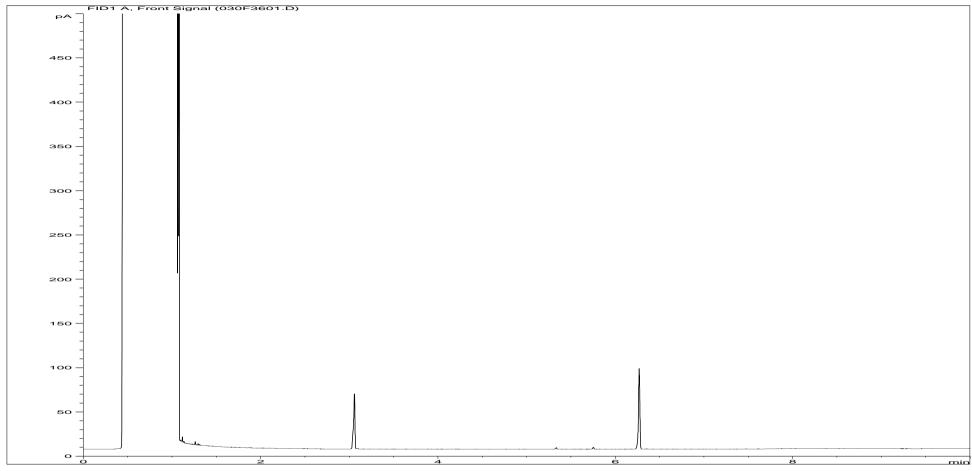


Sample ID:EX1281645AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-9

Acquisition Date/Time: 10-Apr-12, 02:41:20

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\079B3501.D

Page 72 of 107 EXR/134273 Ver. 1

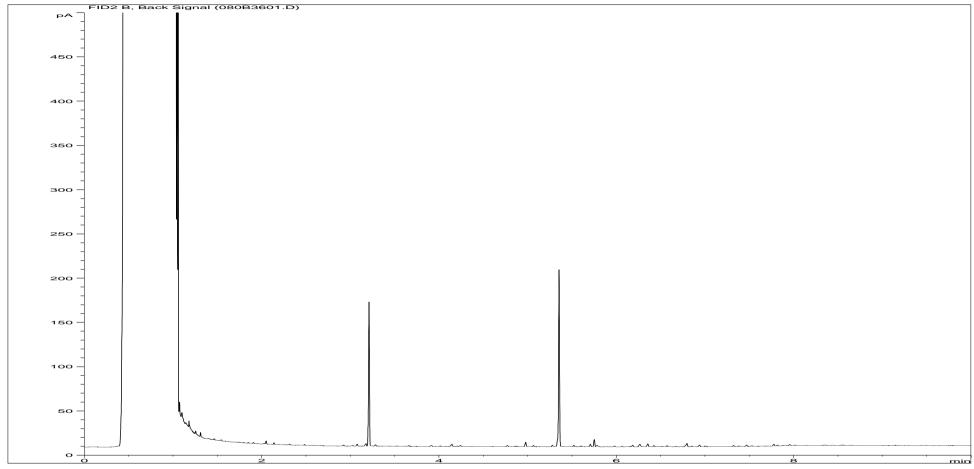


Sample ID:EX1281646ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-10

Acquisition Date/Time: 10-Apr-12, 02:58:08

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\030F3601.D

Page 73 of 107 EXR/134273 Ver. 1

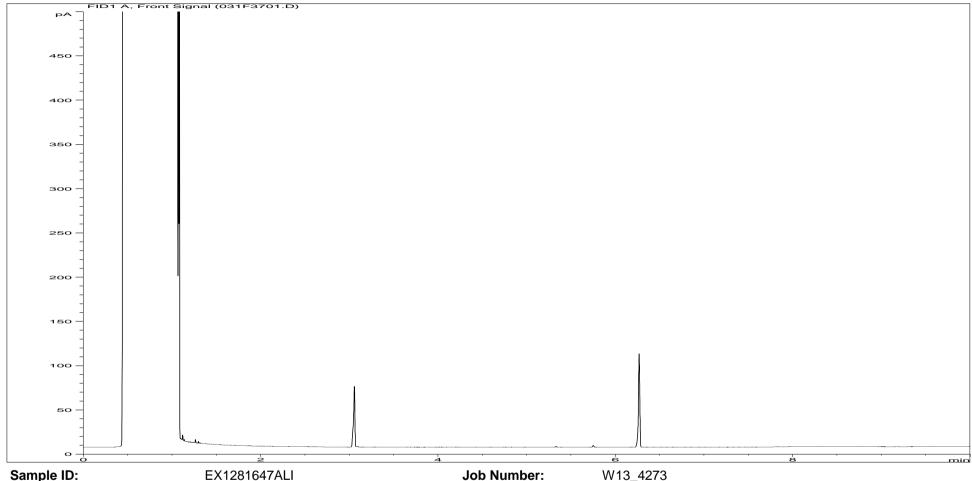


Sample ID:EX1281646AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-10

Acquisition Date/Time: 10-Apr-12, 02:58:08

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\080B3601.D

Page 74 of 107 EXR/134273 Ver. 1



Sample ID: EX1281647ALI
Multiplier: 0.019
Dilution: 1
Acquisition Method: TPH_RUNF.M

Acquisition Date/Time:

Datafile:

TPH_RUNF.M Client Sample Ref: 10-Apr-12, 03:15:03

D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\031F3701.D

Client:

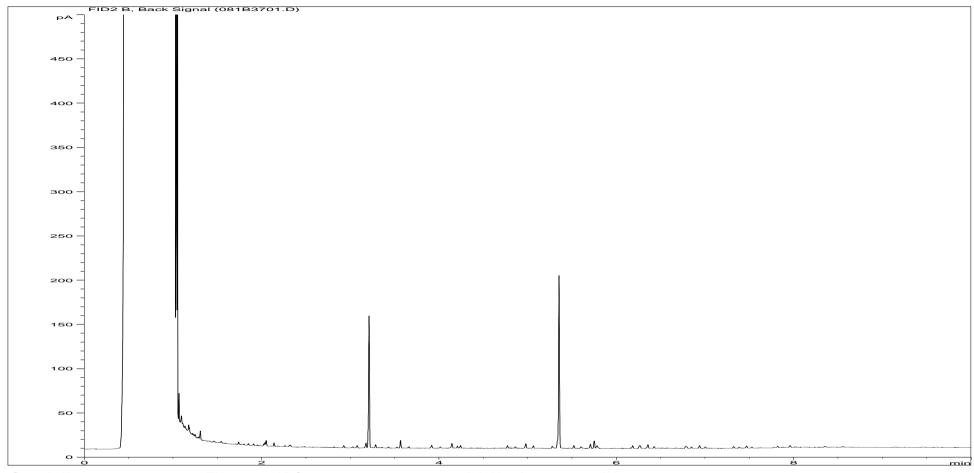
Site:

Waterman EED

Upper Heyford

BH-NSA-11

Page 75 of 107 EXR/134273 Ver. 1

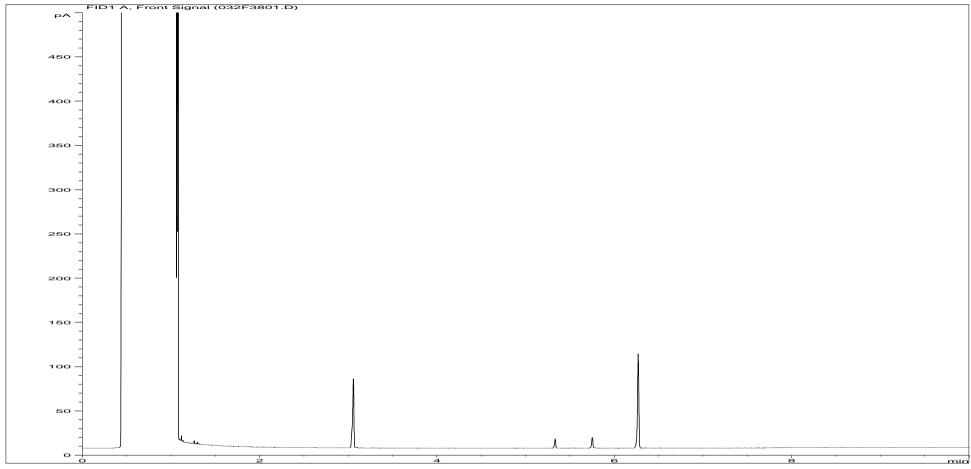


Sample ID:EX1281647AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-11

Acquisition Date/Time: 10-Apr-12, 03:15:03

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\081B3701.D

Page 76 of 107 EXR/134273 Ver. 1

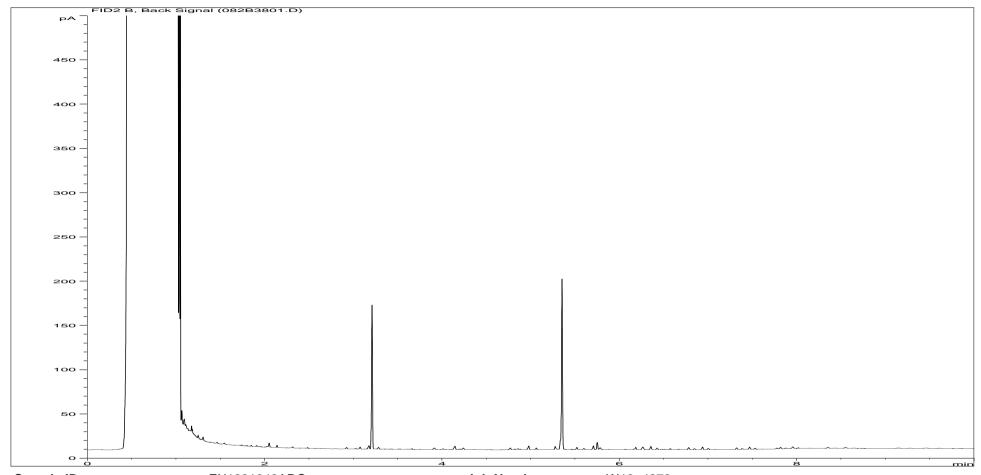


Sample ID:EX1281648ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-12

Acquisition Date/Time: 10-Apr-12, 03:31:56

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\032F3801.D

Page 77 of 107 EXR/134273 Ver. 1

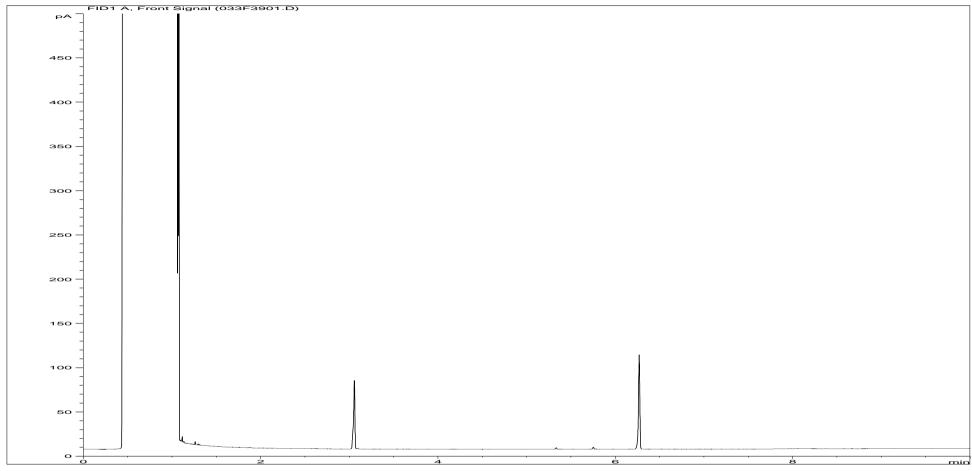


Sample ID:EX1281648AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-12

Acquisition Date/Time: 10-Apr-12, 03:31:56

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\082B3801.D

Page 78 of 107 EXR/134273 Ver. 1

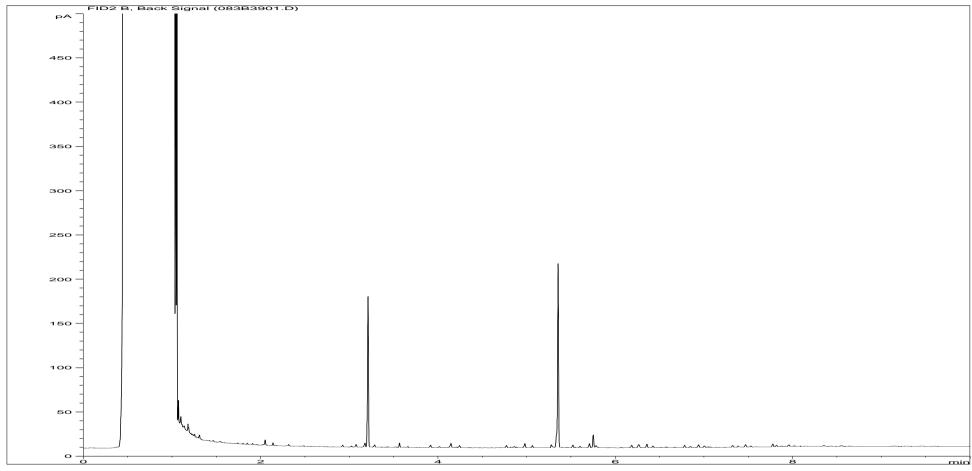


Sample ID:EX1281649ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-13

Acquisition Date/Time: 10-Apr-12, 03:48:39

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\033F3901.D

Page 79 of 107 EXR/134273 Ver. 1

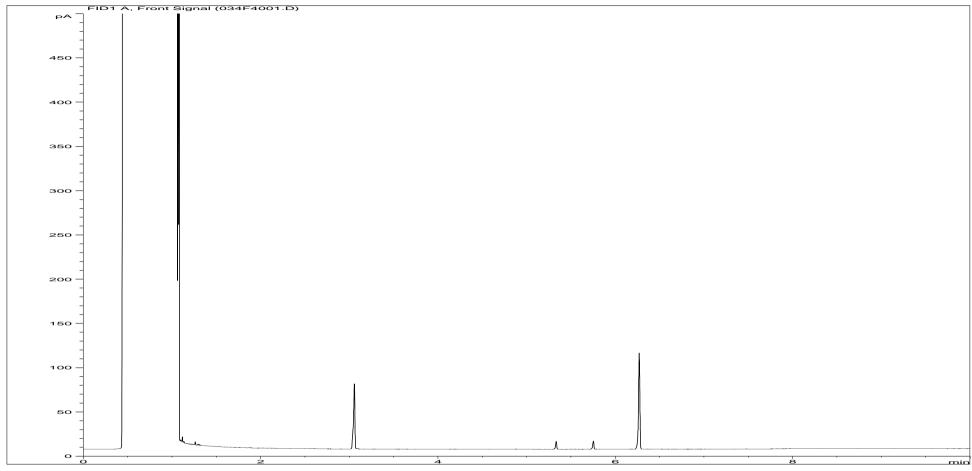


Sample ID:EX1281649AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-13

Acquisition Date/Time: 10-Apr-12, 03:48:39

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\083B3901.D

Page 80 of 107 EXR/134273 Ver. 1

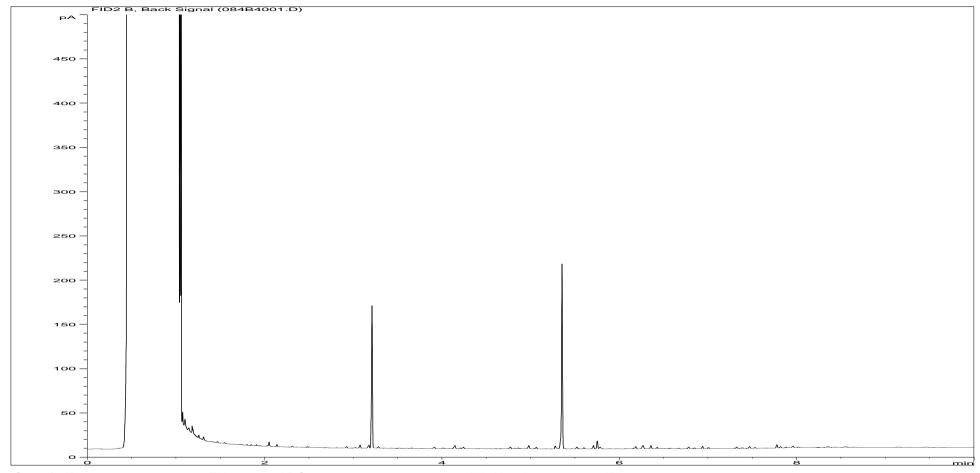


Sample ID:EX1281650ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-14

Acquisition Date/Time: 10-Apr-12, 04:05:27

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\034F4001.D

Page 81 of 107 EXR/134273 Ver. 1

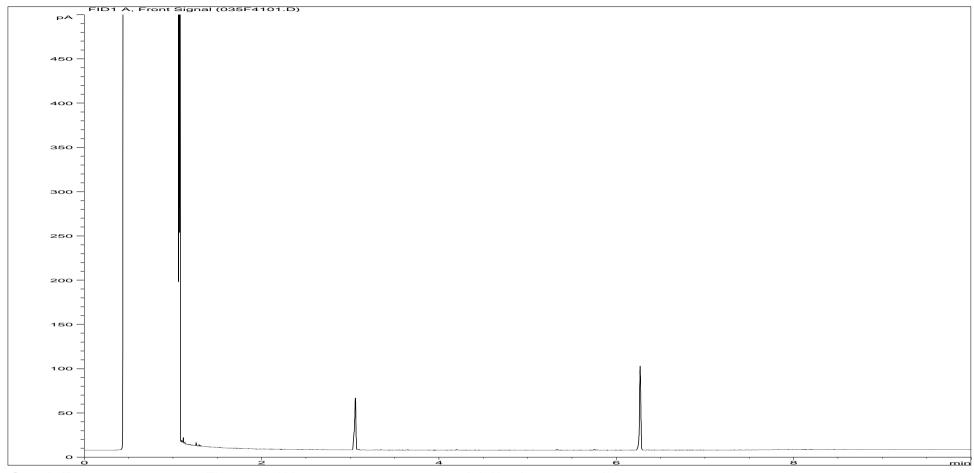


Sample ID:EX1281650AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-14

Acquisition Date/Time: 10-Apr-12, 04:05:27

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\084B4001.D

Page 82 of 107 EXR/134273 Ver. 1

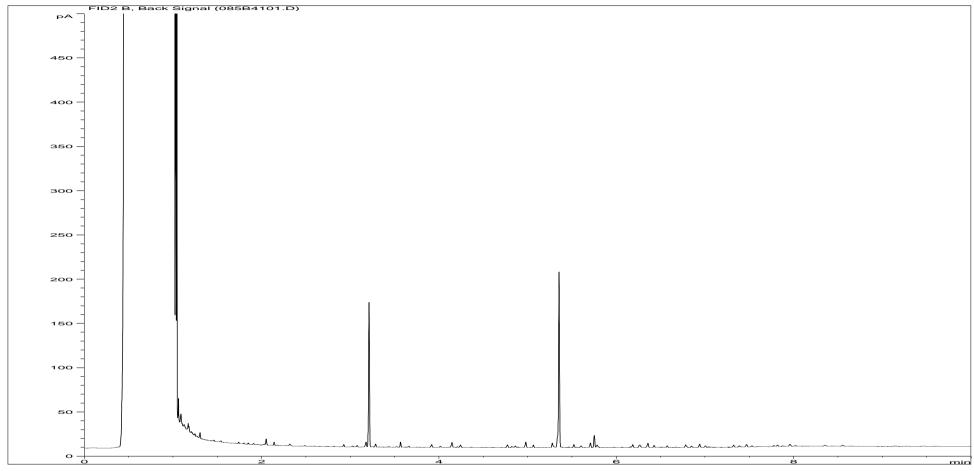


Sample ID:EX1281651ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-15

Acquisition Date/Time: 10-Apr-12, 04:22:18

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\035F4101.D

Page 83 of 107 EXR/134273 Ver. 1

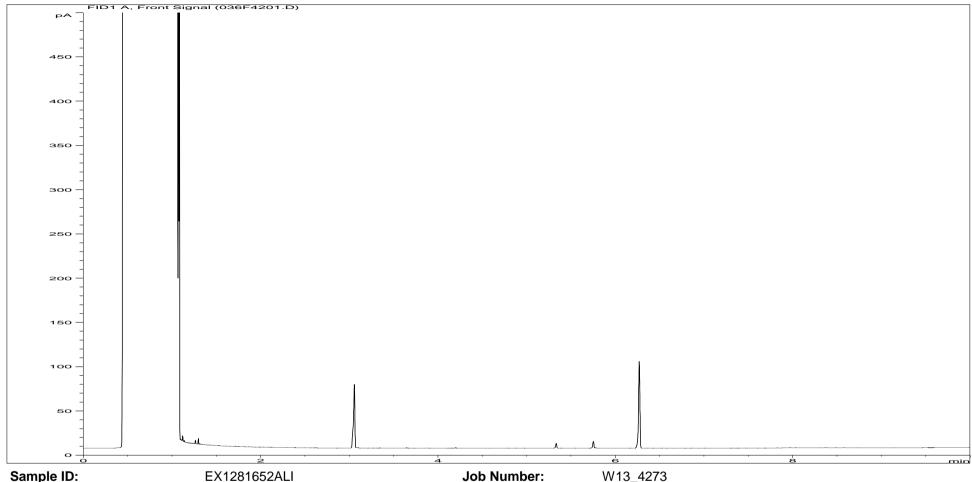


Sample ID:EX1281651AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-15

Acquisition Date/Time: 10-Apr-12, 04:22:18

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\085B4101.D

Page 84 of 107 EXR/134273 Ver. 1



Sample ID:EX1281652ALIJob Number:Multiplier:0.019Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 10-Apr-12, 04:39:09

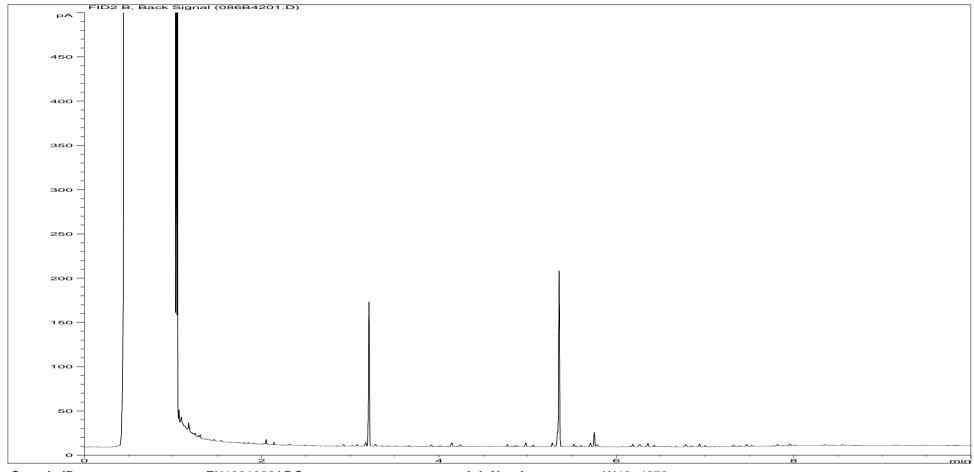
Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\036F4201.D

Waterman EED

Upper Heyford

BH-NSA-16

Page 85 of 107 EXR/134273 Ver. 1

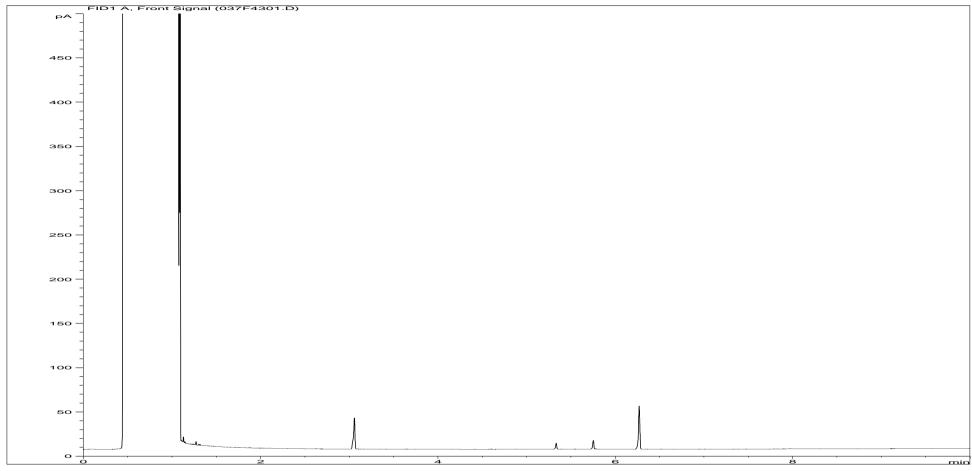


Sample ID:EX1281652AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-16

Acquisition Date/Time: 10-Apr-12, 04:39:09

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\086B4201.D

Page 86 of 107 EXR/134273 Ver. 1

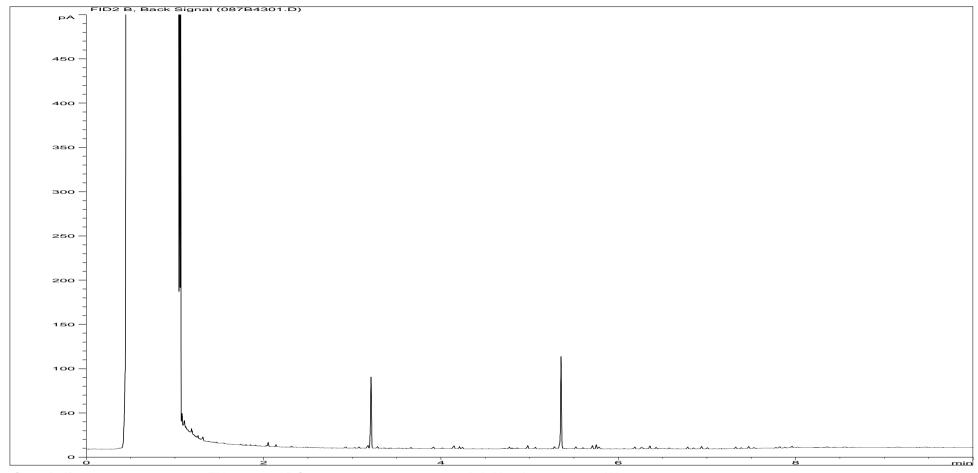


Sample ID:EX1281653ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-17

Acquisition Date/Time: 10-Apr-12, 04:55:56

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\037F4301.D

Page 87 of 107 EXR/134273 Ver. 1

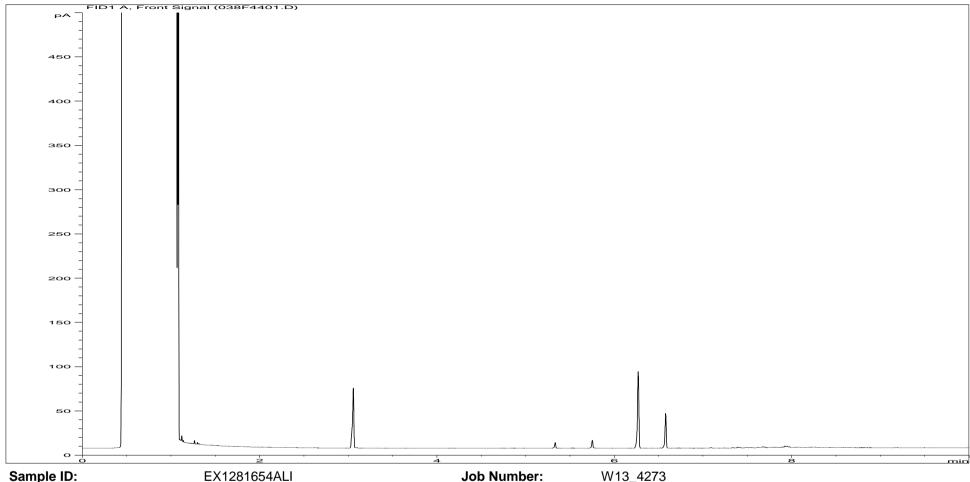


Sample ID:EX1281653AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-17

Acquisition Date/Time: 10-Apr-12, 04:55:56

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\087B4301.D

Page 88 of 107 EXR/134273 Ver. 1



Sample ID:EX1281654ALIJob Number:Multiplier:0.019Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 10-Apr-12, 05:13:16

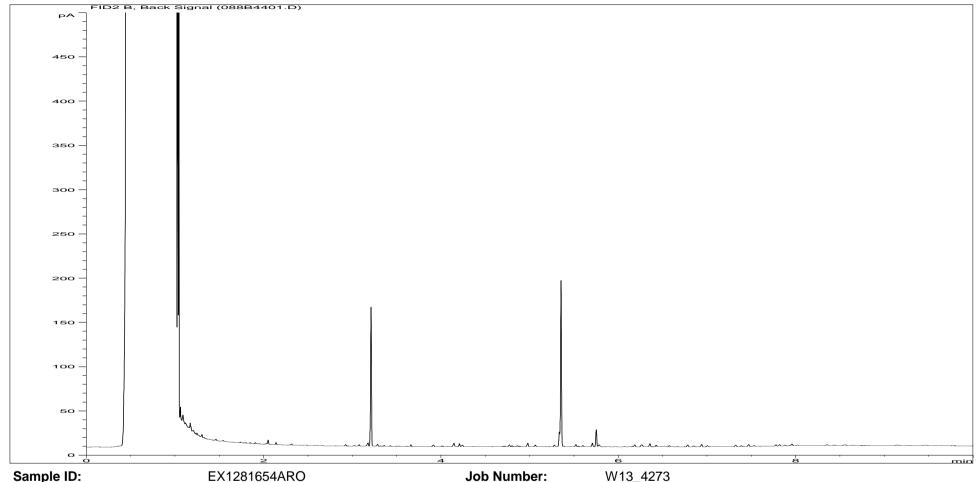
Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\038F4401.D

Waterman EED

Upper Heyford

BH-NSA-18

Page 89 of 107 EXR/134273 Ver. 1



Sample ID: EX1281654ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

10-Apr-12, 05:13:16

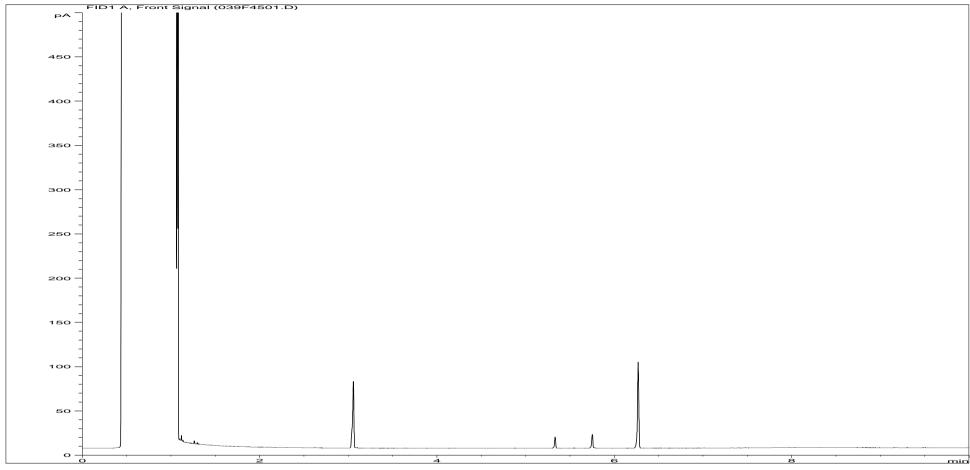
Acquisition Date/Time: Datafile:

Client: Waterman EED Site: Upper Heyford

Client Sample Ref: BH-NSA-18

D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\088B4401.D

Page 90 of 107 EXR/134273 Ver. 1

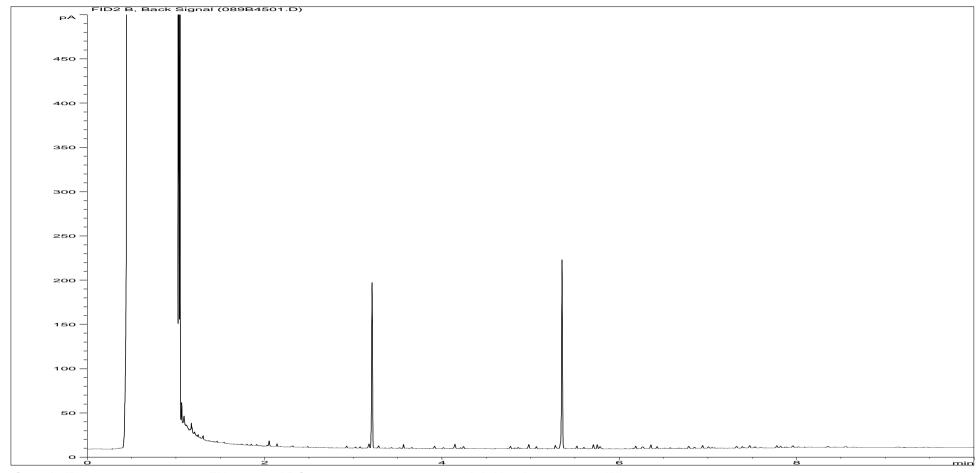


Sample ID:EX1281655ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-19

Acquisition Date/Time: 10-Apr-12, 05:30:06

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\039F4501.D

Page 91 of 107 EXR/134273 Ver. 1

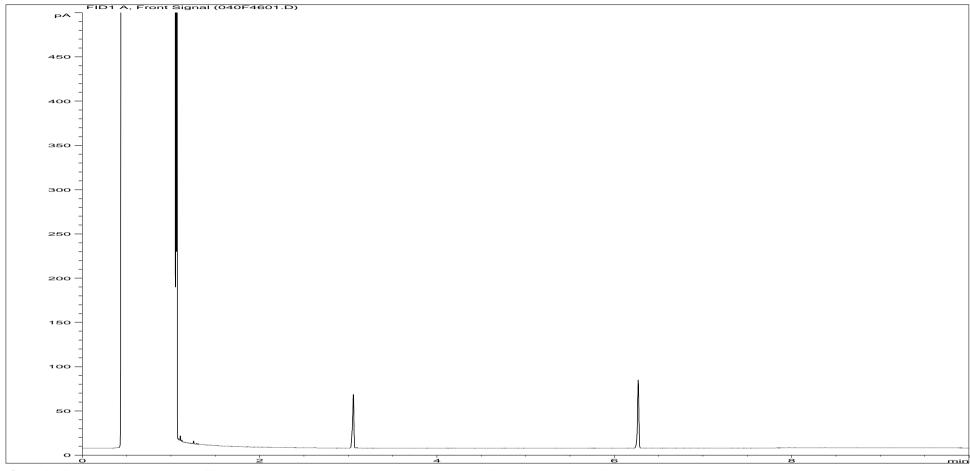


Sample ID:EX1281655AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-19

Acquisition Date/Time: 10-Apr-12, 05:30:06

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\089B4501.D

Page 92 of 107 EXR/134273 Ver. 1

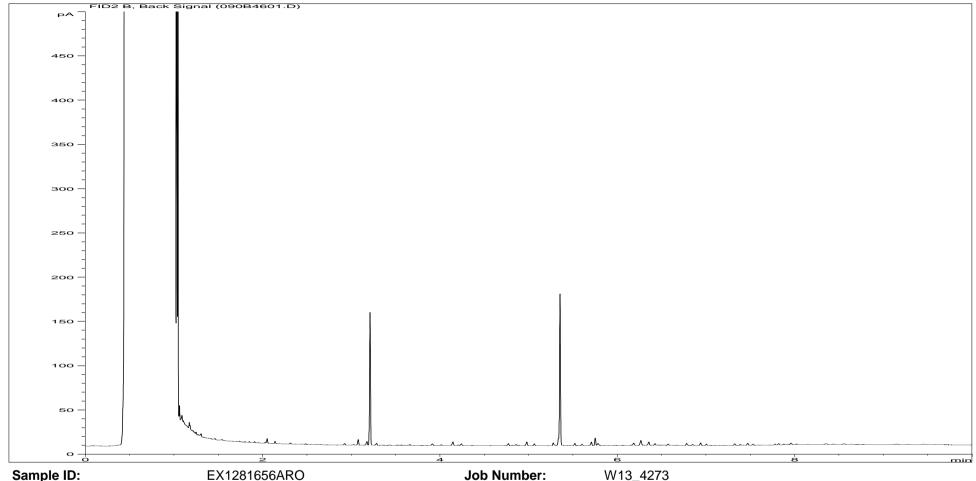


Sample ID:EX1281656ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA20

Acquisition Date/Time: 10-Apr-12, 05:46:58

Datafile: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\040F4601.D

Page 93 of 107 EXR/134273 Ver. 1



Sample ID: EX1281656ARO Multiplier: 0.015 Dilution: **Acquisition Method:** TPH_RUNF.M

10-Apr-12, 05:46:58

Acquisition Date/Time:

Datafile:

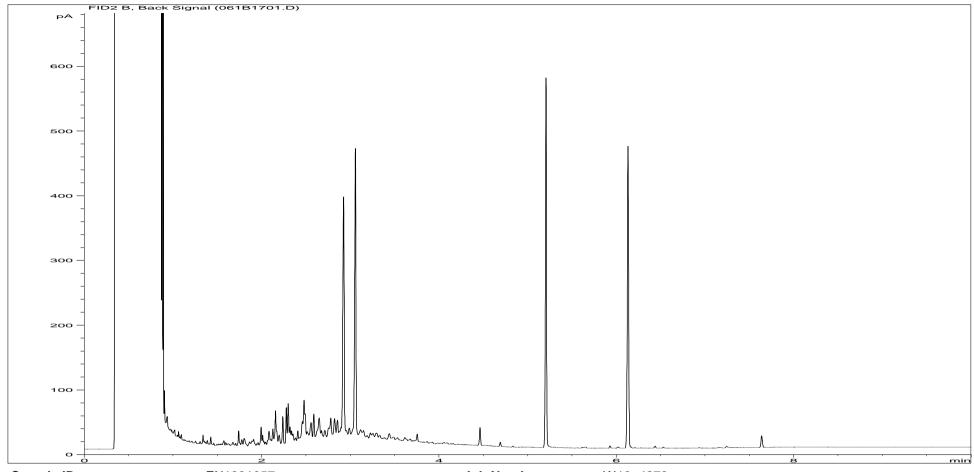
Client: Waterman EED Site: Upper Heyford

Client Sample Ref: BH-NSA20

D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\090B4601.D

Page 94 of 107 EXR/134273 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID

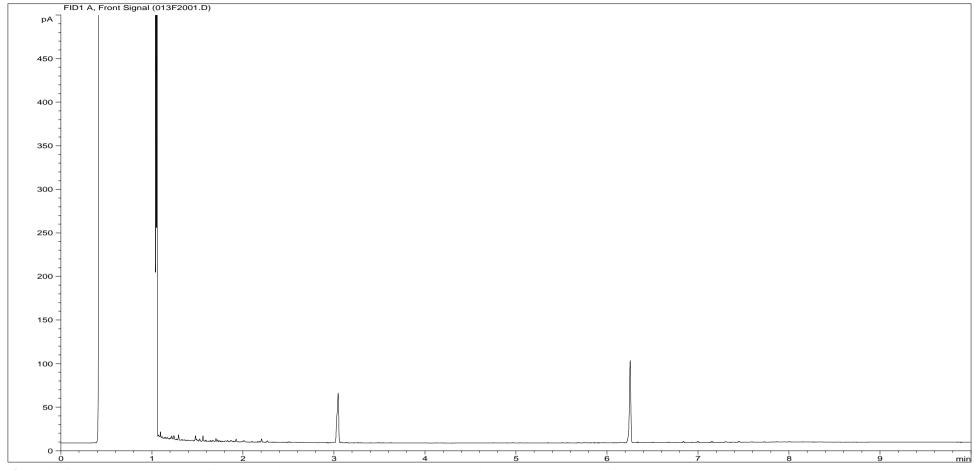


Sample ID:EX1281657Job Number:W13_4273Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-21

Acquisition Date/Time: 05-Apr-12, 19:43:19

Datafile: D:\TES\DATA\Y2012\040512TPH_GC17\061B1701.D

Page 95 of 107 EXR/134273 Ver. 1

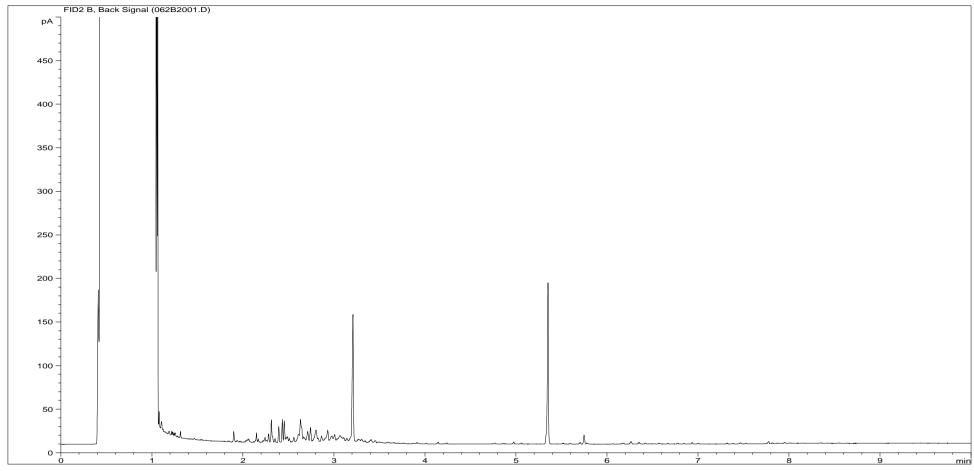


Sample ID:EX1281657ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-21

Acquisition Date/Time: 12-Apr-12, 16:53:46

Datafile: D:\TES\DATA\Y2012\041212TPH_GC15\041212 2012-04-12 08-48-34\013F2001.D

Page 96 of 107 EXR/134273 Ver. 1



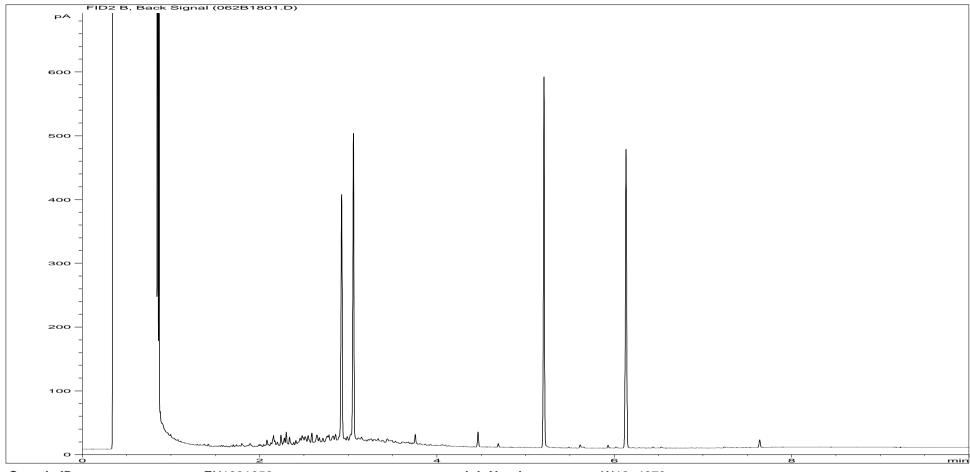
Sample ID:EX1281657AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-21

Acquisition Date/Time: 12-Apr-12, 16:53:46

Datafile: D:\TES\DATA\Y2012\041212TPH_GC15\041212 2012-04-12 08-48-34\062B2001.D

Page 97 of 107 EXR/134273 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID

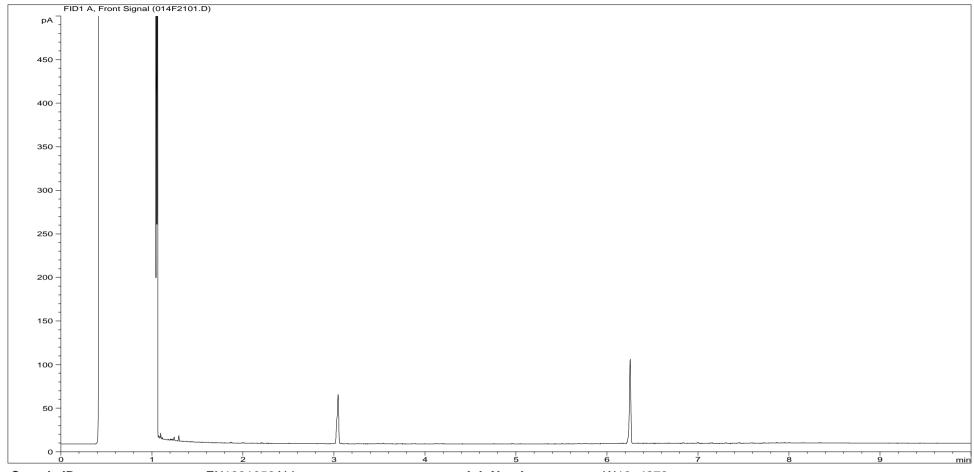


Sample ID:EX1281658Job Number:W13_4273Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-22

Acquisition Date/Time: 05-Apr-12, 20:00:09

Datafile: D:\TES\DATA\Y2012\040512TPH_GC17\062B1801.D

Page 98 of 107 EXR/134273 Ver. 1

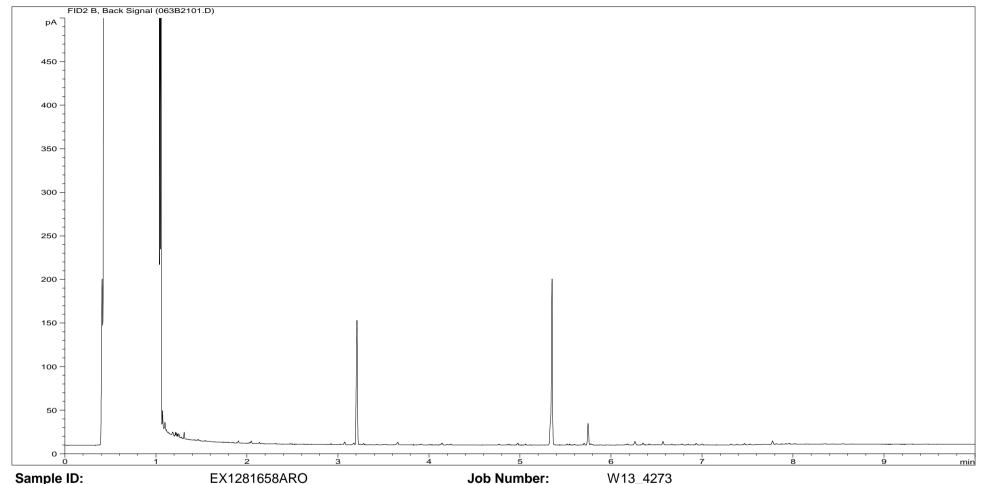


Sample ID:EX1281658ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-22

Acquisition Date/Time: 12-Apr-12, 17:10:52

Datafile: D:\TES\DATA\Y2012\041212TPH_GC15\041212 2012-04-12 08-48-34\014F2101.D

Page 99 of 107 EXR/134273 Ver. 1



Sample ID:EX1281658AROMultiplier:0.015Dilution:1Acquisition Method:TPH_RUNF.M

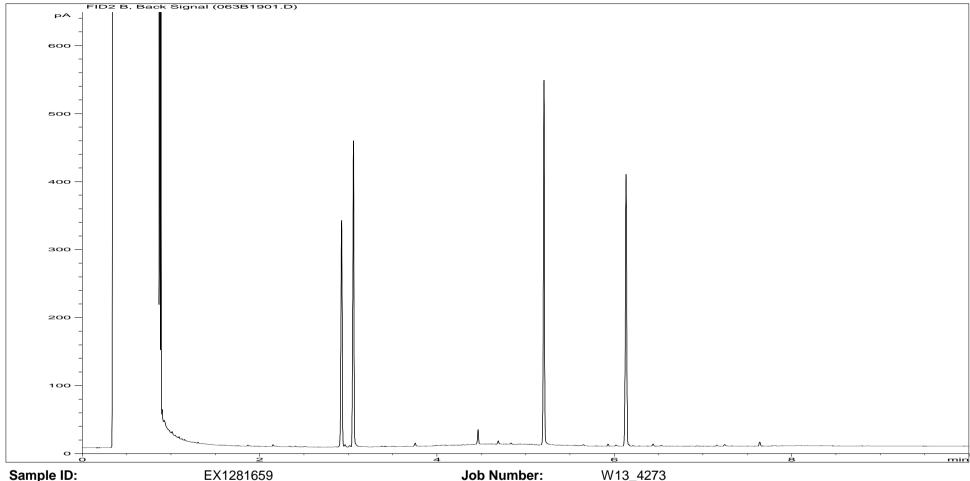
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA-22

Acquisition Date/Time: 12-Apr-12, 17:10:52

Datafile: D:\TES\DATA\Y2012\041212TPH_GC15\041212 2012-04-12 08-48-34\063B2101.D

Page 100 of 107 EXR/134273 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



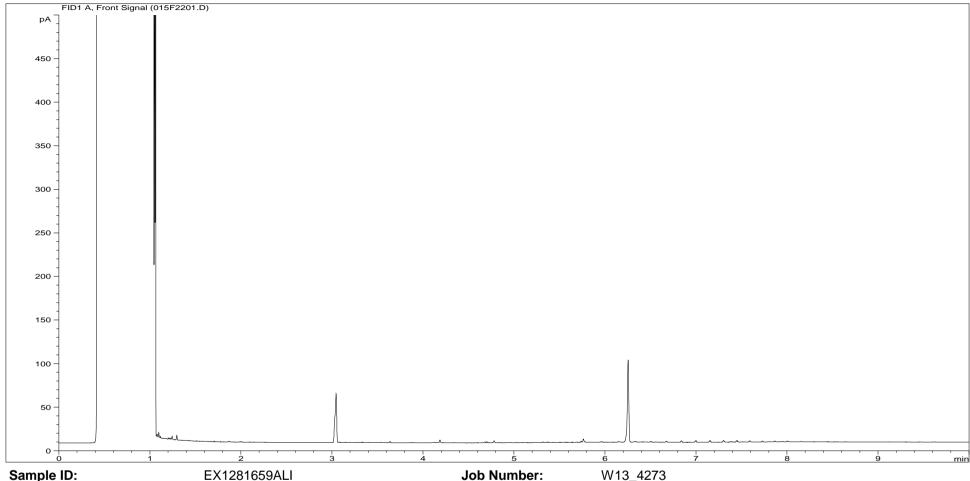
Sample ID:EX1281659Multiplier:0.005Dilution:1Acquisition Method:TPH_RUNF.M

Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA-38

Acquisition Date/Time: 05-Apr-12, 20:16:54

Datafile: D:\TES\DATA\Y2012\040512TPH_GC17\063B1901.D

Page 101 of 107 EXR/134273 Ver. 1

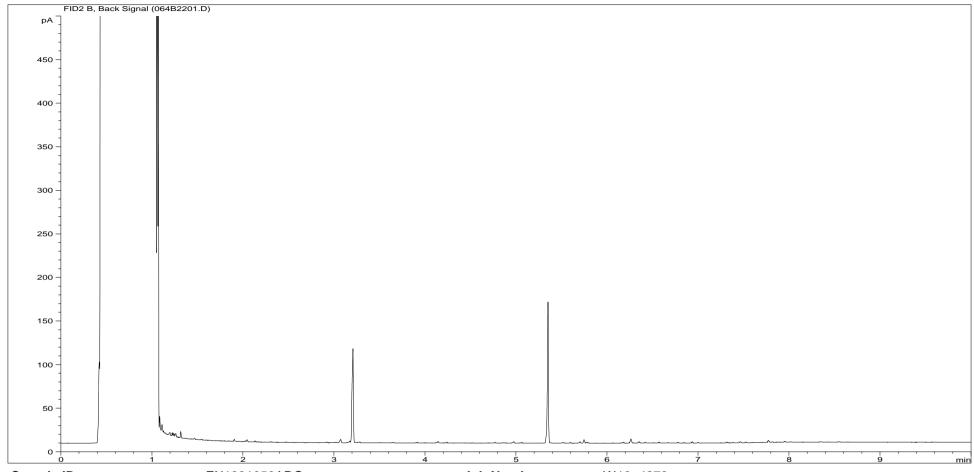


Sample ID:EX1281659ALIJob Number:W13_4273Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-38

Acquisition Date/Time: 12-Apr-12, 17:28:11

Datafile: D:\TES\DATA\Y2012\041212TPH_GC15\041212 2012-04-12 08-48-34\015F2201.D

Page 102 of 107 EXR/134273 Ver. 1



Sample ID:EX1281659AROJob Number:W13_4273Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-38

Acquisition Date/Time: 12-Apr-12, 17:28:11

Datafile: D:\TES\DATA\Y2012\041212TPH_GC15\041212 2012-04-12 08-48-34\064B2201.D

Page 103 of 107 EXR/134273 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W134273 **Report No**

Consignment No W35676 Date Logged 27-Mar-2012

Report Due 10-Apr-2012

							17ehr	nt Du	e 10- <i>F</i>
		MethodID	CUSTSERV	GROHSA		PAHMSW	svocsw	TPHFID	TPHFID-Si
ID Number	Description	Sampled	Report B	GRO-HSA GCFID (AA)	MTBE-HSA	PAH GC-MS (16)	SVOC	ТРН GC	TPH by GC(Si)
	Accredited	to ISO17025		✓	✓	✓		✓	✓
EX/1281637	BH-NSA-1	22/03/12							
EX/1281638	BH-NSA-2	22/03/12							
EX/1281639	BH-NSA-3	22/03/12							
EX/1281640	BH-NSA-4	22/03/12							
EX/1281641	BH-NSA-5	22/03/12							
EX/1281642	BH-NSA-6	22/03/12							
EX/1281643	BH-NSA-7	22/03/12							
EX/1281644	BH-NSA-8	22/03/12							
EX/1281645	BH-NSA-9	22/03/12							
EX/1281646	BH-NSA-10	22/03/12							
EX/1281647	BH-NSA-11	22/03/12							
EX/1281648	BH-NSA-12	22/03/12							
EX/1281649	BH-NSA-13	22/03/12							
EX/1281650	BH-NSA-14	22/03/12							
EX/1281651	BH-NSA-15	22/03/12							

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating S	ample Ke	eν
-------------	----------	----

- appropriate container for this analysis
- В С he correct preservation for this analysis
 - in the sample container
- time may be compromised applicable to all analysis
 - ince within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

No analysis scheduled

Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site **Report No**

Consignment No W35676 Date Logged 27-Mar-2012

W134273 Report Due 10-Apr-2012

							rept	nıbu	e 10- <i>F</i>
		MethodID	CUSTSERV	GROHSA		MSWHAA	SVOCSW	DIHHAL	TPHFID-Si
ID Number	Description	Sampled	Report B	GRO-HSA GCFID (AA)	MTBE-HSA	PAH GC-MS (16)	SVOC	TPH GC	TPH by GC(Si)
Accredited to ISO17025				✓	✓	✓		✓	✓
EX/1281652	BH-NSA-16	22/03/12							
EX/1281653	BH-NSA-17	22/03/12							
EX/1281654	BH-NSA-18	22/03/12							
EX/1281655	BH-NSA-19	22/03/12							
EX/1281656	BH-NSA20	22/03/12							
EX/1281657	BH-NSA-21	22/03/12							
EX/1281658	BH-NSA-22	22/03/12							
EX/1281659	BH-NSA-38	22/03/12							

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

		Kev

- appropriate container for this analysis
- В С he correct preservation for this analysis
 - in the sample container
- time may be compromised applicable to all analysis
 - ince within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/134273

Method Descriptions

Matrix	atrix MethodID Analysis		Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace FID
Water	PAHMSW	As Received	Determination of PolyAromatic Hydrocarbons in water by pentane extraction GCMS quantitation
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by DCM extraction followed by GCMS detection
Water	TPHFID	As Received	Determination of pentane extractable hydrocarbons in water by GCFID
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in water by GCFID

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/134280 (Ver. 1) Your Ref: E10658-109

April 11, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

ESC

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/134280 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 11 samples described in this report were registered for analysis by ESG on 27-Mar-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 11-Apr-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 15)
Table of GRO Results (Page 16)
Table of TPH (Si) banding (0.01) (Page 17)
GC-FID Chromatograms (Pages 18 to 39)
Analytical and Deviating Sample Overview (Pages 40 to 41)
Table of Method Descriptions (Page 42)
Table of Report Notes (Page 43)

On behalf of ESG:
Andrew Timms

Operations Manager

Date of Issue: 11-Apr-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR		ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
LAB ID Number EX/	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as CI w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1281680	BH-NSA 23	25-Mar-12	7.5	674	261	Nil	19	57	142	10	11	0.003	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1281681	BH-NSA 24	25-Mar-12	7.7	742	258	Nil	59	43	141	3	40	0.003	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1281682	BH-NSA 25	25-Mar-12	7.6	799	319	Nil	65	46	159	6	32	0.015	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1281683	BH-NSA 24X	25-Mar-12	7.7	734	223	Nil	60	44	139	3	39	0.015	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1281684	BH-NSA 26	25-Mar-12	7.5	730	304	Nil	47	28	153	5	30	0.044	0.006	<0.0001	<0.001	0.002	<0.002	<0.001
1281685	BH-NSA 27	25-Mar-12	7.6	608	261	Nil	19	51	137	6	12	0.004	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1281686	BH-NSA 28A	25-Mar-12	7.7	562	250	Nil	14	47	133	7	8	0.002	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1281687	BH-NSA 29	25-Mar-12	7.7	566	263	Nil	14	37	139	3	8	0.002	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1281688	BH-NSA 30	25-Mar-12	7.7	552	247	Nil	14	39	137	4	8	0.002	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1281689	BH-NSA 31	25-Mar-12	7.8	581	255	Nil	14	51	127	11	7	0.002	0.004	<0.0001	<0.001	<0.001	<0.002	<0.001
1281690	BH-NSA 32	25-Mar-12	7.6	856	320	Nil	83	40	163	3	43	0.003	0.006	<0.0001	<0.001	<0.001	<0.002	<0.001
	ESG Environmental Scientifics Group		Client N		Watern Mr F Alco	nan EED						V	Vater S	ample .	Analysi	is		
	Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422					Upp	er He	yford				Date Prii Report N Table Nu	lumber			-Apr-2012 XR/134280 1		

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW	PHEHPLCVL	PHEHPLCVL	
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.01 Yes	No	6 No	0.002 No	0.0005 No	0.0005 No	0.0005 No
LAB ID Number EX	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols
1281680	BH-NSA 23	25-Mar-12	0.02	<0.0001	<0.001	<0.01	<0.2	<0.01	9	2.1	Req	Req	2.8	16	Req	<0.0005	<0.0005	<0.0005
1281681	BH-NSA 24	25-Mar-12	0.05	<0.0001	<0.001	<0.01	2.6	<0.01	<5	2.9	Req	Req	<2.0	27	Req	<0.0005	<0.0005	<0.0005
1281682	BH-NSA 25	25-Mar-12	<0.01	<0.0001	<0.001	<0.01	0.3	<0.01	8	4.3	Req	Req	<2.0	34	Req	<0.0005	<0.0005	<0.0005
1281683	BH-NSA 24X	25-Mar-12	0.04	<0.0001	0.001	<0.01	2.5	<0.01	<5	3.0	Req	Req	<2.0	45	Req	<0.0005	<0.0005	<0.0005
1281684	BH-NSA 26	25-Mar-12	<0.01	<0.0001	<0.001	0.01	0.2	<0.01	5	3.9	Req	Req	<2.0	48	Req	<0.0005	<0.0005	<0.0005
1281685	BH-NSA 27	25-Mar-12	<0.01	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	2.6	Req	Req	<2.0	37	Req	<0.0005	<0.0005	<0.0005
1281686	BH-NSA 28A	25-Mar-12	<0.01	<0.0001	<0.001	<0.01	<0.2	<0.01	6	2.6	Req	Req	<2.0	67	Req	<0.0005	<0.0005	<0.0005
1281687	BH-NSA 29	25-Mar-12	<0.01	<0.0001	<0.001	<0.01	<0.2	<0.01	7	2.3	Req	Req	<2.0	46	Req	<0.0005	<0.0005	<0.0005
1281688	BH-NSA 30	25-Mar-12	<0.01	<0.0001	<0.001	<0.01	0.5	<0.01	<5	2.5	Req	Req	<2.0	33	Req	<0.0005	<0.0005	<0.0005
1281689	BH-NSA 31	25-Mar-12	<0.01	<0.0001	<0.001	<0.01	0.3	<0.01	5	2.5	Req	Req	<2.0	32	Req	<0.0005	<0.0005	<0.0005
1281690	BH-NSA 32	25-Mar-12	<0.01	<0.0001	<0.001	0.01	<0.2	<0.01	7	3.8	Req	Req	<2.0	22	Req	<0.0005	<0.0005	<0.0005
	ESG 🔗		Client Na	ame	Waterm Mr F Alco	nan EED						W	later S	ample	Analys	is		
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422						er He	yford				Date Prin Report N Table Nu	umber			-Apr-2012 XR/134280 1		

		Units :	mg/l								
	Method		PHEHPLCVL								
	Method Reporting	Limits :	0.0005								
	UKAS Acc	redited :	No								
LAB ID Number EX/	Client Sample Description	Sample Date	Trimethylphenols								
1281680	BH-NSA 23	25-Mar-12	<0.0005								
1281681	BH-NSA 24	25-Mar-12	<0.0005								
1281682	BH-NSA 25	25-Mar-12	<0.0005								
1281683	BH-NSA 24X	25-Mar-12	<0.0005								
1281684	BH-NSA 26	25-Mar-12	<0.0005								
1281685	BH-NSA 27	25-Mar-12	<0.0005								
1281686	BH-NSA 28A	25-Mar-12	<0.0005								
1281687	BH-NSA 29	25-Mar-12	<0.0005								
1281688	BH-NSA 30	25-Mar-12	<0.0005								
1281689 1281690	BH-NSA 31 BH-NSA 32	25-Mar-12 25-Mar-12	<0.0005								
	FSG 🕭		Client N	ame	Waterma	an EED		Water S	ample Analysi	is	
	Environmental Scientifics Group		Contact		Mr F Alcoc	k					
	Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422					Upper He	eyford	Date Printed Report Number Table Number		Apr-2012 (R/134280 1	

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 23
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281680
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	96
Naphthalene-d8	97
Acenaphthene-d10	96
Phenanthrene-d10	94
Chrysene-d12	56
Perylene-d12	47

Surrogates	% Rec
2-Fluorophenol	43
Phenol-d5	29
Nitrobenzene-d5	84
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	59
Terphenyl-d14	131

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 24
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281681
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	_	< 0.005	-
Naphthalene	91-20-3	_	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	_	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	-
2-Methylnaphthalene	91-57-6	_	< 0.002	-
1-Methylnaphthalene	90-12-0	_	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	_	< 0.005	-
Acenaphthene	83-32-9	_	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1,4-Dichlorobenzene-d4	86
Naphthalene-d8	87
Acenaphthene-d10	85
Phenanthrene-d10	83
Chrysene-d12	61
Perylene-d12	49

Surrogates	% Rec
2-Fluorophenol	46
Phenol-d5	33
Nitrobenzene-d5	88
2-Fluorobiphenyl	94
2,4,6-Tribromophenol	67
Terphenyl-d14	113

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 25
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281682
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	95
Naphthalene-d8	95
Acenaphthene-d10	91
Phenanthrene-d10	89
Chrysene-d12	74
Perylene-d12	66

Surrogates	% Rec
2-Fluorophenol	51
Phenol-d5	36
Nitrobenzene-d5	93
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	82
Terphenyl-d14	111

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 24X
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281683
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	88
Naphthalene-d8	87
Acenaphthene-d10	82
Phenanthrene-d10	76
Chrysene-d12	56
Perylene-d12	48

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	34
Nitrobenzene-d5	90
2-Fluorobiphenyl	99
2,4,6-Tribromophenol	76
Terphenyl-d14	117

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 26
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281684
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
B-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	99
Naphthalene-d8	101
Acenaphthene-d10	99
Phenanthrene-d10	99
Chrysene-d12	88
Perylene-d12	79

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	33
Nitrobenzene-d5	92
2-Fluorobiphenyl	94
2,4,6-Tribromophenol	75
Terphenyl-d14	105

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 27
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281685
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	97
Naphthalene-d8	99
Acenaphthene-d10	95
Phenanthrene-d10	96
Chrysene-d12	83
Perylene-d12	69

Surrogates	% Rec
2-Fluorophenol	48
Phenol-d5	35
Nitrobenzene-d5	90
2-Fluorobiphenyl	96
2,4,6-Tribromophenol	60
Terphenyl-d14	106

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 28A
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281686
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	107
Naphthalene-d8	109
Acenaphthene-d10	106
Phenanthrene-d10	110
Chrysene-d12	94
Perylene-d12	82

Surrogates	% Rec
2-Fluorophenol	44
Phenol-d5	30
Nitrobenzene-d5	84
2-Fluorobiphenyl	90
2,4,6-Tribromophenol	62
Terphenyl-d14	101

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 29
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281687
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	98
Naphthalene-d8	99
Acenaphthene-d10	95
Phenanthrene-d10	95
Chrysene-d12	81
Perylene-d12	67

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	32
Nitrobenzene-d5	89
2-Fluorobiphenyl	94
2,4,6-Tribromophenol	41
Terphenyl-d14	105

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 30
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281688
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	94
Naphthalene-d8	98
Acenaphthene-d10	95
Phenanthrene-d10	94
Chrysene-d12	71
Perylene-d12	58

Surrogates	% Rec
2-Fluorophenol	50
Phenol-d5	34
Nitrobenzene-d5	88
2-Fluorobiphenyl	92
2,4,6-Tribromophenol	50
Terphenyl-d14	113

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 31
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281689
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit	
		(min)	mg/l		
Phenol	108-95-2	-	< 0.020	-	
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-	
2-Chlorophenol	95-57-8	-	< 0.020	-	
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-	
Benzyl alcohol	100-51-6	-	< 0.005	-	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-	
2-Methylphenol	95-48-7	-	< 0.005	-	
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	-	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-	
Nitrobenzene	98-95-3	-	< 0.005	-	
Isophorone	78-59-1	-	< 0.005	-	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9	-	< 0.020	-	
Benzoic Acid	65-85-0 *	-	< 0.100	-	
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-	
2,4-Dichlorophenol	120-83-2	-	< 0.020	-	
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-	
Naphthalene	91-20-3	-	< 0.002	-	
4-Chlorophenol	106-48-9	-	< 0.020	-	
4-Chloroaniline	106-47-8 *	-	< 0.005	-	
Hexachlorobutadiene	87-68-3	-	< 0.005	-	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-	
2-Methylnaphthalene	91-57-6	-	< 0.002	-	
1-Methylnaphthalene	90-12-0	-	< 0.002	-	
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-	
2-Chloronaphthalene	91-58-7	-	< 0.002	-	
Biphenyl	92-52-4	-	< 0.002	-	
Diphenyl ether	101-84-8	-	< 0.002	-	
2-Nitroaniline	88-74-4	-	< 0.005	-	
Acenaphthylene	208-96-8	-	< 0.002	-	
Dimethylphthalate	131-11-3	-	< 0.005	-	
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-	
Acenaphthene	83-32-9	-	< 0.002	-	
3-Nitroaniline	99-09-2	-	< 0.005	-	

Matrix:	Water	QC Batch Number:	50
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	03SVOC.MS16\	0403_CCC1.D GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	93
Naphthalene-d8	95
Acenaphthene-d10	91
Phenanthrene-d10	84
Chrysene-d12	65
Perylene-d12	55

Surrogates	% Rec
2-Fluorophenol	48
Phenol-d5	35
Nitrobenzene-d5	83
2-Fluorobiphenyl	90
2,4,6-Tribromophenol	42
Terphenyl-d14	105

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA 32
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281690
 Date Extracted:
 02-Apr-12

 Job Number:
 W13_4280
 Date Analysed:
 03-Apr-12

Job Number:	W 13_4200		03-Apr-12		
Target Compounds	CAS#	R.T. (min)	Concentration mg/l	% Fit	
Phenol	108-95-2	-	< 0.020	-	
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-	
2-Chlorophenol	95-57-8	-	< 0.020	-	
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-	
Benzyl alcohol	100-51-6	-	< 0.005	-	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-	
2-Methylphenol	95-48-7	-	< 0.005	-	
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	-	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-	
Nitrobenzene	98-95-3	-	< 0.005	-	
Isophorone	78-59-1	-	< 0.005	-	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9	-	< 0.020	-	
Benzoic Acid	65-85-0 *	-	< 0.100	-	
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-	
2,4-Dichlorophenol	120-83-2	-	< 0.020	-	
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-	
Naphthalene	91-20-3	-	< 0.002	-	
4-Chlorophenol	106-48-9	-	< 0.020	-	
4-Chloroaniline	106-47-8 *	-	< 0.005	-	
Hexachlorobutadiene	87-68-3	-	< 0.005	-	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-	
2-Methylnaphthalene	91-57-6	-	< 0.002	-	
1-Methylnaphthalene	90-12-0	-	< 0.002	-	
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-	
2-Chloronaphthalene	91-58-7	-	< 0.002	-	
Biphenyl	92-52-4	-	< 0.002	-	
Diphenyl ether	101-84-8	-	< 0.002	-	
2-Nitroaniline	88-74-4	-	< 0.005	-	
Acenaphthylene	208-96-8	-	< 0.002	-	
Dimethylphthalate	131-11-3	-	< 0.005	-	
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-	
Acenaphthene	83-32-9	-	< 0.002	-	
3-Nitroaniline	99-09-2	-	< 0.005	-	

 Matrix:
 Water
 QC Batch Number:
 50

 Ext Method:
 Sep. Funnel
 Multiplier:
 0.005

 Operator:
 SO
 Dilution Factor:
 1

 Directory/Quant File:
 03SVOC.MS16\
 0403_CCC1.D GPC (Y/N)
 N

Target Compounds	CAS#	R.T.	Concentration	% Fit	
			mg/l		
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-	
Dibenzofuran	132-64-9	-	< 0.005	-	
4-Nitrophenol	100-02-7	-	< 0.050	-	
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-	
Fluorene	86-73-7	-	< 0.002	-	
Diethylphthalate	84-66-2	-	< 0.005	-	
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-	
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-	
4-Nitroaniline	100-01-6	-	< 0.005	-	
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-	
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-	
Hexachlorobenzene	118-74-1	-	< 0.005	-	
Pentachlorophenol	87-86-5	-	< 0.050	-	
Phenanthrene	85-01-8	-	< 0.002	-	
Anthracene	120-12-7	-	< 0.002	-	
Di-n-butylphthalate	84-74-2	-	< 0.005	-	
Fluoranthene	206-44-0	-	< 0.002	-	
Pyrene	129-00-0	-	< 0.002	-	
Butylbenzylphthalate	85-68-7	-	< 0.005	-	
Benzo[a]anthracene	56-55-3	-	< 0.002	-	
Chrysene	218-01-9	-	< 0.002	-	
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-	
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-	
Di-n-octylphthalate	117-84-0	-	< 0.002	-	
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-	
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-	
Benzo[a]pyrene	50-32-8	-	< 0.002	-	
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-	
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-	
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-	

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	111
Naphthalene-d8	112
Acenaphthene-d10	108
Phenanthrene-d10	107
Chrysene-d12	83
Perylene-d12	69

Surrogates	% Rec
2-Fluorophenol	41
Phenol-d5	30
Nitrobenzene-d5	83
2-Fluorobiphenyl	90
2,4,6-Tribromophenol	64
Terphenyl-d14	105

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_4280

Directory: D:\TES\DATA\Y2012\0404HSA_GC09\040412 2012-04-04 13-24-49\024F2401.D

Method: Headspace GCFID

Matrix:

Date Booked in: 27-Mar-12

Water

Date extracted: 04-Apr-12
Date Analysed: 04-Apr-12, 20:56

* Sample data with an asterisk are not UKAS accredited.

			Concentration, (mg/l)						Aliphatics		
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
* EX1281680	BH-NSA 23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281681	BH-NSA 24	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281682	BH-NSA 25	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281683	BH-NSA 24X	<0.005	< 0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281684	BH-NSA 26	<0.005	0.021	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281685	BH-NSA 27	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281686	BH-NSA 28A	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281687	BH-NSA 29	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281688	BH-NSA 30	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281689	BH-NSA 31	<0.005	< 0.005	<0.005	< 0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1
* EX1281690	BH-NSA 32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford

 Job Number:
 W13_4280
 Separation:
 Silica gel

 QC Batch Number:
 120259
 Eluents:
 Hexane, DCM

 Directory:
 D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\004F5701.D

Method: Bottle

 Date Booked ir
 27-Mar-12

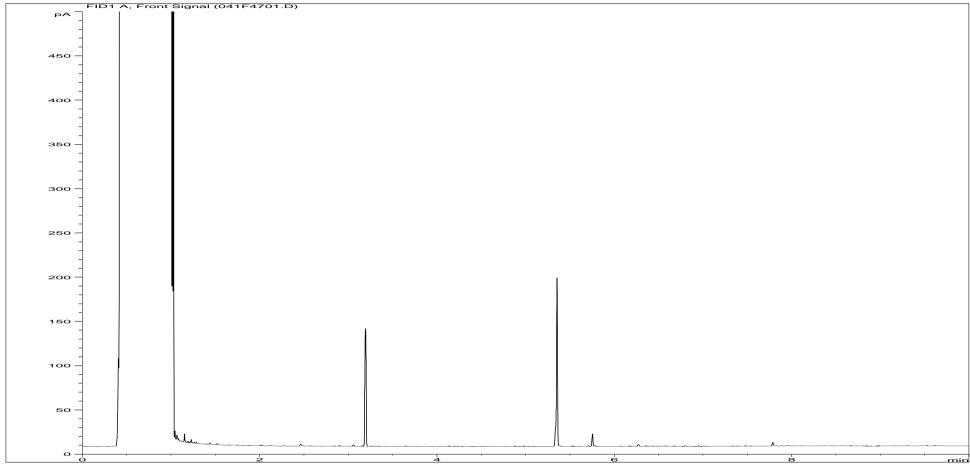
 Date Extracted
 05-Apr-12

 Date Analysed: 06-Apr-12, 00:16:27

Water

Matrix:

						Concentra	tion, (mg/l)						
* This sample data is not UK	his sample data is not UKAS accredited.		>C8 - C10		>C12 - C16		>C16 - C21		>C21 - C35		>C8 - C40		
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1281680	BH-NSA 23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281681	BH-NSA 24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	<0.01	0.033	<0.01
EX1281682	BH-NSA 25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	0.015
EX1281683	BH-NSA 24X	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281684	BH-NSA 26	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	0.017	0.017
EX1281685	BH-NSA 27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281686	BH-NSA 28A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281687	BH-NSA 29	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281688	BH-NSA 30	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281689	BH-NSA 31	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281690	BH-NSA 32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01

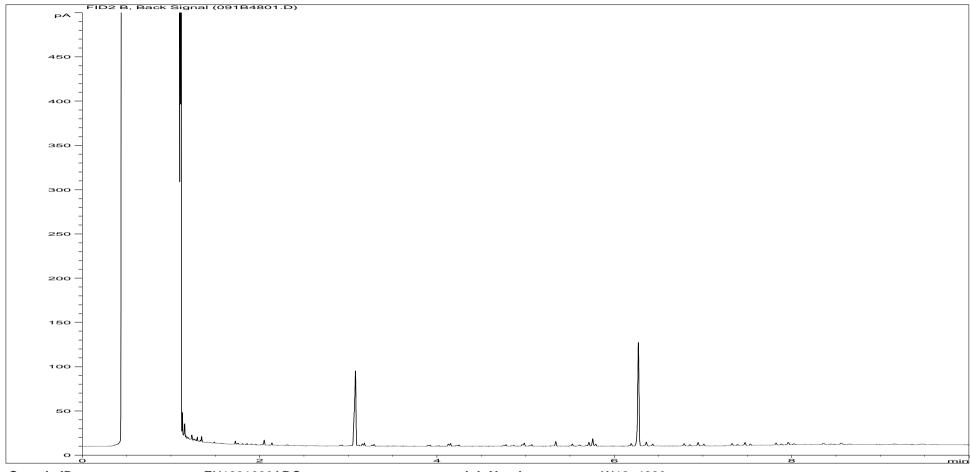


Sample ID:EX1281680ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 23

Acquisition Date/Time: 05-Apr-12, 21:28:23

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\041F4701.D

Page 18 of 43 EXR/134280 Ver. 1

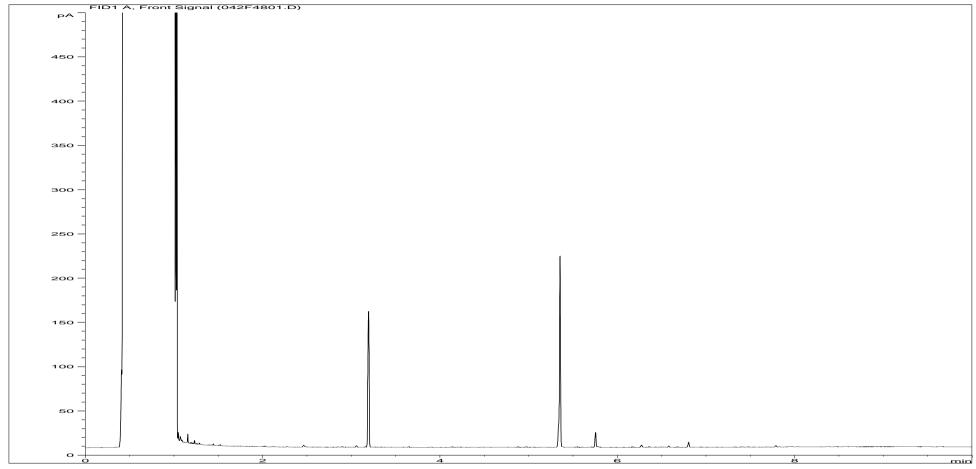


Sample ID:EX1281680AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 23

Acquisition Date/Time: 05-Apr-12, 21:45:14

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\091B4801.D

Page 19 of 43 EXR/134280 Ver. 1

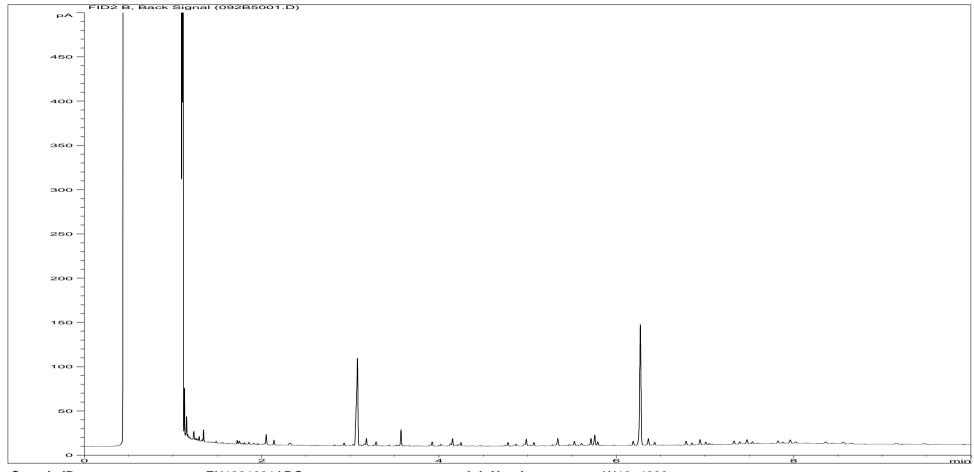


Sample ID:EX1281681ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 24

Acquisition Date/Time: 05-Apr-12, 21:45:14

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\042F4801.D

Page 20 of 43 EXR/134280 Ver. 1

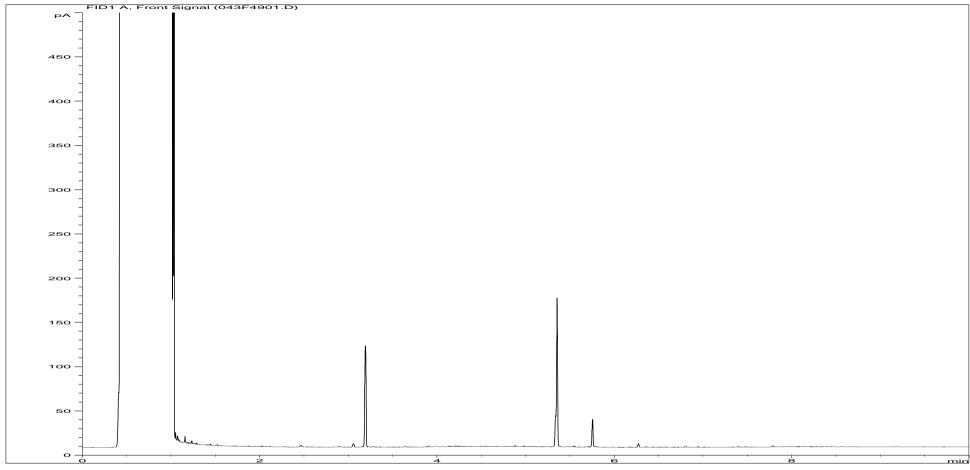


Sample ID:EX1281681AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 24

Acquisition Date/Time: 05-Apr-12, 22:18:47

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\092B5001.D

Page 21 of 43 EXR/134280 Ver. 1

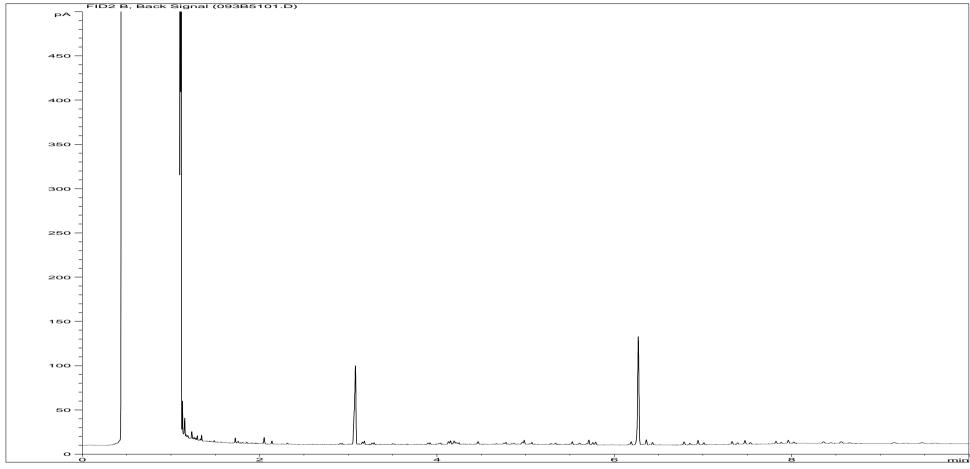


Sample ID:EX1281682ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 25

Acquisition Date/Time: 05-Apr-12, 22:01:52

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\043F4901.D

Page 22 of 43 EXR/134280 Ver. 1

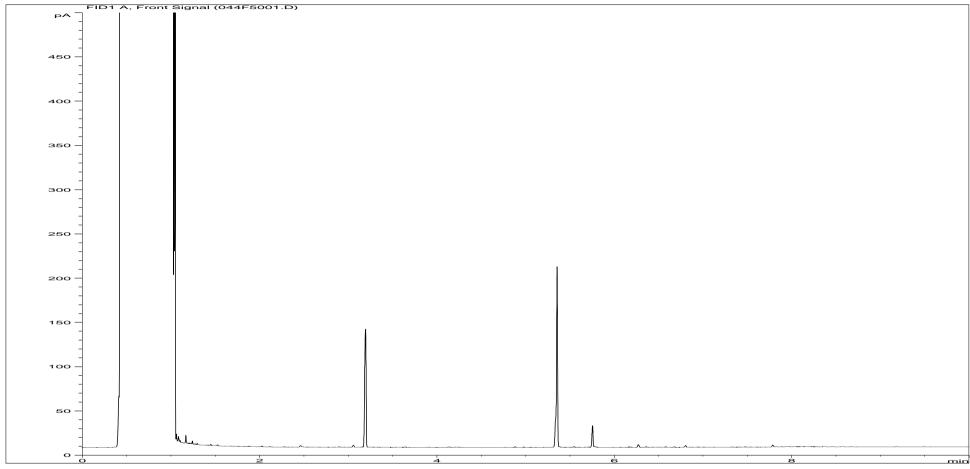


Sample ID:EX1281682AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 25

Acquisition Date/Time: 05-Apr-12, 22:35:35

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\093B5101.D

Page 23 of 43 EXR/134280 Ver. 1

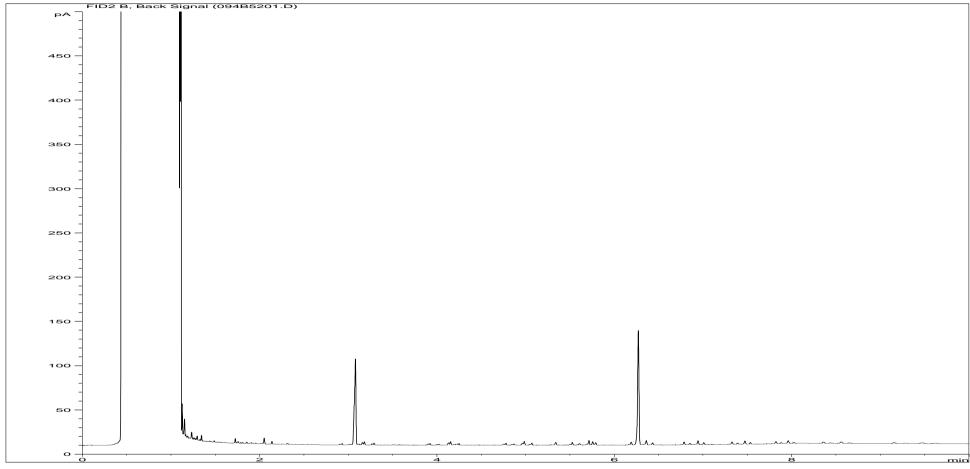


Sample ID:EX1281683ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 24X

Acquisition Date/Time: 05-Apr-12, 22:18:47

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\044F5001.D

Page 24 of 43 EXR/134280 Ver. 1

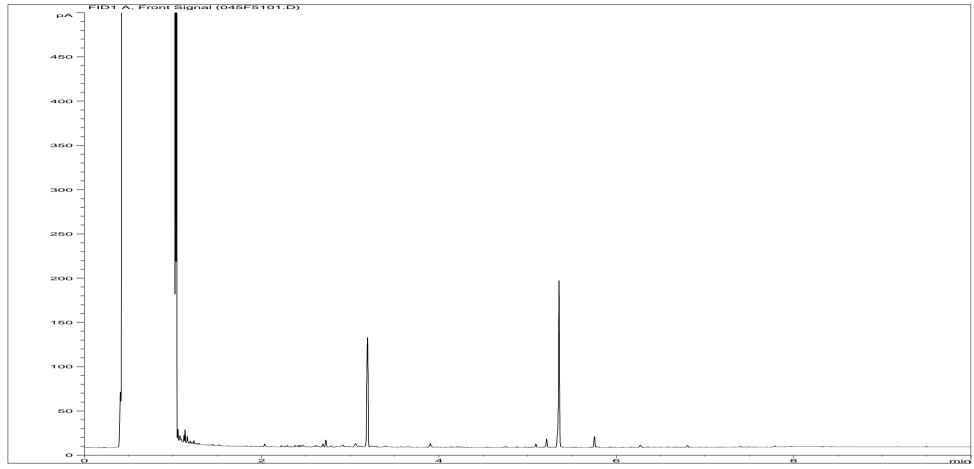


Sample ID:EX1281683AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 24X

Acquisition Date/Time: 05-Apr-12, 22:52:22

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\094B5201.D

Page 25 of 43 EXR/134280 Ver. 1

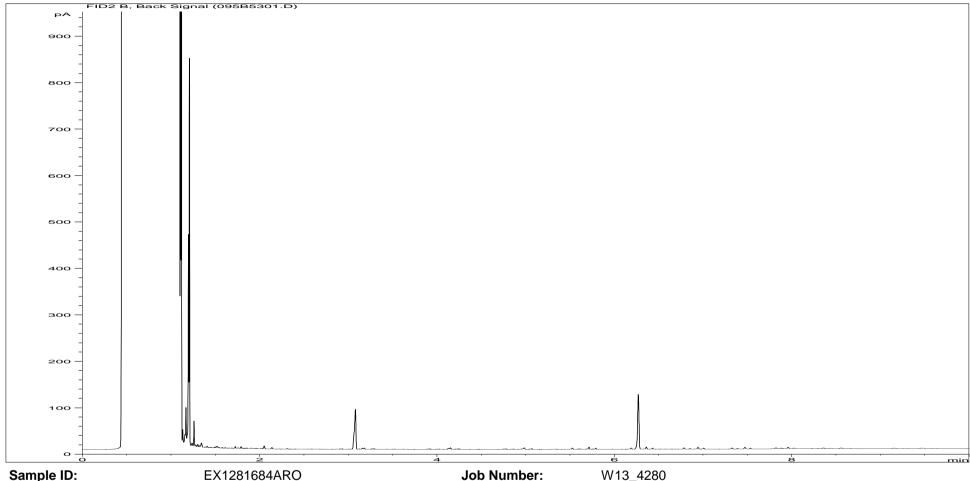


Sample ID:EX1281684ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 26

Acquisition Date/Time: 05-Apr-12, 22:35:35

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\045F5101.D

Page 26 of 43 EXR/134280 Ver. 1

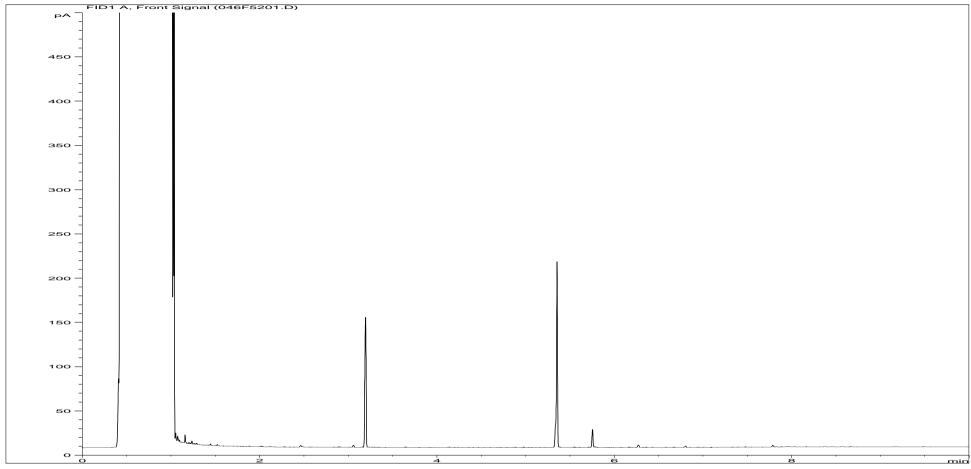


Sample ID:EX1281684AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 26

Acquisition Date/Time: 05-Apr-12, 23:09:12

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\095B5301.D

Page 27 of 43 EXR/134280 Ver. 1

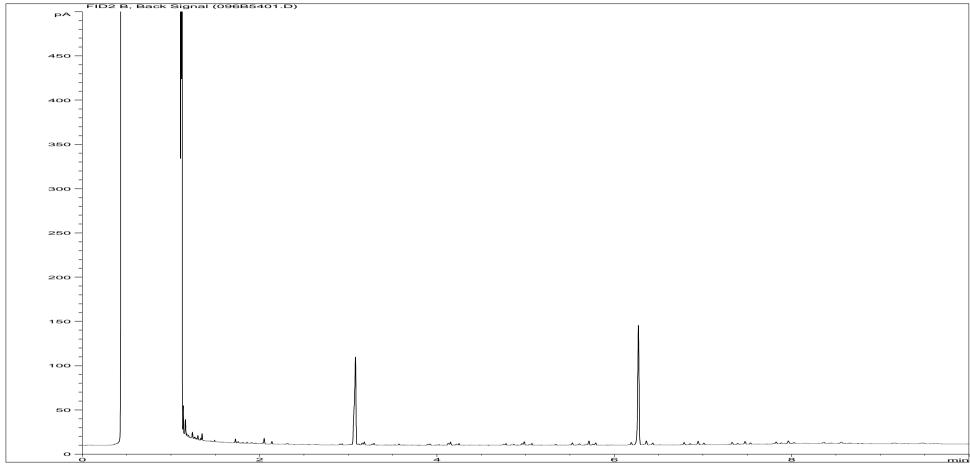


Sample ID:EX1281685ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 27

Acquisition Date/Time: 05-Apr-12, 22:52:22

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\046F5201.D

Page 28 of 43 EXR/134280 Ver. 1

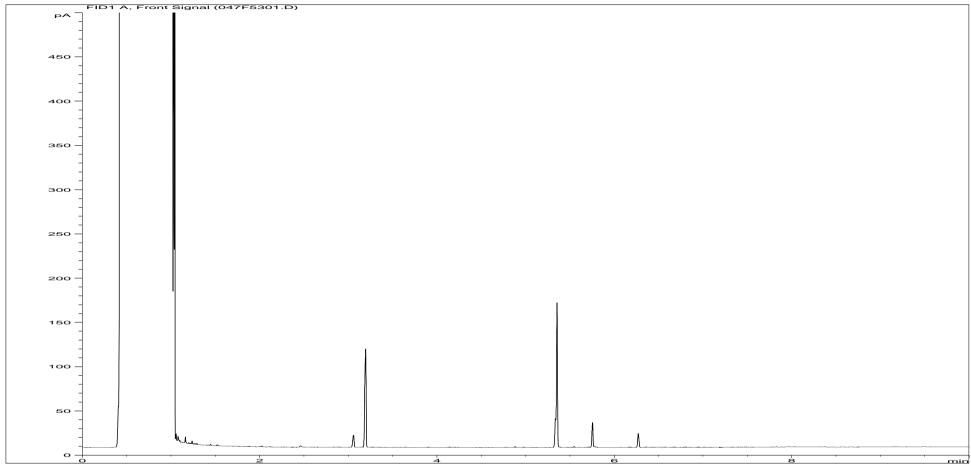


Sample ID:EX1281685AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 27

Acquisition Date/Time: 05-Apr-12, 23:26:04

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\096B5401.D

Page 29 of 43 EXR/134280 Ver. 1

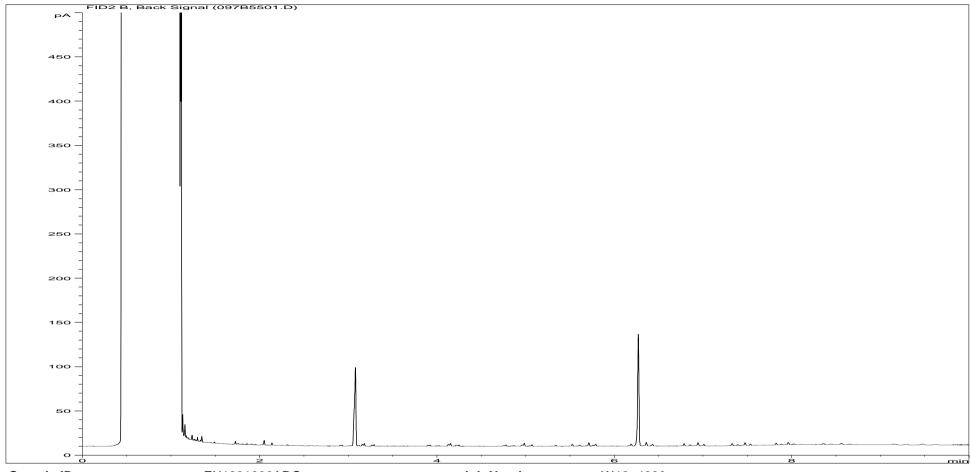


Sample ID:EX1281686ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 28A

Acquisition Date/Time: 05-Apr-12, 23:09:12

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\047F5301.D

Page 30 of 43 EXR/134280 Ver. 1

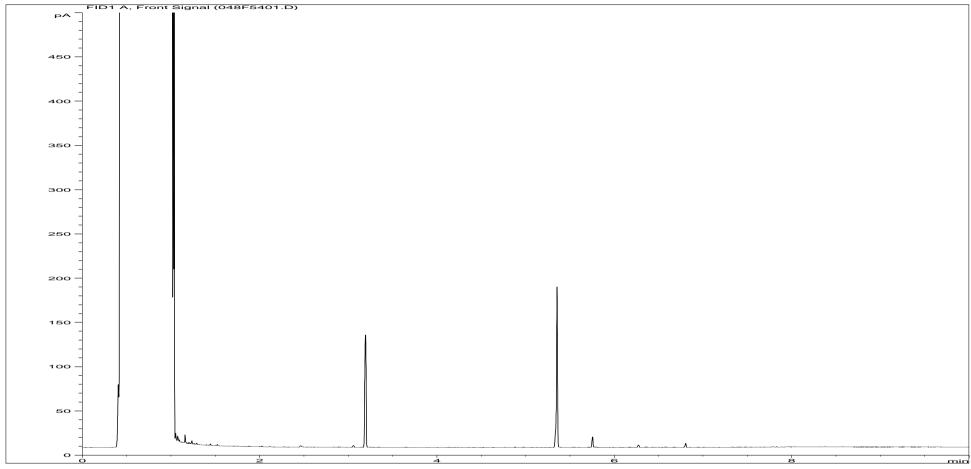


Sample ID:EX1281686AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 28A

Acquisition Date/Time: 05-Apr-12, 23:42:48

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\097B5501.D

Page 31 of 43 EXR/134280 Ver. 1

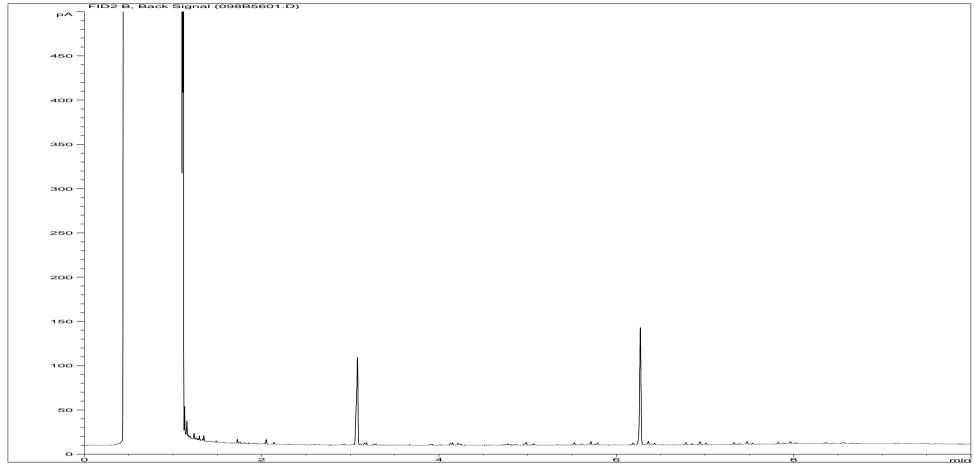


Sample ID:EX1281687ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 29

Acquisition Date/Time: 05-Apr-12, 23:26:04

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\048F5401.D

Page 32 of 43 EXR/134280 Ver. 1

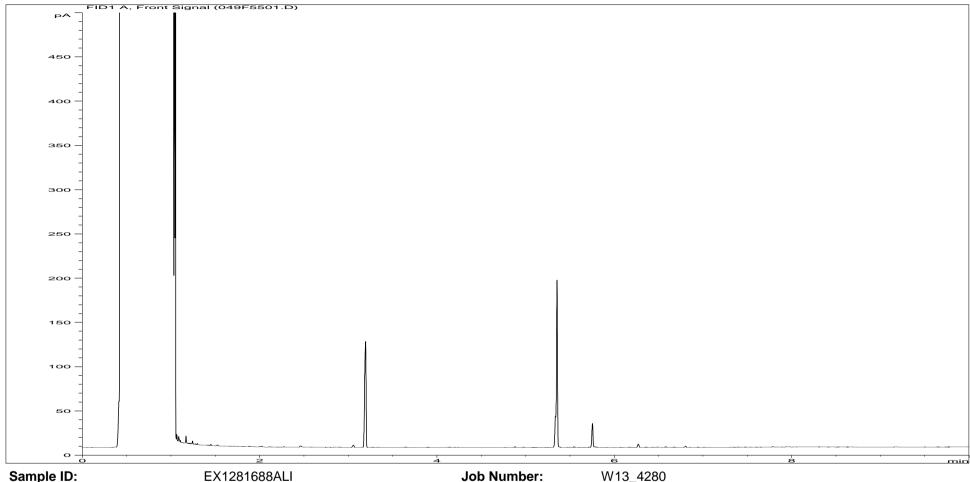


Sample ID:EX1281687AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 29

Acquisition Date/Time: 05-Apr-12, 23:59:35

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\098B5601.D

Page 33 of 43 EXR/134280 Ver. 1



Sample ID:EX1281688ALIJob Number:Multiplier:0.015Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 05-Apr-12, 23:42:48

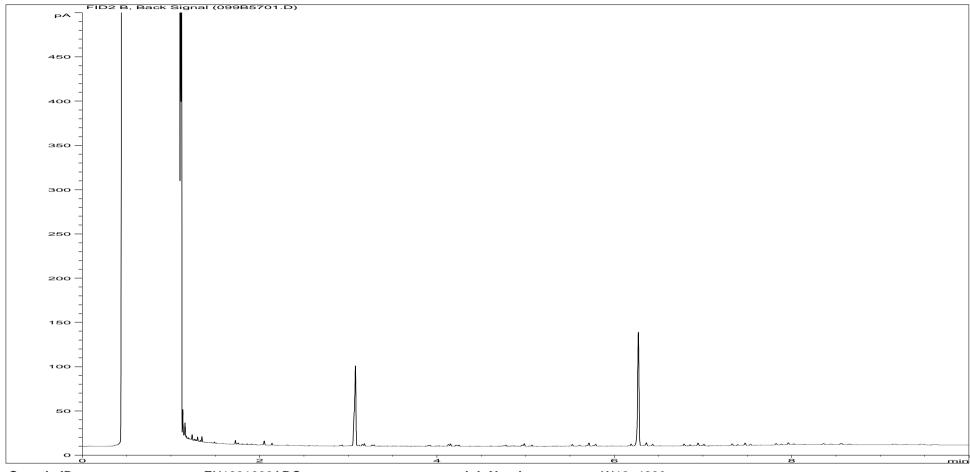
Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\049F5501.D

Waterman EED

Upper Heyford

BH-NSA 30

Page 34 of 43 EXR/134280 Ver. 1

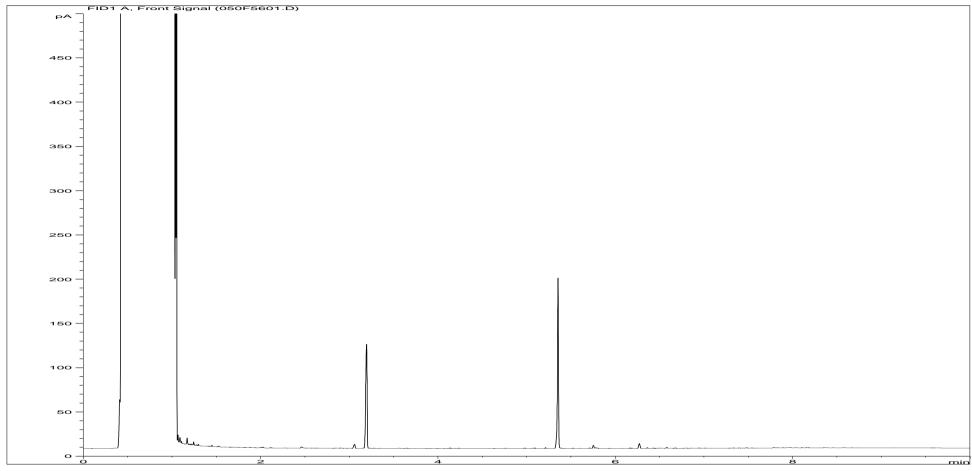


Sample ID:EX1281688AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 30

Acquisition Date/Time: 06-Apr-12, 00:16:27

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\099B5701.D

Page 35 of 43 EXR/134280 Ver. 1

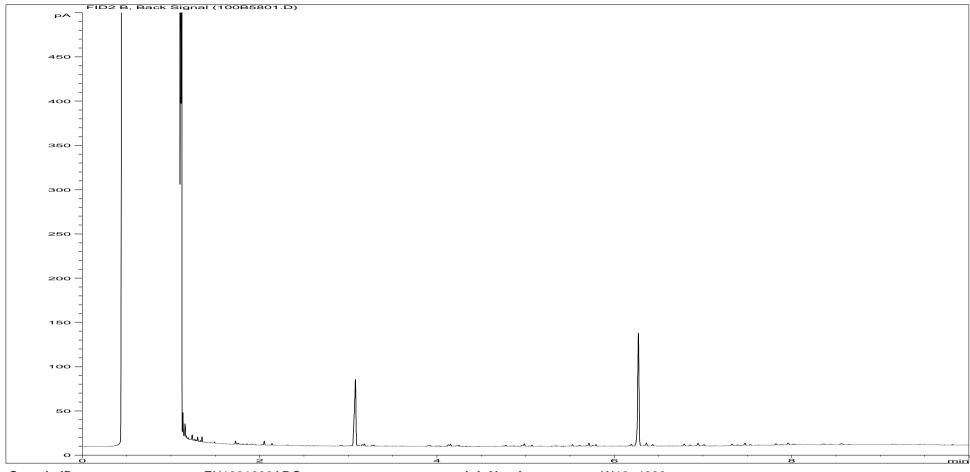


Sample ID:EX1281689ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 31

Acquisition Date/Time: 05-Apr-12, 23:59:35

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\050F5601.D

Page 36 of 43 EXR/134280 Ver. 1

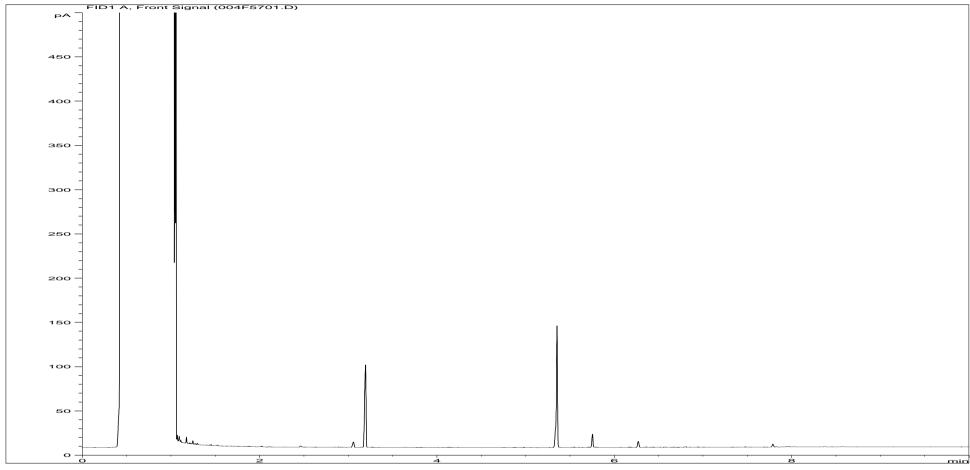


Sample ID:EX1281689AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 31

Acquisition Date/Time: 06-Apr-12, 00:33:19

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\100B5801.D

Page 37 of 43 EXR/134280 Ver. 1

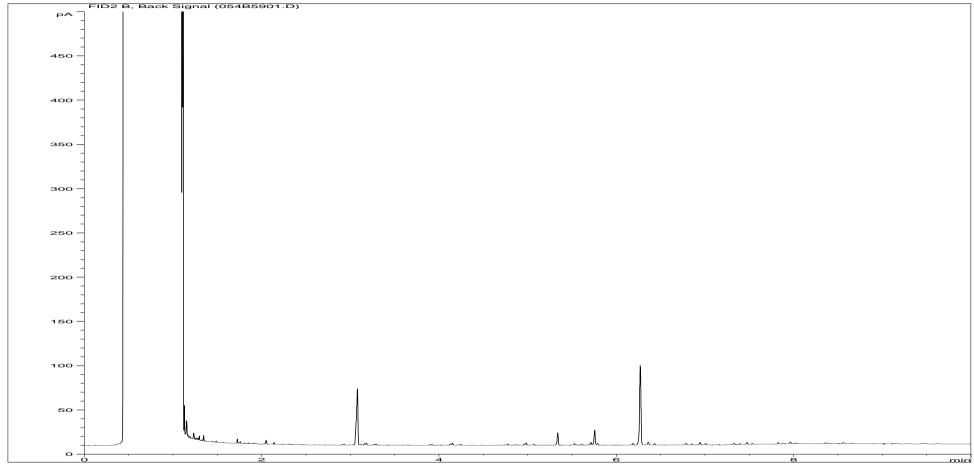


Sample ID:EX1281690ALIJob Number:W13_4280Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 32

Acquisition Date/Time: 06-Apr-12, 00:16:27

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\004F5701.D

Page 38 of 43 EXR/134280 Ver. 1



Sample ID:EX1281690AROJob Number:W13_4280Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA 32

Acquisition Date/Time: 06-Apr-12, 00:50:00

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\054B5901.D

Page 39 of 43 EXR/134280 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W134280 Report No

Consignment No W35689 Date Logged 27-Mar-2012

Report Due 11-Apr-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW									ICPWATVAR					KONENS				PHEHPLCVL	svocsw	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report B	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
EX/1281680	BH-NSA 23	25/03/12																									
EX/1281681	BH-NSA 24	25/03/12																									
EX/1281682	BH-NSA 25	25/03/12																									
EX/1281683	BH-NSA 24X	25/03/12																									
EX/1281684	BH-NSA 26	25/03/12																									
EX/1281685	BH-NSA 27	25/03/12																									
EX/1281686	BH-NSA 28A	25/03/12																									
EX/1281687	BH-NSA 29	25/03/12																									
EX/1281688	BH-NSA 30	25/03/12																									
EX/1281689	BH-NSA 31	25/03/12																									
EX/1281690	BH-NSA 32	25/03/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Site

Report No

Waterman EED **Upper Heyford** W134280

Consignment No W35689 Date Logged 27-Mar-2012

Report Due 11-Apr-2012

ID Number	Description	MethodID	พระเทาง Total Organic Carbon	wsLM17 Total Acidity as CaCO3	wsLM2 Conductivity uS/cm @ 25C	wsLm20 Biochemical Oxygen Demand	wsLM3 pH units	wsLM7 Cyclohexane Extract Material
	Approdited	to ISO17025	✓	<i>.</i>	5C	and	✓	rial
EX/1281680	BH-NSA 23	25/03/12	Ť	Ť	Ť		Ť	
EX/1281681	BH-NSA 24	25/03/12						
EX/1281682	BH-NSA 25	25/03/12						
EX/1281683	BH-NSA 24X	25/03/12						
EX/1281684	BH-NSA 26	25/03/12						
EX/1281685	BH-NSA 27	25/03/12						
EX/1281686	BH-NSA 28A	25/03/12						
EX/1281687	BH-NSA 29	25/03/12						
EX/1281688	BH-NSA 30	25/03/12						
EX/1281689	BH-NSA 31	25/03/12						
EX/1281690	BH-NSA 32	25/03/12						

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/134280

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **P** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/134281 (Ver. 1) Your Ref: E10658-109

April 12, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

FS(

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely



01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/134281 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 11 samples described in this report were registered for analysis by ESG on 27-Mar-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 12-Apr-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of PAH (MS-SIM) (10) Results (Pages 5 to 6)
Table of SVOC Results (Pages 7 to 8)
Table of GRO Results (Page 9)
Table of TPH (Si) banding (0.01) (Page 10)
GC-FID Chromatograms (Pages 11 to 43)
Analytical and Deviating Sample Overview (Pages 44 to 45)
Table of Method Descriptions (Page 46)
Table of Report Notes (Page 47)

On behalf of ESG:

Andrew Timms

Operations Manager

Date of Issue: 12-Apr-2012

Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	μg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR	ICPMSW	ICPMSW	ICPMSW	PAHMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	Yes	0.001 Yes	0.001 Yes	0.002 Yes
LAB ID Number EX/	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	ຼື Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	PAH GC-MS (16) o	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)
1281691	BH-NSA-37	22-Mar-12	7.3	994	220	Nil	112	42	179	4	76	0.006	0.011	0.0002		0.013	0.003	0.005
1281692	BH-NSA-39	22-Mar-12	7.4	586	227	Nil	10	12	181	3	7	0.00	0.011	0.0002		0.005	0.003	0.023
1281693	BH-NSA-42	22-Mar-12	7.4	817	234	Nil	66	33	173	5	31	0.008	0.014	0.0001		0.006	0.021	0.025
1281694	BH-NSA-43	22-Mar-12	7.3	811	293	Nil	59	31	174	5	28	0.004	0.007	<0.0001		<0.001	0.002	0.002
1281695	BH-NSA-44	22-Mar-12	7.4	756	155	Nil	39	38	203	6	22	0.007	0.011	0.0001		0.007	0.006	0.008
1281696	BH-NSA-45	22-Mar-12	7.1	1060	321	Nil	121	49	214	4	51	0.017	0.014	0.005		0.212	0.379	1.063
1281697	BH-NSA-225	22-Mar-12	7.5	568	171	Nil	25	15	145	3	18	0.003	0.009	<0.0001		0.002	0.005	0.008
1281698	BH-NSA-226	22-Mar-12	7.5	612	140	Nil	19	32	154	3	13	0.004	0.008	<0.0001		0.002	0.003	0.006
1281699	BH-NSA-19x	22-Mar-12	7.0	012	110	14.11	10	02	101	0	10	0.001	0.000	40.0001	Req	0.002	0.000	0.000
1281700	BH-NSA-MW1	22-Mar-12	7.8	557	255	Nil	7	15	97	28	7	<0.001	0.005	<0.0001	1104	<0.001	<0.001	<0.002
1281701	BH-NSA-HD1	22-Mar-12	7.0	007	200	14.11		10	01	20	,	10.001	0.000	40.0001	Req	10.001	10.001	10.002
	ESG 🔗		Client Name Waterman EED Contact Mr F Alcock						Water Sample Analysis									
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Upper Hevford Date Printed 12-Apr-2012 Report Number EXR/13428					-										

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPMSW	ICPWATVAR		ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7		PHEHPLCVL
	Method Reporting		0.001	0.01	0.0001	0.001	0.01	0.2	0.01	5	0.1	0.1	0.01	2	6	0.002	0.0005
	UKAS Acc	reaitea :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
LAB ID Number EX/	Client Sample Description	Sample Date	Arsenic as As (Dissolved)	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenoi
1281691	BH-NSA-37	22-Mar-12	0.004	0.01	<0.0001	0.001	<0.01	<0.2	0.02	12	3.9	Req	Req	<2.0	21		<0.0005
1281692	BH-NSA-39	22-Mar-12	0.011	<0.01	<0.0001	0.002	<0.01	<0.2	0.02	7	2.2	Req	Req	<2.0	31		<0.0005
1281693	BH-NSA-42	22-Mar-12	0.019	0.04	<0.0001	0.002	<0.01	0.3	0.03	13	4.2	Req	Req	<2.0	31		<0.0005
1281694	BH-NSA-43	22-Mar-12	0.003	0.01	<0.0001	<0.001	0.23	<0.2	0.02	23	8.6	Req	Req	2.0	7		<0.0005
1281695	BH-NSA-44	22-Mar-12	0.013	0.04	<0.0001	0.001	0.10	<0.2	0.02	16	5.3	Req	Req	<2.0	9		<0.0005
1281696	BH-NSA-45	22-Mar-12	0.026	0.08	<0.0001	<0.001	<0.01	<0.2	0.03	15	5.4	Req	Req	<2.0	8		<0.0005
1281697	BH-NSA-225	22-Mar-12	0.002	<0.01	<0.0001	<0.001	<0.01	<0.2	0.03	11	3.3	Req	Req	<2.0	<6		<0.0005
1281698	BH-NSA-226	22-Mar-12	0.001	<0.01	<0.0001	<0.001	<0.01	1.4	0.01	5	2.4	Req	Req	<2.0	<6		<0.0005
1281699	BH-NSA-19x	22-Mar-12										Req	Req			Req	
1281700	BH-NSA-MW1	22-Mar-12	<0.001	<0.01	<0.0001	<0.001	<0.01	0.9	0.01	19	1.6	Req	Req	<2.0	<6		<0.0005
1281701	BH-NSA-HD1	22-Mar-12										Req	Req			Req	
	ESG 🔗		Client Name Waterman EED Contact Mr F Alcock				I	v	Vater Sa	ample /	Analys	is					
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Date Printed 12-Apr-2012														

LAB ID Number EX/	Method Method Reporting UKAS Acc	Units : Codes : Limits : redited : Sample Date	0.0005 No	mg/l PHEHPLCVL 0.0005 No	0.0005 No					
	Method Reporting UKAS Acc	Limits : redited :	0.0005 No	0.0005 No	0.0005 No					
	UKAS Acc	redited :								
	Client Sample Description	Sample		<u>D</u>						
		Date	Cresols	Dimethylphenols	Trimethylphenols					
1281691	BH-NSA-37	22-Mar-12	<0.0005	<0.0005	<0.0005					
1281692	BH-NSA-39	22-Mar-12	<0.0005	<0.0005	<0.0005					
1281693	BH-NSA-42	22-Mar-12	<0.0005	<0.0005	<0.0005					
1281694	BH-NSA-43	22-Mar-12	<0.0005	<0.0005	<0.0005					
1281695	BH-NSA-44	22-Mar-12	<0.0005	<0.0005	<0.0005					
1281696	BH-NSA-45	22-Mar-12	<0.0005	<0.0005	<0.0005					
1281697	BH-NSA-225	22-Mar-12	<0.0005	<0.0005	<0.0005					
1281698	BH-NSA-226	22-Mar-12	<0.0005	<0.0005	<0.0005					
1281699	BH-NSA-19x	22-Mar-12								
1281700	BH-NSA-MW1	22-Mar-12	<0.0005	<0.0005	<0.0005					
1281701	BH-NSA-HD1	22-Mar-12								
	Client Name Waterman EED Contact Mr F Alcock		Client Name		Waterman EED		Water Sample Analysis			
	Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422				Upper Heyford		Date Printed Report Number Table Number	12-Apr-2012 EXR/134281 1		

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-19x W13_4281 **Job Number: LIMS ID Number:** EX1281699 Date Booked in: 27-Mar-12 QC Batch Number: 120258 Date Extracted: 05-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 05-Apr-12 **Directory:** 405MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.016	-
Phenanthrene	85-01-8	1	< 0.019	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	1	< 0.011	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	1	< 0.010	-
Chrysene	218-01-9	1	< 0.010	-
Benzo[b]fluoranthene	205-99-2	1	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	1	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.186	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	111
Acenaphthene-d10	105
Phenanthrene-d10	112
Chrysene-d12	109
Perylene-d12	116

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	83
Terphenyl-d14	88

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BH-NSA-HD1 W13_4281 **Job Number: LIMS ID Number:** EX1281701 Date Booked in: 27-Mar-12 QC Batch Number: 120258 Date Extracted: 05-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 05-Apr-12 **Directory:** 405MS10.PAH\ Matrix: Water **Dilution:** 1.0 **Ext Method: Bottle**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	104
Acenaphthene-d10	98
Phenanthrene-d10	102
Chrysene-d12	92
Perylene-d12	92

	•
Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	80
Terphenyl-d14	84

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-19x
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281699
 Date Extracted:
 10-Apr-12

 Job Number:
 W13_4281
 Date Analysed:
 10-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit	
		(min)	mg/l		
Phenol	108-95-2	-	< 0.020	-	
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-	
2-Chlorophenol	95-57-8	-	< 0.020	-	
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-	
Benzyl alcohol	100-51-6	-	< 0.005	-	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-	
2-Methylphenol	95-48-7	-	< 0.005	-	
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	-	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-	
Nitrobenzene	98-95-3	-	< 0.005	-	
sophorone	78-59-1	-	< 0.005	-	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9	-	< 0.020	-	
Benzoic Acid	65-85-0 *	-	< 0.100	-	
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-	
2,4-Dichlorophenol	120-83-2	-	< 0.020	-	
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-	
Naphthalene	91-20-3	-	< 0.002	-	
4-Chlorophenol	106-48-9	-	< 0.020	-	
4-Chloroaniline	106-47-8 *	-	< 0.005	-	
Hexachlorobutadiene	87-68-3	-	< 0.005	-	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-	
2-Methylnaphthalene	91-57-6	-	< 0.002	-	
1-Methylnaphthalene	90-12-0	-	< 0.002	-	
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-	
2-Chloronaphthalene	91-58-7	-	< 0.002	-	
Biphenyl	92-52-4	-	< 0.002	-	
Diphenyl ether	101-84-8	-	< 0.002	-	
2-Nitroaniline	88-74-4	-	< 0.005	-	
Acenaphthylene	208-96-8	-	< 0.002	-	
Dimethylphthalate	131-11-3	-	< 0.005	-	
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-	
Acenaphthene	83-32-9	-	< 0.002	-	
B-Nitroaniline	99-09-2	-	< 0.005	_	

Water	QC Batch Number:	53
Sep. Funnel	Multiplier:	0.005
SO	Dilution Factor:	1
10SVOC.MS16\	0410_CCC1.D GPC (Y/N)	N
	Sep. Funnel SO	Sep. Funnel Multiplier:

Target Compounds	CAS#	R.T.	Concentration	% Fit	
			mg/l		
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-	
Dibenzofuran	132-64-9	-	< 0.005	-	
4-Nitrophenol	100-02-7	-	< 0.050	-	
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-	
Fluorene	86-73-7	-	< 0.002	-	
Diethylphthalate	84-66-2	-	< 0.005	-	
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-	
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-	
4-Nitroaniline	100-01-6	-	< 0.005	-	
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-	
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-	
Hexachlorobenzene	118-74-1	-	< 0.005	-	
Pentachlorophenol	87-86-5	-	< 0.050	-	
Phenanthrene	85-01-8	-	< 0.002	-	
Anthracene	120-12-7	-	< 0.002	-	
Di-n-butylphthalate	84-74-2	-	< 0.005	-	
Fluoranthene	206-44-0	-	< 0.002	-	
Pyrene	129-00-0	-	< 0.002	-	
Butylbenzylphthalate	85-68-7	-	< 0.005	-	
Benzo[a]anthracene	56-55-3	-	< 0.002	-	
Chrysene	218-01-9	-	< 0.002	-	
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-	
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-	
Di-n-octylphthalate	117-84-0	-	< 0.002	-	
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-	
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-	
Benzo[a]pyrene	50-32-8	-	< 0.002	-	
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-	
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-	
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-	

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	85
Naphthalene-d8	83
Acenaphthene-d10	81
Phenanthrene-d10	81
Chrysene-d12	65
Perylene-d12	58

Surrogates	% Rec
2-Fluorophenol	44
Phenol-d5	33
Nitrobenzene-d5	87
2-Fluorobiphenyl	88
2,4,6-Tribromophenol	71
Terphenyl-d14	106

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BH-NSA-HD1
 Date Booked in:
 27-Mar-12

 LIMS ID Number:
 EX1281701
 Date Extracted:
 10-Apr-12

 Job Number:
 W13_4281
 Date Analysed:
 10-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit	
-		(min)	mg/l		
Phenol	108-95-2	-	< 0.020	-	
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-	
2-Chlorophenol	95-57-8	-	< 0.020	-	
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-	
Benzyl alcohol	100-51-6	-	< 0.005	-	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-	
2-Methylphenol	95-48-7	-	< 0.005	-	
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	-	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-	
Nitrobenzene	98-95-3	-	< 0.005	-	
sophorone	78-59-1	-	< 0.005	-	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9	-	< 0.020	-	
Benzoic Acid	65-85-0 *	-	< 0.100	-	
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-	
2,4-Dichlorophenol	120-83-2	-	< 0.020	-	
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-	
Naphthalene	91-20-3	-	< 0.002	-	
1-Chlorophenol	106-48-9	-	< 0.020	-	
4-Chloroaniline	106-47-8 *	-	< 0.005	-	
Hexachlorobutadiene	87-68-3	-	< 0.005	_	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_	
2-Methylnaphthalene	91-57-6	-	< 0.002	_	
1-Methylnaphthalene	90-12-0	-	< 0.002	-	
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_	
2-Chloronaphthalene	91-58-7	-	< 0.002	-	
Biphenyl	92-52-4	-	< 0.002	-	
Diphenyl ether	101-84-8	-	< 0.002	-	
2-Nitroaniline	88-74-4	-	< 0.005	-	
Acenaphthylene	208-96-8	-	< 0.002	-	
Dimethylphthalate	131-11-3	-	< 0.005	_	
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-	
Acenaphthene	83-32-9	-	< 0.002	-	
3-Nitroaniline	99-09-2	-	< 0.005	-	

Matrix:	Water	QC Batch Number:	53
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	10SVOC.MS16\	0410_CCC1.D GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	79
Naphthalene-d8	79
Acenaphthene-d10	79
Phenanthrene-d10	79
Chrysene-d12	69
Perylene-d12	60

Surrogates	% Rec
2-Fluorophenol	46
Phenol-d5	33
Nitrobenzene-d5	86
2-Fluorobiphenyl	87
2,4,6-Tribromophenol	76
Terphenyl-d14	105

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_4281

Directory: D:\TES\DATA\Y2012\0402HSA_GC09\040212A 2012-04-03 06-07-14\066F1401.D

Method: Headspace GCFID

Matrix: Water

Date Booked in: 27-Mar-12

Date extracted: 02-Apr-12

Date Analysed: 03-Apr-12, 10:26:11

* Sample data with an asterisk are not UKAS accredited.

				Concentration, (mg/l)					Aliphatics				
Sample	: ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO	
* EX12816	91	BH-NSA-37	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12816	92	BH-NSA-39	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12816	693	BH-NSA-42	<0.005	< 0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12816	694	BH-NSA-43	<0.005	< 0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12816	95	BH-NSA-44	<0.005	< 0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12816	96	BH-NSA-45	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12816	97	BH-NSA-225	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12816	98	BH-NSA-226	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12816	699	BH-NSA-19x	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12817	700	BH-NSA-MW1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	
* EX12817	701	BH-NSA-HD1	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED: Upper Heyford Matrix: Water

 Job Number:
 W13_4281
 Separation:
 Slica gel
 Date Booked in:
 27-Mar-12

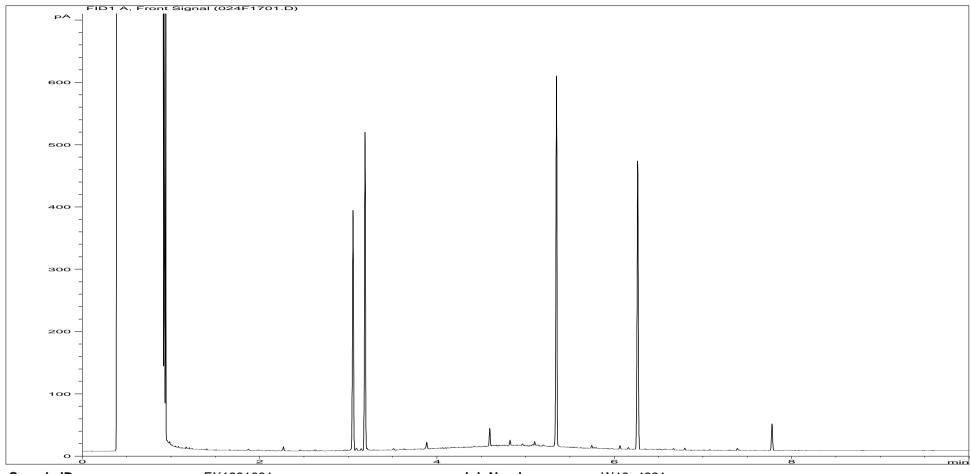
 QC Batch Number:
 120252
 Eluents:
 Hexane, DCM
 Date Extracted:
 03-Apr-12

 Directory:
 D:/TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\075B3401.D
 Date Analysed:05-Apr-12, 17:49:34

Method: Bottle

		Concentration, (mg/l)											
* This sample data is not UP	(AS accredited.	>C8	- C10	>C10	- C12	>C12	- C16	>C16	- C21	>C21	- C35	>C8	- C40
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1281691	BH-NSA-37	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
EX1281692	BH-NSA-39	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281693	BH-NSA-42	<0.01	<0.01	<0.01	<0.01	0.036	<0.01	0.01	<0.01	0.016	<0.01	0.073	0.014
EX1281694	BH-NSA-43	0.054	<0.01	0.236	0.024	0.422	0.091	0.032	0.021	0.011	<0.01	0.755	0.147
EX1281695	BH-NSA-44	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281696	BH-NSA-45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	0.017
EX1281697	BH-NSA-225	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281698	BH-NSA-226	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	0.01
EX1281699	BH-NSA-19x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281700	BH-NSA-MW1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1281701	BH-NSA-HD1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
													
		+											
													<u> </u>

Petroleum Hydrocarbons (C8 to C40) by GC/FID

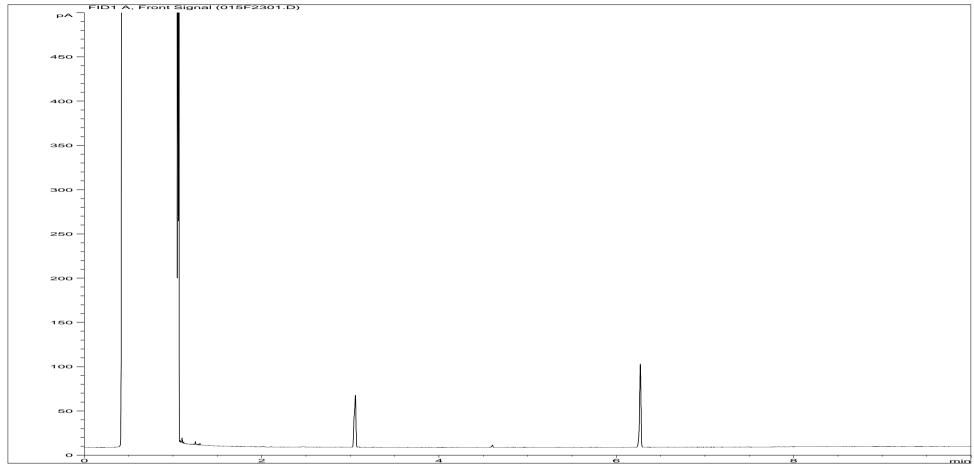


Sample ID:EX1281691Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-37

Acquisition Date/Time: 10-Apr-12, 13:34:36

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\024F1701.D

Page 11 of 47 EXR/134281 Ver. 1

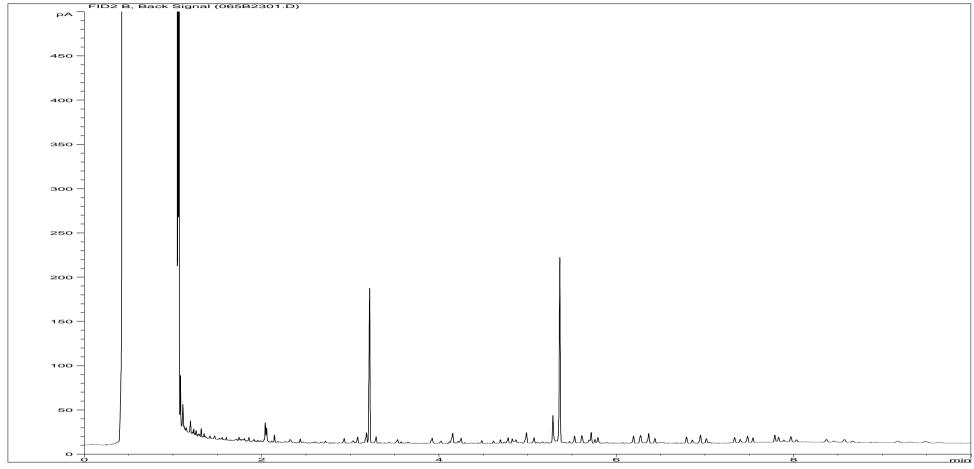


Sample ID:EX1281691ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-37

Acquisition Date/Time: 05-Apr-12, 14:42:02

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\015F2301.D

Page 12 of 47 EXR/134281 Ver. 1



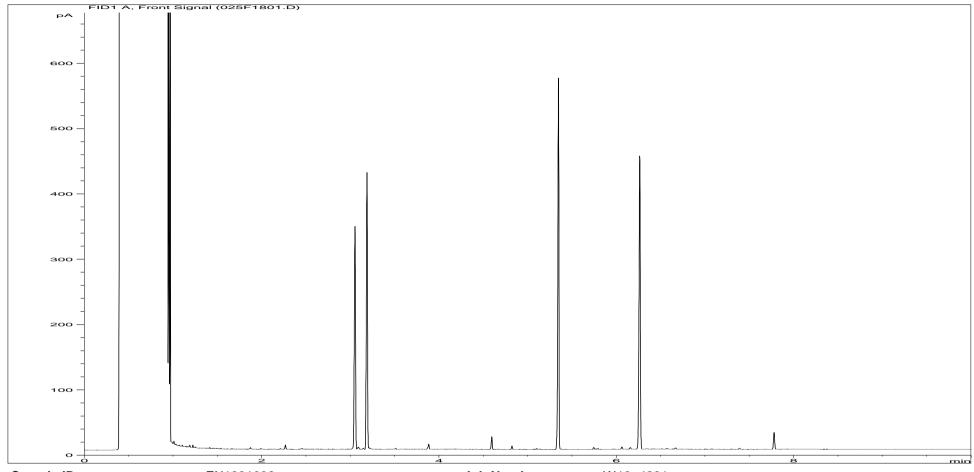
Sample ID:EX1281691AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-37

Acquisition Date/Time: 05-Apr-12, 14:42:02

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\065B2301.D

Page 13 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID

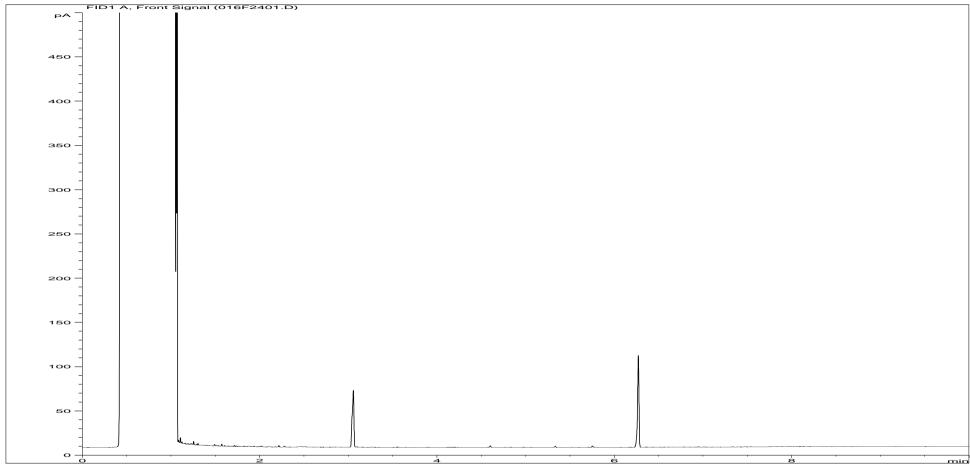


Sample ID:EX1281692Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-39

Acquisition Date/Time: 10-Apr-12, 13:51:30

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\025F1801.D

Page 14 of 47 EXR/134281 Ver. 1

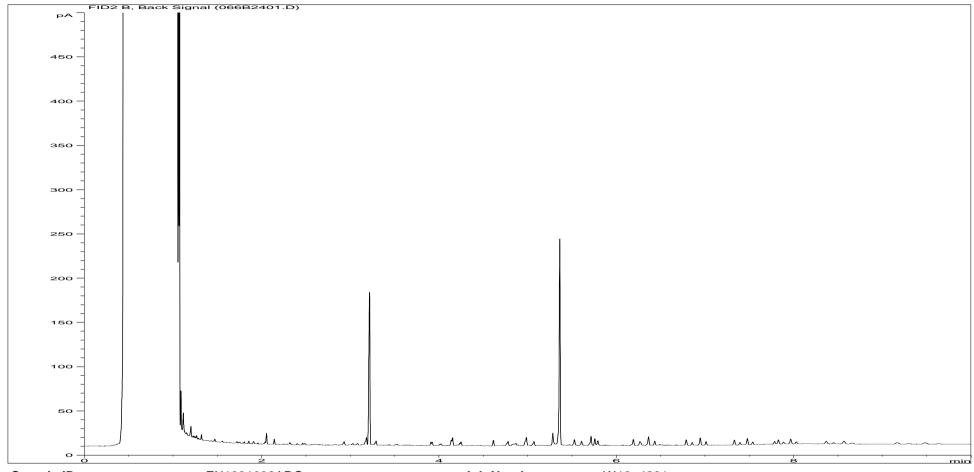


Sample ID:EX1281692ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-39

Acquisition Date/Time: 05-Apr-12, 15:00:31

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\016F2401.D

Page 15 of 47 EXR/134281 Ver. 1



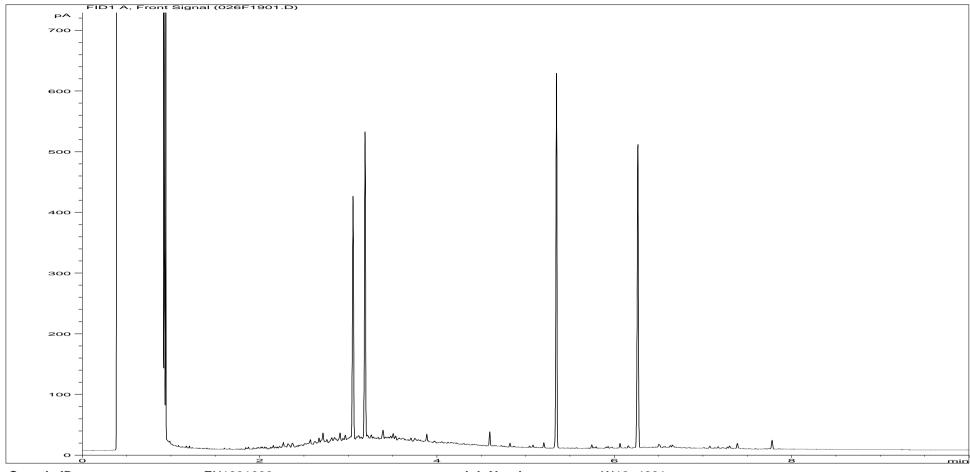
Sample ID:EX1281692AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-39

Acquisition Date/Time: 05-Apr-12, 15:00:31

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\066B2401.D

Page 16 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID

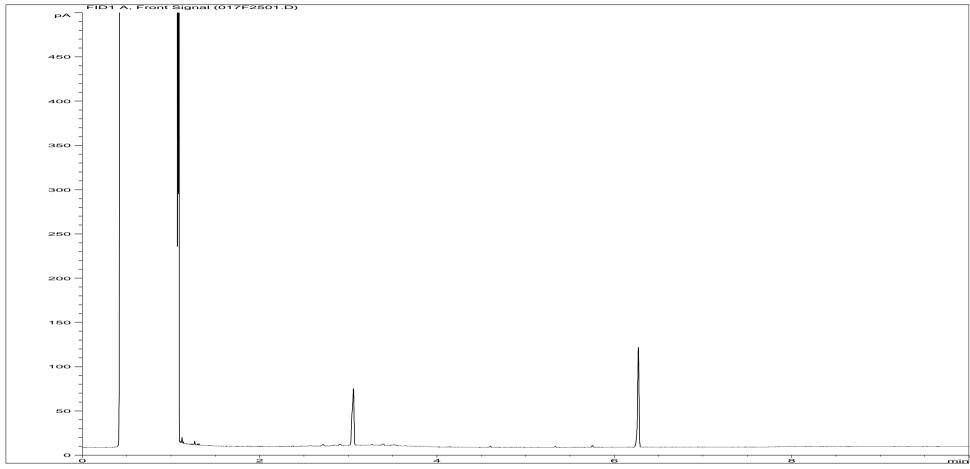


Sample ID:EX1281693Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-42

Acquisition Date/Time: 10-Apr-12, 14:08:29

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\026F1901.D

Page 17 of 47 EXR/134281 Ver. 1

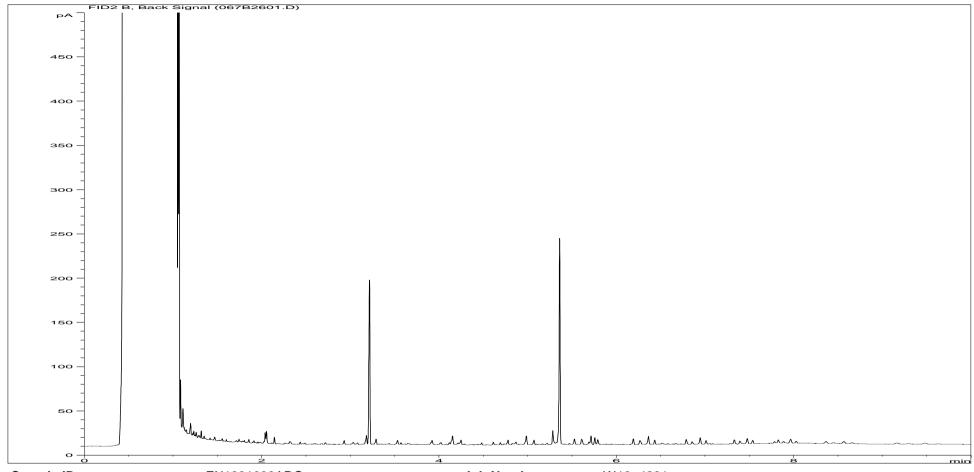


Sample ID:EX1281693ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-42

Acquisition Date/Time: 05-Apr-12, 15:17:26

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\017F2501.D

Page 18 of 47 EXR/134281 Ver. 1



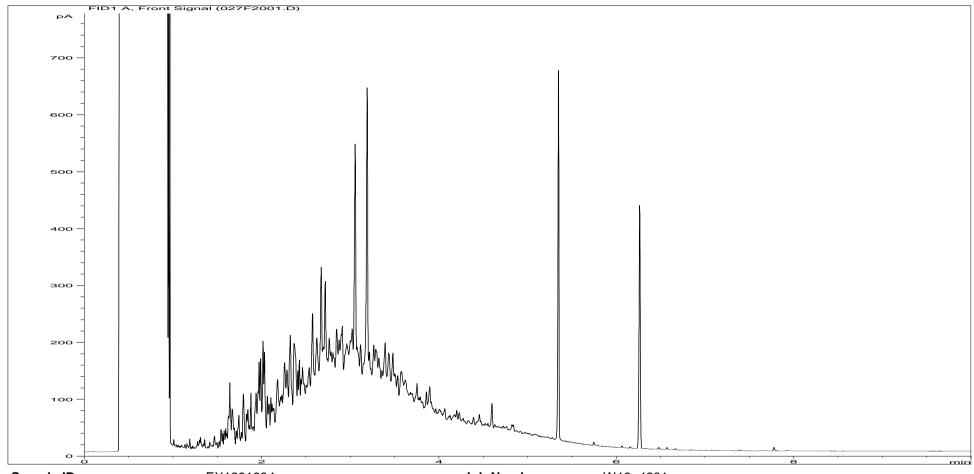
Sample ID:EX1281693AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-42

Acquisition Date/Time: 05-Apr-12, 15:34:41

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\067B2601.D

Page 19 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



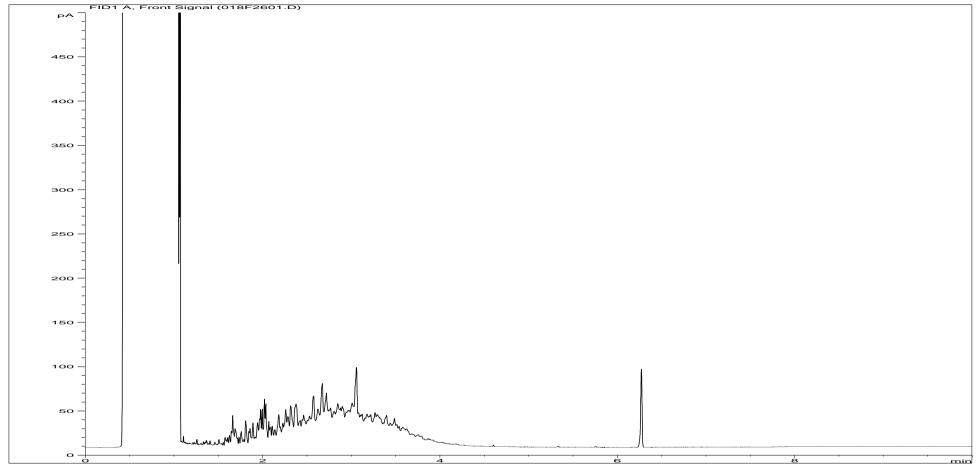
Sample ID:EX1281694Multiplier:0.005Dilution:1Acquisition Method:TPH_RUNF.M

Job Number: W13_4281
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BH-NSA-43

Acquisition Date/Time: 10-Apr-12, 14:25:27

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\027F2001.D

Page 20 of 47 EXR/134281 Ver. 1

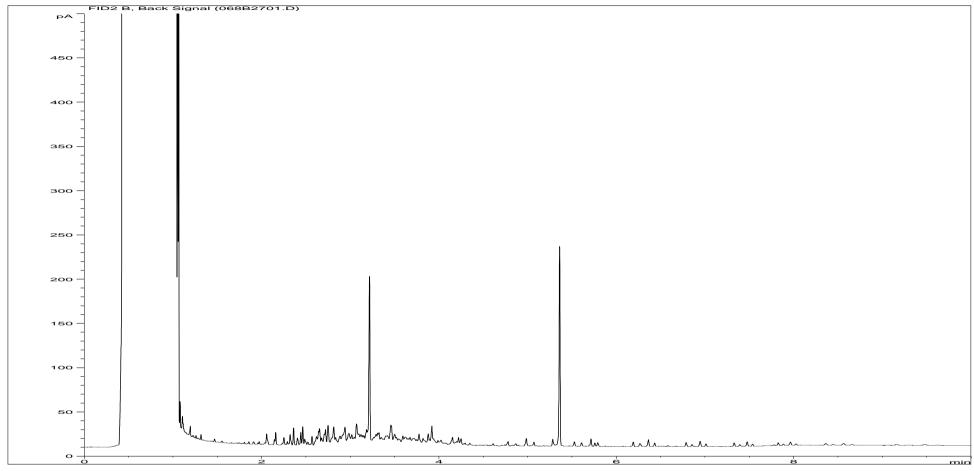


Sample ID:EX1281694ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-43

Acquisition Date/Time: 05-Apr-12, 15:34:41

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\018F2601.D

Page 21 of 47 EXR/134281 Ver. 1



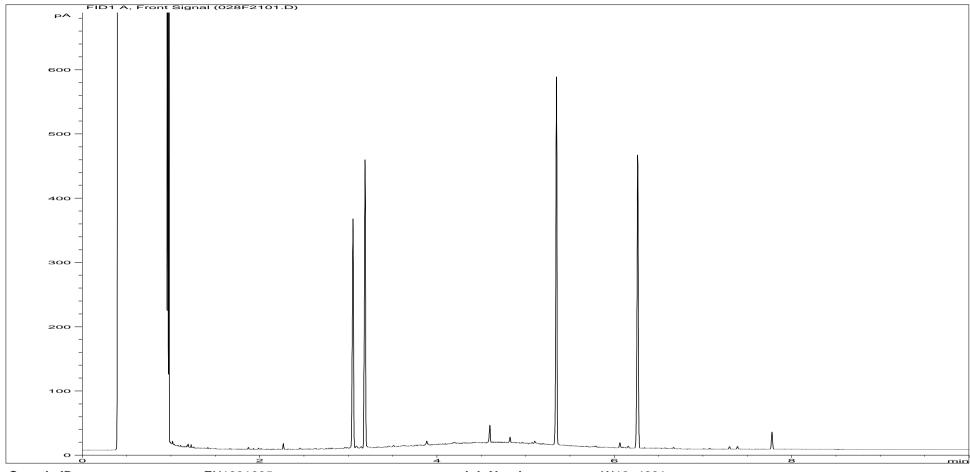
Sample ID:EX1281694AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-43

Acquisition Date/Time: 05-Apr-12, 15:51:34

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\068B2701.D

Page 22 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID

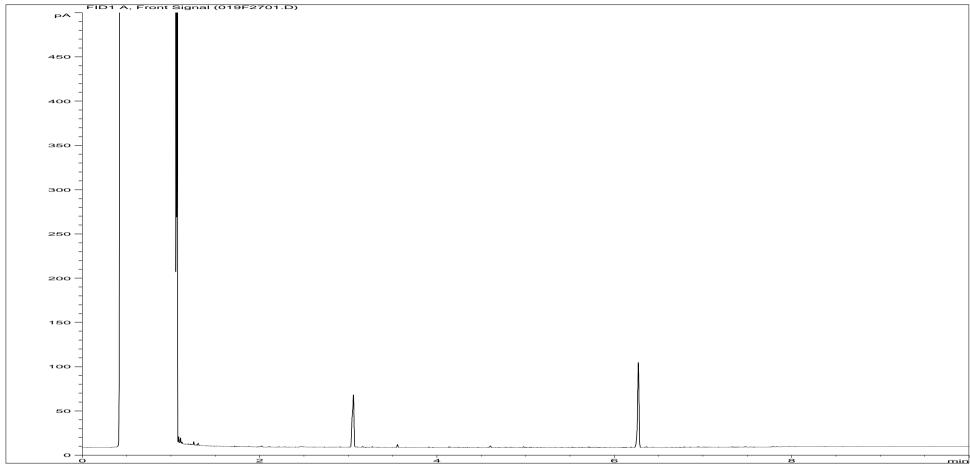


Sample ID:EX1281695Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-44

Acquisition Date/Time: 10-Apr-12, 14:42:38

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\028F2101.D

Page 23 of 47 EXR/134281 Ver. 1

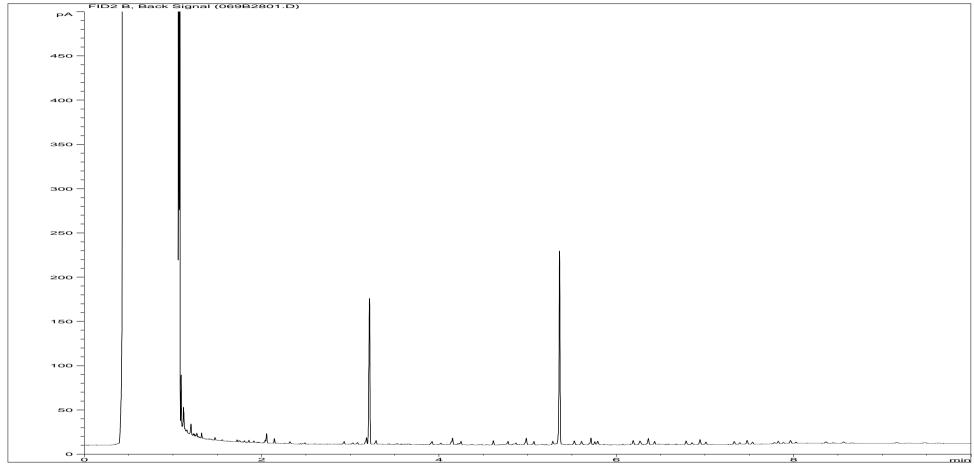


Sample ID:EX1281695ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-44

Acquisition Date/Time: 05-Apr-12, 15:51:34

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\019F2701.D

Page 24 of 47 EXR/134281 Ver. 1



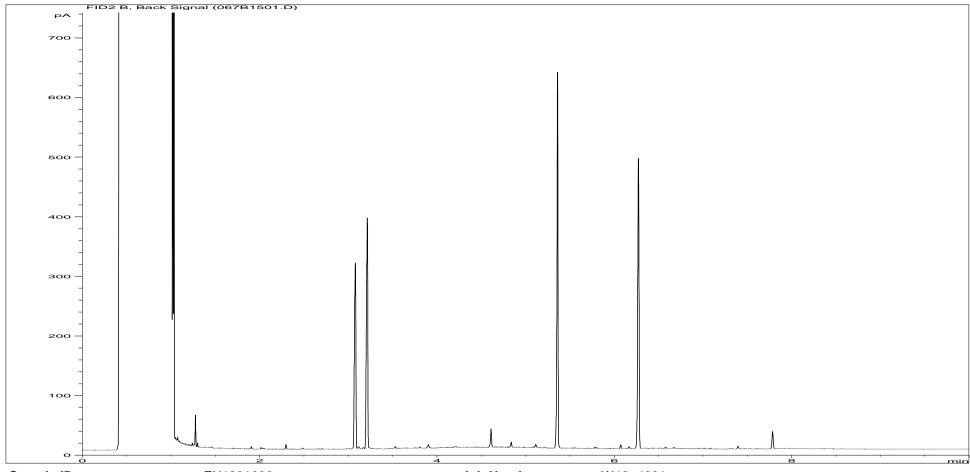
Sample ID:EX1281695AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-44

Acquisition Date/Time: 05-Apr-12, 16:08:24

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\069B2801.D

Page 25 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



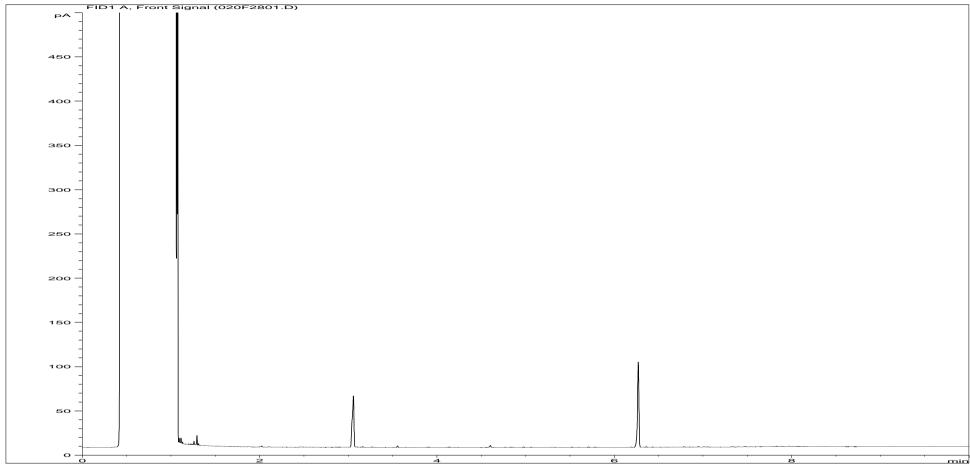
Sample ID:EX1281696Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-45

Acquisition Date/Time: 10-Apr-12, 13:00:30

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\067B1501.D

Page 26 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



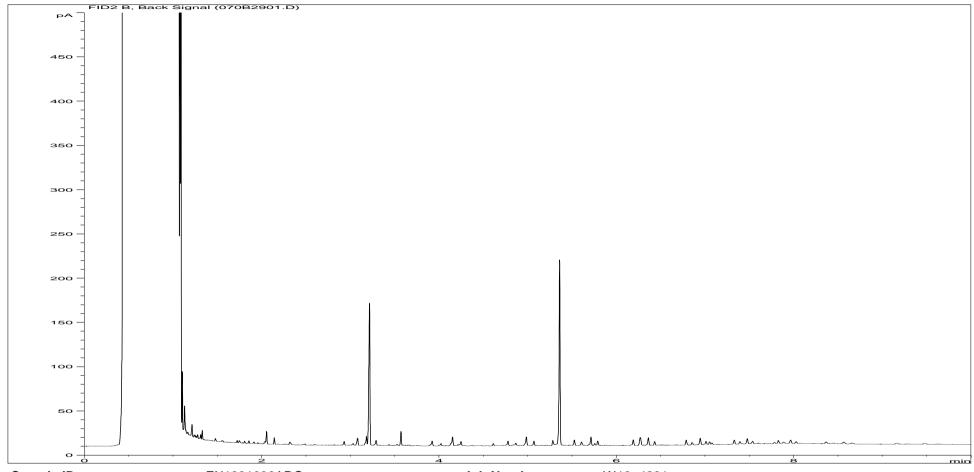
Sample ID:EX1281696ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-45

Acquisition Date/Time: 05-Apr-12, 16:08:24

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\020F2801.D

Page 27 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



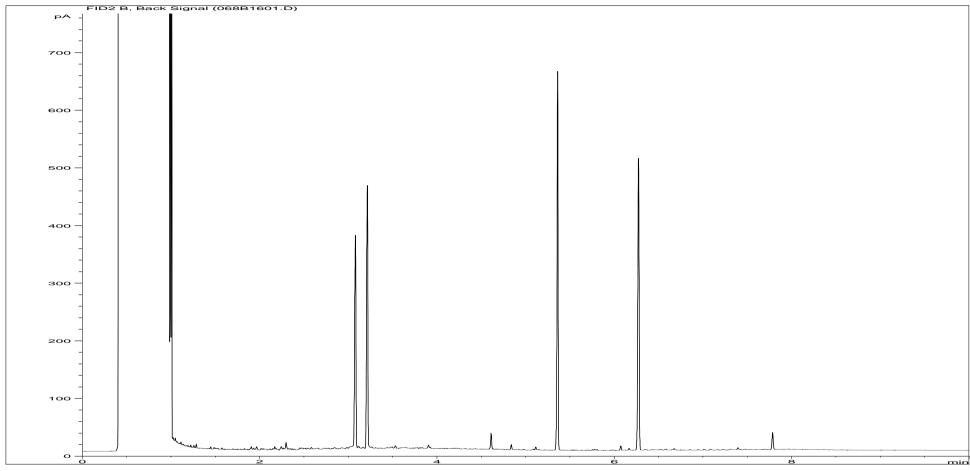
Sample ID:EX1281696AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-45

Acquisition Date/Time: 05-Apr-12, 16:25:18

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\070B2901.D

Page 28 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



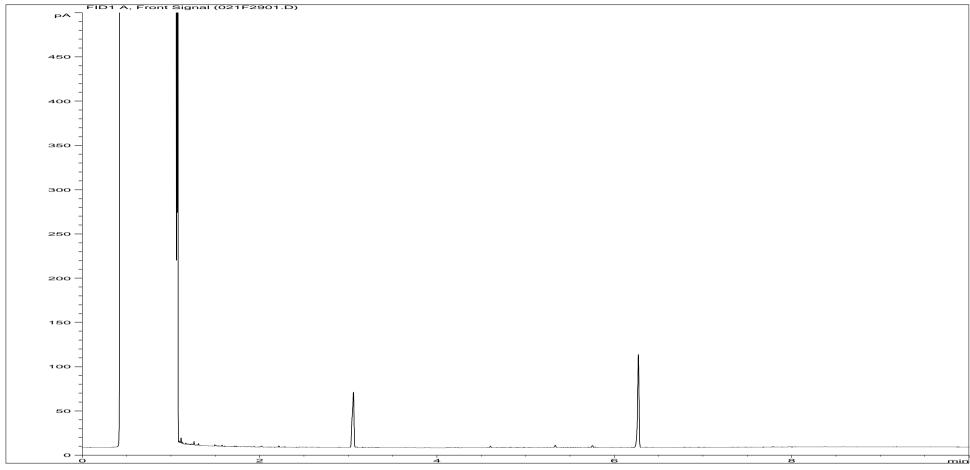
Sample ID:EX1281697Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-225

Acquisition Date/Time: 10-Apr-12, 13:17:28

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\068B1601.D

Page 29 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



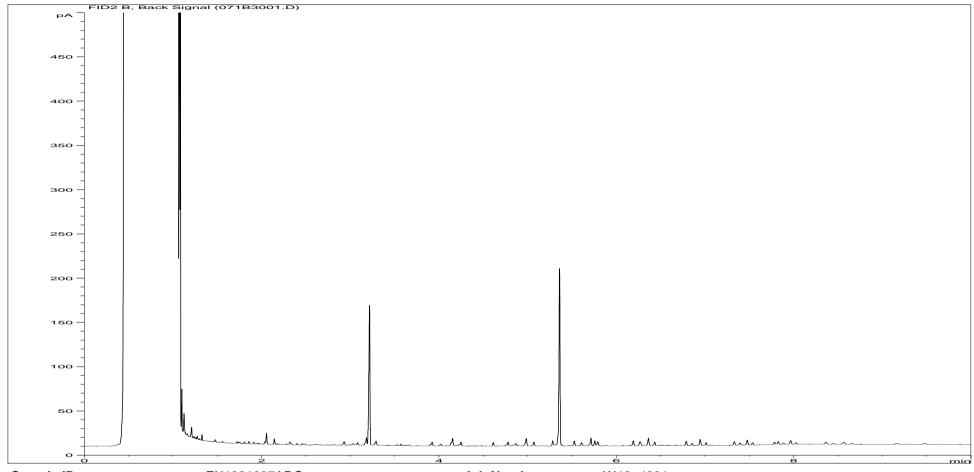
Sample ID:EX1281697ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-225

Acquisition Date/Time: 05-Apr-12, 16:25:18

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\021F2901.D

Page 30 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



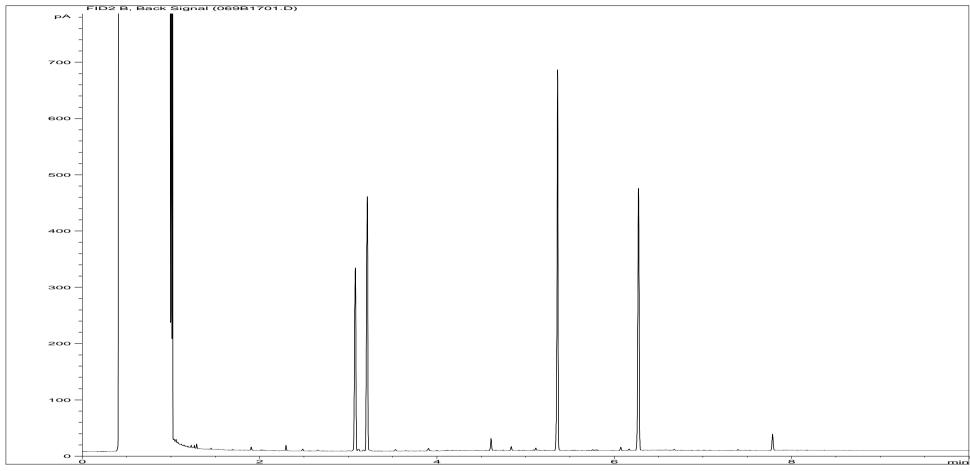
Sample ID:EX1281697AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-225

Acquisition Date/Time: 05-Apr-12, 16:42:13

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\071B3001.D

Page 31 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



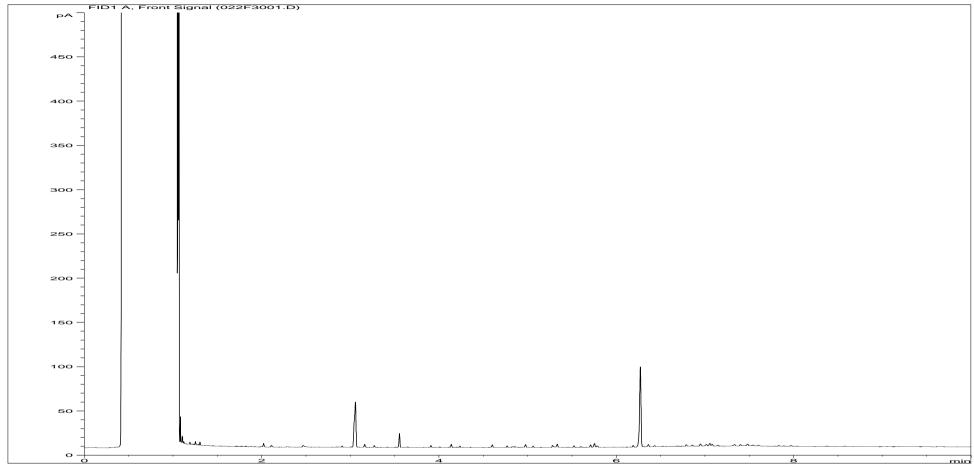
Sample ID:EX1281698Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-226

Acquisition Date/Time: 10-Apr-12, 13:34:36

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\069B1701.D

Page 32 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



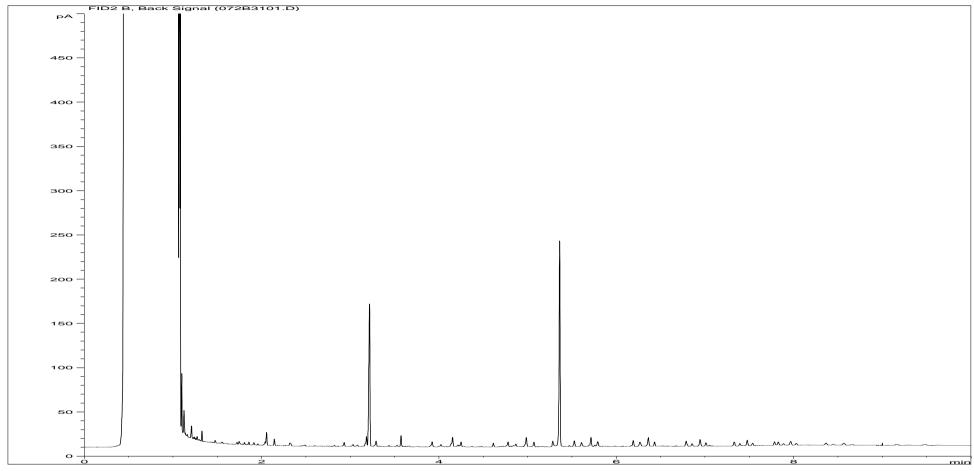
Sample ID:EX1281698ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-226

Acquisition Date/Time: 05-Apr-12, 16:42:13

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\022F3001.D

Page 33 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



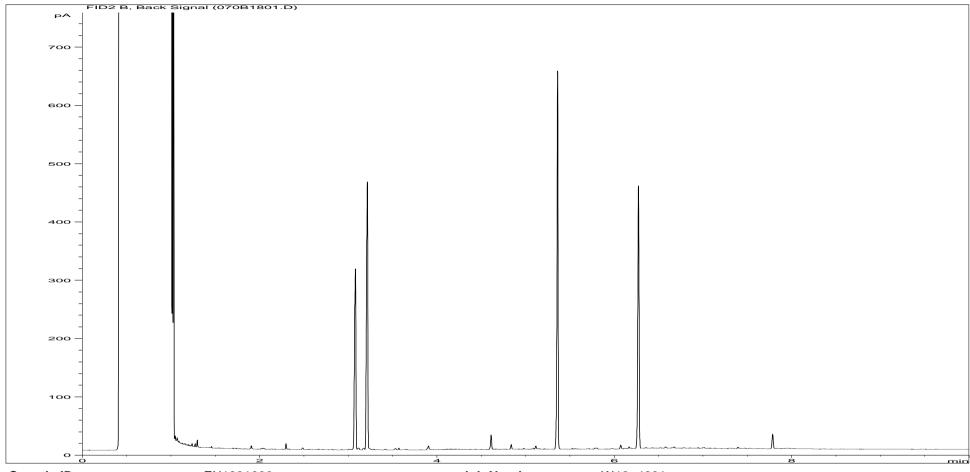
Sample ID:EX1281698AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-226

Acquisition Date/Time: 05-Apr-12, 16:59:03

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\072B3101.D

Page 34 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



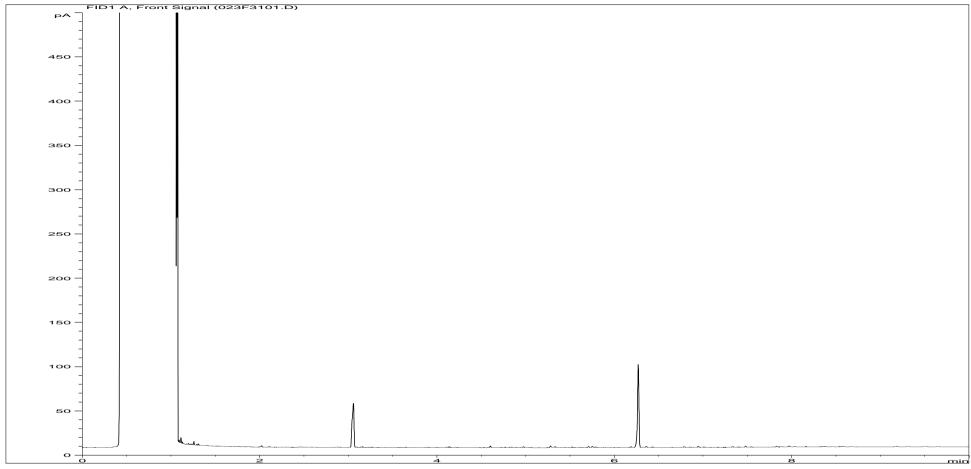
Sample ID:EX1281699Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-19x

Acquisition Date/Time: 10-Apr-12, 13:51:30

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\070B1801.D

Page 35 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



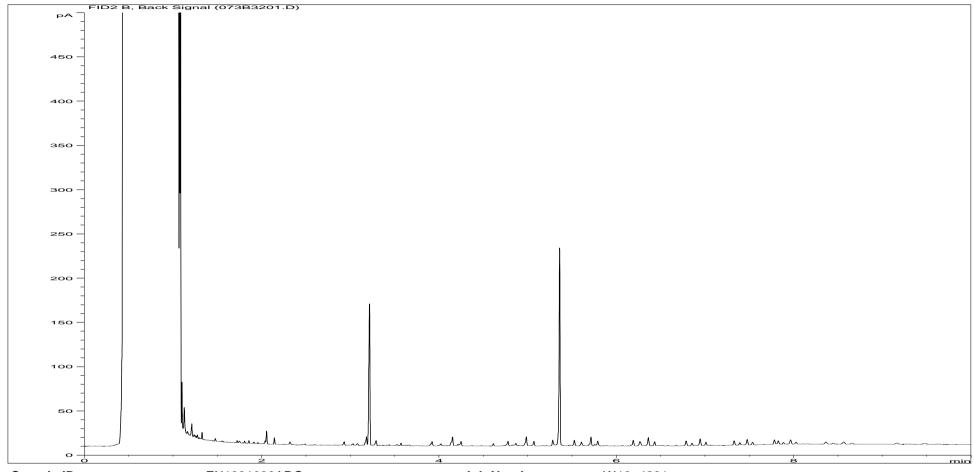
Sample ID:EX1281699ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-19x

Acquisition Date/Time: 05-Apr-12, 16:59:03

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\023F3101.D

Page 36 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



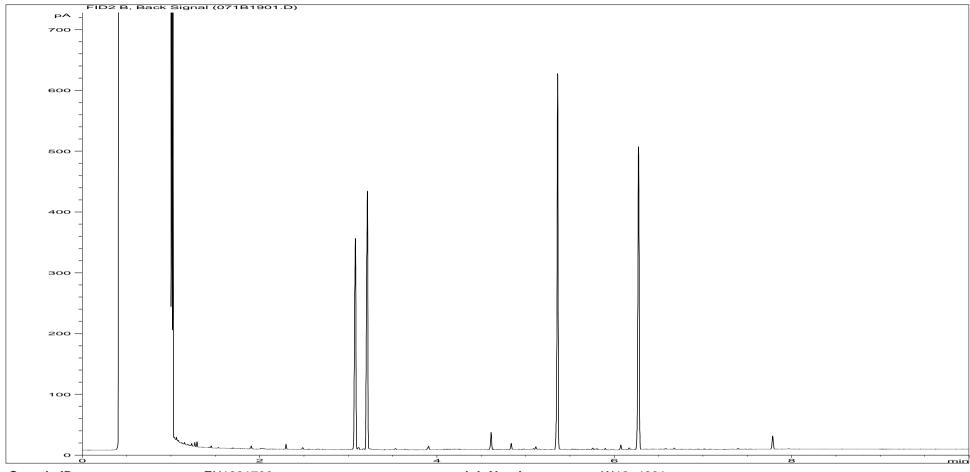
Sample ID:EX1281699AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-19x

Acquisition Date/Time: 05-Apr-12, 17:15:50

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\073B3201.D

Page 37 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



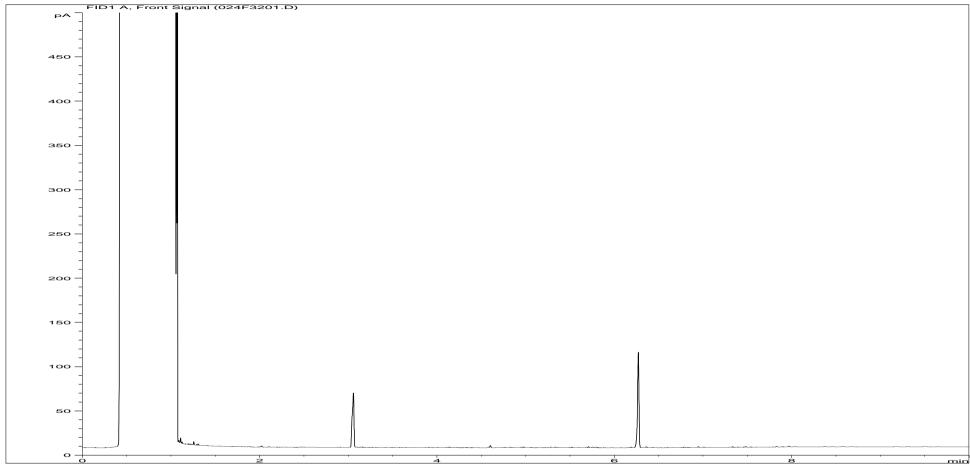
Sample ID:EX1281700Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-MW1

Acquisition Date/Time: 10-Apr-12, 14:08:29

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\071B1901.D

Page 38 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



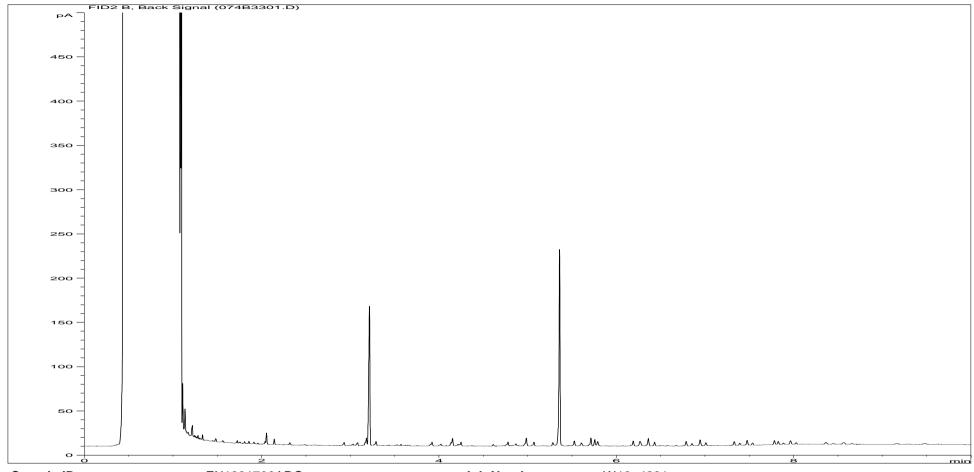
Sample ID:EX1281700ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-MW1

Acquisition Date/Time: 05-Apr-12, 17:15:50

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\024F3201.D

Page 39 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



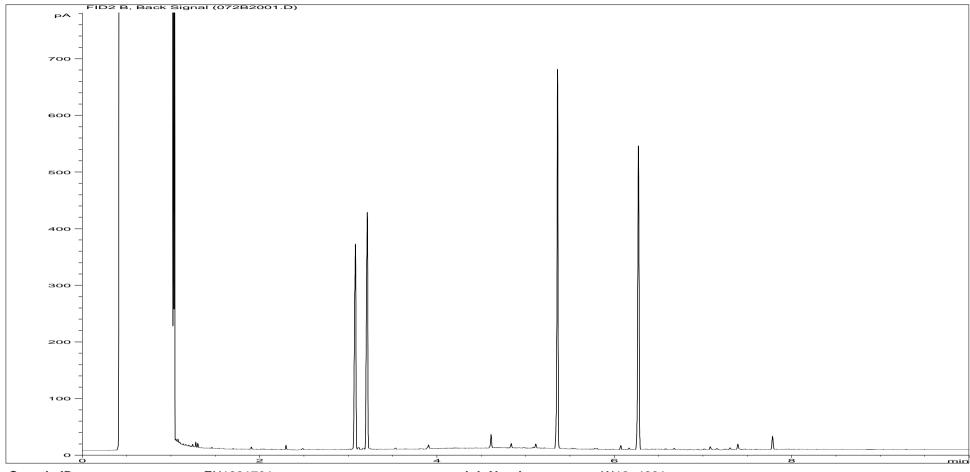
Sample ID:EX1281700AROJob Number:W13_4281Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-MW1

Acquisition Date/Time: 05-Apr-12, 17:32:41

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\074B3301.D

Page 40 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID



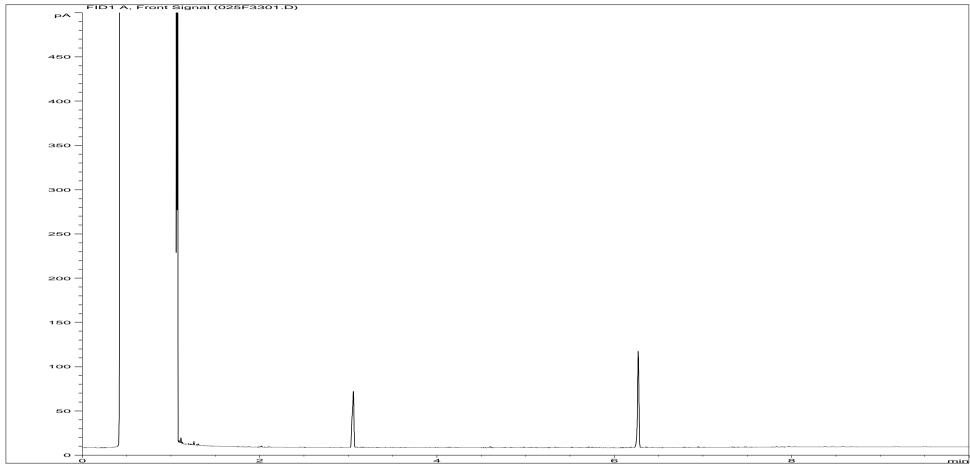
Sample ID:EX1281701Job Number:W13_4281Multiplier:0.005Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-HD1

Acquisition Date/Time: 10-Apr-12, 14:25:27

Datafile: D:\TES\DATA\Y2012\041012TPH_GC15\041012 2012-04-10 09-01-47\072B2001.D

Page 41 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



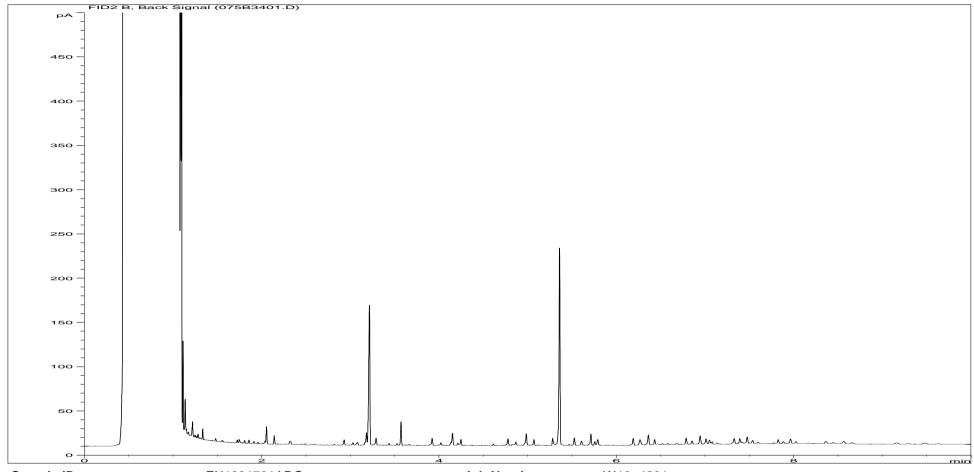
Sample ID:EX1281701ALIJob Number:W13_4281Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-HD1

Acquisition Date/Time: 05-Apr-12, 17:32:41

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\025F3301.D

Page 42 of 47 EXR/134281 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:EX1281701AROJob Number:W13_4281Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BH-NSA-HD1

Acquisition Date/Time: 05-Apr-12, 17:49:34

Datafile: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\075B3401.D

Page 43 of 47 EXR/134281 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W134281 Report No

Consignment No W35683 Date Logged 27-Mar-2012

Report Due 10-Apr-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW									ICPWATVAR					KONENS				PAHMSW	PHEHPLCVL	SVOCSW	TPHFID	TPHFID-Si
ID Number	Description	Sampled	Report B	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	PAH GC-MS (16)	Phenols by HPLC (Low Level)	SVOC	трн вс	TPH by GC(Si)
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
EX/1281691	BH-NSA-37	22/03/12																									
EX/1281692	BH-NSA-39	22/03/12																									
EX/1281693	BH-NSA-42	22/03/12																									
EX/1281694	BH-NSA-43	22/03/12																									
EX/1281695	BH-NSA-44	22/03/12																									
EX/1281696	BH-NSA-45	22/03/12																									
EX/1281697	BH-NSA-225	22/03/12																									
EX/1281698	BH-NSA-226	22/03/12	_																								
EX/1281699	BH-NSA-19x	22/03/12																									
EX/1281700	BH-NSA-MW1	22/03/12	_																								
EX/1281701	BH-NSA-HD1	22/03/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report No

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED Site **Upper Heyford** W134281

Consignment No W35683 Date Logged 27-Mar-2012

Report Due 10-Apr-2012

		MethodID	WSLM11	WSLM12	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	ADI-2 WSLM7
ID Number	Description	Sampled	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited :	to ISO17025	✓	✓	✓	✓	✓		✓	
EX/1281691	BH-NSA-37	22/03/12								
EX/1281692	BH-NSA-39	22/03/12								
EX/1281693	BH-NSA-42	22/03/12								
EX/1281694	BH-NSA-43	22/03/12								
EX/1281695	BH-NSA-44	22/03/12								
EX/1281696	BH-NSA-45	22/03/12								
EX/1281697	BH-NSA-225	22/03/12								
EX/1281698	BH-NSA-226	22/03/12								
EX/1281699	BH-NSA-19x	22/03/12								
EX/1281700	BH-NSA-MW1	22/03/12								
EX/1281701	BH-NSA-HD1	22/03/12								

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/134281

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	·
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PAHMSW	As Received	Determination of PolyAromatic Hydrocarbons in water by pentane
			extraction GCMS quantitation
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID	As Received	Determination of pentane extractable hydrocarbons in water by
			GCFID
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/134836 (Ver. 1) Your Ref: E10658-109

April 20, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

ES

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

Project Co-ordinator 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/134836 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 20 samples described in this report were registered for analysis by ESG on 10-Apr-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 20-Apr-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of PAH (MS-SIM) (10) Results (Pages 5 to 21)
Table of SVOC Results (Pages 22 to 24)
Table of GRO Results (Page 25)
Table of GRO Results (Page 26)
Table of TPH (Si) banding (0.01) (Page 27)
Table of TPH (Si) banding (UK-CWG) (Page 28)
GC-FID Chromatograms (Pages 29 to 68)
Analytical and Deviating Sample Overview (Pages 69 to 72)
Table of Method Descriptions (Page 73)
Table of Report Notes (Page 74)





Date of Issue: 20-Apr-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	μg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR		ICPMSW	ICPMSW	PAHMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	Yes	0.001 Yes	0.001 Yes	0.002 Yes
	ONAG ACC	reuiteu .	163	163	163	163	163		163		163	163	163	163	163	163	163	163
LAB ID Number EX	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	PAH GC-MS (16) o	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)
1284834	BHNSA9	02-Apr-12													Req			
1284835	BHNSA10	02-Apr-12													Req			
1284836	BHNSA11	02-Apr-12													Req			
1284837	BHNSA17	02-Apr-12													Req			
1284838	BHNSA18	02-Apr-12													Req			
1284839	BHNSA19	02-Apr-12													Req			
1284840	BHNSA21	02-Apr-12													Req			
1284841	BHNSA37	02-Apr-12	7.7	712	223	Nil	48	35	143	3	25	0.004	<0.001	<0.0001		<0.001	<0.001	0.002
1284842	BHNSA38	02-Apr-12													Req			
1284843	BHNSA225	02-Apr-12													Req			
1284844	MW1	02-Apr-12	8.1	598	220	Nil	2	117	109	21	5	<0.001	0.001	<0.0001		<0.001	<0.001	<0.002
1284845	BHNSA2	02-Apr-12													Req			
1284846	BHNSA5	02-Apr-12													Req			
1284847	BHNSA45	02-Apr-12	7.4	1100	352	Nil	120	41	192	4	51	0.005	0.002	0.0008		0.012	0.011	0.274
1284848	BHNSA4	02-Apr-12													Req			
1284849	BHNSA42	02-Apr-12													Req			
1284850	BHNSA7	02-Apr-12													Req			
1284851	BHNSA8	02-Apr-12													Req			
1284852	BHNSA3	02-Apr-12													Req			
1284853	BHNSA44	02-Apr-12													Req			
	ESG 🥏		Client N			nan EED			Water Sample Analysis									
	Environmental Scientifics Group		Contact Mr F Alcock							Dati Di	-41			A CC1C	U			
	Bretby Business Park, Ashby Road		Date Printed							19-Apr-2012								
	Burton-on-Trent, Staffordshire, DE15 0YZ					Unne	er He	vford				Report N			E	(R/134836		
	Tel +44 (0) 1283 554400					Spp.	J. 110	, a				Table Nu	ımber			1		
	Fax +44 (0) 1283 554422																	

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	μg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPMSW	ICPWATVAR		ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	GROHSA	GROHSA	TPHFID-Si	WSLM20	WSLM7	TPHFID-Si
	Method Reporting UKAS Acc		0.001 Yes	0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.1 Yes	10 Yes	0.01 Yes	2 No	6 No	0.1 No
LAB ID Number EX/	Client Sample Description	Sample Date	Arsenic as As (Dissolved)	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	GRO-HSA GCFID (AA-UK) o	MTBE-HSA o	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	TPH by GC (CWG UKEA Banding >44)
1284834	BHNSA9	02-Apr-12										Req		<10	Req			
1284835	BHNSA10	02-Apr-12										Req		<10	Req			
1284836	BHNSA11	02-Apr-12										Req		<10	Req			
1284837	BHNSA17	02-Apr-12										Req		<10	Req			
1284838	BHNSA18	02-Apr-12										Req		<10	Req			
1284839	BHNSA19	02-Apr-12										Req		<10	Req			
1284840	BHNSA21	02-Apr-12										Req		<10	Req			
1284841	BHNSA37	02-Apr-12	<0.001	0.14	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	1.8	Req			Req	<2.0	14	
1284842	BHNSA38	02-Apr-12										Req		<10	Req			
1284843	BHNSA225	02-Apr-12										Req		<10	Req			
1284844	MW1	02-Apr-12	0.006	0.12	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	<0.5	Req			Req	<2.0	<6	
1284845	BHNSA2	02-Apr-12										Req		14	Req			
1284846	BHNSA5	02-Apr-12										Req		<10	Req			
1284847	BHNSA45	02-Apr-12	0.002	0.16	<0.0001	<0.001	<0.01	<0.2	<0.01	12	4.3	Req			Req	<2.0	14	
1284848	BHNSA4	02-Apr-12										Req		<10	Req			
1284849	BHNSA42	02-Apr-12										Req		<10	Req			
1284850	BHNSA7	02-Apr-12									53		Req	<10				Req
1284851	BHNSA8	02-Apr-12									1.0		Req	<10				Req
1284852	BHNSA3	02-Apr-12										Req		<10	Req			
1284853	BHNSA44	02-Apr-12										Req		<10	Req			
Client Name Contact						Waterman EED Mr F Alcock						Water Sample Analysis						
	Bretby Business Park, Ashby Road									Date Printed 19-Apr-2012			Apr-2012					
	Burton-on-Trent, Staffordshire, DE15 0YZ					Hnn	or Ho	uford.				Report N	lumber		EX	(R/134836		
	Tel +44 (0) 1283 554400					oppe	er He	yıora				Table Nu	ımber			1		
	Fax +44 (0) 1283 554422																	

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l				
	Method Method Reporting	Codes :	0.002	PHEHPLCVL 0.0005	0.0005	PHEHPLCVL 0.0005	PHEHPLCVL 0.1	0.0005	PHEHPLCVL 0.1	PHEHPLCVL 0.1				
	UKAS Acc		No	0.0005 No	0.0005 No	0.0005 No	No	0.0005 No	No	No No				
LAB ID Number EX/	Client Sample Description	Sample Date	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols	Naphthols	Trimethylphenols	Resorcinol	Catechol				
1284834	BHNSA9	02-Apr-12												
1284835	BHNSA10	02-Apr-12												
1284836	BHNSA11	02-Apr-12												
1284837	BHNSA17	02-Apr-12												
1284838	BHNSA18	02-Apr-12												
1284839	BHNSA19	02-Apr-12												
1284840	BHNSA21	02-Apr-12												
1284841	BHNSA37	02-Apr-12	Req	<0.0005	<0.0005	<0.0005	<0.1	<0.0005	<0.1	<0.1				
1284842	BHNSA38	02-Apr-12												
1284843	BHNSA225	02-Apr-12												
1284844	MW1	02-Apr-12	Req	<0.0005	<0.0005	<0.0005	<0.1	<0.0005	<0.1	<0.1				
1284845	BHNSA2	02-Apr-12												
1284846	BHNSA5	02-Apr-12												
1284847	BHNSA45	02-Apr-12	Req	<0.0005	0.0006	0.0011	<0.1	<0.0005	<0.1	<0.1				
1284848	BHNSA4	02-Apr-12												
1284849	BHNSA42	02-Apr-12												
1284850	BHNSA7	02-Apr-12												
1284851	BHNSA8	02-Apr-12												
1284852	BHNSA3	02-Apr-12												
1284853	BHNSA44	02-Apr-12												
	Client Name Waterman EED Contact Waterman EED					Water S	ample Analysi	S						
	Bretby Business Park, Ashby Road				- 						Date Printed	19-7	Apr-2012	
	Burton-on-Trent, Staffordshire, DE15 0YZ					Hone	v Ha	4024			Report Number	EX	R/134836	
	Tel +44 (0) 1283 554400					Uppe	st He	yrora			Table Number		1	
	Fax +44 (0) 1283 554422													

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA9 W13_4836 **Job Number: LIMS ID Number:** EX1284834 Date Booked in: 10-Apr-12 QC Batch Number: 120288 **Date Extracted:** 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** 1.0 **Ext Method: Bottle**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	96
Acenaphthene-d10	95
Phenanthrene-d10	93
Chrysene-d12	86
Perylene-d12	80

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	79
Terphenyl-d14	94

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA₁₀ W13_4836 **Job Number: LIMS ID Number:** EX1284835 Date Booked in: 10-Apr-12 QC Batch Number: 120288 **Date Extracted:** 17-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	103
Acenaphthene-d10	102
Phenanthrene-d10	102
Chrysene-d12	105
Perylene-d12	107

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	75
Terphenyl-d14	93

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA11 W13_4836 **Job Number: LIMS ID Number:** EX1284836 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	101
Phenanthrene-d10	98
Chrysene-d12	93
Perylene-d12	89

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	73
Terphenyl-d14	89

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA17 W13_4836 **Job Number: LIMS ID Number:** EX1284837 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** 1.0 **Ext Method: Bottle**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	100
Acenaphthene-d10	99
Phenanthrene-d10	99
Chrysene-d12	99
Perylene-d12	97

Surrogates	% Rec
Ť	
Nitrobenzene-d5	NA
2-Fluorobiphenyl	73
Terphenyl-d14	85

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA₁₈ W13_4836 **Job Number: LIMS ID Number:** EX1284838 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	100
Acenaphthene-d10	99
Phenanthrene-d10	98
Chrysene-d12	96
Perylene-d12	93

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	77
Terphenyl-d14	89

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA19 W13_4836 **Job Number: LIMS ID Number:** EX1284839 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	97
Acenaphthene-d10	96
Phenanthrene-d10	94
Chrysene-d12	89
Perylene-d12	84

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	72
Terphenyl-d14	88

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA21 W13_4836 **Job Number: LIMS ID Number:** EX1284840 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration Date Analysed: 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	3.43	0.074	М
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	4.61	0.044	89
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	7.24	0.017	95
Pyrene	129-00-0	7.53	0.026	91
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	10.76	0.012	97
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.283	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	99
Acenaphthene-d10	103
Phenanthrene-d10	100
Chrysene-d12	96
Perylene-d12	89

Surrogates	% Rec	
Nitrobenzene-d5	NA	
2-Fluorobiphenyl	67	
Terphenyl-d14	87	

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA38 W13_4836 **Job Number: LIMS ID Number:** EX1284842 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** 1.0 **Ext Method: Bottle**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	99
Acenaphthene-d10	97
Phenanthrene-d10	96
Chrysene-d12	94
Perylene-d12	95

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	77
Terphenyl-d14	92

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA225 W13_4836 **Job Number: LIMS ID Number:** EX1284843 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** 1.0 **Ext Method: Bottle**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	3.43	0.054	М
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	4.60	0.014	74
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	1	< 0.010	-
Benzo[b]fluoranthene	205-99-2	1	< 0.010	-
Benzo[k]fluoranthene	207-08-9	1	< 0.010	-
Benzo[a]pyrene	50-32-8	1	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	1	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.208	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	101
Acenaphthene-d10	102
Phenanthrene-d10	99
Chrysene-d12	96
Perylene-d12	92

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	70
Terphenyl-d14	87

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA2 W13_4836 **Job Number: LIMS ID Number:** EX1284845 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	1	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	1	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	105
Phenanthrene-d10	103
Chrysene-d12	101
Perylene-d12	101

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	73
Terphenyl-d14	87

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA5 W13_4836 **Job Number: LIMS ID Number:** EX1284846 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 17-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	101
Phenanthrene-d10	101
Chrysene-d12	101
Perylene-d12	99

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	71
Terphenyl-d14	86

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA4 W13_4836 **Job Number: LIMS ID Number:** EX1284848 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 18-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	100
Phenanthrene-d10	99
Chrysene-d12	98
Perylene-d12	97

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	66
Terphenyl-d14	90

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA42 W13_4836 **Job Number: LIMS ID Number:** EX1284849 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 18-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** 1.0 **Ext Method: Bottle**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	7.53	0.021	86
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.181	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	104
Acenaphthene-d10	103
Phenanthrene-d10	104
Chrysene-d12	100
Perylene-d12	97

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	69
Terphenyl-d14	91

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA7 W13_4836 **Job Number: LIMS ID Number:** EX1284850 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration Date Analysed: 18-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	3.43	0.212	98
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	5.00	0.011	84
Phenanthrene	85-01-8	5.87	0.011	80
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	1	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.364	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	102
Phenanthrene-d10	102
Chrysene-d12	105
Perylene-d12	104

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	63
Terphenyl-d14	88

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA8 W13_4836 **Job Number: LIMS ID Number:** EX1284851 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File: Initial Calibration Date Analysed:** 18-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** 1.0 **Ext Method: Bottle**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	103
Acenaphthene-d10	103
Phenanthrene-d10	102
Chrysene-d12	102
Perylene-d12	104

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	70
Terphenyl-d14	87

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA3 W13_4836 **Job Number: LIMS ID Number:** EX1284852 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 18-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	ı	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	1	< 0.010	-
Pyrene	129-00-0	7.53	0.025	86
Benzo[a]anthracene	56-55-3	1	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	1	< 0.010	-
Benzo[a]pyrene	50-32-8	1	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	1	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.185	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	101
Acenaphthene-d10	103
Phenanthrene-d10	102
Chrysene-d12	108
Perylene-d12	113

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	63
Terphenyl-d14	90

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA44 W13_4836 **Job Number: LIMS ID Number:** EX1284853 Date Booked in: 10-Apr-12 QC Batch Number: 120288 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 18-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	103
Phenanthrene-d10	102
Chrysene-d12	101
Perylene-d12	99

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	66
Terphenyl-d14	83

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA37
 Date Booked in:
 10-Apr-12

 LIMS ID Number:
 EX1284841
 Date Extracted:
 12-Apr-12

 Job Number:
 W13_4836
 Date Analysed:
 13-Apr-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	55
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.GC11\	0412_CCC2a.l GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	93
Naphthalene-d8	87
Acenaphthene-d10	93
Phenanthrene-d10	93
Chrysene-d12	92
Perylene-d12	94

Surrogates	% Rec
2-Fluorophenol	52
Phenol-d5	24
Nitrobenzene-d5	91
2-Fluorobiphenyl	90
2,4,6-Tribromophenol	78
Terphenyl-d14	101

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 MW1
 Date Booked in:
 10-Apr-12

 LIMS ID Number:
 EX1284844
 Date Extracted:
 12-Apr-12

 Job Number:
 W13_4836
 Date Analysed:
 13-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	_	< 0.005	_

Matrix:	Water	QC Batch Number:	55
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.GC11\	0412_CCC2a.l GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	86
Naphthalene-d8	83
Acenaphthene-d10	87
Phenanthrene-d10	88
Chrysene-d12	82
Perylene-d12	81

Surrogates	% Rec
2-Fluorophenol	45
Phenol-d5	28
Nitrobenzene-d5	89
2-Fluorobiphenyl	90
2,4,6-Tribromophenol	76
Terphenyl-d14	105

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA45
 Date Booked in:
 10-Apr-12

 LIMS ID Number:
 EX1284847
 Date Extracted:
 12-Apr-12

 Job Number:
 W13_4836
 Date Analysed:
 13-Apr-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	<u> </u>	< 0.020	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	55
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	12SVOC.GC11\	0412_CCC2a.l GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit	
			mg/l		
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-	
Dibenzofuran	132-64-9	-	< 0.005	-	
4-Nitrophenol	100-02-7	-	< 0.050	-	
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-	
Fluorene	86-73-7	-	< 0.002	-	
Diethylphthalate	84-66-2	-	< 0.005	-	
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-	
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-	
4-Nitroaniline	100-01-6	-	< 0.005	-	
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-	
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-	
Hexachlorobenzene	118-74-1	-	< 0.005	-	
Pentachlorophenol	87-86-5	-	< 0.050	-	
Phenanthrene	85-01-8	-	< 0.002	-	
Anthracene	120-12-7	-	< 0.002	-	
Di-n-butylphthalate	84-74-2	-	< 0.005	-	
Fluoranthene	206-44-0	-	< 0.002	-	
Pyrene	129-00-0	-	< 0.002	-	
Butylbenzylphthalate	85-68-7	-	< 0.005	-	
Benzo[a]anthracene	56-55-3	-	< 0.002	-	
Chrysene	218-01-9	-	< 0.002	-	
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-	
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-	
Di-n-octylphthalate	117-84-0	-	< 0.002	-	
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-	
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-	
Benzo[a]pyrene	50-32-8	-	< 0.002	-	
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-	
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-	
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-	

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	87
Naphthalene-d8	82
Acenaphthene-d10	88
Phenanthrene-d10	88
Chrysene-d12	89
Perylene-d12	90

Surrogates	% Rec
2-Fluorophenol	57
Phenol-d5	31
Nitrobenzene-d5	89
2-Fluorobiphenyl	91
2,4,6-Tribromophenol	91
Terphenyl-d14	97

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_4836

Directory: D:\TES\DATA\Y2012\0416HSA_GC09\041612C 2012-04-17 12-52-29\107F2701.D

Method: Headspace GCFID

Matrix: Water

Date Booked in: 10-Apr-12

Date extracted: 16-Apr-12

Date Analysed: 17-Apr-12, 21:15:00

* Sample data with an asterisk are not UKAS accredited.

			Concentration, (mg/l)						Aliphatics						
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO				
EX1284834	BHNSA9	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284835	BHNSA10	< 0.005	< 0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284836	BHNSA11	< 0.005	< 0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284837	BHNSA17	< 0.005	< 0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284838	BHNSA18	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284839	BHNSA19	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284840	BHNSA21	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	0.1	0.1				
EX1284841	BHNSA37	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284842	BHNSA38	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284843	BHNSA225	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284844	MW1	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284845	BHNSA2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284846	BHNSA5	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284847	BHNSA45	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284848	BHNSA4	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284849	BHNSA42	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284852	BHNSA3	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1				
EX1284853	BHNSA44	<0.005	<0.005	<0.005	<0.005	< 0.005	<0.1	<0.1	<0.1	<0.1	<0.1				

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

Gasoline Range Organics (BTEX and Aromatic/Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_4836

Directory: D:\TES\DATA\Y2012\0416HSA_GC09\041612C 2012-04-17 12-52-29\105F2501.D

Method: HEADSPACE GCFID

Matrix: Water

Date Booked in: 10-Apr-12
Date extracted: 16-Apr-12

Date Analysed: 17-Apr-12, 20:37:39

Units: mg/l

* Sample data with an asterisk are not UKAS accredited.

			E	BTEX		Aron	natics	Aliph	Total GRO	
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	Xylenes	C5 - C7	>C7 - C8	C5 - C6	>C6 - C8	C5 - C10
EX1284850	BHNSA7	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.1	<0.1	<0.1
EX1284851	BHNSA8	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.1	<0.1	<0.1

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford

 Job Number:
 W13_4836
 Separation:
 Silica gel

 QC Batch Number:
 288
 Eluents:
 Hexane, DCM

 Directory:
 D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\075B3201.D

Method: Ultra Sonic

Matrix: Water

 Date Booked ir
 10-Apr-12

 Date Extracted
 17-Apr-12

 Date Analysed: 18-Apr-12, 20:18:59

						Concentra	tion, (mg/l)						
* This sample data is not UK	AS accredited.	>C8	- C10	>C10	- C12	>C12	- C16	>C16 - C21		>C21 - C35		>C8	- C40
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1284834	BHNSA9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	0.012
EX1284835	BHNSA10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.02	0.011
EX1284836	BHNSA11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	0.012
EX1284837	BHNSA17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	0.012
EX1284838	BHNSA18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01
EX1284839	BHNSA19	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	0.011
EX1284840	BHNSA21	<0.01	<0.01	<0.01	0.013	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.054
EX1284841	BHNSA37	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	<0.01	0.022	<0.01
EX1284842	BHNSA38	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1284843	BHNSA225	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	0.021
EX1284844	MW1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01
EX1284845	BHNSA2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	<0.01
EX1284846	BHNSA5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01
EX1284847	BHNSA45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1284848	BHNSA4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	<0.01
EX1284849	BHNSA42	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1284852	BHNSA3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.027	0.012	0.035	0.018
EX1284853	BHNSA44	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
													<u> </u>

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford

W13_4836 Separation: Silica gel QC Batch Number: 288 Eluents: Hexane, DCM D:\TES\DATA\Y2012\041812TPH GC15\041812 2012-04-18 10-52-48\073B3001.D

Method: Ultra Sonic

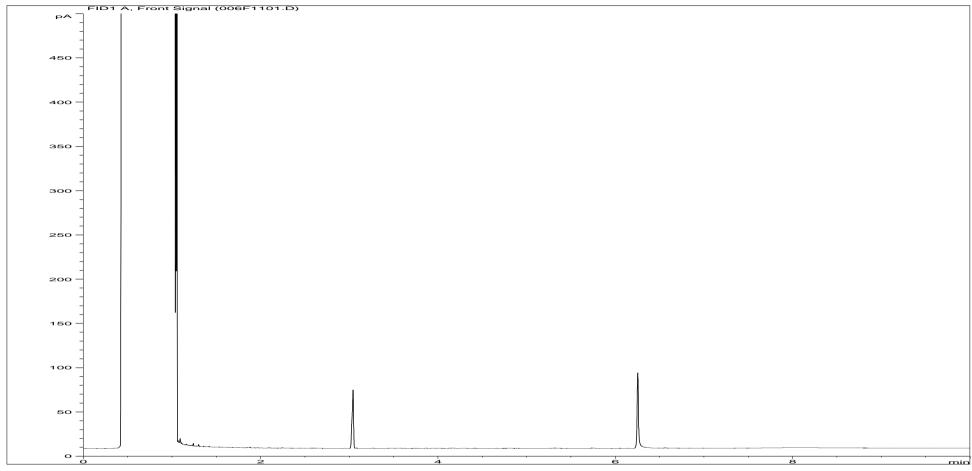
Job Number:

Directory:

Matrix: Water

Date Booked in: 10-Apr-12 Date Extracted: 17-Apr-12 Date Analysed: 18-Apr-12, 19:45:08

Metriou.	Ollia Soriic	Concentration, (mg/l)												
This sample data is not UKA	>C8 - C10	>C8 - C10	>C10 - C12	>C10 - C12	>C12 - C16	>C12 - C16		>C16 - C21	>C35 - C44	>C21 - C35	>C35 - C44	>C8 - C44	>C8 - C44	
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aromatics	Aliphatics	Aromatics
EX1284850	BHNSA7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	0.011
EX1284851	BHNSA8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.011	0.018
						-								+
						+						1		+
						+								
		1	L	L	L	1	L	1	L	L	l	_1	L	1

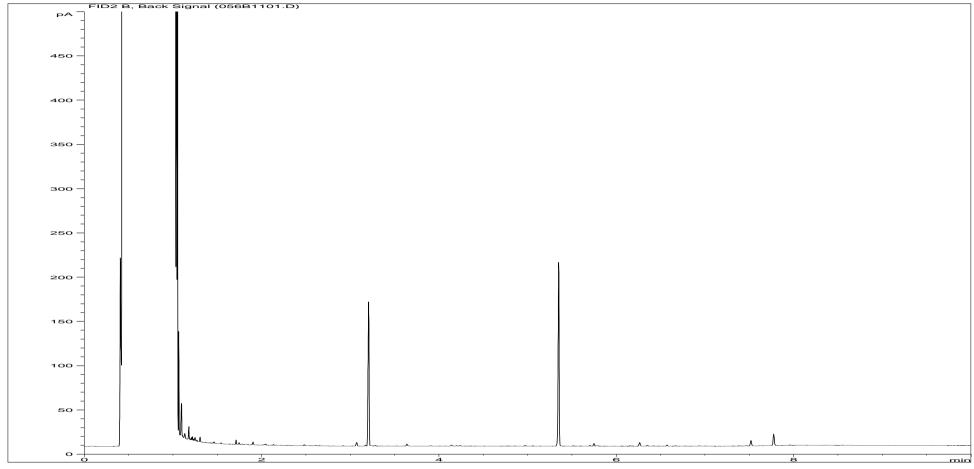


Sample ID:EX1284834ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA9

Acquisition Date/Time: 18-Apr-12, 13:48:05

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\006F1101.D

Page 29 of 74 EXR/134836 Ver. 1

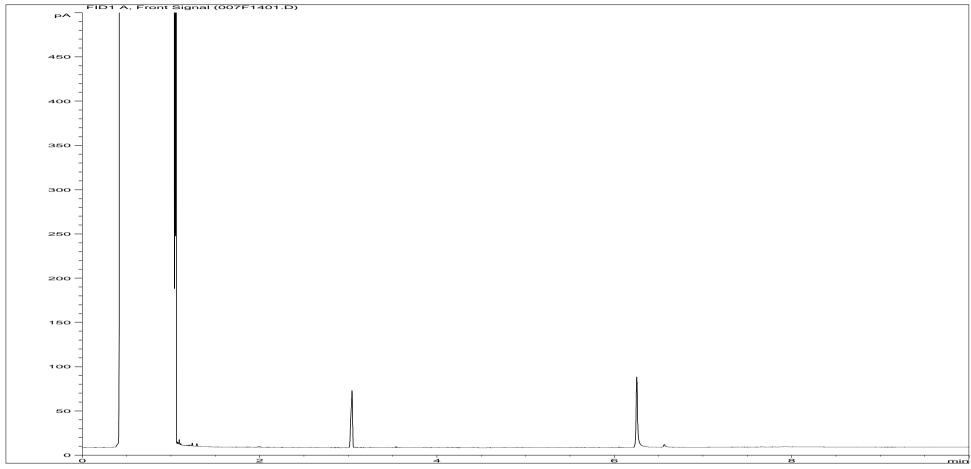


Sample ID:EX1284834AROJob Number:W13_4836Multiplier:0.018Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA9

Acquisition Date/Time: 18-Apr-12, 13:48:05

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\056B1101.D

Page 30 of 74 EXR/134836 Ver. 1

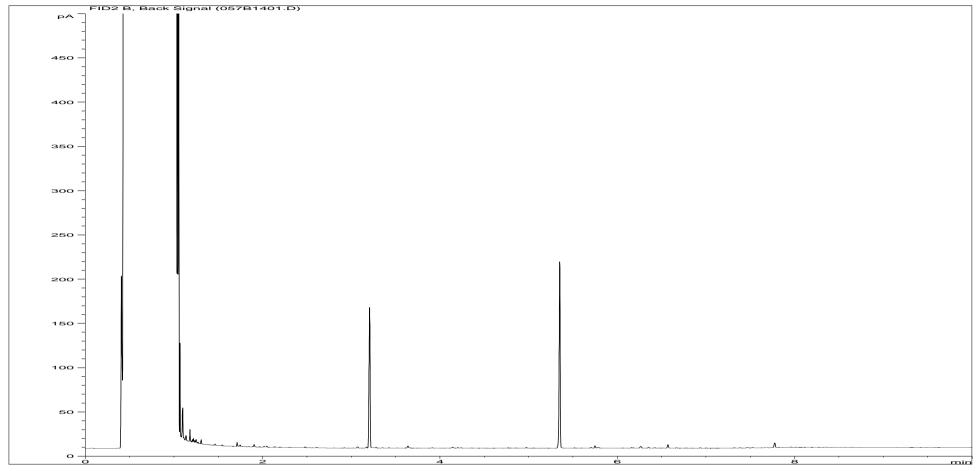


Sample ID:EX1284835ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA10

Acquisition Date/Time: 18-Apr-12, 15:13:25

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\007F1401.D

Page 31 of 74 EXR/134836 Ver. 1

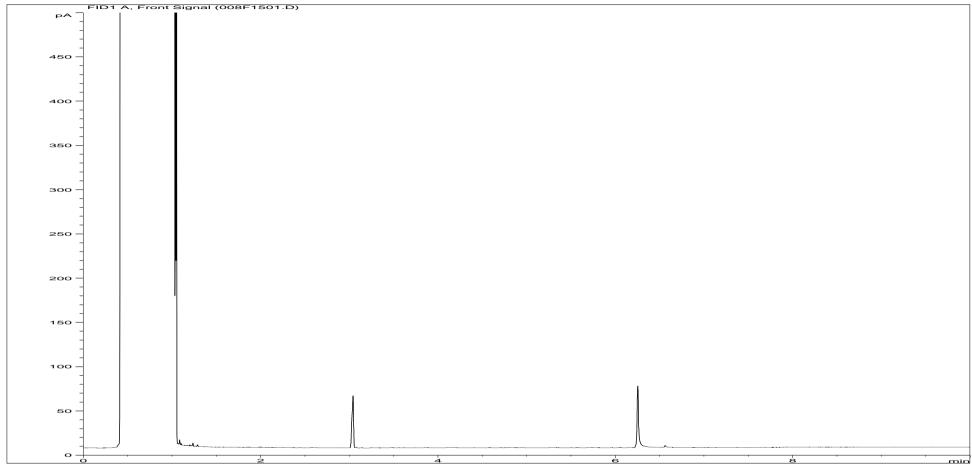


Sample ID:EX1284835AROJob Number:W13_4836Multiplier:0.018Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA10

Acquisition Date/Time: 18-Apr-12, 15:13:25

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\057B1401.D

Page 32 of 74 EXR/134836 Ver. 1

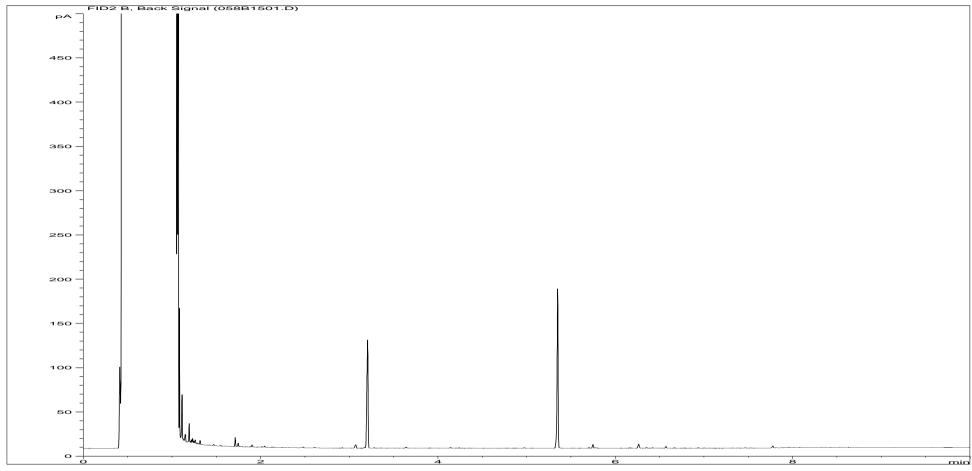


Sample ID:EX1284836ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA11

Acquisition Date/Time: 18-Apr-12, 15:30:23

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\008F1501.D

Page 33 of 74 EXR/134836 Ver. 1

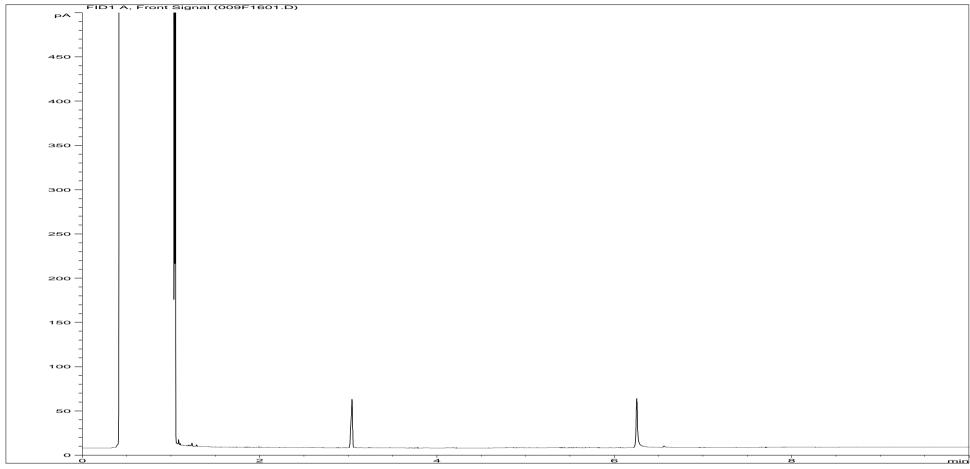


Sample ID:EX1284836AROJob Number:W13_4836Multiplier:0.018Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA11

Acquisition Date/Time: 18-Apr-12, 15:30:23

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\058B1501.D

Page 34 of 74 EXR/134836 Ver. 1

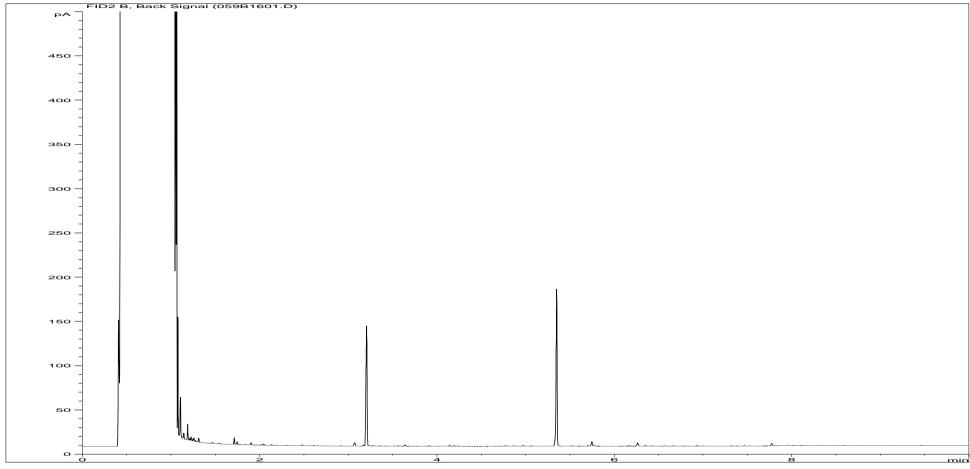


Sample ID:EX1284837ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA17

Acquisition Date/Time: 18-Apr-12, 15:47:18

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\009F1601.D

Page 35 of 74 EXR/134836 Ver. 1

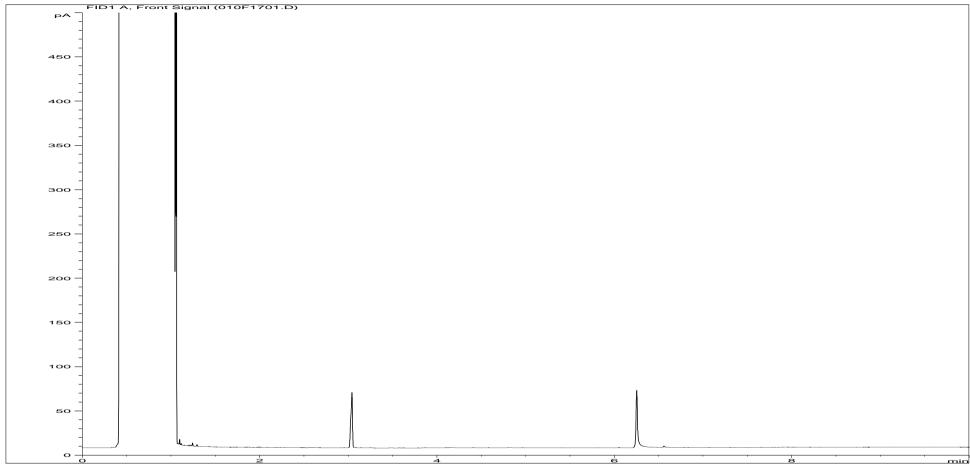


Sample ID:EX1284837AROJob Number:W13_4836Multiplier:0.018Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA17

Acquisition Date/Time: 18-Apr-12, 15:47:18

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\059B1601.D

Page 36 of 74 EXR/134836 Ver. 1

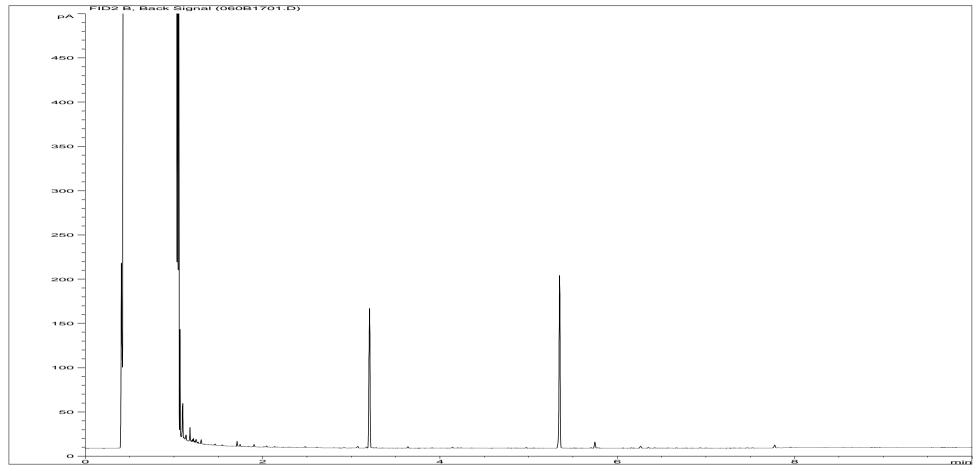


Sample ID:EX1284838ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA18

Acquisition Date/Time: 18-Apr-12, 16:04:21

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\010F1701.D

Page 37 of 74 EXR/134836 Ver. 1

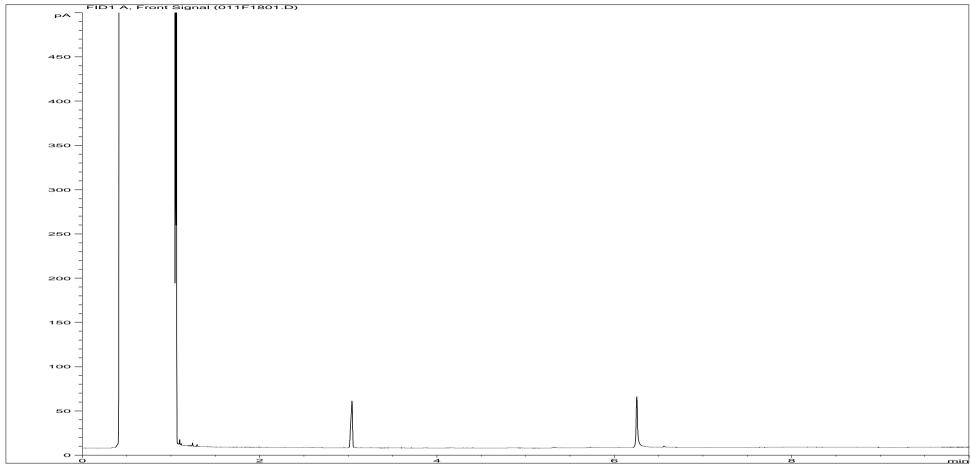


Sample ID:EX1284838AROJob Number:W13_4836Multiplier:0.018Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA18

Acquisition Date/Time: 18-Apr-12, 16:04:21

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\060B1701.D

Page 38 of 74 EXR/134836 Ver. 1

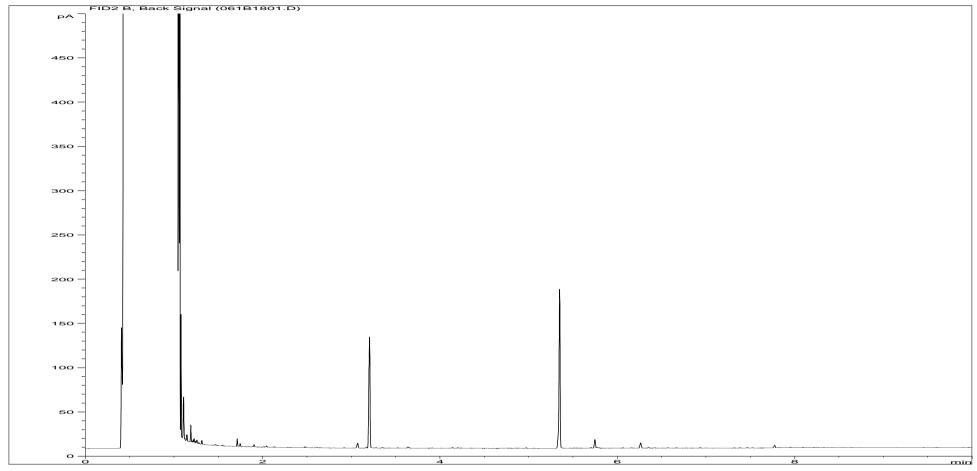


Sample ID:EX1284839ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA19

Acquisition Date/Time: 18-Apr-12, 16:21:22

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\011F1801.D

Page 39 of 74 EXR/134836 Ver. 1

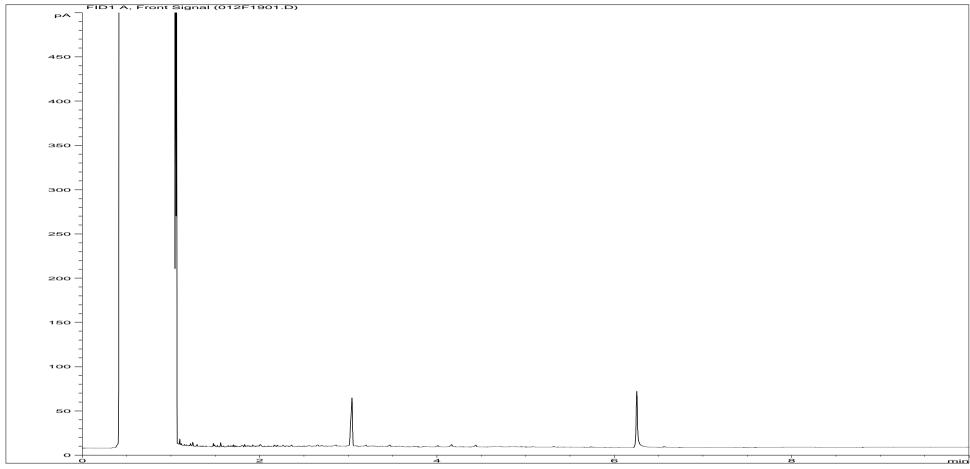


Sample ID:EX1284839AROJob Number:W13_4836Multiplier:0.018Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA19

Acquisition Date/Time: 18-Apr-12, 16:21:22

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\061B1801.D

Page 40 of 74 EXR/134836 Ver. 1

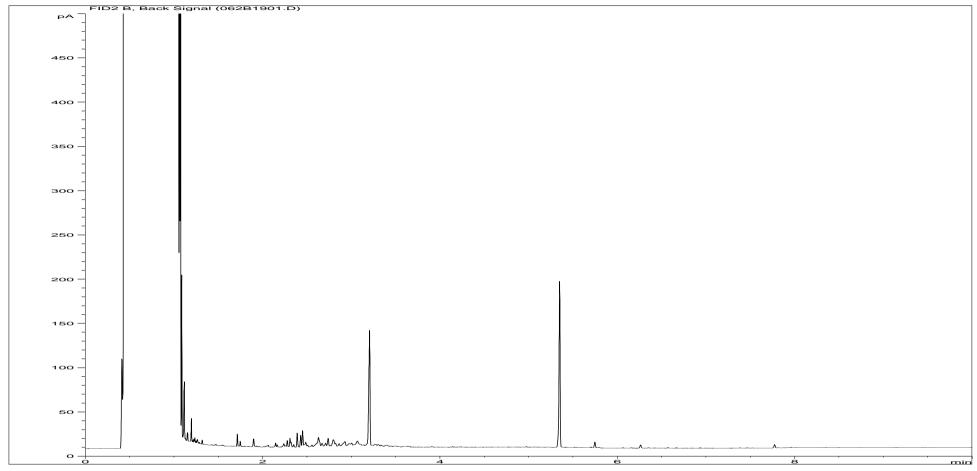


Sample ID:EX1284840ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA21

Acquisition Date/Time: 18-Apr-12, 16:38:17

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\012F1901.D

Page 41 of 74 EXR/134836 Ver. 1

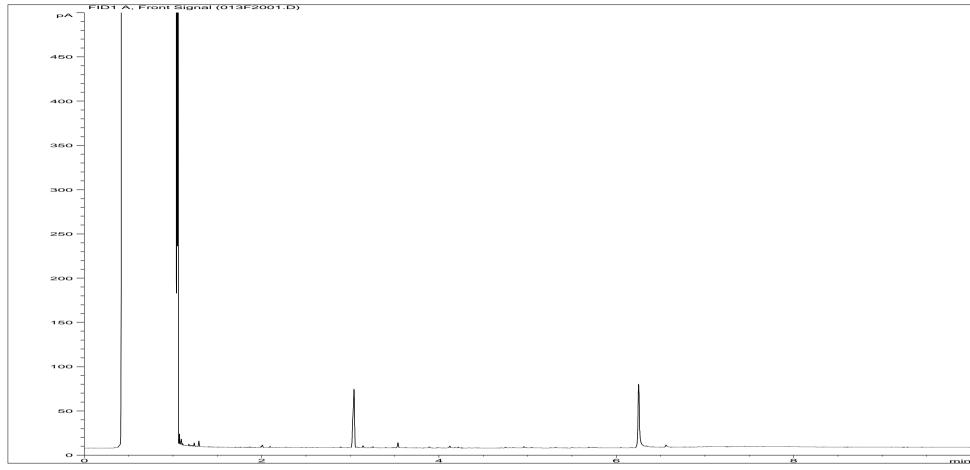


Sample ID:EX1284840AROJob Number:W13_4836Multiplier:0.018Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA21

Acquisition Date/Time: 18-Apr-12, 16:38:17

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\062B1901.D

Page 42 of 74 EXR/134836 Ver. 1

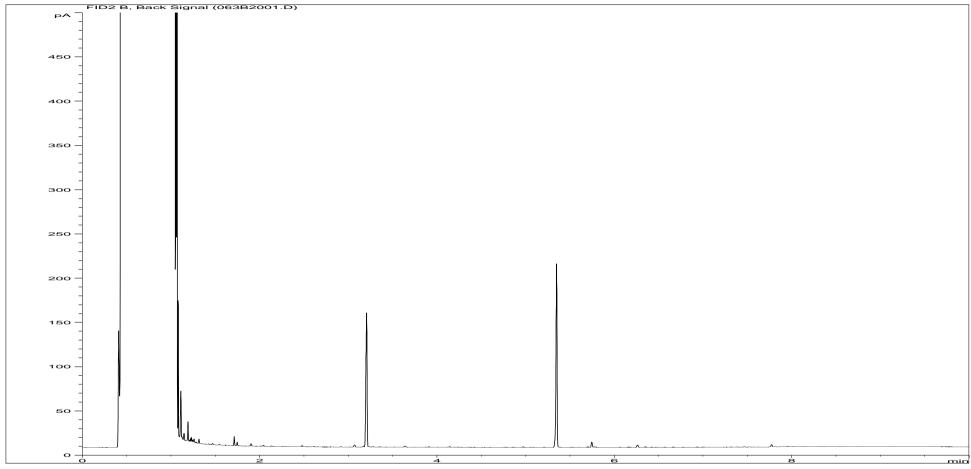


Sample ID:EX1284841ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA37

Acquisition Date/Time: 18-Apr-12, 16:55:10

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\013F2001.D

Page 43 of 74 EXR/134836 Ver. 1

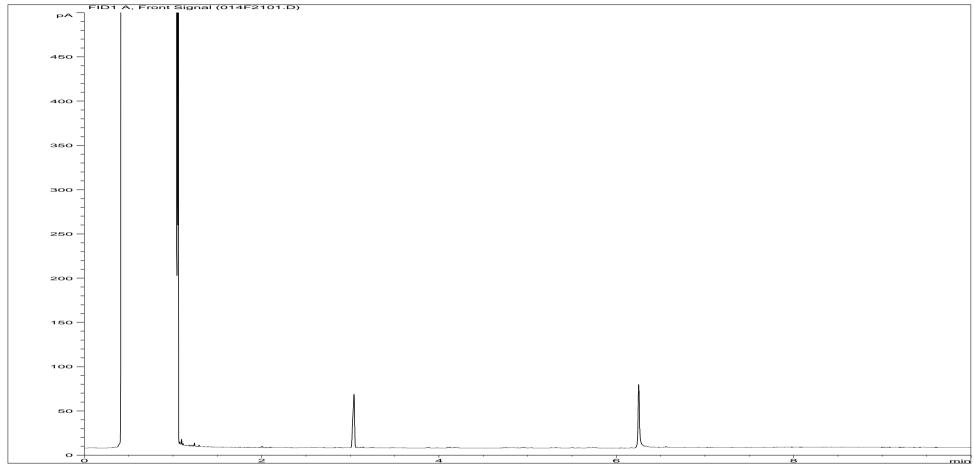


Sample ID:EX1284841AROJob Number:W13_4836Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA37

Acquisition Date/Time: 18-Apr-12, 16:55:10

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\063B2001.D

Page 44 of 74 EXR/134836 Ver. 1

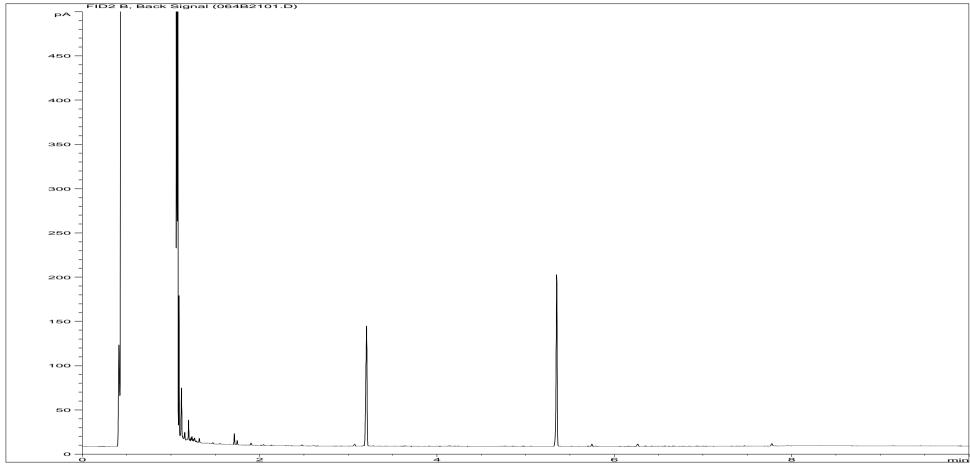


Sample ID:EX1284842ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA38

Acquisition Date/Time: 18-Apr-12, 17:12:11

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\014F2101.D

Page 45 of 74 EXR/134836 Ver. 1

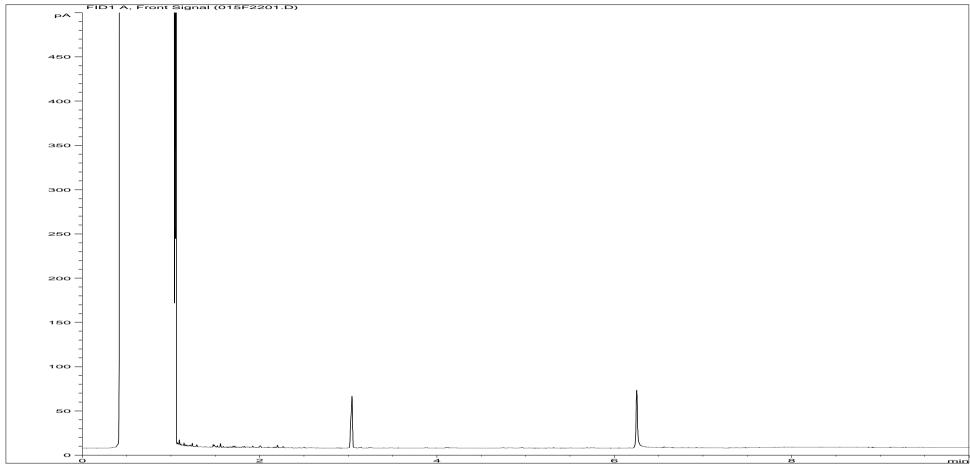


Sample ID:EX1284842AROJob Number:W13_4836Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA38

Acquisition Date/Time: 18-Apr-12, 17:12:11

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\064B2101.D

Page 46 of 74 EXR/134836 Ver. 1

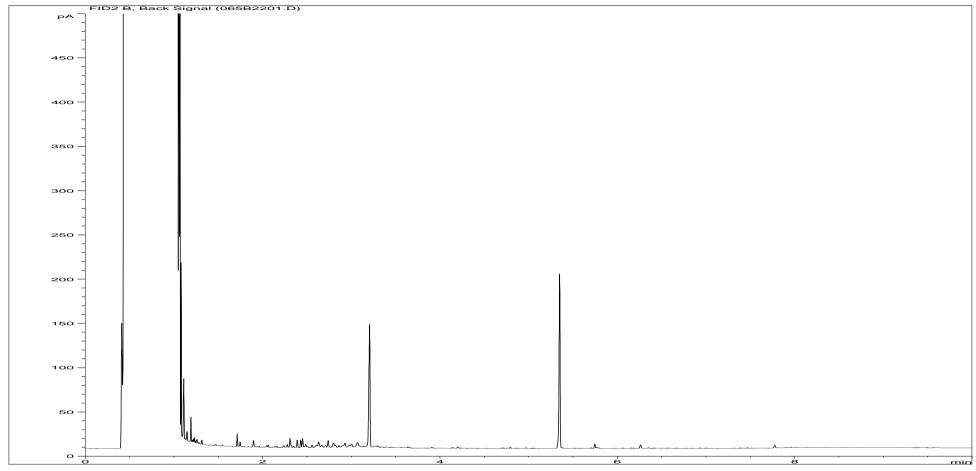


Sample ID:EX1284843ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA225

Acquisition Date/Time: 18-Apr-12, 17:29:11

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\015F2201.D

Page 47 of 74 EXR/134836 Ver. 1

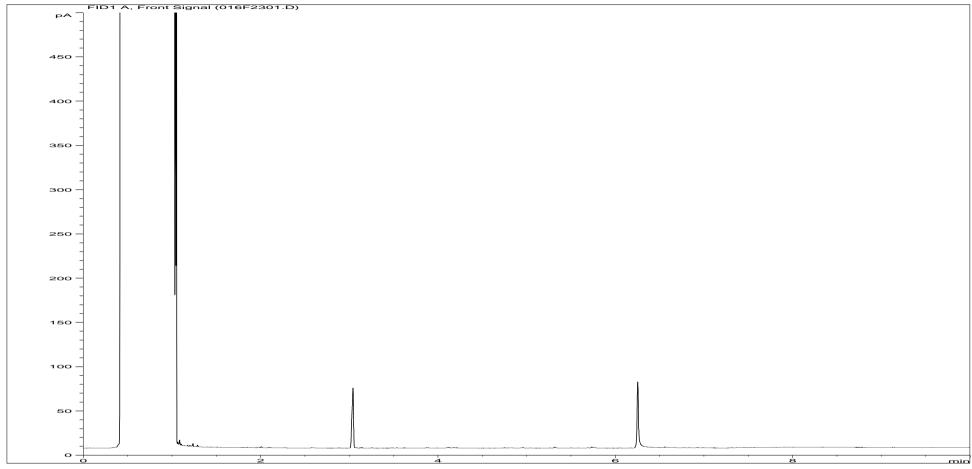


Sample ID:EX1284843AROJob Number:W13_4836Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA225

Acquisition Date/Time: 18-Apr-12, 17:29:11

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\065B2201.D

Page 48 of 74 EXR/134836 Ver. 1



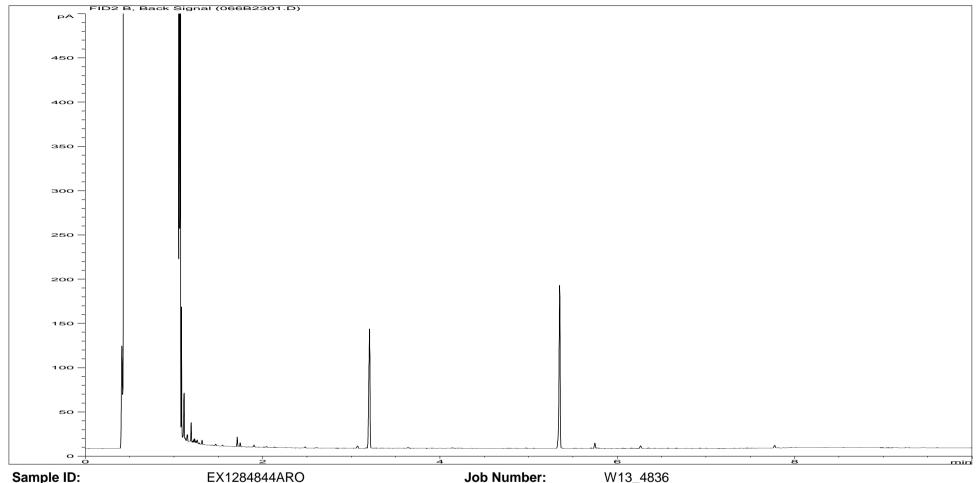
Sample ID:EX1284844ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:MW1

Acquisition wethod: IPH_RUNF.M

Acquisition Date/Time: 18-Apr-12, 17:46:11

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\016F2301.D

Page 49 of 74 EXR/134836 Ver. 1



Sample ID: EX1284844ARO Job Number: Multiplier: Client: 0.015 Dilution: Site: **Acquisition Method:** TPH_RUNF.M **Client Sample Ref:**

Acquisition Date/Time: 18-Apr-12, 17:46:11

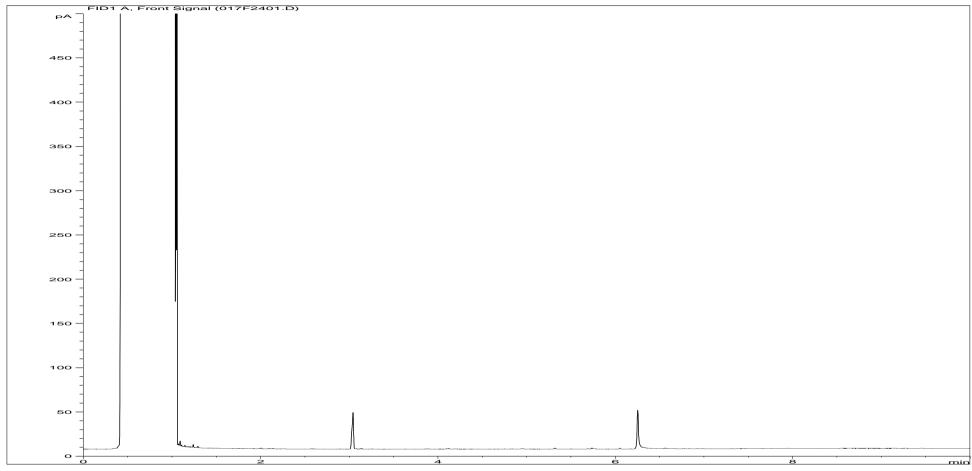
Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\066B2301.D

Waterman EED

Upper Heyford

MW1

Page 50 of 74 EXR/134836 Ver. 1

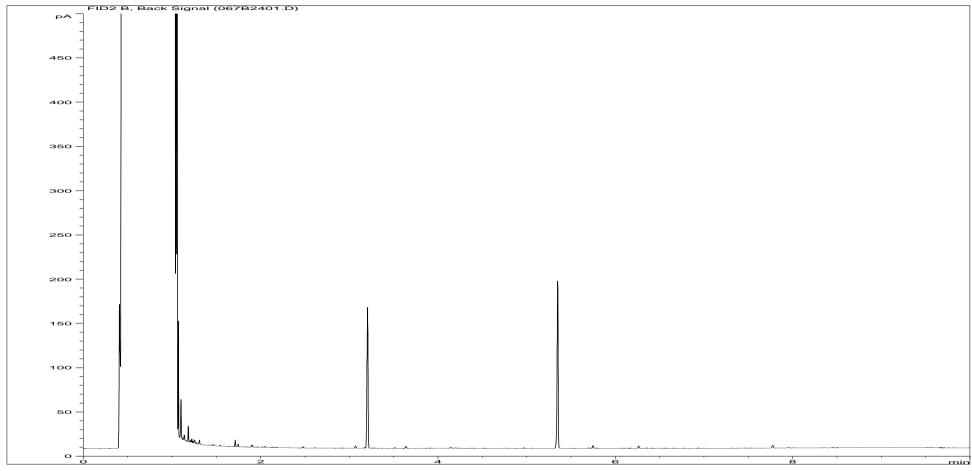


Sample ID:EX1284845ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA2

Acquisition Date/Time: 18-Apr-12, 18:03:04

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\017F2401.D

Page 51 of 74 EXR/134836 Ver. 1

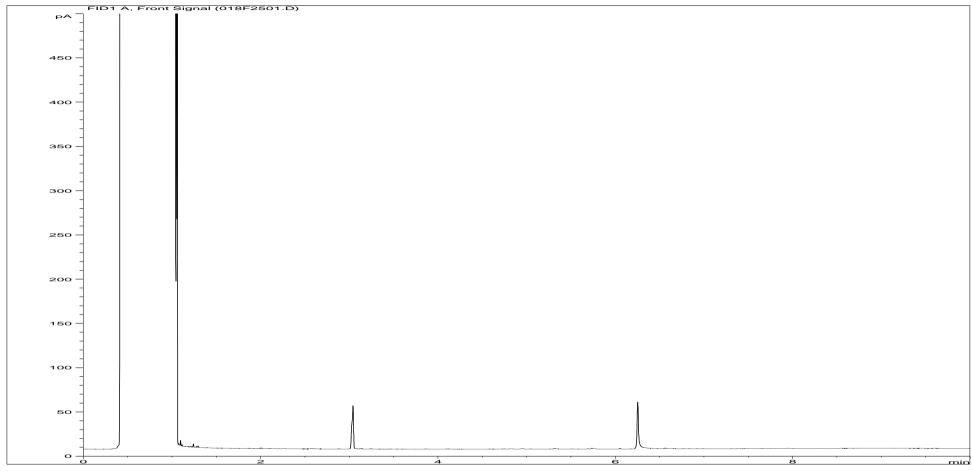


Sample ID:EX1284845AROJob Number:W13_4836Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA2

Acquisition Date/Time: 18-Apr-12, 18:03:04

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\067B2401.D

Page 52 of 74 EXR/134836 Ver. 1

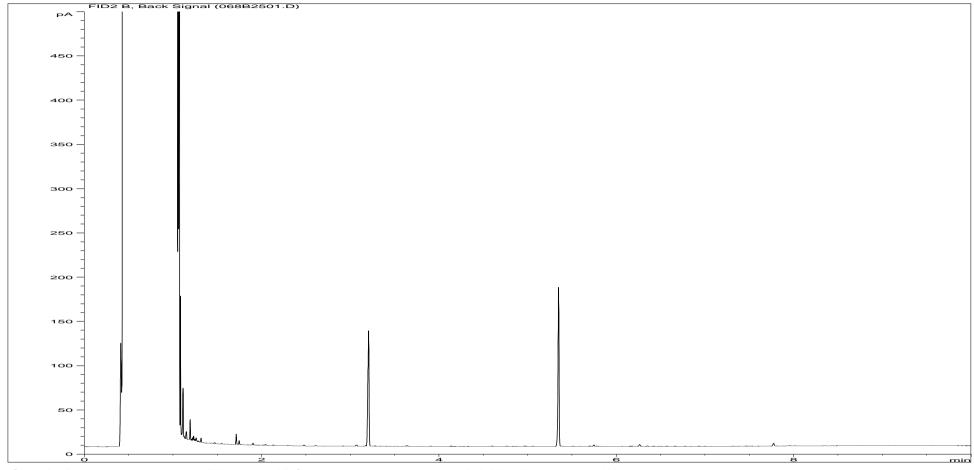


Sample ID:EX1284846ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA5

Acquisition Date/Time: 18-Apr-12, 18:20:05

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\018F2501.D

Page 53 of 74 EXR/134836 Ver. 1

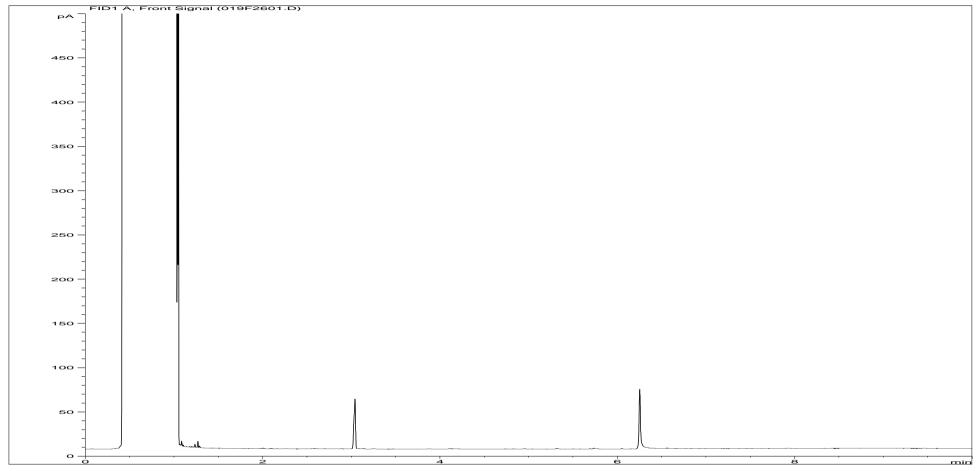


Sample ID:EX1284846AROJob Number:W13_4836Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA5

Acquisition Date/Time: 18-Apr-12, 18:20:05

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\068B2501.D

Page 54 of 74 EXR/134836 Ver. 1

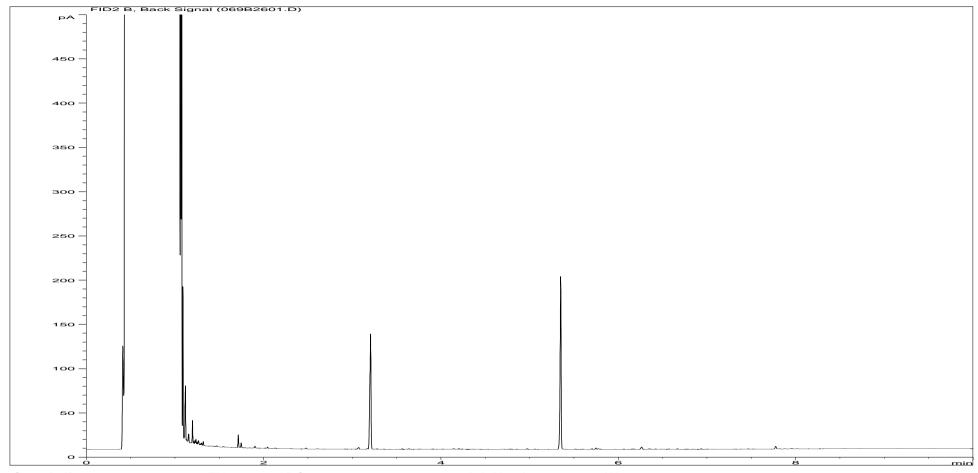


Sample ID:EX1284847ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA45

Acquisition Date/Time: 18-Apr-12, 18:37:09

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\019F2601.D

Page 55 of 74 EXR/134836 Ver. 1

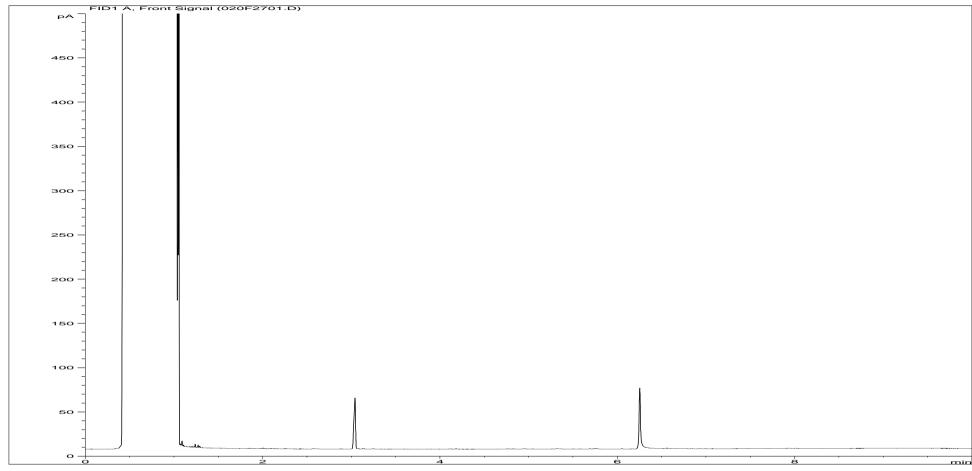


Sample ID:EX1284847AROJob Number:W13_4836Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA45

Acquisition Date/Time: 18-Apr-12, 18:37:09

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\069B2601.D

Page 56 of 74 EXR/134836 Ver. 1

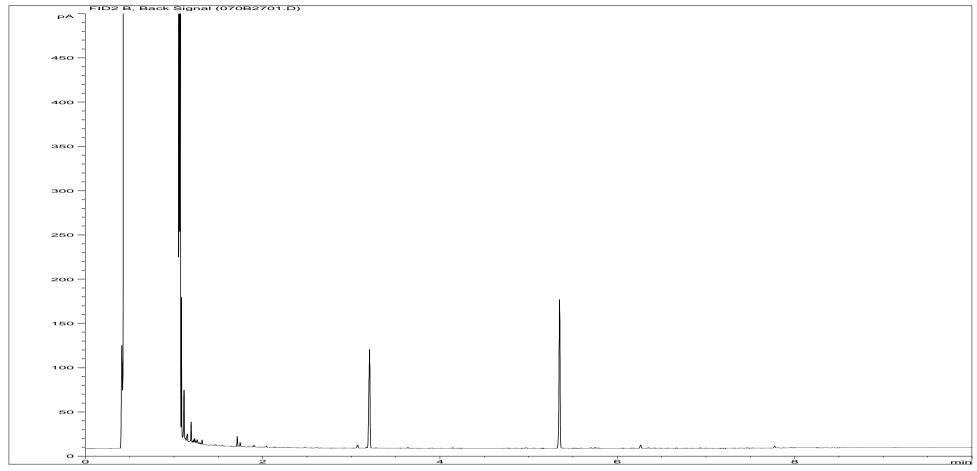


Sample ID:EX1284848ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA4

Acquisition Date/Time: 18-Apr-12, 18:54:02

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\020F2701.D

Page 57 of 74 EXR/134836 Ver. 1

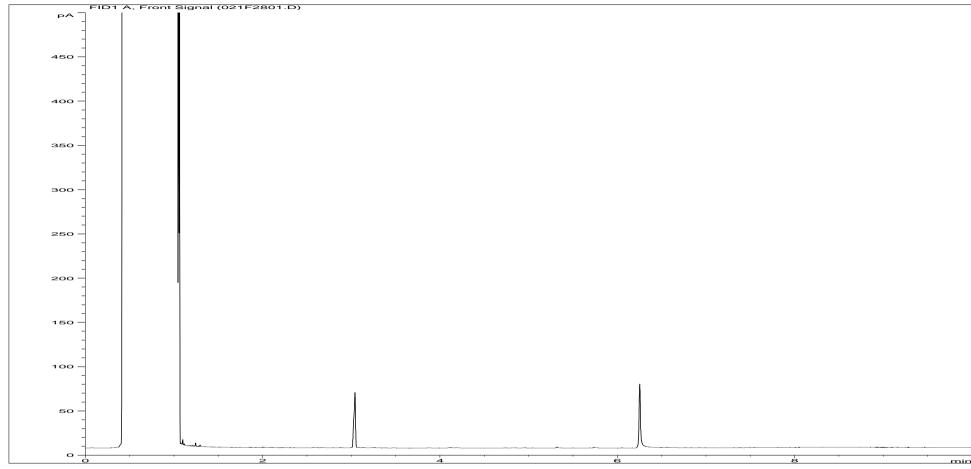


Sample ID:EX1284848AROJob Number:W13_4836Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA4

Acquisition Date/Time: 18-Apr-12, 18:54:02

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\070B2701.D

Page 58 of 74 EXR/134836 Ver. 1

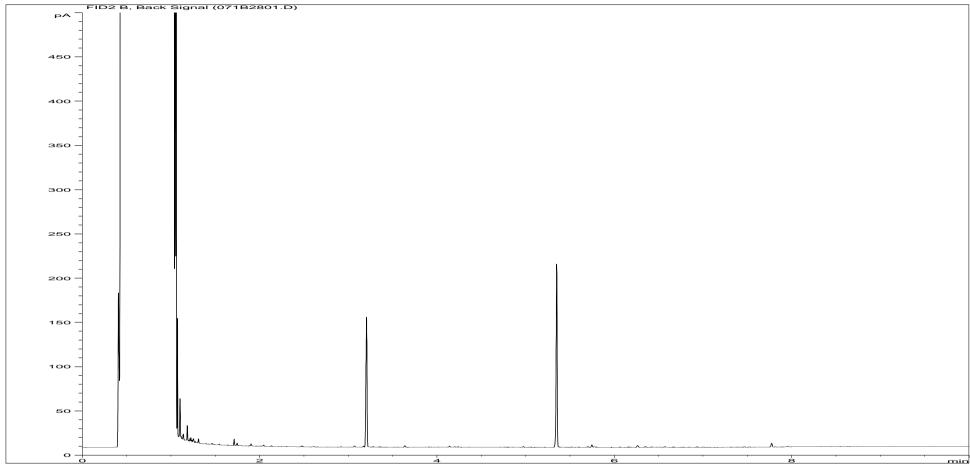


Sample ID:EX1284849ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA42

Acquisition Date/Time: 18-Apr-12, 19:11:03

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\021F2801.D

Page 59 of 74 EXR/134836 Ver. 1

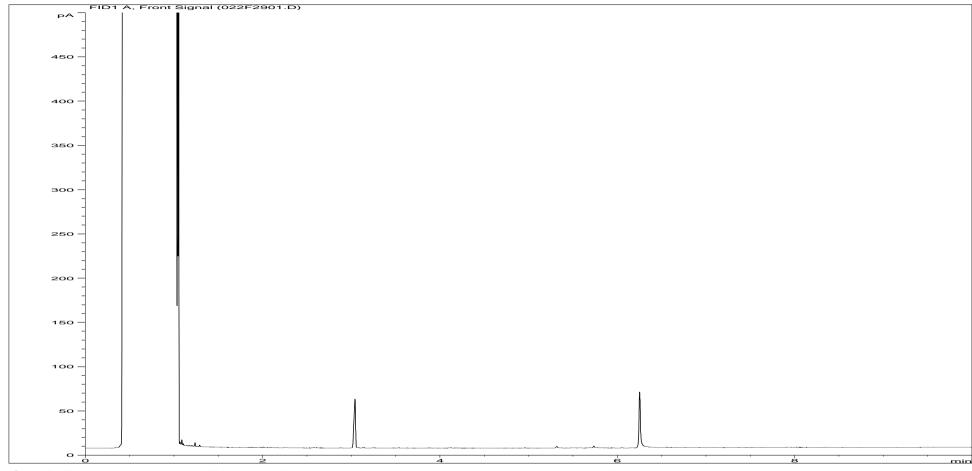


Sample ID:EX1284849AROJob Number:W13_4836Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA42

Acquisition Date/Time: 18-Apr-12, 19:11:03

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\071B2801.D

Page 60 of 74 EXR/134836 Ver. 1



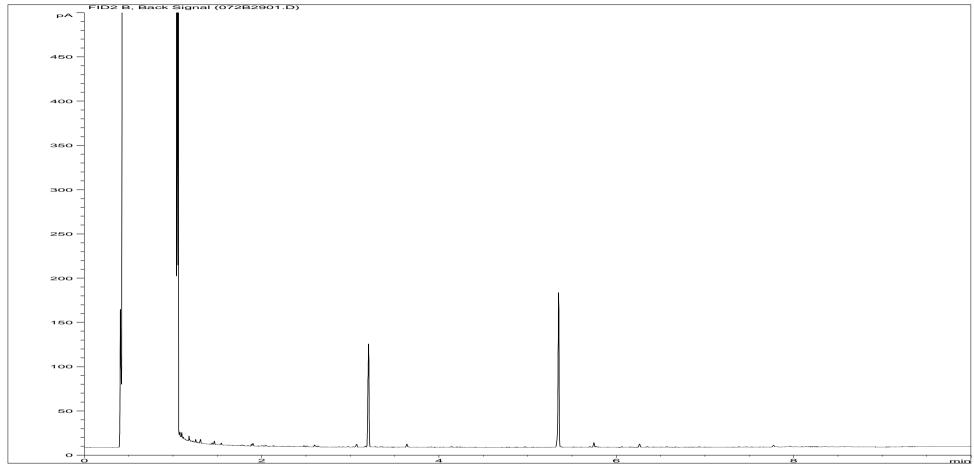
Sample ID:EX1284850ALIMultiplier:0.019Dilution:1Acquisition Method:TPH_RUNF.M

Job Number: W13_4836
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BHNSA7

Acquisition Date/Time: 18-Apr-12, 19:28:07

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\022F2901.D

Page 61 of 74 EXR/134836 Ver. 1

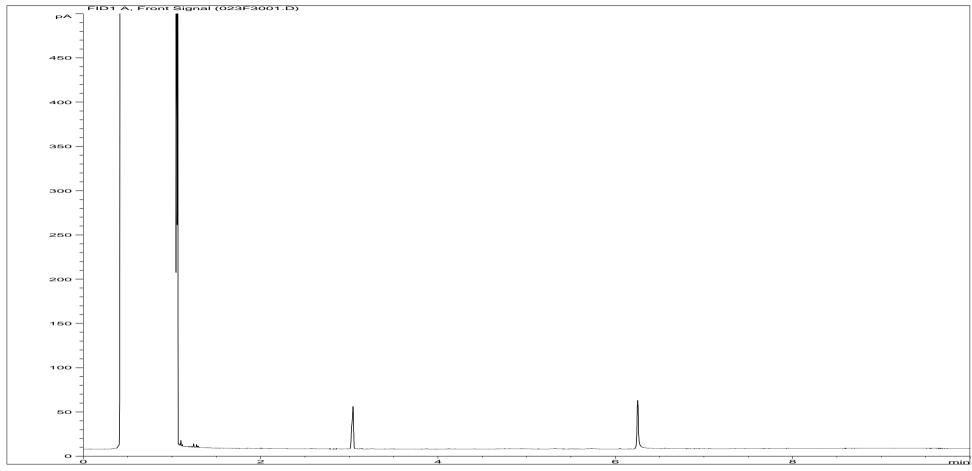


Sample ID:EX1284850AROJob Number:W13_4836Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA7

Acquisition Date/Time: 18-Apr-12, 19:28:07

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\072B2901.D

Page 62 of 74 EXR/134836 Ver. 1

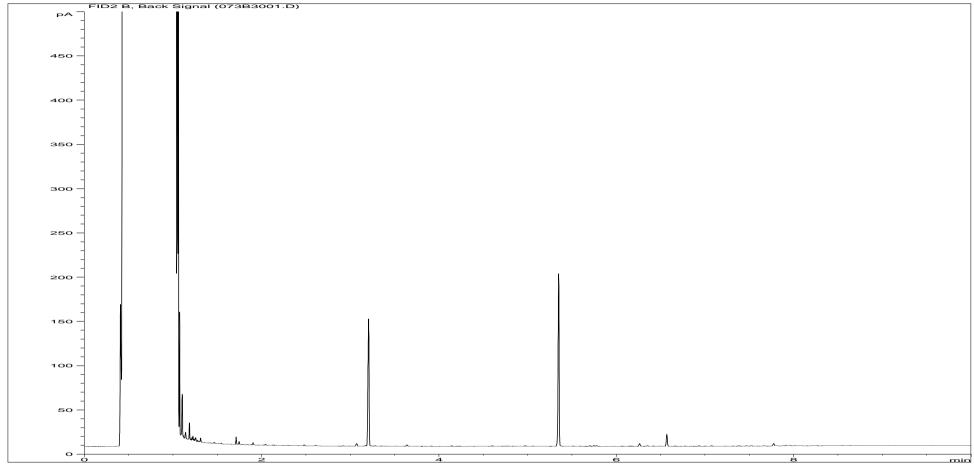


Sample ID:EX1284851ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA8

Acquisition Date/Time: 18-Apr-12, 19:45:08

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\023F3001.D

Page 63 of 74 EXR/134836 Ver. 1

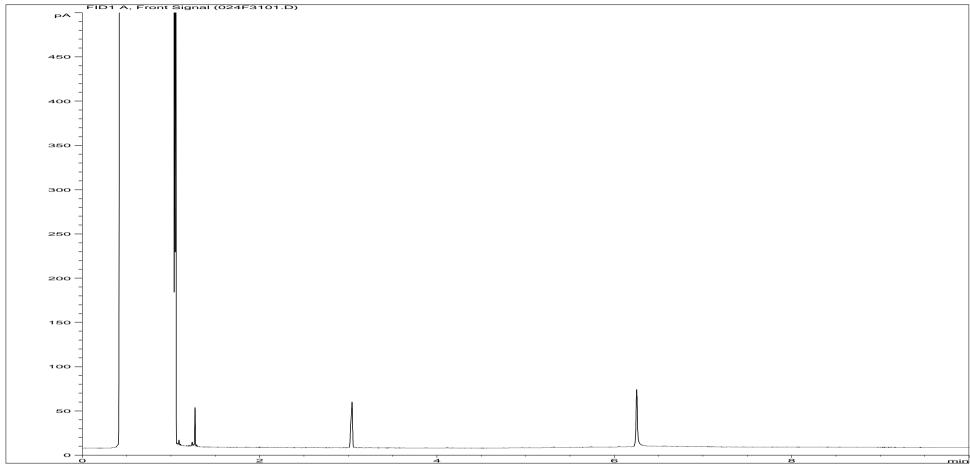


Sample ID:EX1284851AROJob Number:W13_4836Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA8

Acquisition Date/Time: 18-Apr-12, 19:45:08

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\073B3001.D

Page 64 of 74 EXR/134836 Ver. 1

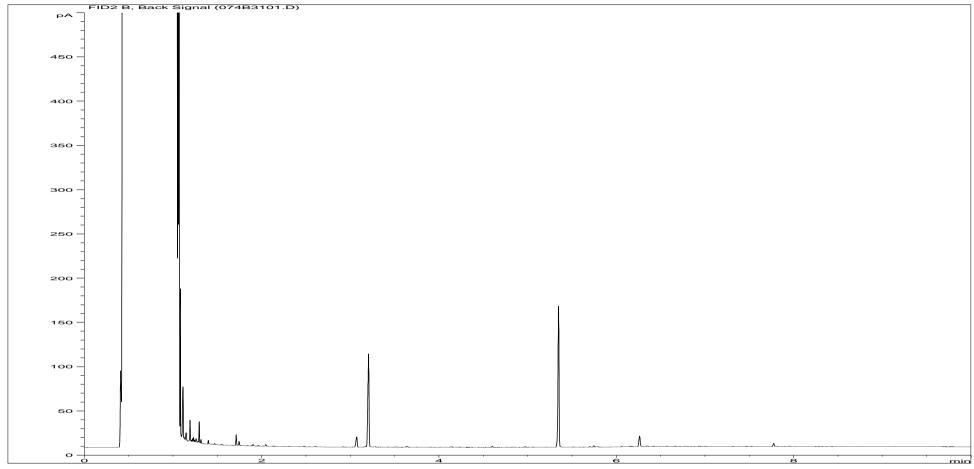


Sample ID:EX1284852ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA3

Acquisition Date/Time: 18-Apr-12, 20:02:06

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\024F3101.D

Page 65 of 74 EXR/134836 Ver. 1

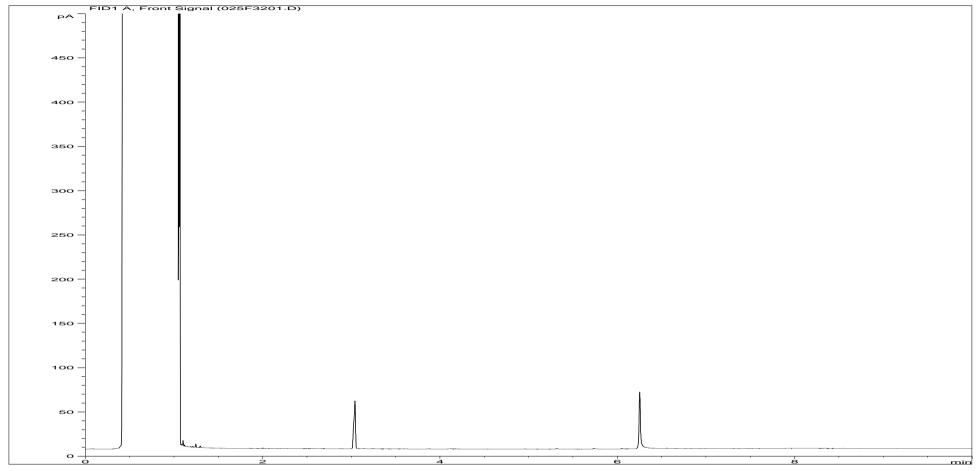


Sample ID:EX1284852AROJob Number:W13_4836Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA3

Acquisition Date/Time: 18-Apr-12, 20:02:06

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\074B3101.D

Page 66 of 74 EXR/134836 Ver. 1

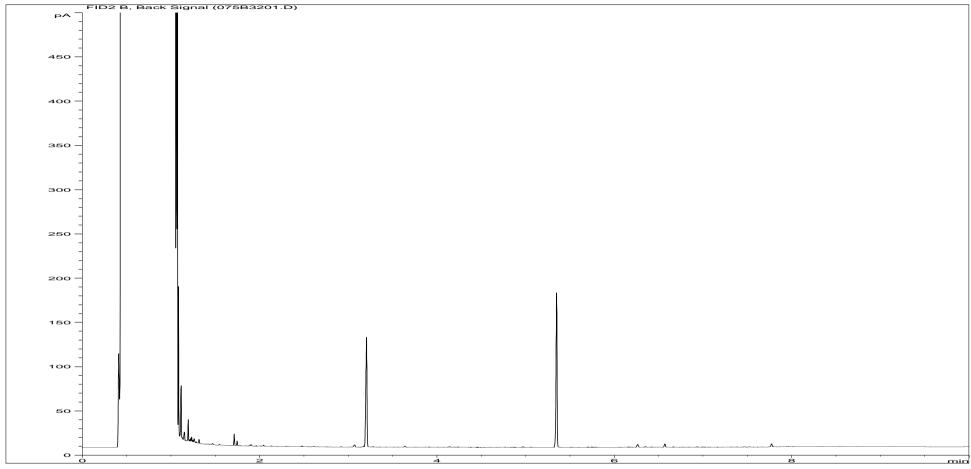


Sample ID:EX1284853ALIJob Number:W13_4836Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA44

Acquisition Date/Time: 18-Apr-12, 20:18:59

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\025F3201.D

Page 67 of 74 EXR/134836 Ver. 1



Sample ID:EX1284853AROJob Number:W13_4836Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA44

Acquisition Date/Time: 18-Apr-12, 20:18:59

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\075B3201.D

Page 68 of 74 EXR/134836 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED Site **Upper Heyford** W134836 **Report No**

Consignment No W35988 Date Logged 10-Apr-2012

Report Due 18-Apr-2012

		MethodID	CUSTSERV	GROHSA			ICPMSW			·						ICPWATVAR					KONENS				PAHMSW	PHEHPLCVL	SVOCSW
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	GRO-HSA GCFID (AA-UK)	MTBE-HSA	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as Cl (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	PAH GC-MS (16)	Phenols by HPLC (Low Level)	SVOC
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
EX/1284834	BHNSA9	02/04/12																							Е		
EX/1284835	BHNSA10	02/04/12																							Е		
EX/1284836	BHNSA11	02/04/12																							Е		
EX/1284837	BHNSA17	02/04/12																							Е		
EX/1284838	BHNSA18	02/04/12																							Е		
EX/1284839	BHNSA19	02/04/12																							Е		
EX/1284840	BHNSA21	02/04/12																							Е		
EX/1284841	BHNSA37	02/04/12																								Е	Е
EX/1284842	BHNSA38	02/04/12																							Е		
EX/1284843	BHNSA225	02/04/12																							Е		
	MW1	02/04/12																								Е	Е
EX/1284844																							1				
EX/1284844 EX/1284845	BHNSA2	02/04/12																							E		
		02/04/12 02/04/12																							E		
EX/1284845	BHNSA2																								_	E	E

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W134836 **Report No**

Consignment No W35988 Date Logged 10-Apr-2012

Report Due 18-Apr-2012

							Repo	טע אכ	e 18-	Apr-2	012	
		MethodID	TPHFID-Si		WSLM11	WSLM12	WSLM13	71MJSM	WSLM2	WSLM20	EWTSM	WSLM7
ID Number	Description	Sampled	TPH by GC (CWG UKEA Banding >44)	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited t	to ISO17025		✓	✓	✓	✓	✓	✓		✓	
EX/1284834 B	BHNSA9	02/04/12		Е								
EX/1284835 B	BHNSA10	02/04/12		Е								
EX/1284836 B	BHNSA11	02/04/12		Е								
EX/1284837 B	BHNSA17	02/04/12		Е								
EX/1284838 B	BHNSA18	02/04/12		Е								
EX/1284839 B	BHNSA19	02/04/12		Ε								
	BHNSA21	02/04/12		Е								
	BHNSA37	02/04/12		Е						Е		
	BHNSA38	02/04/12		Е								
	BHNSA225	02/04/12		Е								
	MW1	02/04/12		Е						Е		
	BHNSA2	02/04/12		Е								
	BHNSA5	02/04/12		Е								
	BHNSA45 BHNSA4	02/04/12 02/04/12		ш						Е		

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

- No analysis scheduled
- Analysis Subcontracted

W134836

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site

Consignment No W35988 Date Logged 10-Apr-2012

W134836 **Report No**

Report Due 18-Apr-2012

		MethodID	CUSTSERV	GROHSA			ICPMSW									ICPWATVAR					KONENS				PAHMSW	PHEHPLCVL	SVOCSW
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	GRO-HSA GCFID (AA-UK)	MTBE-HSA	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	PAH GC-MS (16)	Phenols by HPLC (Low Level)	SVOC
	Accredited	to ISO17025		✓	\	✓	✓	>	✓	✓	>	✓	>	✓	✓	>	✓	✓	✓	✓	\	✓	>	✓	✓		
EX/1284849	BHNSA42	02/04/12																							Е		
EX/1284850	BHNSA7	02/04/12																							Е		
EX/1284851	BHNSA8	02/04/12																							Е		
EX/1284852	BHNSA3	02/04/12																							Е		
EX/1284853	BHNSA44	02/04/12																							Е		

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W134836 **Report No**

Consignment No W35988 Date Logged 10-Apr-2012

Report Due 18-Apr-2012

							rtope	յու Du	0 10 2	TO Z	012	
		MethodID	TPHFID-Si		WSLM11	WSLM12	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	TPH by GC (CWG UKEA Banding >44)	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited	to ISO17025		✓	✓	✓	✓	✓	✓		✓	
EX/1284849	BHNSA42	02/04/12		Е								
EX/1284850	BHNSA7	02/04/12	Е									
EX/1284851	BHNSA8	02/04/12										
EX/1284852	BHNSA3	02/04/12		Е								
EX/1284853	BHNSA44	02/04/12		Е								

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/134836

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	·
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PAHMSW	As Received	Determination of PolyAromatic Hydrocarbons in water by pentane extraction GCMS quantitation
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
		<u> </u>	analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/134848 (Ver. 1) Your Ref: E10658-109

April 19, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

FS(

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

Project Co-ordinator 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/134848 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 2 samples described in this report were registered for analysis by ESG on 10-Apr-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 19-Apr-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Table of PAH (MS-SIM) (10) Results (Pages 3 to 4)
Table of GRO Results (Page 5)
Table of TPH (Si) banding (0.01) (Page 6)
GC-FID Chromatograms (Pages 7 to 10)
Analytical and Deviating Sample Overview (Page 11)
Table of Method Descriptions (Page 12)
Table of Report Notes (Page 13)

On behalf of ESG: Andrew Timms Operations Manager

Date of Issue: 19-Apr-2012

Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	μg/l	mg/l	μg/l	mg/l										
	Method	Codes :	PAHMSW	GROHSA	GROHSA	TPHFID-Si										
	Method Reporting	Limits :		0.1	10	0.01										
	UKAS Acc	redited:	Yes	Yes	Yes	Yes										
LAB ID Number EX/	Client Sample Description	Sample Date	PAH GC-MS (16) o	GRO-HSA (AA)	MTBE-HSA o	TPH by GC(Si) o										
1284927	BHNSA6	02-Apr-12	Req	Req	<10	Req										
1284928	BHNSA43	02-Apr-12	Req	Req	<10	Req										
	ESG 🔗		Client N		Watern Mr F Alco	nan EED	'	, .		V	Vater S	ample .	Analysi	S		
	Environmental Scientifics Group		Contact	•	IVII F AICO	UN.			 	D . 1 . D .				1 65.5	,	
	Bretby Business Park, Ashby Road									Date Prir				Apr-2012		
	Burton-on-Trent, Staffordshire, DE15 0YZ					Upper He	vford		I	Report N	lumber		E	(R/134848		
	Tel +44 (0) 1283 554400					opher ue	yıdıu		-	Table Nu	ımber	-		1		
	Fax +44 (0) 1283 554422															
	, ,															

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA6 W13_4848 **Job Number: LIMS ID Number:** EX1284927 Date Booked in: 10-Apr-12 QC Batch Number: 120289 Date Extracted: 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 18-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	3.45	0.419	М
Acenaphthylene	208-96-8	4.48	0.116	М
Acenaphthene	83-32-9	4.61	1.060	85
Fluorene	86-73-7	5.00	0.873	58
Phenanthrene	85-01-8	5.87	0.595	90
Anthracene	120-12-7	5.90	0.349	92
Fluoranthene	206-44-0	7.23	0.151	99
Pyrene	129-00-0	7.53	0.504	97
Benzo[a]anthracene	56-55-3	9.22	0.070	81
Chrysene	218-01-9	9.25	0.202	71
Benzo[b]fluoranthene	205-99-2	10.75	0.054	91
Benzo[k]fluoranthene	207-08-9	10.79	0.018	91
Benzo[a]pyrene	50-32-8	11.19	0.048	64
Indeno[1,2,3-cd]pyrene	193-39-5	12.57	0.029	35
Dibenzo[a,h]anthracene	53-70-3	12.59	0.014	67
Benzo[g,h,i]perylene	191-24-2	12.88	0.038	89
Total (USEPA16) PAHs	-	-	4.540	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	100
Acenaphthene-d10	113
Phenanthrene-d10	105
Chrysene-d12	129
Perylene-d12	156

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	63
Terphenyl-d14	89

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA43 W13_4848 **Job Number: LIMS ID Number:** EX1284928 Date Booked in: 10-Apr-12 QC Batch Number: 120289 **Date Extracted:** 17-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 18-Apr-12 **Directory:** 417MS17.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	1	< 0.010	-
Pyrene	129-00-0	7.53	0.028	88
Benzo[a]anthracene	56-55-3	9.23	0.012	69
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.190	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	107
Phenanthrene-d10	105
Chrysene-d12	113
Perylene-d12	126

	T
Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	67
Terphenyl-d14	87

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_4848

Directory:

D:\TES\DATA\Y2012\0412HSA_GC09\041212C 2012-04-13 13-02-09\082F0801.D

Method: Headspace GCFID

Matrix: Water

Date Booked in: 10-Apr-12

Date extracted: 12-Apr-12

Date Analysed: 13-Apr-12, 15:29:01

* Sample data with an asterisk are not UKAS accredited.

			C	Concentration, (r	ng/l)	Aliphatics					
Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
* EX1284927	BHNSA6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	0.2	0.2
* EX1284928	BHNSA43	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED: Upper Heyford Matrix: Water

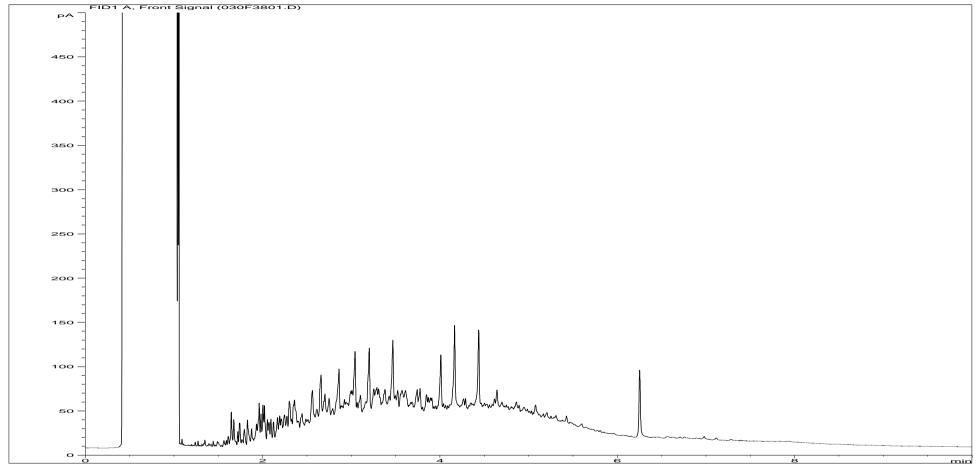
 Job Number:
 W13_4848
 Separation:
 Silica gel
 Date Booked ir
 10-Apr-12

 QC Batch Number:
 289
 Eluents:
 Hexane, DCM
 Date Extracted
 17-Apr-12

 Directory:
 D:/TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\080B3901.D
 Date Analysed: 18-Apr-12, 22:16:17

Method: Ultra Sonic

						Concentra	tion, (mg/l)						
* This sample data is not UKAS accredited.		>C8 - C10		>C10 - C12		>C12 - C16		>C16 - C21		>C21 - C35		>C8 - C40	
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1284927	BHNSA6	0.043	<0.01	0.217	0.087	1.02	0.454	0.626	0.543	0.368	0.434	2.31	1.59
EX1284928	BHNSA43	0.015	<0.01	0.084	<0.01	0.152	0.016	<0.01	<0.01	0.013	<0.01	0.274	0.028

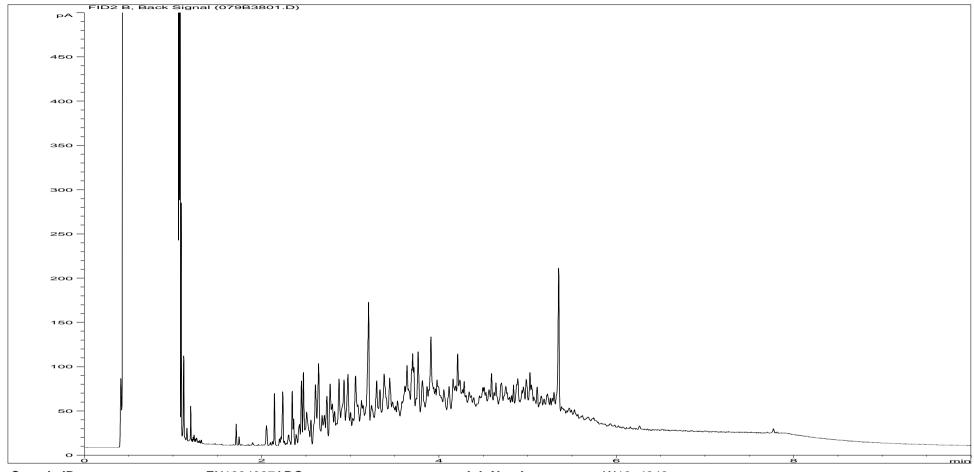


Sample ID:EX1284927ALIJob Number:W13_4848Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA6

Acquisition Date/Time: 18-Apr-12, 21:59:26

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\030F3801.D

Page 7 of 13 EXR/134848 Ver. 1

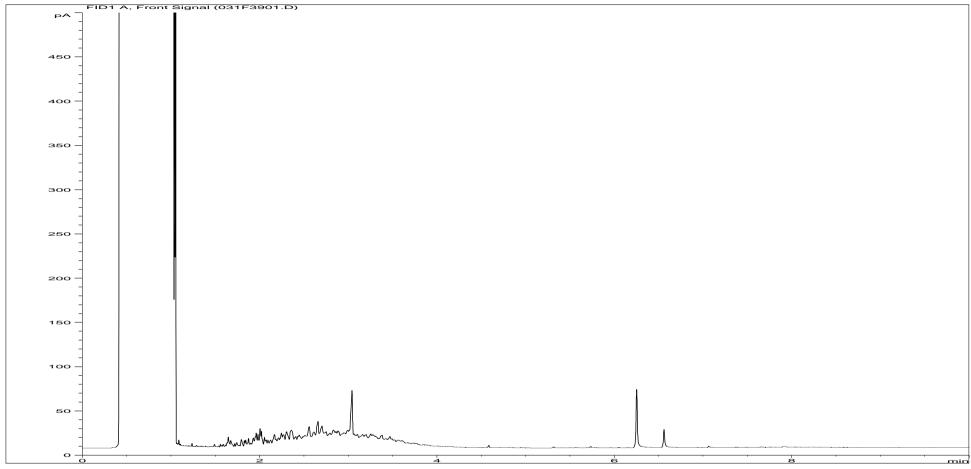


Sample ID:EX1284927AROJob Number:W13_4848Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA6

Acquisition Date/Time: 18-Apr-12, 21:59:26

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\079B3801.D

Page 8 of 13 EXR/134848 Ver. 1

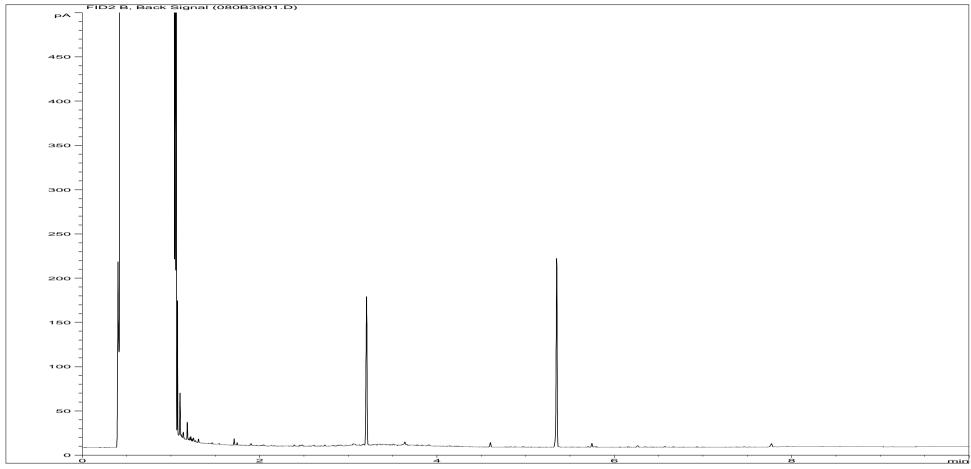


Sample ID:EX1284928ALIJob Number:W13_4848Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA43

Acquisition Date/Time: 18-Apr-12, 22:16:17

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\031F3901.D

Page 9 of 13 EXR/134848 Ver. 1



Sample ID:EX1284928AROJob Number:W13_4848Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA43

Acquisition Date/Time: 18-Apr-12, 22:16:17

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\080B3901.D

Page 10 of 13 EXR/134848 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W134848 **Report No**

Consignment No W35988 Date Logged 10-Apr-2012

Report Due 18-Apr-2012

							repe
		MethodID	CUSTSERV	GROHSA		PAHMSW	TPHFID-Si
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	MTBE-HSA	PAH GC-MS (16)	TPH by GC(Si)
	Accredited	to ISO17025		✓	✓	✓	✓
EX/1284927	BHNSA6	02/04/12				Е	Е
EX/1284928	BHNSA43	02/04/12				Е	Е

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/134848

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	PAHMSW	As Received	Determination of PolyAromatic Hydrocarbons in water by pentane
			extraction GCMS quantitation
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/134878 (Ver. 1) Your Ref: E10658-109

April 18, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

FS(

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

IOI EOO

01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/134878 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 15 samples described in this report were registered for analysis by ESG on 11-Apr-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 18-Apr-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of PAH (MS-SIM) (10) Results (Pages 5 to 14)
Table of SVOC Results (Pages 15 to 19)
Table of GRO Results (Page 20)
Table of TPH (Si) banding (0.01) (Page 21)
GC-FID Chromatograms (Pages 22 to 51)
Analytical and Deviating Sample Overview (Pages 52 to 53)
Table of Method Descriptions (Page 54)
Table of Report Notes (Page 55)



Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 18-Apr-2012

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	μg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR		ICPMSW	ICPMSW	PAHMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Voc	100 Ves	2 Vec	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	1 Yes	0.001 Yes	0.001 Yes	0.0001 Yes	Yes	0.001 Ves	0.001 Ves	0.002 Ves
LAB ID Number EX/	Client Sample Description	Sample Date	Yes pH units w	Yes Conductivity uS/cm @ 25C w	Yes Total Alkalinity as CaCO3 w	PAH GC-MS (16) o Cadmium as Cd (Dissolved) Chromium as Cr (Dissolved) Nickel as Ni (Dissolved) a Sodium as Mg (Dissolved) a Calcium as Ca (Dissolved) a Calcium as Ca (Dissolved) a Total Sulphur as SO4 (Dissolved) a Total Acidity as CaCO3 w Total Alkalinity as CaCO3 w							Yes Copper as Cu (Dissolved)	Yes Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)			
4005040	BHNSA1	00 4 10						ā							D			
1285042		03-Apr-12													Req			
1285043	BHNSA12	03-Apr-12													Req			
1285044	BHNSA13	03-Apr-12													Req			
1285045	BHNSA14	03-Apr-12													Req			
1285046	BHNSA15	03-Apr-12													Req			
1285047	BHNSA16	03-Apr-12													Req			
1285048	BHNSA20	03-Apr-12													Req			
1285049	BHNSA22	03-Apr-12													Req			
1285050	BHNSA23	03-Apr-12	7.8	649	206	Nil	18	50	147	9	10	0.004	0.006	<0.0001		0.005	0.001	0.004
1285051	BHNSA27	03-Apr-12	7.7	580	215	Nil	15	50	140	6	10	0.006	0.006	<0.0001		0.002	0.002	0.007
1285052	BHNSA28	03-Apr-12	7.8	583	210	Nil	12	41	163	7	8	0.006	0.007	<0.0001		0.004	0.002	0.006
1285053	BHNSA32	03-Apr-12	7.6	765	258	Nil	60	29	155	3	36	0.006	0.009	<0.0001		0.002	0.003	0.008
1285054	BHNSA39	03-Apr-12	7.7	575	248	Nil	9	10	152	3	6	0.006	0.008	<0.0001		0.002	0.003	0.007
1285055	BHNSA226	03-Apr-12													Req			
1285056	BHNSA12X	03-Apr-12													Req			
	FSG &	Client N	Client Name Waterman EED						V	Vater S	ample	Analysi	is					
	Environmental Scientifics Group		Contact		Mr F Alco	ock												
	Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ					Unn	er He	vford				Date Prin				-Apr-2012 KR/134878		
	Tel +44 (0) 1283 554400					opp	ei 116	yıcıu				Table Nu	ımber			1		
	Fax +44 (0) 1283 554422																	

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	μg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPMSW	ICPWATVAF	RICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW	PHEHPLCVL
	Method Reporting UKAS Acc		0.001 Yes	0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	10 Yes	0.01 Yes	2 No	6 No	0.002 No	0.0005 No
LAB ID Number EX	Client Sample Description	Sample Date	Arsenic as As (Dissolved)	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	MTBE-HSA o	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol
1285042	BHNSA1	03-Apr-12										Req	<10	Req				
1285043	BHNSA12	03-Apr-12										Req	<10	Req				
1285044	BHNSA13	03-Apr-12										Req	<10	Req				
1285045	BHNSA14	03-Apr-12										Req	<10	Req				
1285046	BHNSA15	03-Apr-12										Req	<10	Req				
1285047	BHNSA16	03-Apr-12										Req	<10	Req				
1285048	BHNSA20	03-Apr-12										Req	<10	Req				
1285049	BHNSA22	03-Apr-12										Req	<10	Req				
1285050	BHNSA23	03-Apr-12	<0.001	0.06	<0.0001	<0.001	<0.01	<0.2	<0.01	5	0.86	Req		Req	<2.0	18	Req	<0.0005
1285051	BHNSA27	03-Apr-12	<0.001	0.03	<0.0001	<0.001	<0.01	<0.2	<0.01	6	0.74	Req		Req	<2.0	24	Req	<0.0005
1285052	BHNSA28	03-Apr-12	0.001	0.03	<0.0001	<0.001	<0.01	<0.2	<0.01	<5	1.1	Req		Req	<2.0	48	Req	<0.0005
1285053	BHNSA32	03-Apr-12	0.007	0.03	<0.0001	<0.001	<0.01	<0.2	0.01	6	2.2	Req		Req	2.6	9	Req	<0.0005
1285054	BHNSA39	03-Apr-12	0.002	0.02	<0.0001	<0.001	<0.01	<0.2	<0.01	7	0.82	Req		Req	3.0	<6	Req	<0.0005
1285055	BHNSA226	03-Apr-12										Req	<10	Req				
1285056	BHNSA12X	03-Apr-12										Req	<10	Req				
	ESG 🔗	l		ient Name Waterman EED					1	V	Vater S	ample	Analysi	is				
	Environmental Scientifics Group		Contact		Mr F Alco	ck								1				
	Bretby Business Park, Ashby Road											Date Pri	nted			Apr-2012		
	Burton-on-Trent, Staffordshire, DE15 0YZ					Hnn	ar Hay	vford				Report N	lumber		E	(R/134878		
	Tel +44 (0) 1283 554400		Upper Heyford Table Number 1															
	Fax +44 (0) 1283 554422																	

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l							1
		Codes :	PHEHPLCVL	PHEHPLCVL	PHEHPLCVL	PHEHPLCVL	PHEHPLCV	L PHEHPLCVL							
	Method Reporting UKAS Acc		0.0005 No	0.0005 No	0.1 No	0.0005 No	0.1 No	0.1 No							
	UNAS ACC	redited :	INO	INO	INO	INO	INO	INO							
LAB ID Number EX/	Client Sample Description	Sample Date	Cresols	Dimethylphenols	Naphthols	Trimethylphenols	Resorcinol	Catechol							
1285042	BHNSA1	03-Apr-12													
1285043	BHNSA12	03-Apr-12													
1285044	BHNSA13	03-Apr-12													
1285045	BHNSA14	03-Apr-12													
1285046	BHNSA15	03-Apr-12													
1285047	BHNSA16	03-Apr-12													
1285048	BHNSA20	03-Apr-12													
1285049	BHNSA22	03-Apr-12													
1285050	BHNSA23	03-Apr-12	<0.0005	<0.0005	<0.1	<0.0005	<0.1	<0.1							
1285051	BHNSA27	03-Apr-12	<0.0005	<0.0005	<0.1	<0.0005	<0.1	<0.1							
1285052	BHNSA28	03-Apr-12	<0.0005	<0.0005	<0.1	<0.0005	<0.1	<0.1							
1285053	BHNSA32	03-Apr-12	<0.0005	<0.0005	<0.1	<0.0005	<0.1	<0.1							
1285054	BHNSA39	03-Apr-12	<0.0005	<0.0005	<0.1	<0.0005	<0.1	<0.1							
1285055	BHNSA226	03-Apr-12													
1285056	BHNSA12X	03-Apr-12													
	Client Name Contact Waterman EED Mr F Alcock					'	Water S	ample /	Analysi	s					
	Environmental Scientifics Group		Contact						Data Br	intod		40	Apr-2012		
	Bretby Business Park, Ashby Road							Date Printed 18-Apr-2012							
	Burton-on-Trent, Staffordshire, DE15 0YZ			Upper Heyrord					Report			E	(R/134878		
	Table Ramber														
	Fax +44 (0) 1283 554422														

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA1 W13_4878 **Job Number: LIMS ID Number:** EX1285042 Date Booked in: 11-Apr-12 QC Batch Number: 120282 Date Extracted: 14-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	96
Acenaphthene-d10	97
Phenanthrene-d10	99
Chrysene-d12	121
Perylene-d12	147

Currogatos	% Rec
Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	79
Terphenyl-d14	84

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA12 W13_4878 **Job Number: LIMS ID Number:** EX1285043 Date Booked in: 11-Apr-12 QC Batch Number: 120282 Date Extracted: 14-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	100
Acenaphthene-d10	96
Phenanthrene-d10	100
Chrysene-d12	117
Perylene-d12	133

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	81
Terphenyl-d14	84

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA13 W13_4878 **Job Number: LIMS ID Number:** EX1285044 Date Booked in: 11-Apr-12 QC Batch Number: 120282 **Date Extracted:** 14-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	94
Acenaphthene-d10	94
Phenanthrene-d10	93
Chrysene-d12	105
Perylene-d12	120

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	76
Terphenyl-d14	78

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA14 W13_4878 **Job Number: LIMS ID Number:** EX1285045 Date Booked in: 11-Apr-12 QC Batch Number: 120282 **Date Extracted:** 14-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	96
Acenaphthene-d10	97
Phenanthrene-d10	97
Chrysene-d12	119
Perylene-d12	133

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	80
Terphenyl-d14	86

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA15 W13_4878 **Job Number: LIMS ID Number:** EX1285046 Date Booked in: 11-Apr-12 QC Batch Number: 120282 **Date Extracted:** 14-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	97
Acenaphthene-d10	94
Phenanthrene-d10	91
Chrysene-d12	99
Perylene-d12	112

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	83
Terphenyl-d14	85

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA16 W13_4878 **Job Number: LIMS ID Number:** EX1285047 Date Booked in: 11-Apr-12 QC Batch Number: 120282 **Date Extracted:** 14-Apr-12 **Quantitation File:** Initial Calibration Date Analysed: 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	1	< 0.010	-
Fluoranthene	206-44-0	1	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	8.84	0.010	56
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	96
Acenaphthene-d10	93
Phenanthrene-d10	94
Chrysene-d12	105
Perylene-d12	115

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	78
Terphenyl-d14	82

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA20 W13_4878 **Job Number: LIMS ID Number:** EX1285048 Date Booked in: 11-Apr-12 QC Batch Number: 120282 **Date Extracted:** 14-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	98
Acenaphthene-d10	95
Phenanthrene-d10	98
Chrysene-d12	121
Perylene-d12	139

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	80
Terphenyl-d14	86

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA22 W13_4878 **Job Number: LIMS ID Number:** EX1285049 Date Booked in: 11-Apr-12 QC Batch Number: 120282 **Date Extracted:** 14-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	101
Acenaphthene-d10	99
Phenanthrene-d10	101
Chrysene-d12	120
Perylene-d12	138

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	74
Terphenyl-d14	79

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA226 W13_4878 **Job Number: LIMS ID Number:** EX1285055 Date Booked in: 11-Apr-12 QC Batch Number: 120282 **Date Extracted:** 14-Apr-12 **Quantitation File:** Initial Calibration **Date Analysed:** 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	1	< 0.010	-
Acenaphthene	83-32-9	1	< 0.010	-
Fluorene	86-73-7	1	< 0.010	-
Phenanthrene	85-01-8	1	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	1	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	94
Acenaphthene-d10	94
Phenanthrene-d10	89
Chrysene-d12	91
Perylene-d12	99

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	81
Terphenyl-d14	83

Customer and Site Details: Waterman EED: Upper Heyford

Sample Details: BHNSA12X W13_4878 **Job Number: LIMS ID Number:** EX1285056 Date Booked in: 11-Apr-12 QC Batch Number: 120282 **Date Extracted:** 14-Apr-12 **Quantitation File:** Initial Calibration Date Analysed: 14-Apr-12 **Directory:** 413MS10.PAH\ Matrix: Water **Dilution:** Bottle 1.0 **Ext Method:**

UKAS accredited?: Yes

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	ug/l	
Naphthalene	91-20-3	-	< 0.020	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	ı	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	1	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	1	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.170	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	98
Acenaphthene-d10	96
Phenanthrene-d10	102
Chrysene-d12	131
Perylene-d12	153

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	83
Terphenyl-d14	91

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA23
 Date Booked in:
 11-Apr-12

 LIMS ID Number:
 EX1285050
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4878
 Date Analysed:
 16-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0416_CCC1B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	103
Naphthalene-d8	102
Acenaphthene-d10	102
Phenanthrene-d10	105
Chrysene-d12	96
Perylene-d12	92

Surrogates	% Rec
2-Fluorophenol	43
Phenol-d5	31
Nitrobenzene-d5	79
2-Fluorobiphenyl	84
2,4,6-Tribromophenol	75
Terphenyl-d14	86

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA27
 Date Booked in:
 11-Apr-12

 LIMS ID Number:
 EX1285051
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4878
 Date Analysed:
 16-Apr-12

Target Compounds		R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0416_CCC1B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	106
Naphthalene-d8	105
Acenaphthene-d10	104
Phenanthrene-d10	107
Chrysene-d12	96
Perylene-d12	89

Surrogates	% Rec
2-Fluorophenol	43
Phenol-d5	30
Nitrobenzene-d5	78
2-Fluorobiphenyl	84
2,4,6-Tribromophenol	71
Terphenyl-d14	85

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA28
 Date Booked in:
 11-Apr-12

 LIMS ID Number:
 EX1285052
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4878
 Date Analysed:
 16-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0416_CCC1B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	100
Naphthalene-d8	100
Acenaphthene-d10	99
Phenanthrene-d10	102
Chrysene-d12	96
Perylene-d12	94

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	34
Nitrobenzene-d5	83
2-Fluorobiphenyl	90
2,4,6-Tribromophenol	75
Terphenyl-d14	87

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA32
 Date Booked in:
 11-Apr-12

 LIMS ID Number:
 EX1285053
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4878
 Date Analysed:
 16-Apr-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	-	< 0.020	_
1.3-Dichlorobenzene	541-73-1	-	< 0.020	_
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-51-6	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	_	< 0.020	_
Isophorone	78-59-1	_	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	_	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.002	_
4-Chlorophenol	106-48-9	-	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	_	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0416_CCC1B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	99
Naphthalene-d8	101
Acenaphthene-d10	103
Phenanthrene-d10	104
Chrysene-d12	97
Perylene-d12	96

Surrogates	% Rec
2-Fluorophenol	39
Phenol-d5	28
Nitrobenzene-d5	79
2-Fluorobiphenyl	85
2,4,6-Tribromophenol	72
Terphenyl-d14	84

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA39
 Date Booked in:
 11-Apr-12

 LIMS ID Number:
 EX1285054
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4878
 Date Analysed:
 17-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	_	< 0.005	_

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.00
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0416_CCC1B. GPC (Y/N)	Ν

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	100
Naphthalene-d8	100
Acenaphthene-d10	100
Phenanthrene-d10	101
Chrysene-d12	93
Perylene-d12	92

Surrogates	% Rec
2-Fluorophenol	44
Phenol-d5	31
Nitrobenzene-d5	84
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	73
Terphenyl-d14	87

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_4878

Directory: D:\TES\DATA\Y2012\0416HSA_GC09\041612A 2012-04-16 13-30-01\055F3901.D

Method: Headspace GCFID

Matrix:WaterDate Booked in:11-Apr-12Date extracted:16-Apr-12

Date Analysed: 17-Apr-12, 01:36:01

* Sample data with an asterisk are not UKAS accredited.

				Co	oncentration, (Aliphatics						
	Sample ID	Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO
*	EX1285042	BHNSA1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285043	BHNSA12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285044	BHNSA13	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285045	BHNSA14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285046	BHNSA15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285047	BHNSA16	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285048	BHNSA20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285049	BHNSA22	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285050	BHNSA23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285051	BHNSA27	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285052	BHNSA28	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285053	BHNSA32	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285054	BHNSA39	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285055	BHNSA226	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
*	EX1285056	BHNSA12X	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
			1	00 1 07 1-1					00 100			

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED: Upper Heyford Matrix: Water

 Job Number:
 W13_4878
 Separation:
 Slica gel
 Date Booked in:
 11-Apr-12

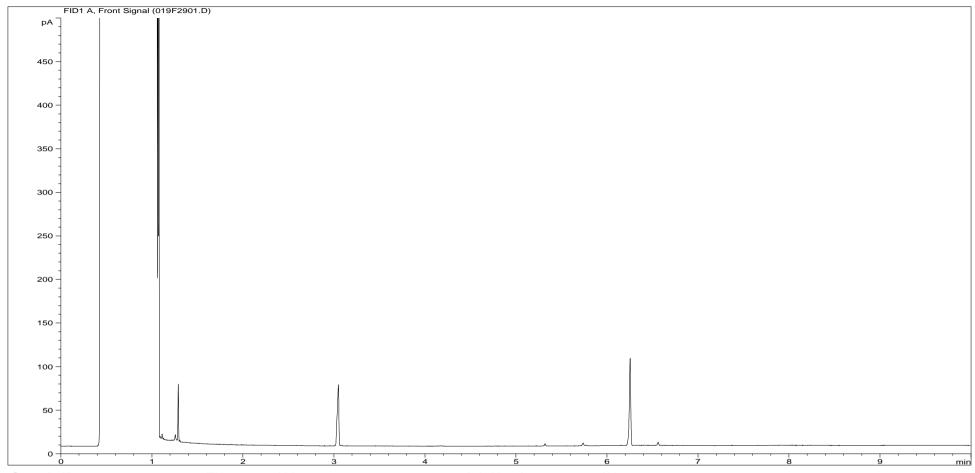
 QC Batch Number:
 120282
 Eluents:
 Hexane, DCM
 Date Extracted:
 14-Apr-12

 Directory:
 D:/TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\091B4701.D
 Date Analysed:16-Apr-12, 21:18:05

Method: Bottle

			Concentration, (mg/l)										
* This sample data is not UK	>C8 - C10		>C10 - C12		>C12 - C16		>C16 - C21		>C21 - C35		>C8 - C40		
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1285042	BHNSA1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285043	BHNSA12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285044	BHNSA13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285045	BHNSA14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285046	BHNSA15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285047	BHNSA16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285048	BHNSA20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285049	BHNSA22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	0.013
EX1285050	BHNSA23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285051	BHNSA27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285052	BHNSA28	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01
EX1285053	BHNSA32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285054	BHNSA39	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285055	BHNSA226	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01
EX1285056	BHNSA12X	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011
				<u> </u>	-		<u> </u>						
													1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



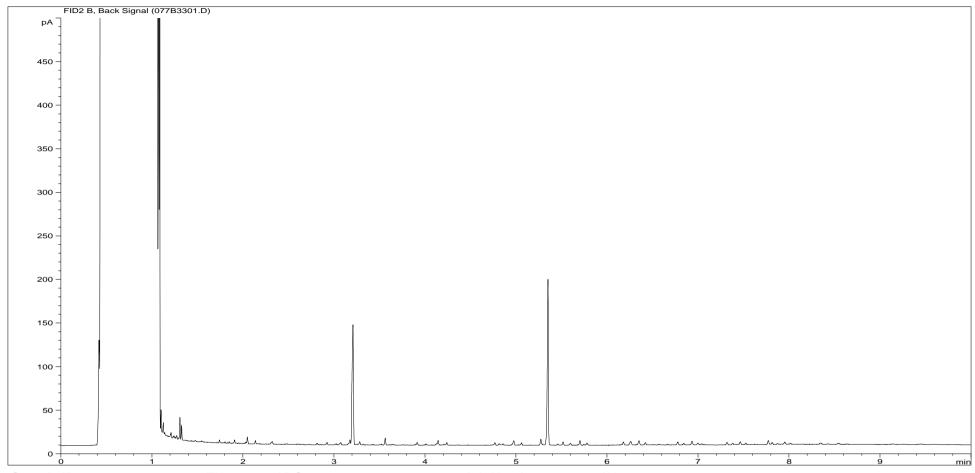
Sample ID:EX1285042ALIJob Number:W13_4878Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA1

Acquisition Date/Time: 16-Apr-12, 16:14:02

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\019F2901.D

Page 22 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



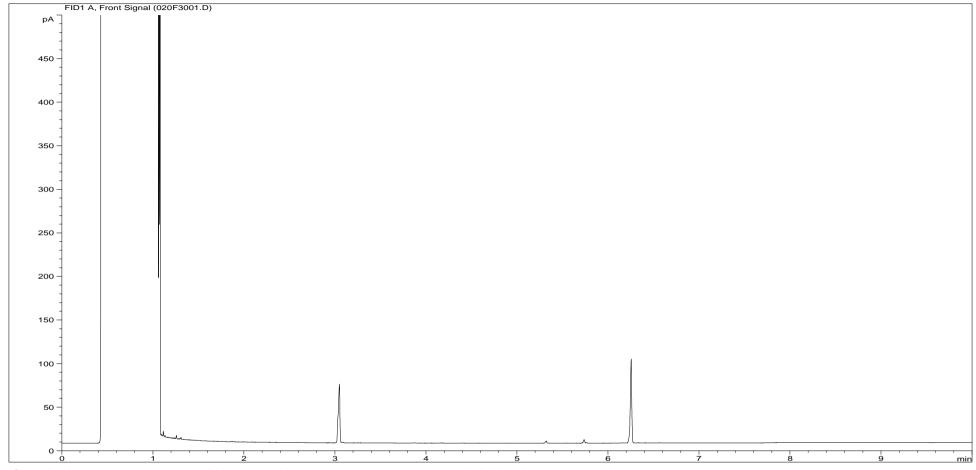
Sample ID:EX1285042AROJob Number:W13_4878Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA1

Acquisition Date/Time: 16-Apr-12, 17:21:07

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\077B3301.D

Page 23 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



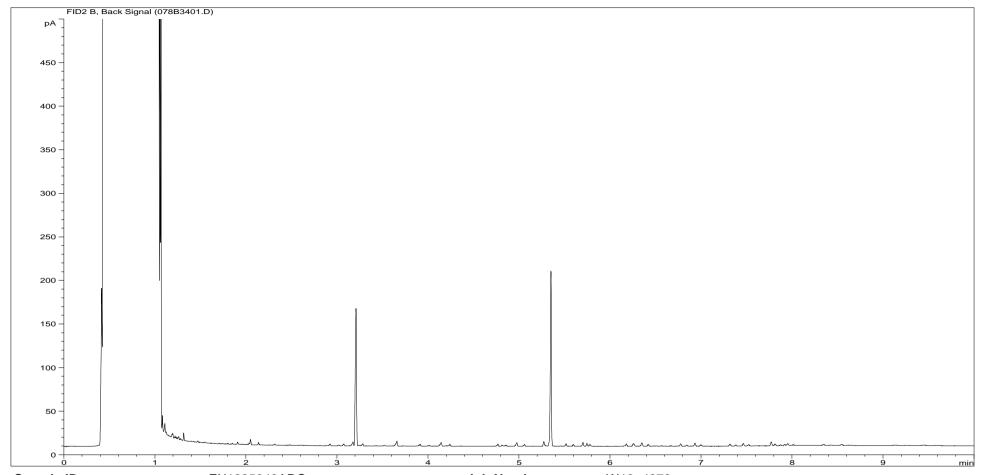
Sample ID:EX1285043ALIJob Number:W13_4878Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA12

Acquisition Date/Time: 16-Apr-12, 16:30:52

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\020F3001.D

Page 24 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



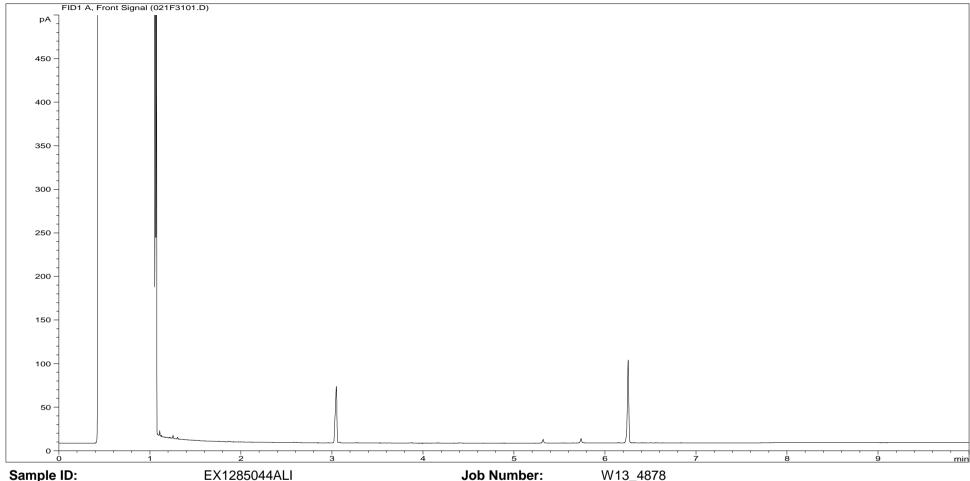
Sample ID:EX1285043AROJob Number:W13_4878Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA12

Acquisition Date/Time: 16-Apr-12, 17:37:59

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\078B3401.D

Page 25 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:EX1285044ALIJob Number:Multiplier:0.019Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 16-Apr-12, 16:47:40

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\021F3101.D

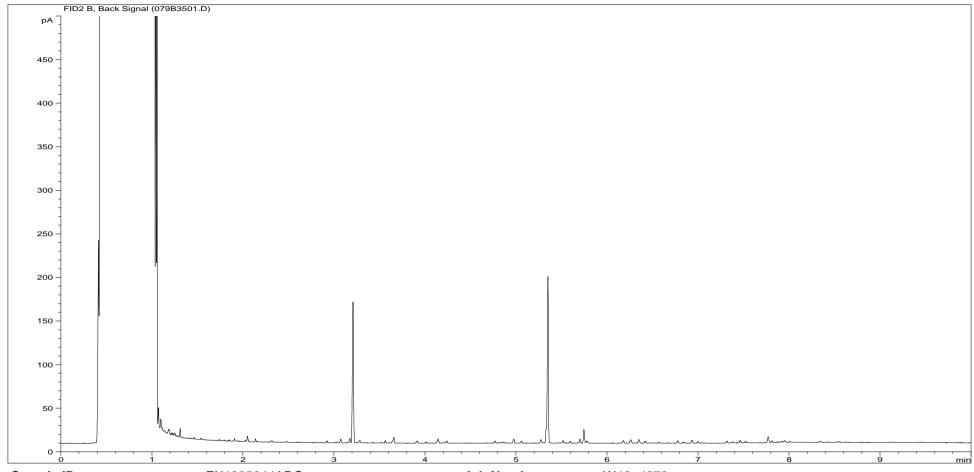
Waterman EED

Upper Heyford

BHNSA13

Page 26 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



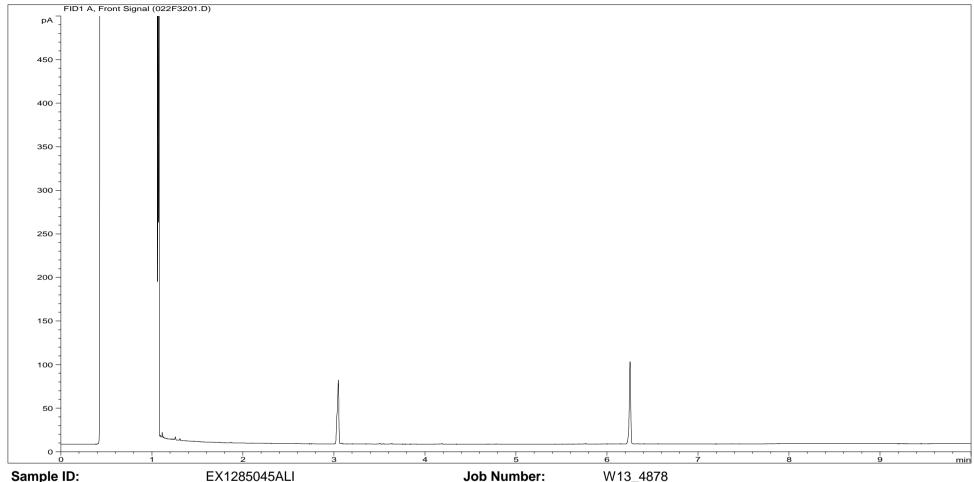
Sample ID:EX1285044AROJob Number:W13_4878Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA13

Acquisition Date/Time: 16-Apr-12, 17:54:51

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\079B3501.D

Page 27 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:EX1285045ALIJob Number:Multiplier:0.019Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 16-Apr-12, 17:04:10

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\022F3201.D

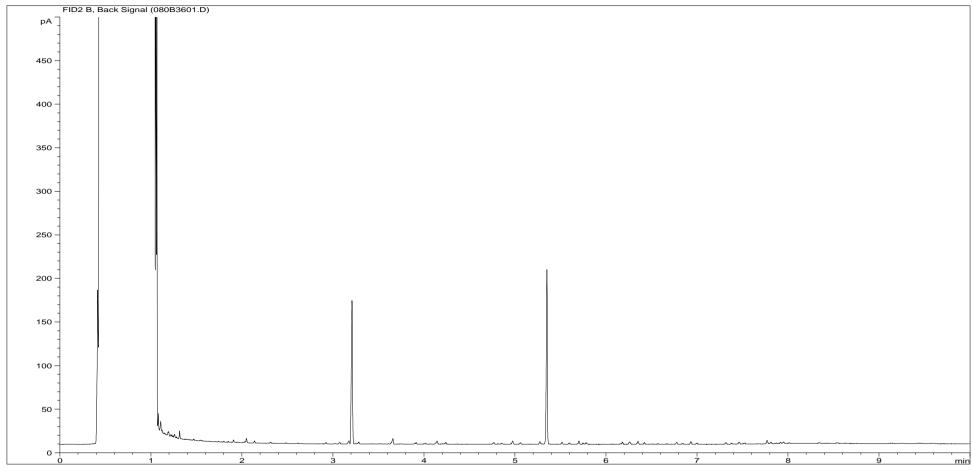
Waterman EED

Upper Heyford

BHNSA14

Page 28 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



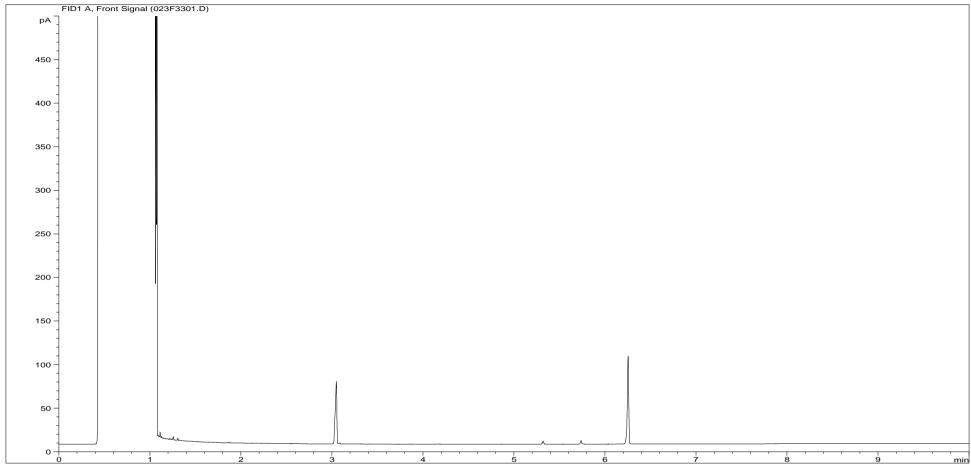
Sample ID:EX1285045AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA14

Acquisition Date/Time: 16-Apr-12, 18:11:41

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\080B3601.D

Page 29 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



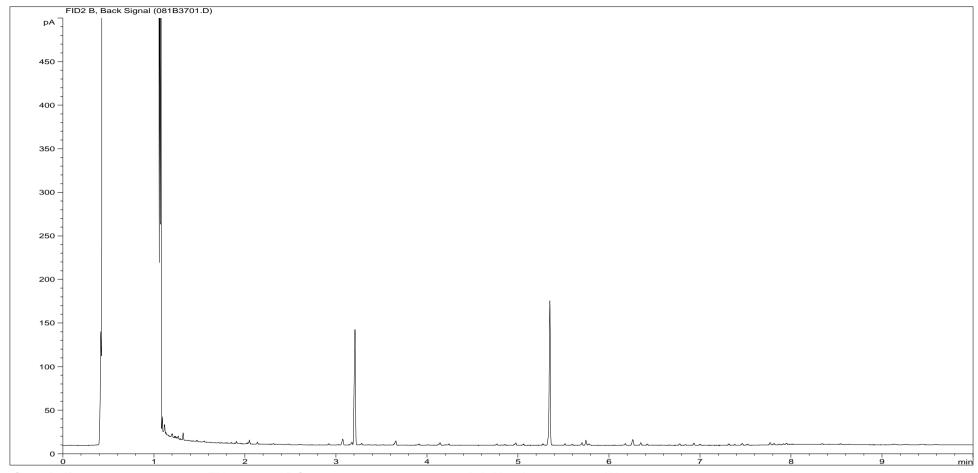
Sample ID:EX1285046ALIJob Number:W13_4878Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA15

Acquisition Date/Time: 16-Apr-12, 17:21:07

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\023F3301.D

Page 30 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



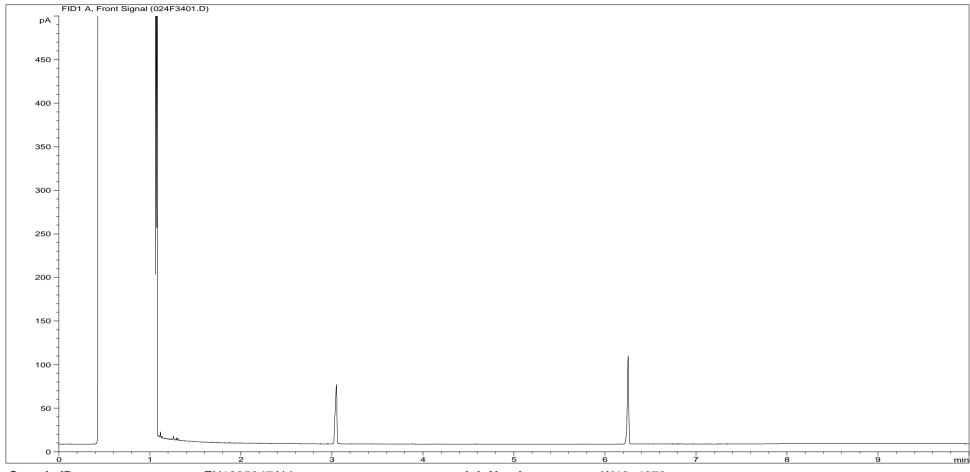
Sample ID:EX1285046AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA15

Acquisition Date/Time: 16-Apr-12, 18:28:41

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\081B3701.D

Page 31 of 55 EXR/134878 Ver. 1

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.

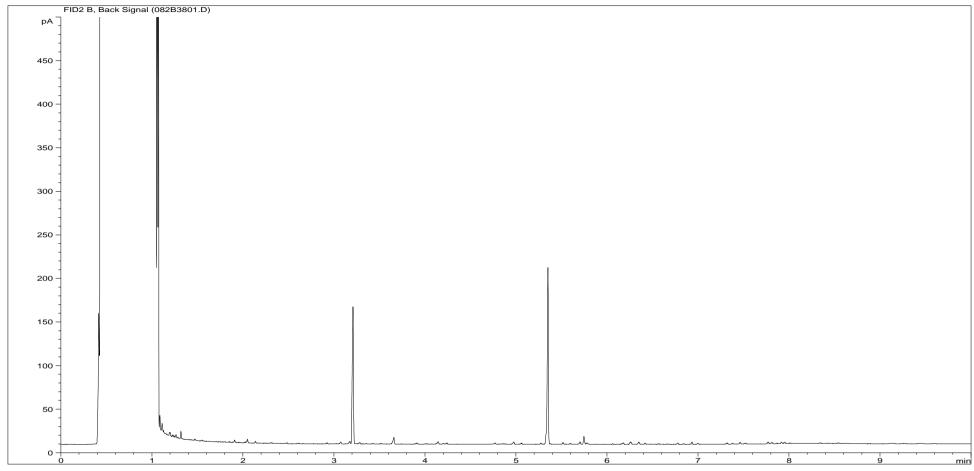


Sample ID:EX1285047ALIJob Number:W13_4878Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA16

Acquisition Date/Time: 16-Apr-12, 17:37:59

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\024F3401.D

Page 32 of 55 EXR/134878 Ver. 1

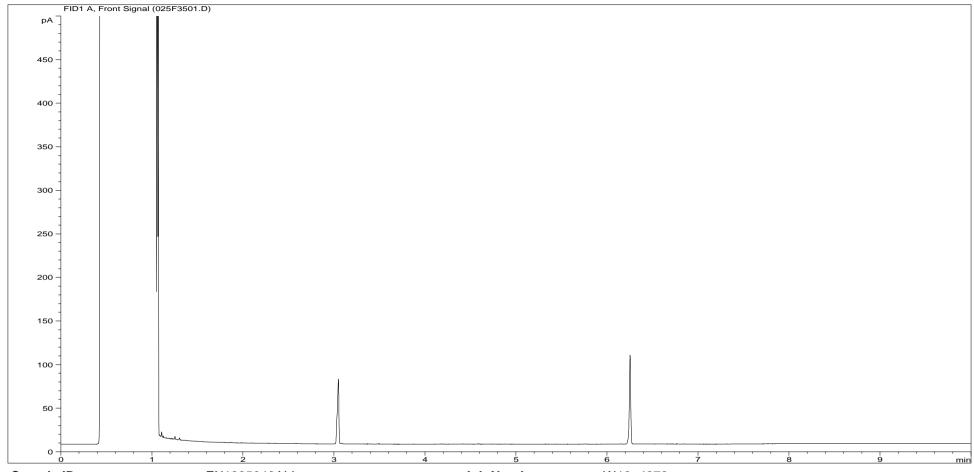


Sample ID:EX1285047AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA16

Acquisition Date/Time: 16-Apr-12, 18:45:26

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\082B3801.D

Page 33 of 55 EXR/134878 Ver. 1

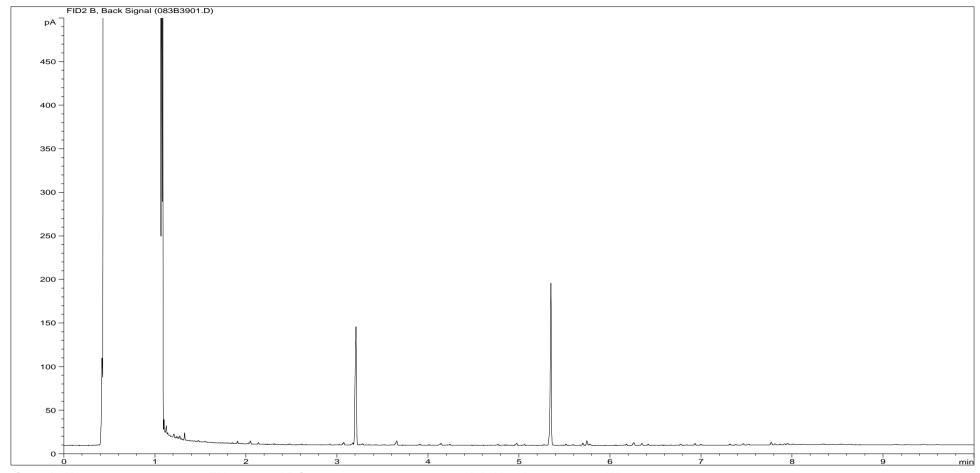


Sample ID:EX1285048ALIJob Number:W13_4878Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA20

Acquisition Date/Time: 16-Apr-12, 17:54:51

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\025F3501.D

Page 34 of 55 EXR/134878 Ver. 1

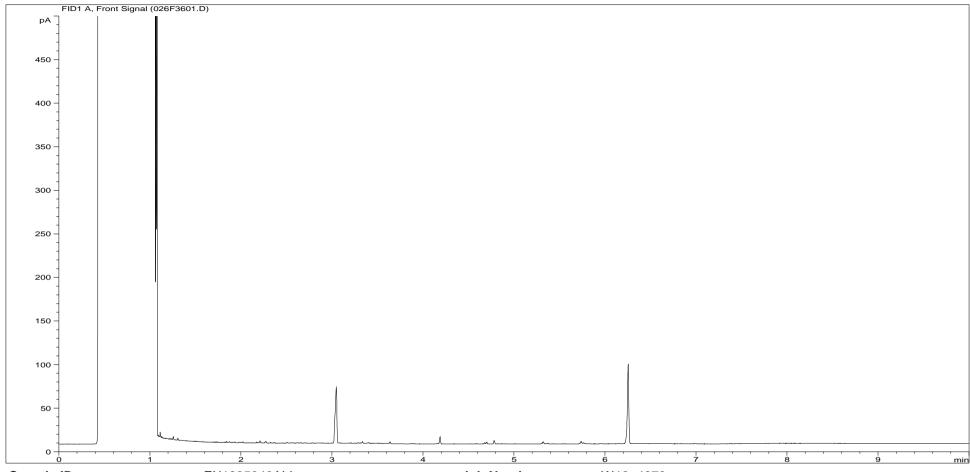


Sample ID:EX1285048AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA20

Acquisition Date/Time: 16-Apr-12, 19:02:15

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\083B3901.D

Page 35 of 55 EXR/134878 Ver. 1

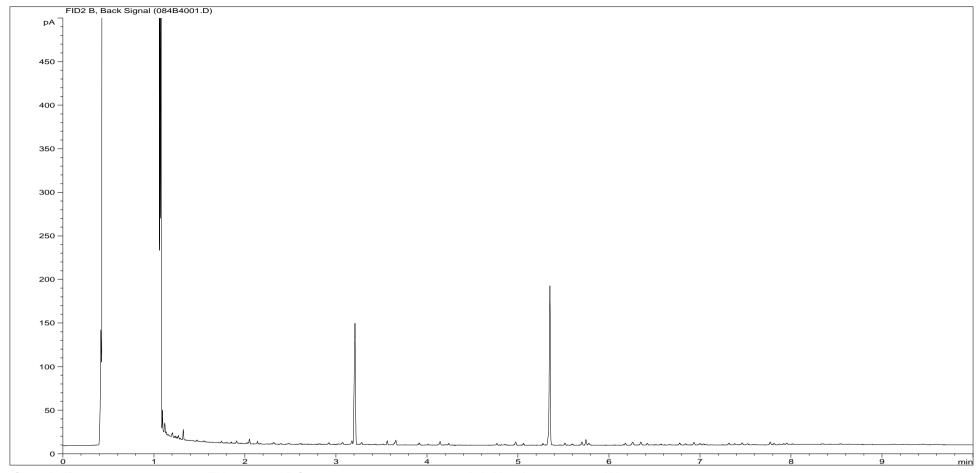


Sample ID:EX1285049ALIJob Number:W13_4878Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA22

Acquisition Date/Time: 16-Apr-12, 18:11:41

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\026F3601.D

Page 36 of 55 EXR/134878 Ver. 1

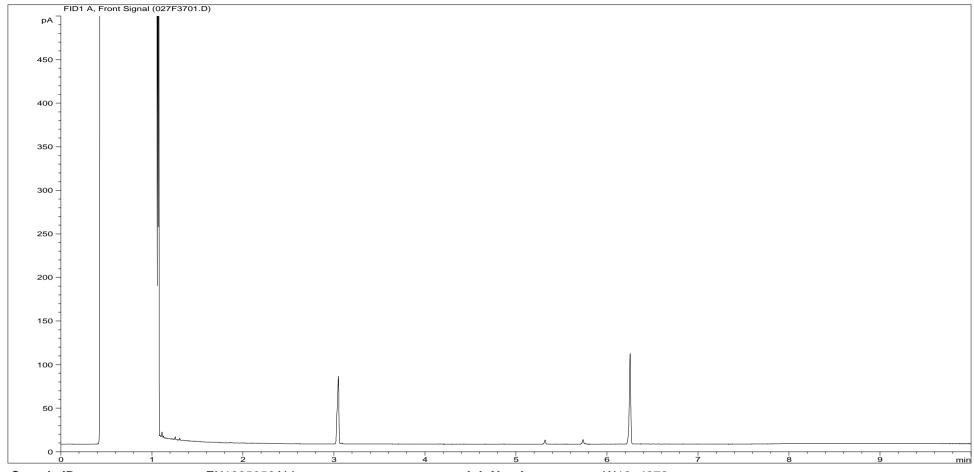


Sample ID:EX1285049AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA22

Acquisition Date/Time: 16-Apr-12, 19:19:08

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\084B4001.D

Page 37 of 55 EXR/134878 Ver. 1

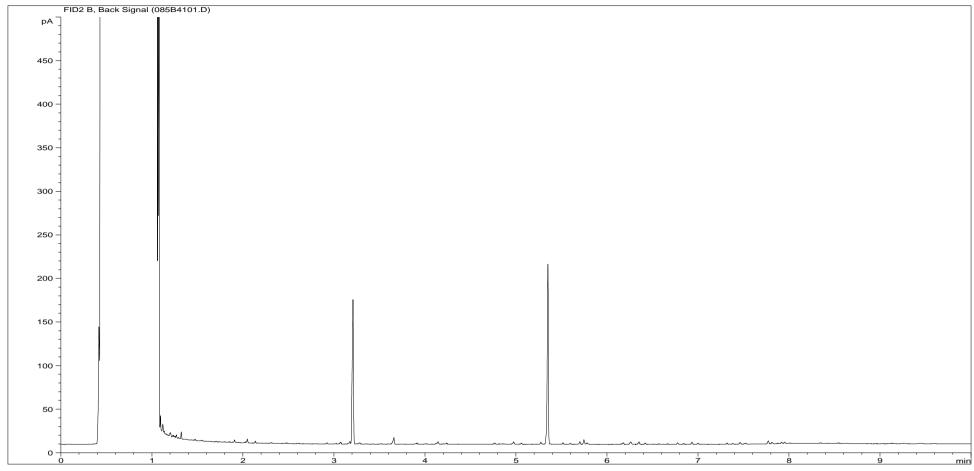


Sample ID:EX1285050ALIJob Number:W13_4878Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA23

Acquisition Date/Time: 16-Apr-12, 18:28:41

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\027F3701.D

Page 38 of 55 EXR/134878 Ver. 1

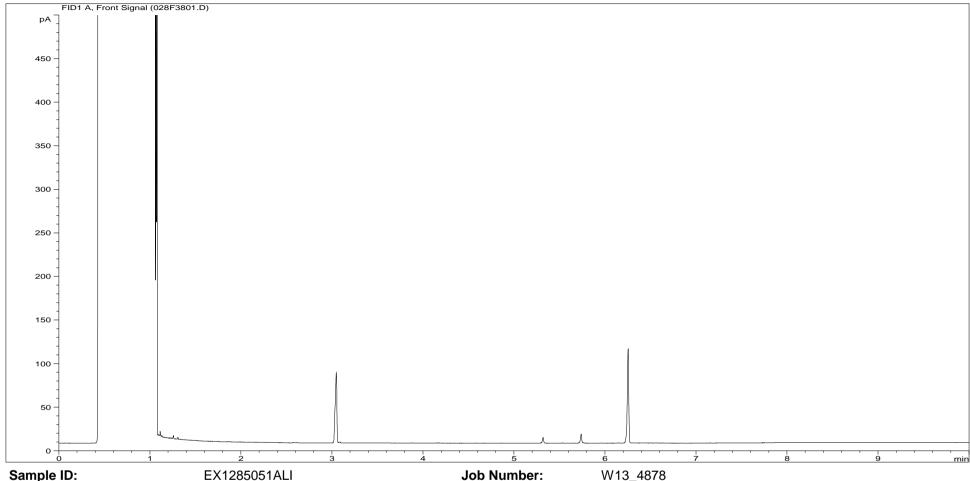


Sample ID:EX1285050AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA23

Acquisition Date/Time: 16-Apr-12, 19:36:11

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\085B4101.D

Page 39 of 55 EXR/134878 Ver. 1



Sample ID:EX1285051ALIJob Number:Multiplier:0.02Client:Dilution:1Site:Acquisition Method:TPH_RUNF.MClient Sample Ref:

Acquisition Date/Time: 16-Apr-12, 18:45:26

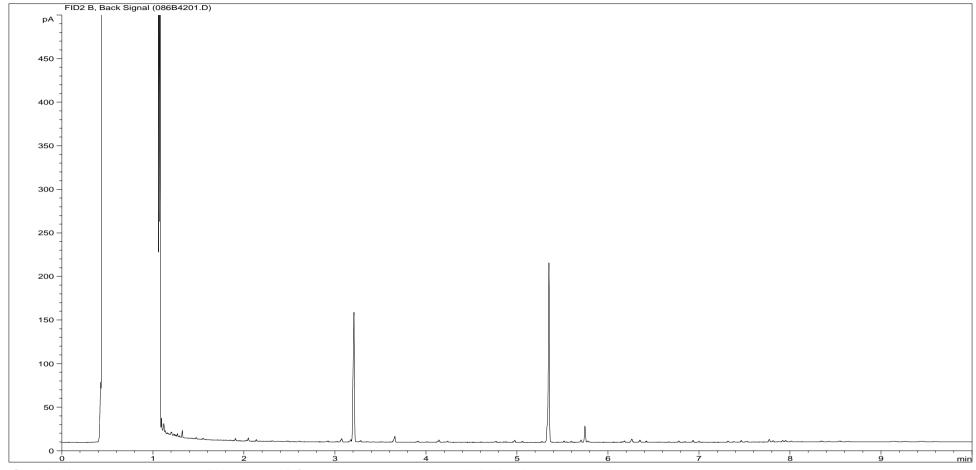
Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\028F3801.D

Waterman EED

Upper Heyford

BHNSA27

Page 40 of 55 EXR/134878 Ver. 1



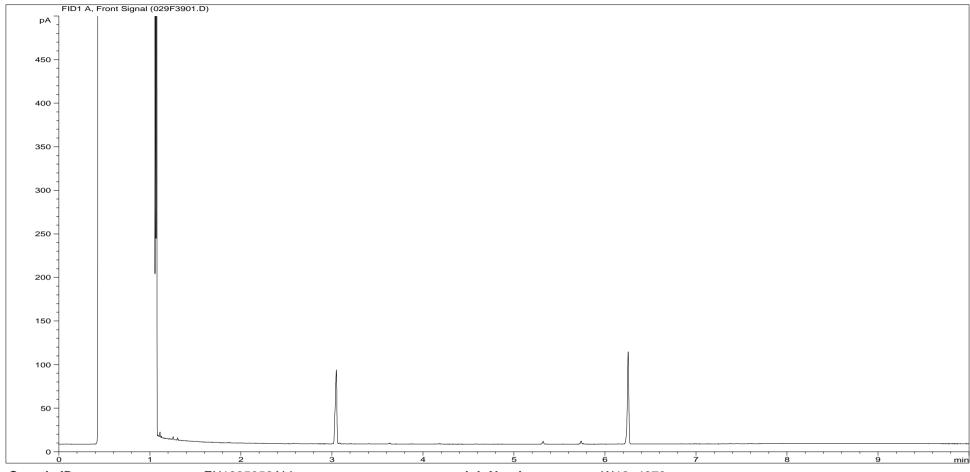
Sample ID:EX1285051AROMultiplier:0.015Dilution:1Acquisition Method:TPH_RUNF.M

Job Number: W13_4878
Client: Waterman EED
Site: Upper Heyford
Client Sample Ref: BHNSA27

Acquisition Date/Time: 16-Apr-12, 19:52:58

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\086B4201.D

Page 41 of 55 EXR/134878 Ver. 1

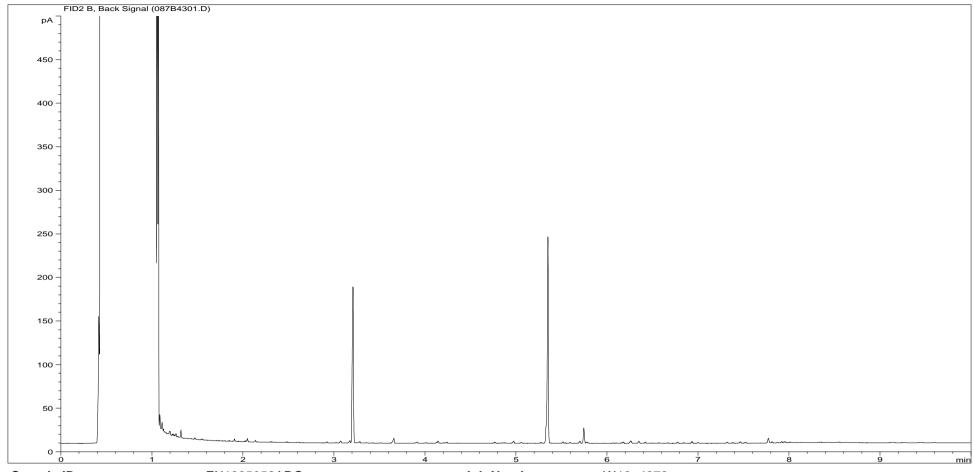


Sample ID:EX1285052ALIJob Number:W13_4878Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA28

Acquisition Date/Time: 16-Apr-12, 19:02:15

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\029F3901.D

Page 42 of 55 EXR/134878 Ver. 1

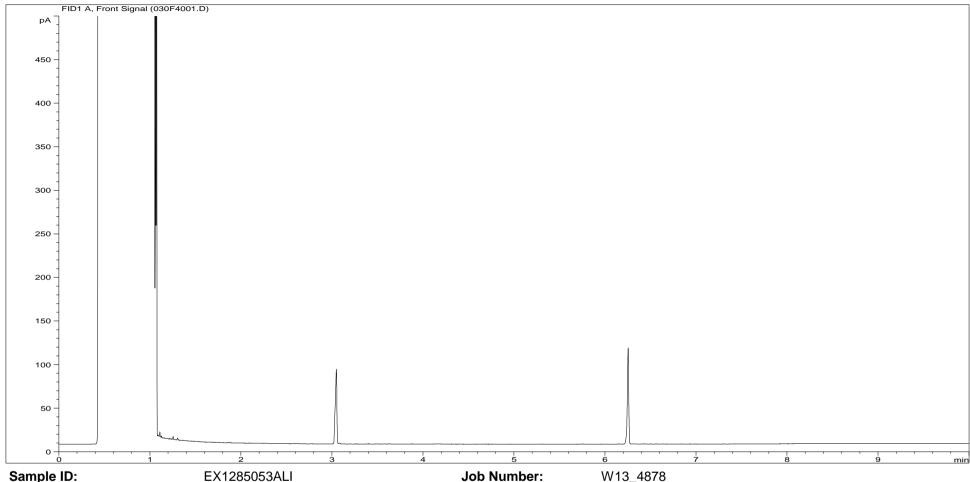


Sample ID:EX1285052AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA28

Acquisition Date/Time: 16-Apr-12, 20:09:49

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\087B4301.D

Page 43 of 55 EXR/134878 Ver. 1



Sample ID: EX1285053ALI
Multiplier: 0.02
Dilution: 1
Acquisition Method: TPH_RUNF.M

Acquisition Date/Time: 16-Apr-12, 19:19:08

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\030F4001.D

Client:

Client Sample Ref:

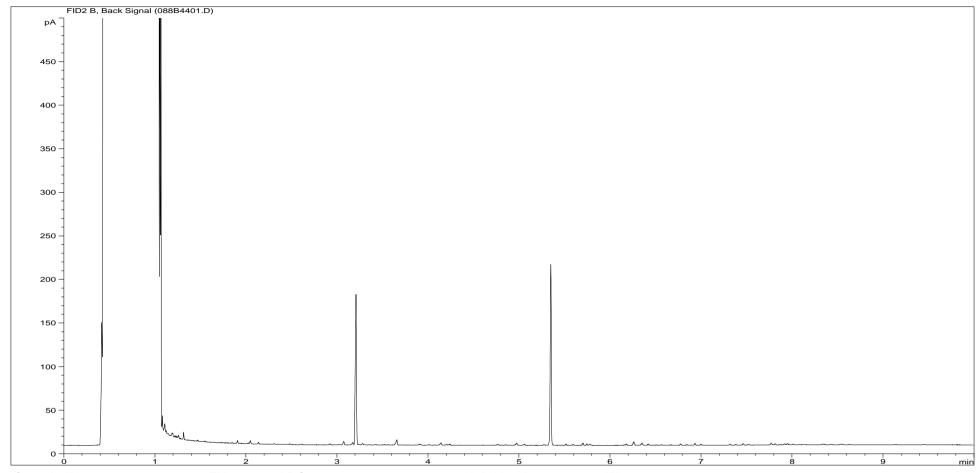
Site:

Waterman EED

Upper Heyford

BHNSA32

Page 44 of 55 EXR/134878 Ver. 1

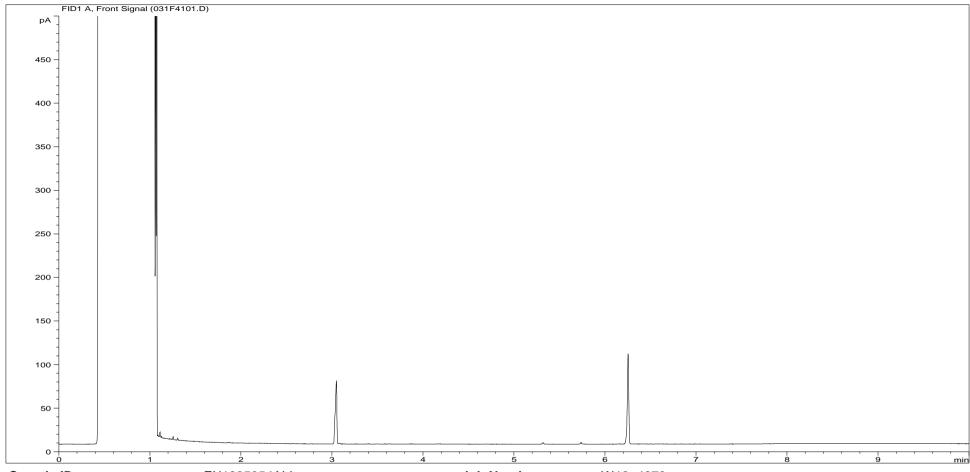


Sample ID:EX1285053AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA32

Acquisition Date/Time: 16-Apr-12, 20:27:10

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\088B4401.D

Page 45 of 55 EXR/134878 Ver. 1

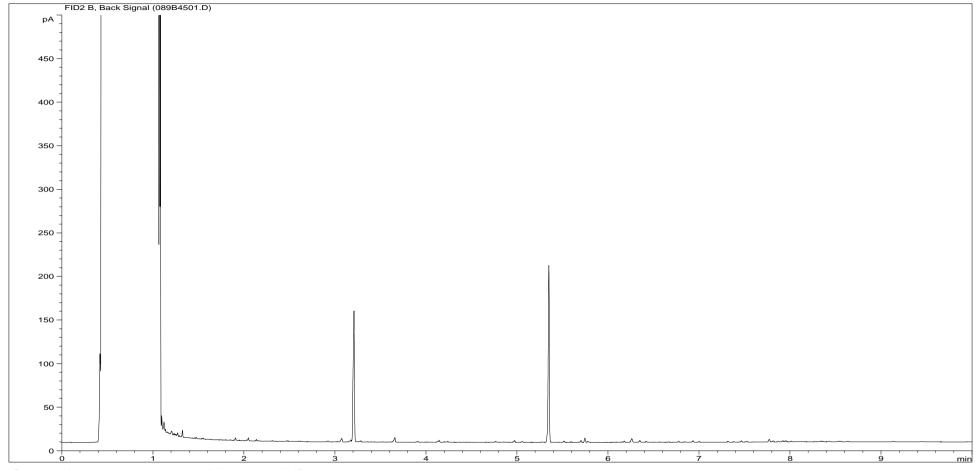


Sample ID:EX1285054ALIJob Number:W13_4878Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA39

Acquisition Date/Time: 16-Apr-12, 19:36:11

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\031F4101.D

Page 46 of 55 EXR/134878 Ver. 1

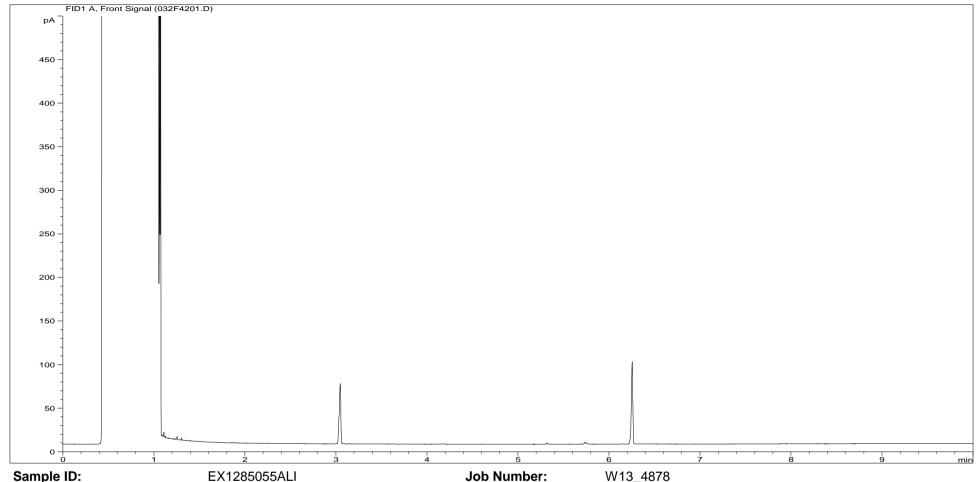


Sample ID:EX1285054AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA39

Acquisition Date/Time: 16-Apr-12, 20:44:16

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\089B4501.D

Page 47 of 55 EXR/134878 Ver. 1



Sample ID: EX1285055ALI Multiplier: 0.019 Dilution: **Acquisition Method:** TPH_RUNF.M

Acquisition Date/Time: 16-Apr-12, 19:52:58

Datafile:

D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\032F4201.D

Client:

Client Sample Ref:

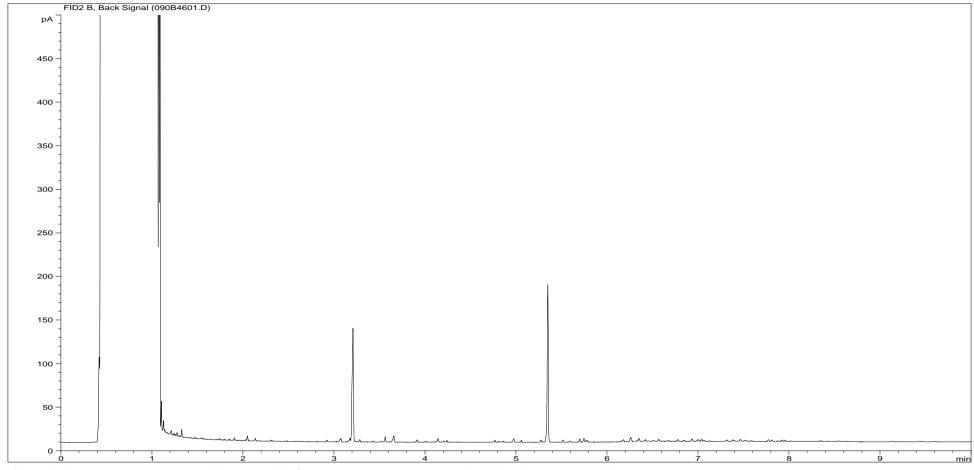
Site:

Waterman EED

Upper Heyford

BHNSA226

EXR/134878 Ver. 1 Page 48 of 55

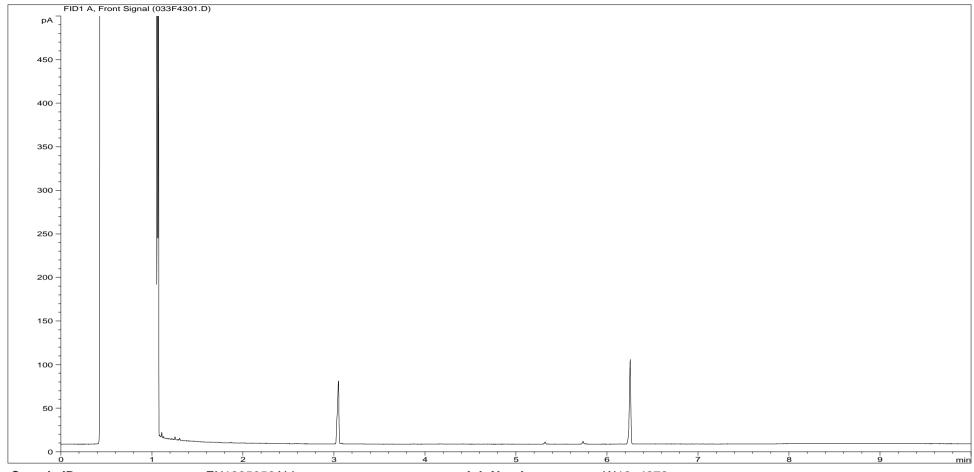


Sample ID:EX1285055AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA226

Acquisition Date/Time: 16-Apr-12, 21:01:08

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\090B4601.D

Page 49 of 55 EXR/134878 Ver. 1

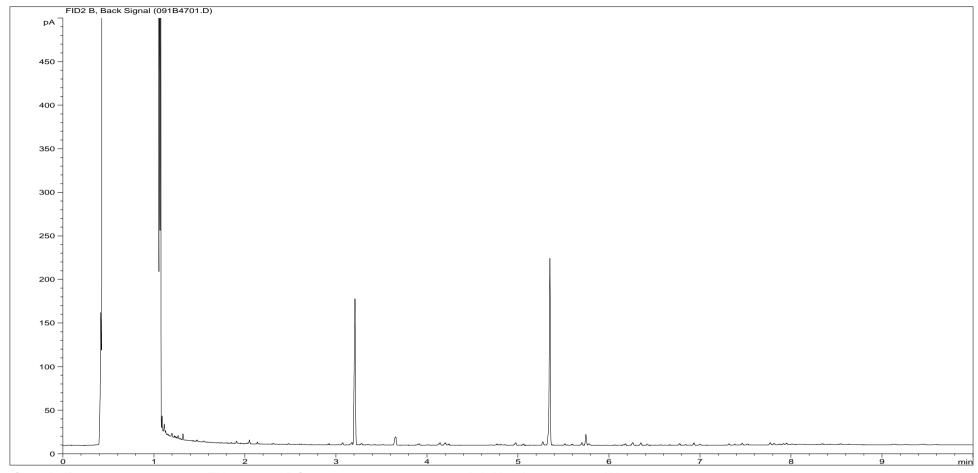


Sample ID:EX1285056ALIJob Number:W13_4878Multiplier:0.019Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA12X

Acquisition Date/Time: 16-Apr-12, 20:09:49

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\033F4301.D

Page 50 of 55 EXR/134878 Ver. 1



Sample ID:EX1285056AROJob Number:W13_4878Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA12X

Acquisition Date/Time: 16-Apr-12, 21:18:05

Datafile: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\091B4701.D

Page 51 of 55 EXR/134878 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W134878 **Report No**

Consignment No W36119 Date Logged 11-Apr-2012

Report Due 18-Apr-2012

		MethodID	CUSTSERV	GROHSA		ICPMSW	•			<u> дрг 2</u>					ICPWATVAR					KONENS				PAHMSW	PHEHPLCVL	SVOCSW	TPHFID-Si
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	MTBE-HSA	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as CI (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	PAH GC-MS (16)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)
	Accredited	to ISO17025		✓	✓	✓	1	1	✓	✓	✓	✓	✓	✓	✓	✓	1	✓	1	✓	✓	✓	✓	✓			✓
EX/1285042	BHNSA1	03/04/12																						Е			E
EX/1285043	BHNSA12	03/04/12																						Е			E
EX/1285044	BHNSA13	03/04/12																						Е			E
EX/1285045	BHNSA14	03/04/12																						Е			E
EX/1285046	BHNSA15	03/04/12																						Е			E
EX/1285047	BHNSA16	03/04/12																						Е			E
EX/1285048	BHNSA20	03/04/12																						Е			E
EX/1285049	BHNSA22	03/04/12																						Е			Е
EX/1285050	BHNSA23	03/04/12																							Е		Е
																									ΙE	E	E
EX/1285051	BHNSA27	03/04/12							_														_				_
EX/1285052	BHNSA28	03/04/12																							Е	Е	Е
	BHNSA28 BHNSA32																								Е	Е	E
EX/1285052 EX/1285053 EX/1285054	BHNSA28 BHNSA32 BHNSA39	03/04/12																								Е	E
EX/1285052 EX/1285053	BHNSA28 BHNSA32	03/04/12 03/04/12																						E	Е	Е	Е

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Site

Report No

Waterman EED **Upper Heyford** W134878

Consignment No W36119 Date Logged 11-Apr-2012

Report Due 18-Apr-2012

	1			,	,	,		_		Apr-2
		MethodID	WSLM11	WSLM12	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited	to ISO17025	✓	✓	✓	✓	✓		✓	
EX/1285042	BHNSA1	03/04/12								
EX/1285043	BHNSA12	03/04/12								
EX/1285044	BHNSA13	03/04/12								
EX/1285045	BHNSA14	03/04/12								
EX/1285046	BHNSA15	03/04/12								
EX/1285047	BHNSA16	03/04/12								
EX/1285048	BHNSA20	03/04/12								
EX/1285049	BHNSA22	03/04/12								
EX/1285050	BHNSA23	03/04/12						Е		
EX/1285051	BHNSA27	03/04/12						Е		
EX/1285052	BHNSA28	03/04/12						Е		
EX/1285053	BHNSA32	03/04/12						Е		
EX/1285054	BHNSA39	03/04/12						Е		
EX/1285055	BHNSA226	03/04/12								
EX/1285056	BHNSA12X	03/04/12								

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

Report Number: W/EXR/134878

Method Descriptions

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PAHMSW	As Received	Determination of PolyAromatic Hydrocarbons in water by pentane extraction GCMS quantitation
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Our Ref: EXR/134941 (Ver. 1) Your Ref: E10658-109

April 19, 2012

Mr F Alcock Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG



Environmental Chemistry

FS(

Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

For the attention of Mr F Alcock

Dear Mr Alcock

Water Sample Analysis - Upper Heyford

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Laboratory and Analytical) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

Project Co-ordinator 01283 554500

TEST REPORT WATER SAMPLE ANALYSIS



Report No. EXR/134941 (Ver. 1)

Waterman EED Waterman Environmental Pickfords Wharf Clink Street London SE1 9DG

Site: Upper Heyford

The 7 samples described in this report were registered for analysis by ESG on 12-Apr-2012. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 19-Apr-2012

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by ESG.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of SVOC Results (Pages 5 to 11)
Table of GRO Results (Page 12)
Table of TPH (Si) banding (0.01) (Page 13)
GC-FID Chromatograms (Pages 14 to 27)
Analytical and Deviating Sample Overview (Pages 28 to 29)
Table of Method Descriptions (Page 30)
Table of Report Notes (Page 31)

On behalf of ESG : Andrew Timms



Date of Issue: 19-Apr-2012

Tests marked 'A' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

		Units :	pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	WSLM3	WSLM2	WSLM12	WSLM17	KONENS	ICPWATVAR			ICPWATVAR	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
	Method Reporting UKAS Acc		Yes	100 Yes	2 Yes	2 Yes	1 Yes	3 Yes	1 Yes	1 Yes	Yes	0.001 Yes	0.001 Yes	0.0001 Yes	0.001 Yes	0.001 Yes	0.002 Yes	0.001 Yes
LAB ID Number EX/	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 25C w	Total Alkalinity as CaCO3 w	Total Acidity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Arsenic as As (Dissolved)
1285312	BHNSA24	05-Apr-12	7.8	725	296	Nil	57	36	128	4	41	0.017	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1285313	BHNSA24X	05-Apr-12	7.7	725	491	Nil	57	37	192	4	37	0.018	0.006	<0.0001	0.001	0.002	0.003	<0.001
1285314	BHNSA25	05-Apr-12	7.6	789	335	Nil	64	54	148	7	33	0.01	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1285315	BHNSA26	05-Apr-12	7.7	664	360	Nil	40	41	155	8	19	0.013	0.007	<0.0001	0.005	0.002	0.004	<0.001
1285316	BHNSA29	05-Apr-12	7.7	557	377	Nil	13	36	136	3	8	0.003	0.005	<0.0001	0.001	<0.001	<0.002	<0.001
1285317	BHNSA30	05-Apr-12	7.7	559	389	Nil	14	37	122	4	9	0.003	0.005	<0.0001	<0.001	<0.001	<0.002	<0.001
1285318	BHNSA31	05-Apr-12	7.8	583	662	Nil	13	52	121	11	7	0.003	0.006	<0.0001	<0.001	<0.001	0.002	<0.001
	ESG 🔗		Client N		Watern Mr F Alco	nan EED						v	Vater S	ample	Analysi	is		
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Contact		IVII F AICO		er He	yford				Date Prin Report N Table Nu	lumber			-Apr-2012 (R/134941 1		

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		Codes :	ICPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	WSLM11	WSLM13	GROHSA	TPHFID-Si	WSLM20	WSLM7	SVOCSW	PHEHPLCVL		
	Method Reporting UKAS Acc		0.01 Yes	0.0001 Yes	0.001 Yes	0.01 Yes	0.2 Yes	0.01 Yes	5 Yes	0.1 Yes	0.1 Yes	0.01 Yes	2 No	6 No	0.002 No	0.0005 No	0.0005 No	0.0005 No
LAB ID Number EX	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand (Settled)	Total Organic Carbon w	GRO-HSA (AA)	TPH by GC(Si) o	Biochemical Oxygen Demand w	Cyclohexane Extract Material w	Semi Volatile Organic Compounds	Phenol	Cresols	Dimethylphenols
1285312	BHNSA24	05-Apr-12	0.17	<0.0001	0.001	<0.01	3.2	<0.01	<5	2.7	Req	Req	<2.0	40	Req	<0.0005	<0.0005	<0.0005
1285313	BHNSA24X	05-Apr-12	0.13	<0.0001	<0.001	<0.01	3.1	<0.01	8	2.6	Req	Req	<2.0	28	Req	<0.0005	<0.0005	<0.0005
1285314	BHNSA25	05-Apr-12	0.07	<0.0001	<0.001	<0.01	<0.2	<0.01	6	3.2	Req	Req	2.4	40	Req	<0.0005	0.0013	<0.0005
1285315	BHNSA26	05-Apr-12	0.05	<0.0001	<0.001	<0.01	<0.2	0.05	<5	2.7	Req	Req	<2.0	37	Req	<0.0005	<0.0005	<0.0005
1285316	BHNSA29	05-Apr-12	0.03	<0.0001	<0.001	<0.01	<0.2	0.03	6	2.4	Req	Req	<2.0	42	Req	<0.0005	<0.0005	<0.0005
1285317	BHNSA30	05-Apr-12	0.02	<0.0001	<0.001	<0.01	<0.2	0.02	8	2.4	Req	Req	2.1	<6	Req	<0.0005	<0.0005	<0.0005
1285318	BHNSA31	05-Apr-12	0.02	<0.0001	<0.001	<0.01	<0.2	<0.01	7	2.5	Req	Req	2.7	<6	Req	<0.0005	<0.0005	<0.0005
	ESG 🔗		Client N	ame	Watern Mr F Alco	nan EED						W	/ater S	ample	Analys	is		
	Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Contact		IVII F AICO		er He	yford				Date Prin Report N Table Nu	umber			-Apr-2012 XR/134941 1		

		Units :	mg/l	mg/l	mg/l	mg/l				
		Codes:	PHEHPLCVL	PHEHPLCVL	PHEHPLCV	L PHEHPLCVL				
	Method Reporting	Limits :	0.1	0.0005	0.1	0.1				
	UKAS Acc	redited :	No	No	No	No				
LAB ID Number EX/	Client Sample Description	Sample Date	Naphthols	Trimethylphenols	Resorcinol	Catechol				
1285312	BHNSA24	05-Apr-12	<0.1	<0.0005	<0.1	<0.1				
1285313	BHNSA24X	05-Apr-12	<0.1	<0.0005	<0.1	<0.1				
1285314	BHNSA25	05-Apr-12	<0.1	<0.0005	<0.1	<0.1				
1285315	BHNSA26	05-Apr-12	<0.1	<0.0005	<0.1	<0.1				
1285316	BHNSA29	05-Apr-12	<0.1	<0.0005	<0.1	<0.1				
1285317	BHNSA30	05-Apr-12	<0.1	<0.0005	<0.1	<0.1				
1285318	BHNSA31	05-Apr-12	<0.1	<0.0005	<0.1	<0.1				
	FSG &		Client N	lame	Wateri	man EED		Water S	ample Analysis	
	Environmental Scientifics Group		Contact	t	Mr F Alc	ock			_	
	Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422					Upper He	yford	Date Printed Report Number Table Number	19-Apr- EXR/1:	

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA24
 Date Booked in:
 12-Apr-12

 LIMS ID Number:
 EX1285312
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4941
 Date Analysed:
 17-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\ 0416_CCC	1B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	102
Naphthalene-d8	102
Acenaphthene-d10	103
Phenanthrene-d10	104
Chrysene-d12	97
Perylene-d12	95

Surrogates	% Rec
2-Fluorophenol	46
Phenol-d5	32
Nitrobenzene-d5	83
2-Fluorobiphenyl	87
2,4,6-Tribromophenol	75
Terphenyl-d14	85

Compounds marked with a * are reported not UKAS.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA24X
 Date Booked in:
 12-Apr-12

 LIMS ID Number:
 EX1285313
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4941
 Date Analysed:
 17-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\ 0416_CCC1E	B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	104
Naphthalene-d8	105
Acenaphthene-d10	105
Phenanthrene-d10	107
Chrysene-d12	99
Perylene-d12	97

Surrogates	% Rec
2-Fluorophenol	47
Phenol-d5	35
Nitrobenzene-d5	82
2-Fluorobiphenyl	88
2,4,6-Tribromophenol	76
Terphenyl-d14	87

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA25
 Date Booked in:
 12-Apr-12

 LIMS ID Number:
 EX1285314
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4941
 Date Analysed:
 17-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
-		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
ois(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
ois(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
sophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
ois(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1.2.4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
1-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
B-Nitroaniline	99-09-2	-	< 0.005	-

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0416_CCC1B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	112
Naphthalene-d8	112
Acenaphthene-d10	113
Phenanthrene-d10	115
Chrysene-d12	106
Perylene-d12	104

Surrogates	% Rec
2-Fluorophenol	46
Phenol-d5	33
Nitrobenzene-d5	81
2-Fluorobiphenyl	85
2,4,6-Tribromophenol	74
Terphenyl-d14	86

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA26
 Date Booked in:
 12-Apr-12

 LIMS ID Number:
 EX1285315
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4941
 Date Analysed:
 17-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	_	< 0.005	_

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0416_CCC1B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	99
Naphthalene-d8	99
Acenaphthene-d10	100
Phenanthrene-d10	100
Chrysene-d12	91
Perylene-d12	89

Surrogates	% Rec
2-Fluorophenol	44
Phenol-d5	31
Nitrobenzene-d5	82
2-Fluorobiphenyl	86
2,4,6-Tribromophenol	74
Terphenyl-d14	86

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA29
 Date Booked in:
 12-Apr-12

 LIMS ID Number:
 EX1285316
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4941
 Date Analysed:
 17-Apr-12

Target Compounds	CAS#	R.T.	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	_
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	_
2-Chlorophenol	95-57-8	_	< 0.020	_
1.3-Dichlorobenzene	541-73-1	-	< 0.020	_
1,4-Dichlorobenzene	106-46-7	-	< 0.005	_
Benzyl alcohol	100-40-7	-	< 0.005	_
1.2-Dichlorobenzene	95-50-1	-	< 0.005	_
2-Methylphenol	95-48-7	-	< 0.005	_
bis(2-Chloroisopropyl)ether	108-60-1		< 0.005	_
Hexachloroethane	67-72-1	-	< 0.005	_
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	_
3- & 4-Methylphenol	108-39-4/106-44-5	<u> </u>	< 0.020	_
Nitrobenzene	98-95-3	-	< 0.020	_
Isophorone	78-59-1	-	< 0.005	_
2-Nitrophenol	88-75-5	-	< 0.020	_
2,4-Dimethylphenol	105-67-9	-	< 0.020	_
Benzoic Acid	65-85-0 *	-	< 0.100	_
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	_
2,4-Dichlorophenol	120-83-2	-	< 0.020	_
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	_
Naphthalene	91-20-3	-	< 0.003	_
4-Chlorophenol	106-48-9	_	< 0.020	_
4-Chloroaniline	106-47-8 *	_	< 0.005	_
Hexachlorobutadiene	87-68-3	-	< 0.005	_
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_
2-Methylnaphthalene	91-57-6	-	< 0.002	_
1-Methylnaphthalene	90-12-0	-	< 0.002	_
Hexachlorocyclopentadiene	77-47-4 *	_	< 0.002	_
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_
2-Chloronaphthalene	91-58-7	-	< 0.002	_
Biphenyl	92-52-4	-	< 0.002	_
Diphenyl ether	101-84-8	-	< 0.002	_
2-Nitroaniline	88-74-4	-	< 0.005	_
Acenaphthylene	208-96-8	-	< 0.002	_
Dimethylphthalate	131-11-3	-	< 0.005	_
2.6-Dinitrotoluene	606-20-2	-	< 0.005	_
Acenaphthene	83-32-9	-	< 0.002	_
3-Nitroaniline	99-09-2	-	< 0.005	_

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\	0416_CCC1B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	15.19	0.006	98
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	- 1	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	107
Naphthalene-d8	108
Acenaphthene-d10	108
Phenanthrene-d10	109
Chrysene-d12	100
Perylene-d12	95

Surrogates	% Rec
2-Fluorophenol	42
Phenol-d5	30
Nitrobenzene-d5	85
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	69
Terphenyl-d14	90

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

[&]quot;M" denotes that % fit has been manually interpreted

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA30
 Date Booked in:
 12-Apr-12

 LIMS ID Number:
 EX1285317
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4941
 Date Analysed:
 17-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit
		(min)	mg/l	
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	_	< 0.005	_

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\ 0416_CCC1B	. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit
			mg/l	
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	100
Naphthalene-d8	99
Acenaphthene-d10	99
Phenanthrene-d10	99
Chrysene-d12	93
Perylene-d12	92

Surrogates	% Rec
2-Fluorophenol	42
Phenol-d5	29
Nitrobenzene-d5	82
2-Fluorobiphenyl	87
2,4,6-Tribromophenol	70
Terphenyl-d14	83

Compounds marked with a * are reported not UKAS.

Concentrations are reported on a wet weight basis.

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford

 Sample Details:
 BHNSA31
 Date Booked in:
 12-Apr-12

 LIMS ID Number:
 EX1285318
 Date Extracted:
 16-Apr-12

 Job Number:
 W13_4941
 Date Analysed:
 17-Apr-12

Target Compounds	CAS#	R.T.	Concentration	% Fit	
DI I	400.05.0		mg/l		
Phenol	108-95-2	-	< 0.020	-	
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-	
2-Chlorophenol	95-57-8	-	< 0.020	-	
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-	
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-	
Benzyl alcohol	100-51-6	-	< 0.005	-	
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-	
2-Methylphenol	95-48-7	-	< 0.005	-	
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-	
Hexachloroethane	67-72-1	-	< 0.005	-	
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-	
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-	
Nitrobenzene	98-95-3	-	< 0.005	-	
Isophorone	78-59-1	-	< 0.005	-	
2-Nitrophenol	88-75-5	-	< 0.020	-	
2,4-Dimethylphenol	105-67-9	-	< 0.020	-	
Benzoic Acid	65-85-0 *	-	< 0.100	-	
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-	
2,4-Dichlorophenol	120-83-2	-	< 0.020	-	
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-	
Naphthalene	91-20-3	-	< 0.002	-	
4-Chlorophenol	106-48-9	-	< 0.020	-	
4-Chloroaniline	106-47-8 *	-	< 0.005	-	
Hexachlorobutadiene	87-68-3	-	< 0.005	_	
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	_	
2-Methylnaphthalene	91-57-6	-	< 0.002	_	
1-Methylnaphthalene	90-12-0	-	< 0.002	_	
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	_	
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	_	
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	_	
2-Chloronaphthalene	91-58-7	-	< 0.002	_	
Biphenyl	92-52-4	-	< 0.002	_	
Diphenyl ether	101-84-8	-	< 0.002	_	
2-Nitroaniline	88-74-4	<u> </u>	< 0.002	 	
Acenaphthylene	208-96-8	<u> </u>	< 0.002		
Dimethylphthalate	131-11-3		< 0.002	 	
2.6-Dinitrotoluene	606-20-2		< 0.005	-	
Acenaphthene	83-32-9	<u> </u>	< 0.005	-	
3-Nitroaniline	99-09-2	<u> </u>		-	
Companyed marked with a * are			< 0.005	_	

Matrix:	Water	QC Batch Number:	58
Ext Method:	Sep. Funnel	Multiplier:	0.005
Operator:	SO	Dilution Factor:	1
Directory/Quant File:	16SVOC.MS16\ 0416_CCC1E	B. GPC (Y/N)	N

Target Compounds	CAS#	R.T.	Concentration	% Fit	
			mg/l		
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-	
Dibenzofuran	132-64-9	-	< 0.005	-	
4-Nitrophenol	100-02-7	-	< 0.050	-	
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-	
Fluorene	86-73-7	-	< 0.002	-	
Diethylphthalate	84-66-2	-	< 0.005	-	
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-	
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-	
4-Nitroaniline	100-01-6	-	< 0.005	-	
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-	
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-	
Hexachlorobenzene	118-74-1	-	< 0.005	-	
Pentachlorophenol	87-86-5	-	< 0.050	-	
Phenanthrene	85-01-8	-	< 0.002	-	
Anthracene	120-12-7	-	< 0.002	-	
Di-n-butylphthalate	84-74-2	-	< 0.005	-	
Fluoranthene	206-44-0	-	< 0.002	-	
Pyrene	129-00-0	-	< 0.002	-	
Butylbenzylphthalate	85-68-7	-	< 0.005	-	
Benzo[a]anthracene	56-55-3	-	< 0.002	-	
Chrysene	218-01-9	-	< 0.002	-	
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-	
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-	
Di-n-octylphthalate	117-84-0	-	< 0.002	-	
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-	
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-	
Benzo[a]pyrene	50-32-8	-	< 0.002	-	
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-	
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002		
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-	

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	113
Naphthalene-d8	113
Acenaphthene-d10	112
Phenanthrene-d10	113
Chrysene-d12	108
Perylene-d12	104

Surrogates	% Rec			
2-Fluorophenol	44			
Phenol-d5	31			
Nitrobenzene-d5	81			
2-Fluorobiphenyl	84			
2,4,6-Tribromophenol	71			
Terphenyl-d14	82			

Compounds marked with a * are reported not UKAS.

[&]quot;M" denotes that % fit has been manually interpreted

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED: Upper Heyford

Job Number: W13_4941

Directory: D:\TES\DATA\Y2012\0416HSA_GC09\041612C 2012-04-17 12-52-29\124F4401.D

Method: Headspace GCFID

Matrix: Water
Date Booked in: 12-Apr-12

Date Booked in: 12-Apr-12

Date extracted: 16-Apr-12

Date Analysed: 18-Apr-12, 02:33:15

* Sample data with an asterisk are not UKAS accredited.

		(Concentration,	(mg/l)				Aliphatics			
Sample ID Client ID	Benzene	Toluene	Ethyl benzene	m/p-Xylene	o-Xylene	C5 - C6	>C6 - C7	>C7 - C8	>C8 - C10	Total GRO	
EX1285312	BHNSA24	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1285313	BHNSA24X	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1285314	BHNSA25	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1285315	BHNSA26	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1285316	BHNSA29	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1285317	BHNSA30	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
EX1285318	BHNSA31	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1
						+				+	

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Each BTEX compound is deducted from the appropriate band to give the aliphatic fractions, however aromatic compounds may still be contributing to these fractions

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED: Upper Heyford Matrix: Water

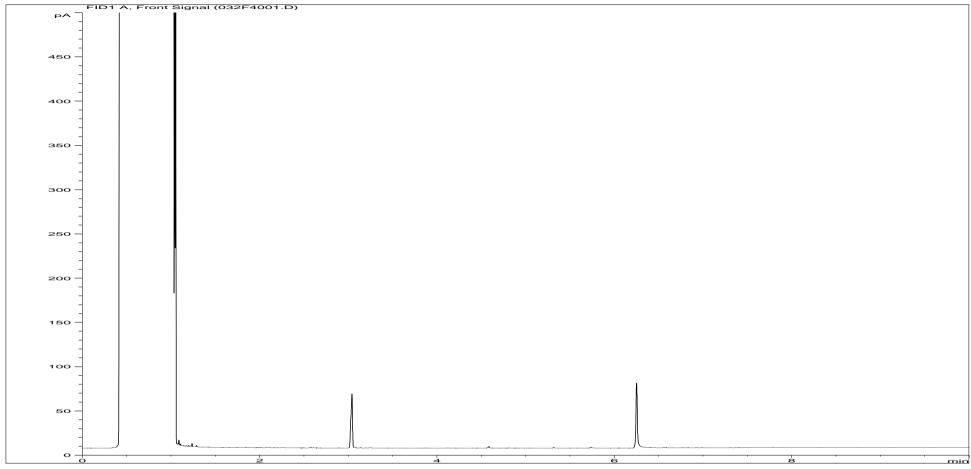
 Job Number:
 W13_4941
 Separation:
 Silica gel
 Date Booked ir
 12-Apr-12

 QC Batch Number:
 289
 Eluents:
 Hexane, DCM
 Date Extracted
 17-Apr-12

 Directory:
 D:/TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\087B4601.D
 Date Analysed: 19-Apr-12, 00:14:59

Method: Ultra Sonic

			Concentration, (mg/l)										
* This sample data is not UK	AS accredited.	>C8	- C10	>C10	- C12	>C12	- C16	>C16	- C21	>C21	- C35	>C8	- C40
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
EX1285312	BHNSA24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
EX1285313	BHNSA24X	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011
EX1285314	BHNSA25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285315	BHNSA26	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285316	BHNSA29	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EX1285317	BHNSA30	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011
EX1285318	BHNSA31	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
									-	-		-	

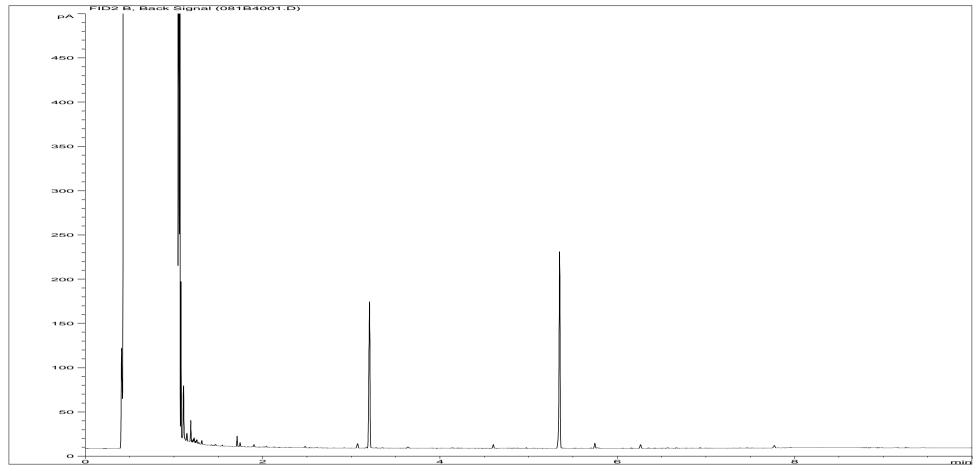


Sample ID:EX1285312ALIJob Number:W13_4941Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA24

Acquisition Date/Time: 18-Apr-12, 22:33:12

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\032F4001.D

Page 14 of 31 EXR/134941 Ver. 1

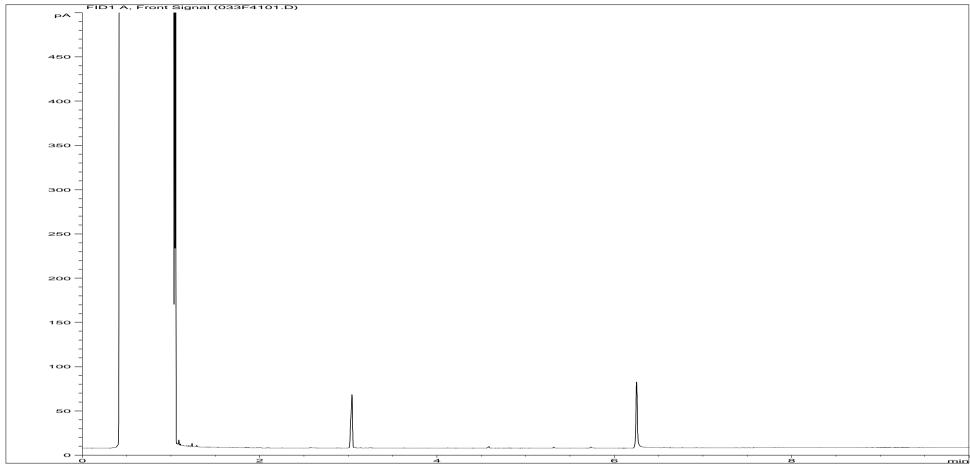


Sample ID:EX1285312AROJob Number:W13_4941Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA24

Acquisition Date/Time: 18-Apr-12, 22:33:12

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\081B4001.D

Page 15 of 31 EXR/134941 Ver. 1

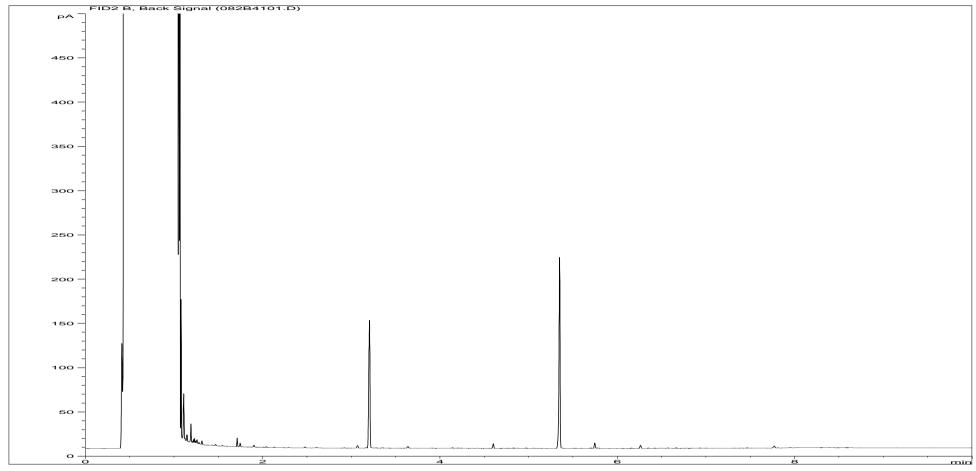


Sample ID:EX1285313ALIJob Number:W13_4941Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA24X

Acquisition Date/Time: 18-Apr-12, 22:50:10

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\033F4101.D

Page 16 of 31 EXR/134941 Ver. 1

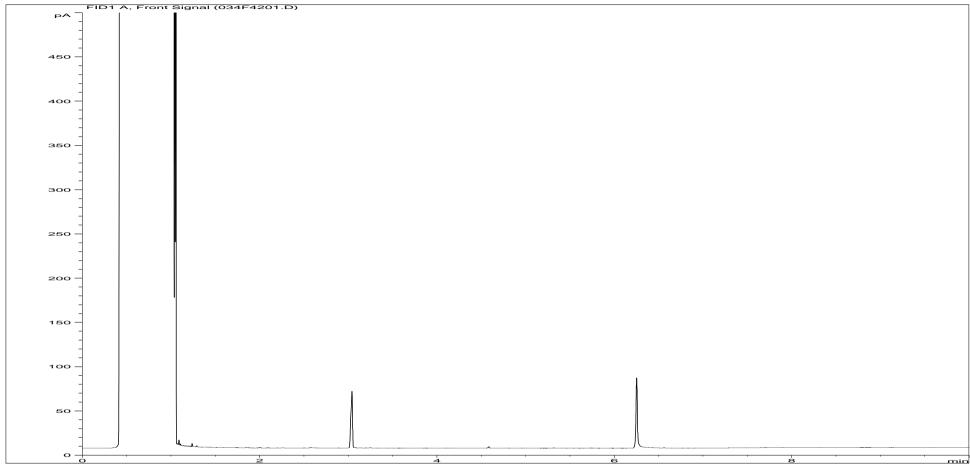


Sample ID:EX1285313AROJob Number:W13_4941Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA24X

Acquisition Date/Time: 18-Apr-12, 22:50:10

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\082B4101.D

Page 17 of 31 EXR/134941 Ver. 1

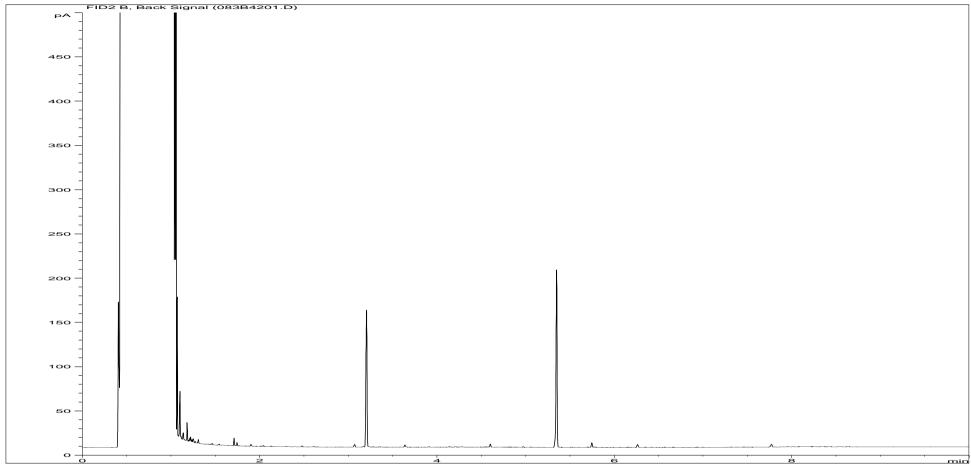


Sample ID:EX1285314ALIJob Number:W13_4941Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA25

Acquisition Date/Time: 18-Apr-12, 23:07:24

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\034F4201.D

Page 18 of 31 EXR/134941 Ver. 1

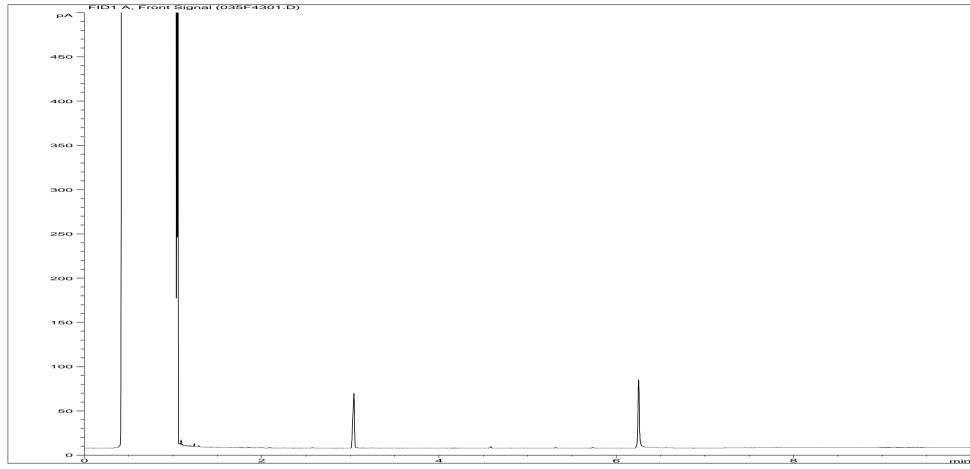


Sample ID:EX1285314AROJob Number:W13_4941Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA25

Acquisition Date/Time: 18-Apr-12, 23:07:24

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\083B4201.D

Page 19 of 31 EXR/134941 Ver. 1

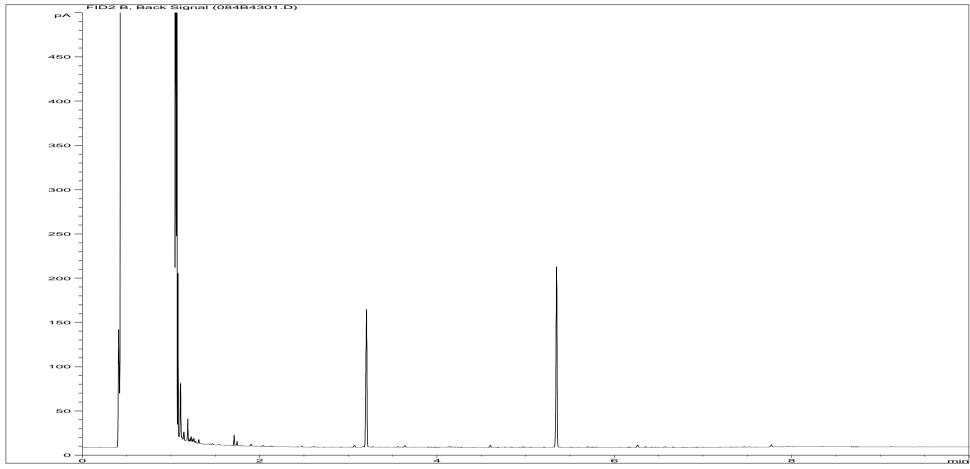


Sample ID:EX1285315ALIJob Number:W13_4941Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA26

Acquisition Date/Time: 18-Apr-12, 23:24:12

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\035F4301.D

Page 20 of 31 EXR/134941 Ver. 1

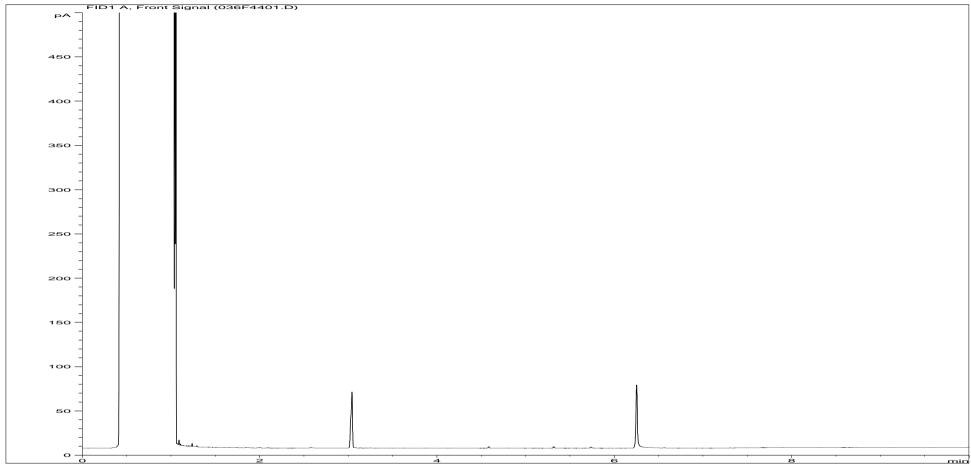


Sample ID:EX1285315AROJob Number:W13_4941Multiplier:0.015Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA26

Acquisition Date/Time: 18-Apr-12, 23:24:12

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\084B4301.D

Page 21 of 31 EXR/134941 Ver. 1

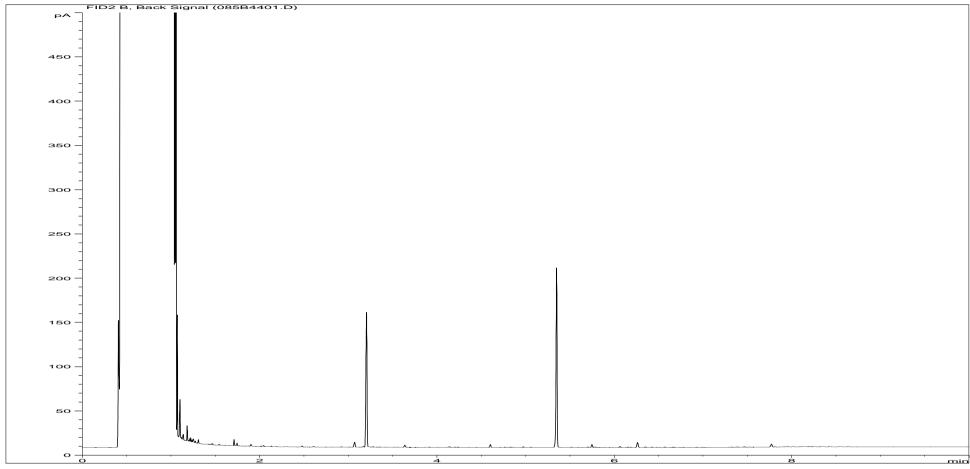


Sample ID:EX1285316ALIJob Number:W13_4941Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA29

Acquisition Date/Time: 18-Apr-12, 23:41:05

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\036F4401.D

Page 22 of 31 EXR/134941 Ver. 1

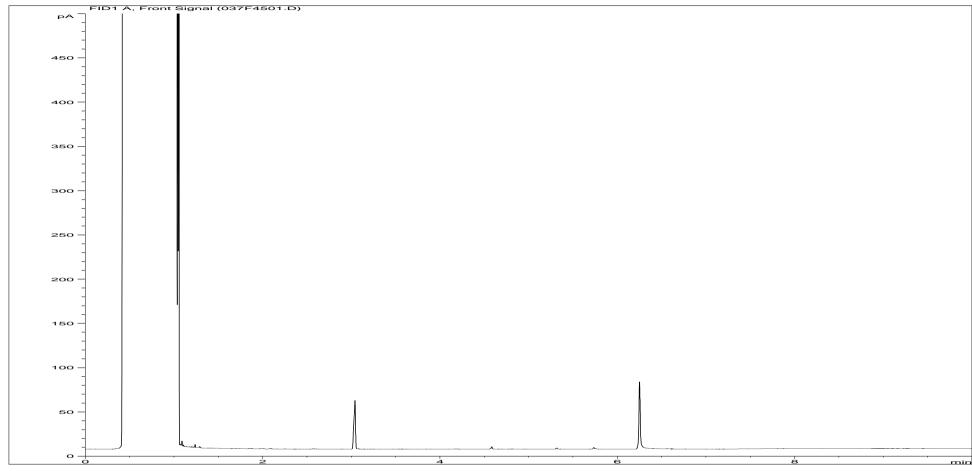


Sample ID:EX1285316AROJob Number:W13_4941Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA29

Acquisition Date/Time: 18-Apr-12, 23:41:05

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\085B4401.D

Page 23 of 31 EXR/134941 Ver. 1

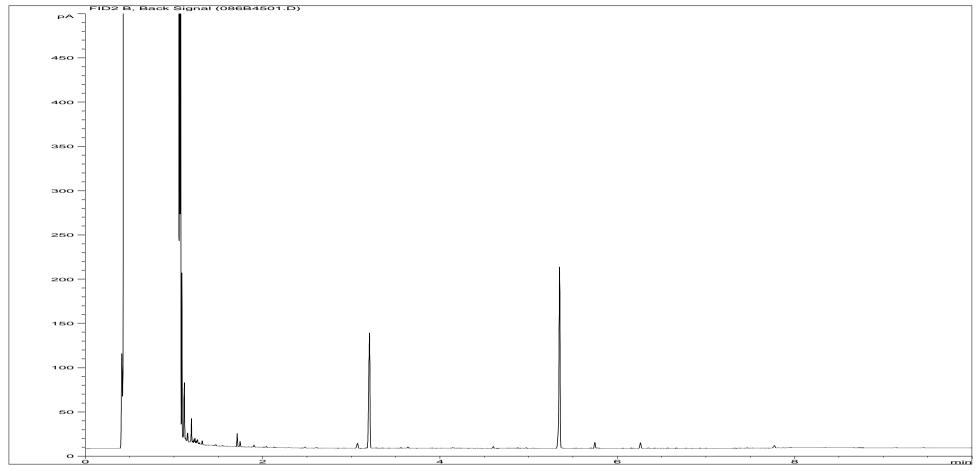


Sample ID:EX1285317ALIJob Number:W13_4941Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA30

Acquisition Date/Time: 18-Apr-12, 23:58:03

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\037F4501.D

Page 24 of 31 EXR/134941 Ver. 1

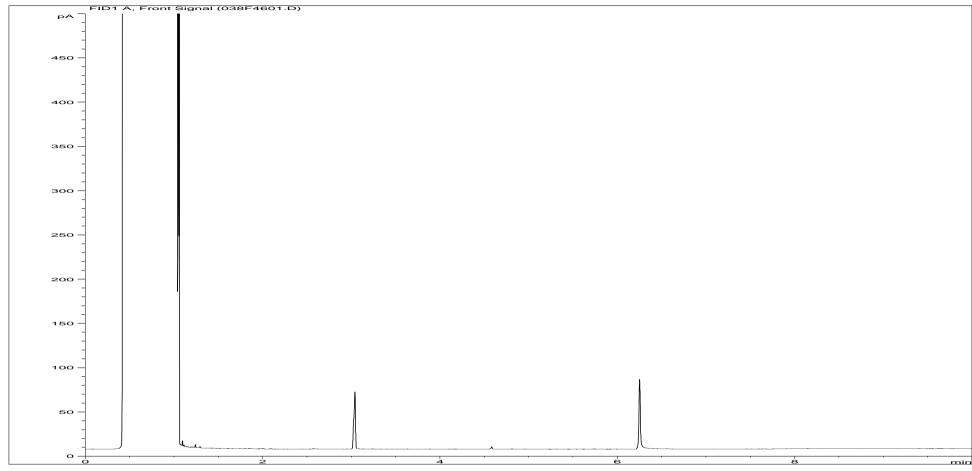


Sample ID:EX1285317AROJob Number:W13_4941Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA30

Acquisition Date/Time: 18-Apr-12, 23:58:03

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\086B4501.D

Page 25 of 31 EXR/134941 Ver. 1

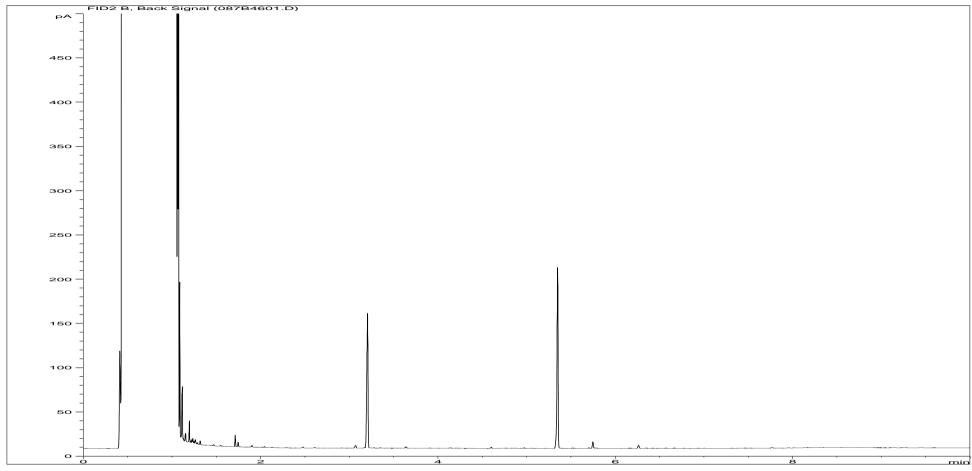


Sample ID:EX1285318ALIJob Number:W13_4941Multiplier:0.02Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA31

Acquisition Date/Time: 19-Apr-12, 00:14:59

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\038F4601.D

Page 26 of 31 EXR/134941 Ver. 1



Sample ID:EX1285318AROJob Number:W13_4941Multiplier:0.016Client:Waterman EEDDilution:1Site:Upper HeyfordAcquisition Method:TPH_RUNF.MClient Sample Ref:BHNSA31

Acquisition Date/Time: 19-Apr-12, 00:14:59

Datafile: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\087B4601.D

Page 27 of 31 EXR/134941 Ver. 1

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Waterman EED **Upper Heyford** Site W134941 Report No

Consignment No W36173 Date Logged 12-Apr-2012

Report Due 18-Apr-2012

		MethodID	CUSTSERV	GROHSA	ICPMSW									ICPWATVAR					KONENS				PHEHPLCVL	svocsw	TPHFID-Si	WSLM11	WSLM12
ID Number	Description	Sampled	Report A	GRO-HSA GCFID (AA)	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Boron as B (Dissolved) VAR	Chloride as Cl (Kone)	Ammoniacal Nitrogen (Kone)	Nitrate as N (Kone calc)	Phosphate as P. (kone)	Phenols by HPLC (Low Level)	SVOC	TPH by GC(Si)	Chemical Oxygen Demand (Settled)	Total Alkalinity as CaCO3
		to ISO17025		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
EX/1285312	BHNSA24	05/04/12																									
EX/1285313	BHNSA24X	05/04/12																									
EX/1285314	BHNSA25	05/04/12	_																								
EX/1285315	BHNSA26	05/04/12																									
EX/1285316	BHNSA29	05/04/12	_																								
EX/1285317	BHNSA30	05/04/12																									
EX/1285318	BHNSA31	05/04/12																									

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

- No analysis scheduled
- Analysis Subcontracted

ESG Environmental Chemistry Analytical and Deviating Sample Overview

Customer Site

Report No

Waterman EED **Upper Heyford** W134941

Consignment No W36173 Date Logged 12-Apr-2012

Report Due 18-Apr-2012

							Nepc	יוע אנ
		MethodID	WSLM13	WSLM17	WSLM2	WSLM20	WSLM3	WSLM7
ID Number	Description	Sampled	Total Organic Carbon	Total Acidity as CaCO3	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units	Cyclohexane Extract Material
	Accredited	to ISO17025	✓	✓	✓		✓	
EX/1285312	BHNSA24	05/04/12				Ε		
EX/1285313	BHNSA24X	05/04/12				Е		
EX/1285314	BHNSA25	05/04/12				Е		
EX/1285315	BHNSA26	05/04/12				Е		
EX/1285316	BHNSA29	05/04/12				Е		
EX/1285317	BHNSA30	05/04/12				Е		
EX/1285318	BHNSA31	05/04/12				Е		

Note: For analysis where the Report Due date is greater than 7 days (PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- The sample was received in an inappropriate container for this analysis
- The sample was received without the correct preservation for this analysis
- Headspace present in the sample container
- The sampling date was not supplied so holding time may be compromised applicable to all analysis
- Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

No analysis scheduled

Analysis Subcontracted

Report Number: W/EXR/134941

Method Descriptions

Matrix	MethodID	Analysis	Method Description
Water	GROHSA	Basis As Received	Determination of Total Gasoline Range Organics Hydrocarbons
vvalei	GROFISA	As Received	(GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
water	ICPIVISVV	AS Received	ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SVOCSW	As Received	Determination of Semi Volatile Organic Compounds (SVOC) by
			DCM extraction followed by GCMS detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in
			water by GCFID
Water	WSLM11	As Received	Acid Dichromate oxidation of the sample followed by colorimetric
			analysis.
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and
			dispersive IR detection
Water	WSLM17	As Received	Titration with Sodium Hydroxide to required pH
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation
			and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM7	As Received	Determination of % Cyclohexane Extractable Material by
			gravimetric analysis

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Rea Analysis requested, see attached sheets for results

- **P** Raised detection limit due to nature of the sample
- * All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.



Appendix F Results of ground gas monitoring



Project Name	Upper Heyford
Project Reference	EED10658-109
Consultant	Marc Church
Date	07/02/2012
Time	08:00am - 6:00pm

Atmospheric Pressure	Pre Monitoring:		1025	Post Moni	toring:		1027
General Atmos	spheric Pressure Condit	ion (rising	or falling?)				
Weather Conditions		Sunny		Overcast		Raining	
Wind Conditions		Slight Breeze		Strong breeze		Windy	
Ground Conditions		Damp	yes	Wet	yes		
Site Condition	S		s of mainly ha covering of sr	_	-]	

Exploratory ho	le identity		BH-NSA-1			
Flow range (co	mplete pre	-	0	l/hr		
Peak flow (cor	Peak flow (complete pre-monitoring)			l/hr		
Differential Pr	essure		0	Pa		
Depth to wate	r (record po	st-	2.27	m		
Depth of standpipe and diameter			8.25	50mm (ID)		
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S
0	0	0	20.7	0	0	0
15	0	0	20.8	0	0	0
30	0	0	20.9	0	0	0
45	0	0	20.9	0	0	0
60 0 0		20.9	0	0	0	
	0	0	20.7	0		

0

Exploratory ho	le identity		BH-NSA-2			
Flow range (co	mplete pre	-	0	l/hr		
Peak flow (cor	nplete pre-r	nonitoring)	0	l/hr		
Differential Pressure			0	Pa		
Depth to water (record post-			2.14	m		
Depth of standpipe and diameter			8.02	50mm (ID)		
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.8	0	0	0
15	0	0	20.8	0	0	0
30	0	0	20.8	0	0	0
45	0	0	20.8	0	0	0
60	60 0 0			0	0	0
0 0			20.8	0	0	0

Exploratory ho	le identity		BH-NSA-3			
Flow range (co	mplete pre-		0	l/hr		
Peak flow (con	nplete pre-n	nonitoring)	0	l/hr		
Differential Pressure			0	Pa		
Depth to water (record post-			2.69	m		
Depth of standpipe and diameter			9.5	50mm (ID)		
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.8	0	0	0
15	0	0	20.8	0	0	0
30	0	0	20.8	0	0	0
45	0	0	20.8	0	0	0
60	0	0	20.8	0	0	0
0 0			20.8	0	0	0

SSV

Exploratory ho	le identity		BH-NSA-4			
Flow range (co	mplete pre-		0	l/hr		
Peak flow (con	eak flow (complete pre-monitoring)		0	l/hr		
Differential Pro	Differential Pressure		0	Pa		
Depth to water	Depth to water (record post-			m		
Depth of stand	pipe and dia	ameter	13	50mm (ID)		
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.7	0		
15	0	0	20.9	0		
30	0	0	20.9	0		
45	0	0	20.9	0		
60	0	0	20.9	0		
	0	0	20.7	0		

CSI

Exploratory ho	le identity		BH-NSA-5			
Flow range (co	mplete pre-		0	l/hr		
Peak flow (con	mplete pre-monitoring)		0	l/hr		
Differential Pro	essure		0	Pa		
Depth to water	Depth to water (record post-		2.51	m		
Depth of stand	pipe and dia	ameter	11.14	50mm (ID)		
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.7	0		
15	0	0	21	0		
30	0	0	20.9	0		
45	0	0	20.9	0		
60	0	0	20.9	0		
	0	0	20.7	0		

12F

Exploratory ho	le identity		BH-NSA-6			
Flow range (co	mplete pre		0	l/hr		
Peak flow (complete pre-monitoring)			0	l/hr		
Differential Pre	essure		0	Pa		
Depth to water	r (record po	st-	2.73	m		
Depth of standpipe and diameter			7.8	50mm (ID)		
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S
0	0	0	20.9	0		
15	0	0	20.9	0		
30	0	0	20.9	0		
45	0	0	20.9	0		
60	0	0	20.9	0		
0 0			20.9	0		

0

BH-NSA-7 Exploratory hole identity Flow range (complete pre-I/hr Peak flow (complete pre-monitoring) l/hr Differential Pressure Pa Depth to water (record post-2.17 m Depth of standpipe and diameter 8.06 50mm (ID) CH₄ CO_2 O_2 LEL (%) СО H_2S **Seconds** 0 0 20.9 0 0 15 0 0 20.6 0 0 30 0 20.1 0 45 0 0 20.4 0 0 20.9 60 0 0 90 0 0 20.9 0 120 0 0 0 20.9

20.1

0

0

0

GSV

0

Exploratory ho	le identity		BH-NSA-8			
Flow range (co	mplete pre-	•	0	l/hr		
Peak flow (complete pre-monitoring) Differential Pressure Depth to water (record post-			0	l/hr		
			0			
			2.17			
Depth of stand	pipe and dia	ameter	8.06	50mm (ID)		
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0.3	19.3	0		
15	0	0.2	19.5	0		
30	0	0.2	19.6	0		
45	0	0.2	19.9	0		
60	0	0.2	19.9	0		
90	0	0.2	19.9	0		
120	0	0.2	19.9	0		
	0	0.3	19.3	0		

GSV

0

Exploratory hole identity			BH-NSA-9			
Flow range (co	mplete pre	_	0	l/hr		
Peak flow (con	nplete pre-r	nonitoring)	0	l/hr		
Differential Pro	essure		0	Pa		
Depth to water (record post-			4.81	m		
Depth of standpipe and diameter		8.09	50mm (ID)			
Seconds	S CH ₄ CO ₂		02	LEL (%)	СО	H ₂ S
0	0	0	20.7	0		
15	0	0	20.7	0		
30	0	0	20.7	0		
45	0	0	20.7	0		
60	0	0	20.7	0		
90	0	0	20.7	0		
120	0	0	20.7	0		
	0	0	20.7	0		

0

Exploratory ho	Exploratory hole identity)		
Flow range (co	Flow range (complete pre-			l/hr		
Peak flow (con	Peak flow (complete pre-monitoring)			l/hr		
Differential Pre	Differential Pressure Depth to water (record post-			Pa		
Depth to water				m		
Depth of standpipe and diameter		9.84	50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.8	0		
15	0	0	20.8	0		
30	0	0	20.8	0		
45	0	0	20.8	0		
60	0	0	20.8	0		
	0	0	20.8	0		

GSV

Exploratory ho	le identity		BH-NSA-11			
Flow range (co	Flow range (complete pre-			l/hr		
Peak flow (com	Peak flow (complete pre-monitoring)			l/hr		
Differential Pressure Depth to water (record post-			0	Pa		
			4.74	m		
Depth of standpipe and diameter		8.09	50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.8	0		
15	0	0	20.8	0		
30	0	0	20.8	0		
45	0	0	20.8	0		
60	0	0	20.8	0		
	0	0	20.8	0		

SSV

Exploratory hole identity			BH-NSA-12			
Flow range (co	mplete pre	-	0	l/hr		
Peak flow (complete pre-monitoring) Differential Pressure			0	l/hr		
			0	Pa m		
Depth to water	Pepth to water (record post-					
Depth of standpipe and diameter			29.72	50mm (ID)		
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S
0	0	0	20.7	0		
15	0	0	20.8	0		
30	0	0	20.8	0		
45	0	0	20.8	0		
60	0	0	20.8	0		
	0	0	20.7	0		

0

Exploratory ho	le identity		BH-NSA-13	3		
Flow range (co	Flow range (complete pre-			l/hr		
Peak flow (complete pre-monitoring) Differential Pressure Depth to water (record post-			0	l/hr		
			0	Pa m		
			11.34			
Depth of standpipe and diameter		29.65	50mm (ID)			
Seconds	CH ₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S
0	0	0	20.6	0		
15	0	0	19.9	0		
30	0	0	19.1	0		
45	0	0	20.3	0		
60	0	0	20.3	0		
	0	0	19.1	0		

GSV

Exploratory ho	Exploratory hole identity Flow range (complete pre-					
Flow range (co				l/hr		
Peak flow (complete pre-monitoring) Differential Pressure			0	l/hr		
			0	Pa m		
Depth to wate	Depth to water (record post-					
Depth of standpipe and diameter		27.4	50mm (ID)			
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.9	0		
15	0	0	20.8	0		
30	0	0	20.8	0		
45	0	0	20.8	0		
60	0	0	20.8	0		
	0	0	20.8	0		

Exploratory ho	Exploratory hole identity			5		
Flow range (co	mplete pre-		0	l/hr		
Peak flow (complete pre-monitoring) Differential Pressure Depth to water (record post-			0	I/hr Pa m		
			0			
			1.44			
Depth of standpipe and diameter		7.16	50mm (ID)			
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.9	0		
15	0	0	20.9	0		
30	0	0	20.9	0		
45	0	0	20.9	0		
60	0	0	20.9	0		
	0	0	20.9	0		

Exploratory ho	le identity		BH-NSA-16)		
Flow range (co	Flow range (complete pre-			l/hr		
Peak flow (con	Peak flow (complete pre-monitoring)		0	l/hr		
Differential Pressure		0	Pa			
Depth to water	Depth to water (record post-		12.85	m		
Depth of stand	pipe and dia	ameter	28.52	50mm (ID)		
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.8	0		
15	0	0	20.8	0		
30	0	0	20.8	0		
45	0	0	20.8	0		
60	0	0	20.8	0		
	0	0	20.8	0		

GSV 0

Exploratory ho	le identity		BH-NSA-17	1		
Flow range (co	omplete pre-		0	l/hr		
Peak flow (complete pre-monitoring) Differential Pressure			0	l/hr		
			0	Pa		
Depth to wate	Depth to water (record post-			m 50mm (ID)		
Depth of standpipe and diameter		9.07				
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.8	0		
15	0	0	20.8	0		
30	0	0	20.8	0		
45	0	0	20.8	0		
60	0	0	20.8	0		
	0	0	20.8	0		

Exploratory hole identity			BH-NSA-18	3		
Flow range (complete pre-			0	l/hr		
Peak flow (com	Peak flow (complete pre-monitoring)			l/hr		
Differential Pressure			0	Pa		
Depth to water (record post-			2.92	m		
Depth of standpipe and diameter		6.26	50mm (ID)			
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S
0	0	0	20.8	0		
15	0	0	20.8	0		
30	0	0	20.8	0		
45	0	0	20.8	0		
60	0	0	20.8	0		
	0	0	20.8	0		

0

Exploratory ho	le identity		BH-NSA-19			
Flow range (complete pre- Peak flow (complete pre-monitoring) Differential Pressure Depth to water (record post-			0	l/hr		
			0	l/hr		
			0	Pa		
			2.8	m		
Depth of stand	Depth of standpipe and diameter		6.73	50mm (ID)		
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S
0	0	0	20.7	0		
15	0	0	20.7	0		
30	0	0	207	0		
45	0	0	20.7	0		
60	0	0	20.7	0		

GSV

Exploratory ho	le identity		BH-NSA-20)		
Flow range (co	mplete pre-		0	l/hr		
Peak flow (con	nplete pre-n	nonitoring)	0	l/hr		
Differential Pre	essure		0	Pa		
Depth to water	r (record po	st-	3.17	m		
Depth of stand	pipe and dia	ameter	8.34	50mm (ID)		
Seconds	CH ₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S
0	0	0	20.7	0		
15	0	0	20.8	0		
30	0	0	20.9	0		
45	0	0	20.9	0		
60	0	0	20.9	0		

GSV

0 0 20.7 0

0

Exploratory ho	le identity		BH-NSA-21			
Flow range (co	mplete pre	-	0	l/hr		
Peak flow (con	nplete pre-r	nonitoring)	0	l/hr		
Differential Pre	essure		0	Pa		
Depth to water	r (record po	st-	2.93	m		
Depth of stand	th of standpipe and diameter		8.9	50mm (ID)		
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.7	0		
15	0	0	20.8	0		
30	0	0	20.8	0		
45	0	0	20.8	0		
60	0	0	20.8	0		
	0	0	20.7	0		

0

Exploratory ho	le identity		BH-NSA-22	2		
Flow range (co	mplete pre-		0	l/hr		
Peak flow (con	nplete pre-n	nonitoring)	0	l/hr		
Differential Pro	essure		0	Pa		
Depth to water	r (record po	st-	2.7	m		
Depth of stand	pipe and dia	ameter	8	50mm (ID)		
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.9	0		
15	0	0	20.9	0		
30	0	0	20.9	0		
45	0	0	20.9	0		
60	0	0	20.9	0		
	0	0	20.9	0		

GSV

Exploratory ho	le identity		BH-NSA-38	3		
Flow range (co	mplete pre-	•	0	l/hr		
Peak flow (con	nplete pre-n	nonitoring)	0	l/hr		
Differential Pro	essure		0	Pa		
Depth to water	r (record po	st-	2.23	m		
Depth of stand	pipe and dia	ameter	9.5	50mm (ID)		
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0.1	20.9	0		
15	0	0.2	20.7	0		
30	0	0.3	20.6	0		
45	0	0.3	20.6	0		
60	0	0.3	20.6	0		
	0	0.3	20.6	0		

GSV

.



Project Name	Upper Heyford
Project Reference	EED10658-109
Consultant	Marc Church
Date	05/03/2012
Time	08:00am - 6:00pm

Atmospheric Pressure	Pre Monitoring:		1010	Post Mor	nitoring:		1016
General Atmospheric I	Pressure Condition (risin	ng or falling?)	1			-	
Weather Conditions		Sunny		Overcast	Yes	Raining	
Wind Conditions		Slight Breeze		Strong breeze		Windy	
Ground Conditions		Damp		Wet			
Site Conditions		Site consists of areas	of mainly hardstar	nding with	grassed		

Exploratory hole ide	ntity		BH-NSA-1			
Flow range (complet	e pre-monitor	ing)	0-0.1	l/hr		
Peak flow (complete	eak flow (complete pre-monitoring)			l/hr		
Differential Pressure			1	Pa		
Depth to water (reco	rd post-moni	toring)		m		
Depth of standpipe a	nd diameter			50mm (ID)		
Seconds	CH₄	CO2	02	LEL (%)	СО	H ₂ S
0	0	0.3	20.9	0		
15	0	0.2	20.9	0		
30	0	0.1	20.9	0		
45	0	0	20.9	0		
60	0	0	20.9	0		
	0	0.3	20.9	0		

PID- 0.0

GSV 0.0003

Exploratory hole iden	itity		BH-NSA-2			
Flow range (complete	e pre-monitor	ing)	0.7-0.9	l/hr		
Peak flow (complete	pre-monitorii	ng)	0.9	l/hr		
Differential Pressure			4	Pa		
Depth to water (reco	rd post-monit	toring)		m		
Depth of standpipe a	nd diameter			50mm (ID)		
Seconds	CH₄	CO ₂	02	LEL (%)	со	H ₂ S
0	0	0	20.8	0	0	0
15	0	0	20.9	0	0	0
30	0	0	20.9	0	0	0
45	0	0	20.9	0	0	0
60	0	0	20.9	0	0	0
	0	0	20.8	0	•	

PID- 0.0

GSV

Exploratory hole idea	ntity		BH-NSA-3			
Flow range (complet	e pre-monito	ring)	0.9-1.0	l/hr	1	
Peak flow (complete	pre-monitori	ng)	1	l/hr		
Differential Pressure			4	Pa	1	
Depth to water (reco	rd post-moni	toring)		m		
Depth of standpipe a	nd diameter			50mm (ID)		
Seconds	CH ₄	CO ₂	02	LEL (%)	со	H ₂ S
0	0	0	21	0		
15	0	0	20.7	0		
30	0	0	20.9	0		
45	0	0	20.9	0		
60	0	0	20.9	0		
	0	0	20.7	0		

PID- 0.0

Exploratory hole identity	BH-NSA-4	
Flow range (complete pre-monitoring)	0.4-0.6	l/hr
Peak flow (complete pre-monitoring)	0.6	l/hr
Differential Pressure	3	Pa
Depth to water (record post-monitoring)		m

Depth of standpipe an	d diameter			50mm (ID)			
Seconds	CH ₄	CO ₂	O ₂	LEL (%)	co	H ₂ S	PID- 0.0
0	0	0	20.6	0			
15	0	0	20.7	0			
30	0	0	20.9	0			
45	0	0	20.9	0			
60	0	0	20.9	0			GSV
	0	0	20.6	0			
Exploratory hole ident			BH-NSA-5				
Flow range (complete	•	•	0-0.5	l/hr			
Peak flow (complete p	re-monitorir	ng)	0.5	l/hr			
Differential Pressure			1	Pa			
Depth to water (recor	-	oring)		m			
Depth of standpipe an				50mm (ID)	ĺ		DID 0.0
Seconds	CH₄	CO ₂	O ₂	LEL (%)	со	H ₂ S	PID- 0.0
0	0	0	20.7	0			
15	0	0	20.8	0			
30	0	0	20.8	0			
45	0	0	20.8	0			CCV
60	0	0	20.8	0			GSV
	0	0	20.7	0			
Exploratory hole ident	itv		BH-NSA-6				
Exploratory note ident	_	ina)	0.7	I/hr			
Peak flow (complete p			0.7	I/hr			
Differential Pressure		-3/	3	Pa			
Depth to water (recor	d post-monit	orina)	1	m			
Depth of standpipe an		97	† 	50mm (ID)			
		-00	 		60	μc	PID- 42.9
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	
0	0	0	21.1	0			
15	0	0	21.1	0			
30	0	0	21.1	0			
45	0	0	21.1	0			001
60	0	0	21.1	0			GSV
	0	0	21.1	0			
Exploratory hole ident	ity		BH-NSA-7				
Flow range (complete	_	ing)	0.7	l/hr			
Peak flow (complete p	•	<u> </u>	0.7	I/hr			
Differential Pressure			4	Pa			
Depth to water (recor	d post-monit	oring)		m			
Depth of standpipe an		<u> </u>		50mm (ID)			
Seconds	CH ₄	CO ₂	02	LEL (%)	со	H ₂ S	PID- 0.0
0	0	0	20.2	0			
15	0	0	20.4	0			
30	0	0	20.8	0			
45	0	0	20.8	0			
60	0	0	20.8	0			
90	0	0	20.8	0			
	0	0	20.8	0			SSV
120	0	0	20.8	0			
120	U						
120	Ü						
	-		BH-NSA-8				
Exploratory hole ident	ity	ing)	BH-NSA-8 0.6-0.7	l/hr			
120 Exploratory hole ident Flow range (complete Peak flow (complete p	ity pre-monitor			l/hr l/hr			
Exploratory hole ident Flow range (complete Peak flow (complete p	ity pre-monitor		0.6-0.7				
Exploratory hole ident Flow range (complete	ity pre-monitor re-monitorir	ng)	0.6-0.7	l/hr			
Exploratory hole ident Flow range (complete Peak flow (complete p Differential Pressure	ity pre-monitor pre-monitorin d post-monit	ng)	0.6-0.7	l/hr Pa			
Exploratory hole ident Flow range (complete Peak flow (complete p Differential Pressure Depth to water (recor	ity pre-monitor pre-monitorin d post-monit	ng)	0.6-0.7	I/hr Pa m	со	H ₂ S	PID- 0.0
Exploratory hole ident Flow range (complete Peak flow (complete p Differential Pressure Depth to water (recor Depth of standpipe an	ity pre-monitor pre-monitorin d post-monit d diameter	oring)	0.6-0.7 0.7 3	I/hr Pa m 50mm (ID)	co	H ₂ S	PID- 0.0
Exploratory hole ident Flow range (complete Peak flow (complete p Differential Pressure Depth to water (recor Depth of standpipe an Seconds	ity pre-monitor pre-monitorir d post-monit d diameter CH4	oring)	0.6-0.7 0.7 3	I/hr Pa m 50mm (ID) LEL (%)			PID- 0.0

Exploratory hole ident	ity		BH-NSA-9				
	0	0.2	20.8	0			
120	0	0.2	20.8	0	0	0	GSV
90	0	0.2	20.8	0	0	0	
60	0	0.2	20.8	0	0	0	
45	0	0.2	20.8	0	0	0	

0.0014

0

0

PID- 1.7

GSV O

Exploratory hole ide	Exploratory hole identity		BH-NSA-9				
Flow range (complet	te pre-monitor	ing)	0.1-0.5	l/hr			
Peak flow (complete	pre-monitorii	ng)	0.5	l/hr			
Differential Pressure	•		2	Pa			
Depth to water (reco	ord post-monit	toring)		m			
Depth of standpipe a	and diameter			50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	со	H ₂ S	PID- 0.0
0	0	0	20.7	0			
15	0	0	21	0			
30	0	0	20.8	0			1
45	0	0	20.8	0			
60	0	0	20.8	0			
90	0	0	20.8	0			
120	0	0	20.8	0			GSV
	0	0	20.7	0		_	-

Exploratory hole idea	ntity		BH-NSA-10	BH-NSA-10			
Flow range (complete pre-monitoring)		0.5	l/hr				
Peak flow (complete	eak flow (complete pre-monitoring)		0.5	l/hr			
Differential Pressure			0	Pa			
Depth to water (record post-monitoring) Depth of standpipe and diameter			m 50mm (ID)				
Seconds	CH₄	CO2	O ₂	LEL (%)	со	H ₂ S	PID=1.7
0	0	0	20.8	0			
15	0	0	21	0			
30	0	0	20.9	0			
45	0	0	20.9	0			
60	0	0	20.9	0			GSV
	0	0	20.8	0		-	

Exploratory hole ide	ntity		BH-NSA-11			
Flow range (complet	e pre-monitor	ing)	0.3	l/hr		
Peak flow (complete	Peak flow (complete pre-monitoring)		0.3	l/hr		
Differential Pressure			1	Pa		
Depth to water (reco	ord post-monit	toring)		m		
Depth of standpipe and diameter			50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	со	H ₂ S
0	0	0	20.7	0		
15	0	0	20.8	0		
30	0	0	20.8	0		
45	0	0	20.8	0		
60	0	0	20.8	0		
	0	0	20.7	0		

	Exploratory hole identity	BH-NSA-12
--	---------------------------	-----------

Flow range (complete	pre-monitor	ing)	0.6	l/hr			
Peak flow (complete	ore-monitorir	ng)	0.6	l/hr			
Differential Pressure			2	Pa			
Depth to water (recor	•	oring)		m			
Depth of standpipe ar	nd diameter			50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	со	H ₂ S	PID- 0.0PPM
0	0	0	21.2	0			
15	0	0	21.3	0			
30	0	0	21.2	0			
45	0	0	21.2	0			
60	0	0	21.2	0			GSV
	0	0	21.2	0			0
Exploratory hole iden	titv		BH-NSA-13				
Flow range (complete		ina)	1.1-1.2	l/hr			
Peak flow (complete	•	•	1.2	I/hr			
Differential Pressure		-97	5	Pa			
Depth to water (record post-monitoring)			3	m			
Depth of standpipe ar		oring)	1	50mm (ID)			
Seconds	CH ₄	co			со	H ₂ S	PID- 0.0
0	0	CO ₂	O ₂	LEL (%)	CO	п ₂ 3	
_	<u> </u>	0		0			
15	0	0	21.2	0			
30	0		+ +				
45	0	0	21.2	0		-	GSV
60	0	0	21.2	0			0
	U	U	20.9	O			Ü
Exploratory hole iden	tity		BH-NSA-14	1			
Flow range (complete		ing)	0.6-0.7	l/hr			
Peak flow (complete)	•	•	0.7	l/hr			
Differential Pressure		<i>37</i>	3	Pa			
Depth to water (recor	d post-monit	oring)		m			
Donth of standards	ا ما ما ما ما			50mm (ID)			
Depth of standpipe ar	ia diameter			00 ()			
Seconds	CH ₄	CO ₂	02	• •	со	H ₂ S	PID- 0.0
	1	CO ₂	O ₂	LEL (%)	со	H ₂ S	PID- 0.0
Seconds	CH₄		+ +	LEL (%)	со	H ₂ S	PID- 0.0
Seconds 0	CH ₄	0	20.9	LEL (%)	со	H ₂ S	PID- 0.0
Seconds 0 15	CH₄ 0 0	0	20.9	LEL (%) 0 0	со	H ₂ S	PID- 0.0
Seconds 0 15 30	0 0 0	0 0 0	20.9 20.9 20.9	0 0 0	со	H ₂ S	PID- 0.0 GSV
Seconds 0 15 30 45	CH₄ 0 0 0 0	0 0 0	20.9 20.9 20.9 20.9 29	0 0 0 0	со	H ₂ S	
Seconds 0 15 30 45	CH ₄ 0 0 0 0 0 0	0 0 0 0	20.9 20.9 20.9 20.9 29 20.9	0 0 0 0 0	со	H ₂ S	GSV
Seconds 0 15 30 45	CH ₄ 0 0 0 0 0 0	0 0 0 0	20.9 20.9 20.9 20.9 29 20.9	0 0 0 0 0	со	H ₂ S	GSV
Seconds 0 15 30 45 60	CH₄ 0 0 0 0 0 0 0 0	0 0 0 0	20.9 20.9 20.9 29 20.9 20.9 20.9	0 0 0 0 0	СО	H ₂ S	GSV
Seconds 0 15 30 45 60 Exploratory hole identification	CH₄ 0 0 0 0 0 0 0 0 tity	0 0 0 0 0	20.9 20.9 20.9 29 20.9 20.9 BH-NSA-15	UEL (%) 0 0 0 0 0 0 0 0	со	H ₂ S	GSV
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH₄ 0 0 0 0 0 0 0 0 tity	0 0 0 0 0	20.9 20.9 20.9 29 20.9 20.9 BH-NSA-15	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	со	H ₂ S	GSV
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH₄ 0 0 0 0 0 0 0 0 tity	0 0 0 0 0	20.9 20.9 20.9 29 20.9 20.9 20.9 BH-NSA-15 0.5-0.6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	СО	H ₂ S	GSV
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 tity pre-monitoring	0 0 0 0 0	20.9 20.9 20.9 29 20.9 20.9 BH-NSA-15	0 0 0 0 0 0 0 1/hr 1/hr Pa	СО	H ₂ S	GSV
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 tity pre-monitoring	0 0 0 0 0	20.9 20.9 20.9 29 20.9 20.9 20.9 BH-NSA-15 0.5-0.6	UEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m	СО	H ₂ S	GSV
Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete p Differential Pressure Depth to water (recor	CH ₄ 0 0 0 0 0 0 0 0 tity epre-monitoring of post-monitoring of diameter	0 0 0 0 0	20.9 20.9 20.9 29 20.9 20.9 20.9 BH-NSA-15 0.5-0.6 4	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID)			GSV O
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 tity epre-monitorion of post-monitorion diameter CH ₄	0 0 0 0 0 0	20.9 20.9 20.9 29 20.9 20.9 20.9 BH-NSA-15 0.5-0.6 4	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%)	со	H ₂ S	GSV
Seconds 0 15 30 45 60 Exploratory hole identification in the second in the seconds 0 Seconds 0	CH ₄ 0 0 0 0 0 0 0 0 tity e pre-monitor ore-monitorior d post-monit	0 0 0 0 0 0 ing)	20.9 20.9 20.9 29 20.9 20.9 20.9 BH-NSA-15 0.5-0.6 0.6 4 0.2	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0			GSV O
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 tity e pre-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitoriore-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monitorio-monitorio-monitorio-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-mon	0 0 0 0 0 0 0 ing) oring)	20.9 20.9 20.9 29 20.9 20.9 20.9 BH-NSA-15 0.5-0.6 0.6 4 4 Q ₂ 20.8 20.8	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0			GSV O
Seconds 0 15 30 45 60 Exploratory hole identification in the second in the seconds 0 15 30 45 60 Exploratory hole identification in the second in the se	CH ₄ 0 0 0 0 0 0 0 0 tity pre-monitoriore-monitoriore-monitoriore-monitorioriorio-monitoriorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-m	0 0 0 0 0 0 0 ing) oring)	20.9 20.9 20.9 20.9 20.9 20.9 20.9 BH-NSA-15 0.5-0.6 0.6 4 4 0 20.8 20.8 20.9	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0			GSV 0
Seconds 0 15 30 45 60 Exploratory hole identification in the second of the seconds 0 15 30 45 45 45 45 45 45 45	CH ₄ 0 0 0 0 0 0 0 0 titty pre-monitoriore-monitoriore-monitoriore-monitoriorione-monitoriorione-monitorio-monito-monitorio-monitori-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-moni	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.9 20.9 20.9 20.9 20.9 20.9 20.8 20.8 20.8 20.8	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0			GSV 0
Seconds 0 15 30 45 60 Exploratory hole identification in the second in the seconds 0 15 30 45 60 Exploratory hole identification in the second in the se	CH ₄ 0 0 0 0 0 0 0 0 tity pre-monitoriore-monitoriore-monitoriore-monitorioriorio-monitoriorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-monito-m	0 0 0 0 0 0 0 ing) oring)	20.9 20.9 20.9 20.9 20.9 20.9 20.9 BH-NSA-15 0.5-0.6 0.6 4 4 0 20.8 20.8 20.9	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0			GSV O PID- 0.0
Seconds 0 15 30 45 60 Exploratory hole identification in the second of the seconds 0 15 30 45 45 45 45 45 45 45	CH ₄ 0 0 0 0 0 0 0 0 titty pre-monitoriore-monitoriore-monitoriore-monitoriorione-monitoriorione-monitorio-monito-monitorio-monitori-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-moni	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.9 20.9 20.9 20.9 20.9 20.9 20.8 20.8 20.8 20.8	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0			GSV 0
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 tity pre-monitoring d post-monitoring CH ₄ 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.9 20.9 20.9 20.9 20.9 20.9 20.9 8H-NSA-15 0.5-0.6 0.6 4 02 20.8 20.8 20.8 20.8 20.8	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0			GSV O PID- 0.0
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 0 tity pre-monitoring d post-monitoring d diameter CH ₄ 0 0 0 0 0 0 tity	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.9 20.9 20.9 20.9 20.9 20.9 20.9 8H-NSA-15 0.5-0.6 0.6 4 0.2 20.8 20.8 20.8 20.9 20.8	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0			GSV O PID- 0.0
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 0 0 tity epre-monitoring cd post-monitoring cd post-monitoring d journal diameter CH ₄ 0 0 0 0 0 0 tity epre-monitoring	0 0 0 0 0 0 0 0 ing) coring)	20.9 20.9 20.9 20.9 20.9 20.9 20.9 BH-NSA-15 0.5-0.6 0.6 4 0.2 20.8 20.8 20.9 20.8 20.8 20.9 10.8 10.1-1.2	LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 1/hr			GSV O PID- 0.0
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 0 0 tity epre-monitoring cd post-monitoring cd post-monitoring d journal diameter CH ₄ 0 0 0 0 0 0 tity epre-monitoring	0 0 0 0 0 0 0 0 ing) coring)	20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8	LEL (%) 0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 1/hr 1/hr 1/hr			GSV O PID- 0.0
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 0 0 tity expre-monitoring diameter CH ₄ 0 0 0 0 0 0 tity expre-monitoring diameter CH ₄ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.9 20.9 20.9 20.9 20.9 20.9 20.9 BH-NSA-15 0.5-0.6 0.6 4 0.2 20.8 20.8 20.9 20.8 20.8 20.9 10.8 10.1-1.2	LEL (%) 0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 1/hr 1/hr Pa Pa Pa Pa Pa Pa Pa Pa Pa P			GSV O PID- 0.0
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 0 0 tity epre-monitorion diameter CH ₄ 0 0 0 0 0 tity epre-monitorion diameter cre-monitorion diameter cre-monitorion diameter cre-monitorion diameter cre-monitorion diameter diameter cre-monitorion diameter diameter cre-monitorion diameter diameter	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8	LEL (%) 0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 1/hr 1/hr Pa m I/hr Pa m m			GSV O PID- 0.0
Seconds 0 15 30 45 60 Exploratory hole identification in the second in	CH ₄ 0 0 0 0 0 0 0 0 0 0 tity epre-monitorion diameter CH ₄ 0 0 0 0 0 tity epre-monitorion diameter cre-monitorion diameter cre-monitorion diameter cre-monitorion diameter cre-monitorion diameter diameter cre-monitorion diameter diameter cre-monitorion diameter diameter	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8	LEL (%) 0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 1/hr 1/hr Pa Pa Pa Pa Pa Pa Pa Pa Pa P			GSV O PID- 0.0

0	0	0	20.8	0			
15	0	0	20.9	0			
30	0	0	20.9	0		1	
			+ +				
45	0	0	20.9	0			GSV
60	0	0	20.9	0			
	0	0	20.8	0			0
Exploratory hole iden	+i+v		BH-NSA-17				
_ · · · · · · · · · · · · · · · · · · ·	_	! \	<u> </u>	1.0			
Flow range (complete	-		0.1	l/hr			
Peak flow (complete	pre-monitorir	ng)	0.1	l/hr			
Differential Pressure			1	Pa			
Depth to water (reco	rd post-monit	oring)		m			
Depth of standpipe a	nd diameter			50mm (ID)			
Seconds	CH₄	CO2	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.8	0			
15	0	0	20.9	0			
30	0	0	21	0		1	
45	0	0	20.8	0			
							GSV
60	0	0	20.8	0			
	0	0	20.8	0			0
			Inu No. 40		1		
Exploratory hole iden	-		BH-NSA-18				
Flow range (complete	-		0	l/hr			
Peak flow (complete	pre-monitorir	ng)	0	l/hr			
Differential Pressure			0	Pa			
Depth to water (reco	d post-monit	oring)		m			
Depth of standpipe ar	nd diameter		1	50mm (ID)			
Seconds	CH₄	CO ₂	0,	LEL (%)	со	H ₂ S	PID- 0.0
Occorius	04	002	+			1120	
0	0	0	20.0	^			
0	0	0	20.9	0			
15	0	0	20.8	0			
15 30	0	0	20.8 20.9	0			
15	0	0	20.8	0			
15 30	0	0	20.8 20.9	0			GSV O
15 30 45	0 0 0 0	0 0 0	20.8 20.9 20.9 20.9	0 0 0 0			
15 30 45 60	0 0 0 0	0 0 0	20.8 20.9 20.9 20.9	0 0 0 0			
15 30 45	0 0 0 0	0 0 0 0	20.8 20.9 20.9 20.9 20.8	0 0 0 0			
15 30 45 60 Exploratory hole iden	0 0 0 0	0 0 0 0	20.8 20.9 20.9 20.9 20.8	0 0 0 0			
15 30 45 60 Exploratory hole iden Flow range (complete	0 0 0 0	0 0 0 0	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2	0 0 0 0 0			
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure	0 0 0 0	0 0 0 0	20.8 20.9 20.9 20.8 BH-NSA-19	0 0 0 0 0 1/hr 1/hr			
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (reco	0 0 0 0 0	0 0 0 0	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2	0 0 0 0 0 0			
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (reco	0 0 0 0 0 tity e pre-monitori pre-monitori rd post-monit	0 0 0 0	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2	0 0 0 0 0 0			0
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (record Depth of standpipe an Seconds	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0	0 0 0 0 0 0	со	H ₂ S	
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (reco	0 0 0 0 0 tity e pre-monitori pre-monitori rd post-monit	0 0 0 0	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0 0 20.9	0 0 0 0 0 0	со	H ₂ S	0
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (record Depth of standpipe an Seconds	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0	0 0 0 0 0 0	со	H ₂ S	0
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (recoi	tity e pre-monitori rd post-monit nd diameter CH ₄ 0	0 0 0 0 0 ing) oring)	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0 0 20.9	0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%)	со	H ₂ S	0
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (recoi Depth of standpipe at Seconds 0 15	tity pre-monitoring rd post-monit	0 0 0 0 0 0 ing) oring)	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0 0 0 ₂ 20.9 20.9	0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%)	со	H ₂ S	0
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (recoi Depth of standpipe at Seconds 0 15 30	tity e pre-monitori rd post-monit nd diameter CH ₄ 0 0	0 0 0 0 0 0 ing) oring) CO ₂ 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0 0 0 20.9 20.9 20.9	0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0	со	H ₂ S	0
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (recoi Depth of standpipe ai Seconds 0 15 30 45	tity e pre-monitori rd post-monit nd diameter CH ₄ 0 0 0 0	0 0 0 0 0 0 ing) oring) CO ₂ 0 0	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0 0 0 20.9 20.9 20.9 20.9 20.9	0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0	СО	H ₂ S	O PID- 0.0
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (recoi Depth of standpipe ai Seconds 0 15 30 45	tity e pre-monitori rd post-monit nd diameter CH ₄ 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0 0 0 20.9 20.9 20.9 20.9 20.9 2	0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0	со	H ₂ S	O PID- 0.0
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (recoi Depth of standpipe ai Seconds 0 15 30 45 60	tity e pre-monitori rd post-monit nd diameter CH ₄ 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0 0 0 20.9 20.9 20.9 20.9 20.9 2	0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0	со	H ₂ S	O PID- 0.0 GSV
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (recoi Depth of standpipe at Seconds 0 15 30 45 60	tity e pre-monitori rd post-monit nd diameter CH ₄ 0 0 0 0 0 0 tity	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0 0 0 20.9 20.9 20.9 20.9 20.9 2	0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0	со	H ₂ S	O PID- 0.0
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (record Depth of standpipe an Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete	tity e pre-monitori rd post-monit rd diameter CH ₄ 0 0 0 0 0 tity e pre-monitori	0 0 0 0 0 0 0 ing) coring)	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 20.9 20.9 20.9 20.9 20.9 20.9 20	0 0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0	со	H ₂ S	O PID- 0.0 GSV
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (record Depth of standpipe an Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete	tity e pre-monitori rd post-monit rd diameter CH ₄ 0 0 0 0 0 tity e pre-monitori	0 0 0 0 0 0 0 ing) coring)	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0.9 20.9 20.9 20.9 20.9 20.9 20.	0 0 0 0 0 0 0 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0	со	H ₂ S	O PID- 0.0 GSV
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (record Depth of standpipe an Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure	tity e pre-monitori rd post-monit rd diameter CH ₄ 0 0 0 0 tity e pre-monitori	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0.9 20.9 20.9 20.9 20.9 20.9 20.	0 0 0 0 0 0 0 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0	со	H ₂ S	O PID- 0.0 GSV
15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (record Depth of standpipe an Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth to water (record	tity e pre-monitori rd post-monit nd diameter CH ₄ 0 0 0 0 tity e pre-monitori rd post-monitori	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0.9 20.9 20.9 20.9 20.9 20.9 20.	0 0 0 0 0 0 0 0 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0	со	H ₂ S	O PID- 0.0
Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth of standpipe at Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth of standpipe at Depth of standpipe at Exploratory hole iden Flow range (complete Depth of standpipe at Depth of standpipe at	tity e pre-monitori rd post-monit nd diameter CH ₄ 0 0 0 0 tity e pre-monitori rd post-monitori rd post-monitori rd post-monitori	0 0 0 0 0 0 ing) oring) CO ₂ 0 0 0 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0.2 20.9 20.9 20.9 20.9 20.9 20.	0 0 0 0 0 0 0 0 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0			0 PID- 0.0 GSV 0
Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth of standpipe at Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Differential Pressure Depth of standpipe at Seconds 0 15 30 45 60	tity pre-monitori cd post-mon	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0.9 20.9 20.9 20.9 20.9 20.9 20.	0 0 0 0 0 0 0 0 0 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0	со	H ₂ S	O PID- 0.0
Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth of standpipe an Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth of standpipe an Seconds 0 0 15 30 45 60	tity e pre-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0.9 20.9 20.9 20.9 20.9 20.9 20.	0 0 0 0 0 0 0 0 0 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0 0			0 PID- 0.0 GSV 0
Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth of standpipe an Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Differential Pressure Depth of standpipe an Seconds 0 15 30 45 60	tity e pre-monitori rd post-monitori CH ₄ 0 0 0 0 tity e pre-monitori CH ₄ 0 0 0 0 0 tity e pre-monitori rd post-monitori cd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0.9 20.9 20.9 20.9 20.9 20.9 20.	0 0 0 0 0 0 0 0 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 PID- 0.0 GSV 0
Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth of standpipe at Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth of standpipe at Seconds 0 0 15 30 45 60	tity e pre-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 0.9 20.9 20.9 20.9 20.9 20.9 20.	0 0 0 0 0 0 0 0 0 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0 0			0 PID- 0.0 GSV 0
Exploratory hole iden Flow range (complete Peak flow (complete Differential Pressure Depth of standpipe an Seconds 0 15 30 45 60 Exploratory hole iden Flow range (complete Differential Pressure Depth of standpipe an Seconds 0 15 30 45 60	tity e pre-monitori rd post-monitori CH ₄ 0 0 0 0 tity e pre-monitori CH ₄ 0 0 0 0 0 tity e pre-monitori rd post-monitori cd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori rd post-monitori	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.9 20.9 20.9 20.8 BH-NSA-19 0-0.2 0.2 20.9 20.9 20.9 20.9 20.9 20.9 20	0 0 0 0 0 0 0 0 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 PID- 0.0 GSV 0

GSV

60

20.9

Exploratory hole ide	ntity		BH-NSA-21				
Flow range (complet	te pre-monitor	ing)	0-0.1	l/hr			
Peak flow (complete	pre-monitorir	ng)	0.1	l/hr			
Differential Pressure	•		0	Pa			
Depth to water (reco	ord post-monit	oring)		m			
Depth of standpipe a	and diameter			50mm (ID)			
Seconds	CH₄	CO ₂	O ₂	LEL (%)	со	H ₂ S	PID- 0.0
0	0	0	21	0			
15	0	0	20.8	0			
30	0	0	20.8	0			
45	0	0	20.9	0			
60	0	0	20.9	0			GSV
	0	0	20.8	0			0

Exploratory hole idea	ntity		BH-NSA-22				
Flow range (complet	e pre-monito	ring)	1	l/hr			
Peak flow (complete	pre-monitori	ng)	1	l/hr			
Differential Pressure Depth to water (record post-monitoring) Depth of standpipe and diameter		5.5	Pa m 50mm (ID)				
Seconds	CH₄	CO2	O ₂	LEL (%)	со	H ₂ S	PID- 0.0
0	0	0	20.8	0			
15	0	0	21	0			
30	0	0	20.9	0			
45	0	0	20.9	0			
60	0	0	20.9	0			GSV
	0	0	20.8	0		-	0

Exploratory hole iden	tity		BH-NSA-23	BH-NSA-23			
Flow range (complete	pre-monitor	ing)	0	l/hr			
Peak flow (complete	pre-monitori	ng)	0	l/hr			
Differential Pressure			0	Pa			
Depth to water (reco	d post-moni	toring)		m			
Depth of standpipe and diameter			50mm (ID)				
Seconds	CH₄	CO2	02	LEL (%)	со	H ₂ S	PID- 0.0
0	0	0	20.8	0			
15	0	0	20.9	0			
30	0	0	20.9	0			
45	0	0	20.9	0			
60	0	0	20.9	0			GSV
	0	0	20.8	0		-	0

Exploratory hole identity		BH-NSA-24					
Flow range (complete pre-monitoring)		0.1-0.2	l/hr				
Peak flow (complete	pre-monitori	ng)	0.2	l/hr			
Differential Pressure		2	Pa				
Depth to water (reco	ord post-moni	toring)		m			
Depth of standpipe and diameter			50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.9	0			
15	0	0	20.9	0			
30	0	0	20.9	0			
45	0	0	20.9	0			
60	0	0	20.9	0			GSV
							•

Exploratory hole identity	BH-NSA-25		
Flow range (complete pre-monitoring)	0.5-0.6	l/hr	
Peak flow (complete pre-monitoring)	0.6	l/hr	

Differential Pressure)		3	Pa			
Depth to water (rec	ord post-monit	oring)		m			
Depth of standpipe	and diameter			50mm (ID)			
Seconds	CH₄	CO2	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	21	0			
15	0	0	20.9	0			
30	0	0	20.8	0			
45	0	0	20.8	0			
60	0	0	20.8	0			GSV
	0	0	20.8	0			0
Exploratory hole ide	ntity		BH-NSA-26				
Flow range (comple	•	.	0.7	l/hr			
Peak flow (complete	pre-monitorii	ng)	0.7	l/hr			
Differential Pressure	•		0.3	Pa			
Depth to water (rec	ord post-monit	oring)		m			
Depth of standpipe	and diameter			50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	со	H ₂ S	PID 50
0	0	0	20.9	0			
15	0	0	20.9	0			
30	0	0	20.9	0			
	0	0	20.9	0			
45	-						
45 60	0	0	20.9	0			GSV

Exploratory hole identity Flow range (complete pre-monitoring) Peak flow (complete pre-monitoring) Differential Pressure			BH-NSA-27				
			0.3	I/hr I/hr Pa m 50mm (ID)			
			0.3				
			1				
Depth to water (record post-monitoring) Depth of standpipe and diameter							
Seconds	CH₄	CO ₂	O ₂	LEL (%)	со	H ₂ S	PID- 0.0
0	0	0	21.1	0			
15	0	0	21.1	0			
30	0	0	21.1	0			
45	0	0	21.2	0			
60	0	0	21.1	0			GSV
	0	0	21.1	0		-	0

Exploratory hole identity			BH-NSA-28				
Flow range (complete pre-monitoring)			0-0.1	l/hr			
Peak flow (complete	pre-monitori	ng)	0.1	l/hr			
Differential Pressure			1	Pa			
Depth to water (reco	ord post-moni	toring)		m			
Depth of standpipe a	and diameter			50mm (ID)			
Seconds	CH₄	CO ₂	O ₂	LEL (%)	co	H ₂ S	PI
0	0	0	20.9	0			
15	0	0	20.9	0			
30	0	0	20.9	0			
45	0	0	20.9	0			
60	0	0	20.9	0			
	0	0	20.9	0			ļi

Exploratory hole ident	BH-NSA-29			
Flow range (complete	0.1-0.2	l/hr		
Peak flow (complete p	0.2	l/hr		
Differential Pressure	3	Pa		
Depth to water (record		m		
Depth of standpipe and diameter				50mm (ID)
Seconds	CH₄	CO ₂	02	LEL (%)

PID- 0.0

GSV O

PID- 0.0

со

H₂S

60	0	0	20.9	0			0
60		1					O
	0	0	20.9	0		1 1	631
45	0	0	20.9	0		+-+	GSV
30	0	0	20.9	0		++	
15	0	0	20.9	0			
0	0	0	20.9	0		igsquare	
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
epth of standpipe ar	nd diameter			50mm (ID)			
Depth to water (record post-monitoring)				m			
Differential Pressure			3	Pa			
Peak flow (complete pre-monitoring)			0.7	l/hr			
Flow range (complete pre-monitoring)			0.6-0.7	I/hr			
xploratory hole iden			BH-NSA-38	1"			
	0	0	20.8	0	_	, , , , , , , , , , , , , , , , , , ,	0
60	0	0	20.8	0			GSV
45	0	0	20.8	0			
30	0	0	20.8	0			
15	0	0	21	0			
0	0	0	20.9	0			
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
epth of standpipe ar	nd diameter			50mm (ID)			
epth to water (recor	•	toring)		m			
ifferential Pressure			4	Pa			
eak flow (complete	pre-monitori	ng)	0.6	l/hr			
low range (complete	pre-monito	ring)	0.5-0.6	l/hr			
xploratory hole iden	tity		BH-NSA-37				
	-	-					
	0	0	20.8	0			0
60	0	0	20.8	0			GSV
45	0	0	20.8	0			
30	0	0	20.8	0			
15	0	0	20.9	0		\vdash	
0	0	0	20.9	0		-2-	
Seconds	CH ₄	CO2	02	LEL (%)	со	H ₂ S	PID- 0.0
epth of standpipe ar		-	† †	50mm (ID)			
epth to water (recor	d post-moni	toring)	1	m			
ifferential Pressure			3	Pa			
eak flow (complete	pre-monitori	ng)	0.1	l/hr			
low range (complete	pre-monito	ring)	0-0.1	l/hr			
xploratory hole iden	tity		BH-NSA-31				
	0	0	20.7	0			0
60	0	0	20.9	0			GSV
45	0	0	20.9	0			
30	0	0	20.8	0			
15	0	0	20.8	0			
0	0	0	20.7	0		-2-	
Seconds	CH ₄	CO ₂	02	LEL (%)	со	H ₂ S	PID- 0.0
epth to water (recor		toring)	1	50mm (ID)			
epth to water (recor	d nost-moni	torina)	3	m			
eak now (complete property)	pre-monitori	ng)	3	Pa			
Flow range (complete pre-monitoring) Peak flow (complete pre-monitoring)			0.2-0.3	I/hr			
		ring)	0.2-0.3	I/hr			
xploratory hole iden	tity		BH-NSA-30	<u> </u>			
	0	0	20.8	0			0
60	0	0	20.8	0			GSV
45	0	0	20.8	0			201
30	0	0	20.8	0			
15	0	0	20.9	0			
	0	0	21	0		_	

xploratory hole identiformulation (complete part of standpipe ar Seconds 0 15 30 45 60 xploratory hole identiformulation (complete part of standpipe ar Seconds 0 15 30 45 60 xploratory hole identiformulation (complete part of standpipe ar Seconds 0 15 30 45 60 15 30 45 60 15 30 45 60	0 0 0 0 0 0 tity pre-monitorir d post-monit d diameter CH ₄ 0 0 0 0 0 tity pre-monitorir d post-monitorir d diameter	0 0 0 0 0 0 ing) oring) CO ₂ 0 0 0 0	20.9 20.8 20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.4 1 0.9 20.9 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1 1 0.1 0.1 1 0.2 20.9 20.9 20.9 20.9 20.9 20.9	0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	со	H ₂ S	GSV PID- 0.0 GSV
15 30 45 60 Exploratory hole identification and the standard pressure epth to water (recorepth of standard pressure epth of standard pressure epth of standard pressure epth of standard pressure epth of standard pressure epth of standard pressure epth of standard pressure epth of standard pressure epth to water (recorepth of standard pressure epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard epth of standard	0 0 0 0 0 0 tity pre-monitorion d post-monitorion CH4 0 0 0 0 0 0 tity pre-monitorion CH4 0 0 0 0 0 0 0 0 0 tity pre-monitorion CH4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 ing) ccO ₂ 0 0 0 0 ing) cring) ccO ₂ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1 1 02 20.9 20.9 20.9	0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID)			PID- 0.0
15 30 45 60 Exploratory hole identification (complete parties and parties are septimental Pressure epth to water (recorepth of standpipe are septimental Pressure epth of standpipe are septimental Pressure epth of standpipe are septimental Pressure epth (complete eak flow (complete eak flow (complete eak flow (complete epth of standpipe are septimental Pressure epth of standpipe are seconds 0 15	0 0 0 0 0 0 tity pre-monitoring d post-monit d diameter CH ₄ 0 0 0 0 tity pre-monitoring CH ₄ 0 0 0 CH 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 ing) cco ₂ 0 0 0 0 0 cing) cring) cco ₂ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1 1 0.2 20.9 20.9	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			PID- 0.0 GSV
15 30 45 60 Exploratory hole identification (complete partial Pressure epth to water (recorepth of standpipe are Seconds 0 15 30 45 60 Exploratory hole identification (complete partial Pressure epth of standpipe are seconds) 0 15 30 45 60 Exploratory hole identification (complete partial Pressure epth to water (recorepth of standpipe are Seconds) 0	0 0 0 0 0 0 tity pre-monitoriore-monitoriore-monitoriore CH4 0 0 0 0 tity pre-monitoriore CH4 0 0 0 0 0 tity pre-monitorio-monitorio-monito-monitorio-monito-monitorio-monito-mon	0 0 0 0 0 0 0 ing) cCO ₂ 0 0 0 0 0 cing) cring) cring) cring)	20.8 20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1 1 02 20.9	0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0			PID- 0.0 GSV
15 30 45 60 Exploratory hole identification in the standard pressure epth of standard pressure epth of standard pressure epth of standard pressure epth of standard pressure epth of standard pressure epth of standard pressure for the standard pressure epth of standard pressure epth to water (recore epth of standard pressure epth	0 0 0 0 0 0 tity pre-monitorion d post-monitorion CH4 0 0 0 0 0 tity pre-monitorion d diameter CH4 0 0 0 0 0 tity pre-monitorion CH4 CH4 CH4 CH4 CH4 CH4 CH4 CH4 CH4 CH4	0 0 0 0 0 0 0 ing) coring) 0 0 0 0 0 0 0 0 0 0 0 0 0 coring)	20.8 20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1 1 02	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%)			PID- 0.0 GSV
15 30 45 60 Exploratory hole identification in the standard i	0 0 0 0 0 0 tity pre-monitorion d post-monit d diameter CH4 0 0 0 0 0 tity pre-monitorion d post-monitorion d post-monitorion d post-monitorion d post-monitorion d post-monitorion d post-monitorion d post-monit	0 0 0 0 0 0 ing) oring) CO ₂ 0 0 0 0	20.8 20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 1 0.2 20.7 20.9 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1 1	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) 0 0 0 0 0 0			PID- 0.0 GSV
15 30 45 60 Exploratory hole identification (complete part of standpipe are Seconds 0 15 30 45 60 Exploratory hole identification (complete part of standpipe are Seconds) 0 15 30 45 60 Exploratory hole identification (complete part of standpipe are seconds) 0 15 30 45 60 Exploratory hole identification (complete part of standpipe are seconds) 0 15 30 45 60	0 0 0 0 0 0 tity pre-monitorir d post-monit d diameter CH ₄ 0 0 0 0 0 tity pre-monitorir d post-monitorir d diameter	0 0 0 0 0 0 ing) oring) CO ₂ 0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0	со	H ₂ S	PID- 0.0 GSV
15 30 45 60 Exploratory hole identification (complete part of standpipe are Seconds 0 15 30 45 60 Exploratory hole identification (complete part of standpipe are Seconds) 0 15 30 45 60 Exploratory hole identification (complete part of standpipe are seconds) 0 15 30 45 60 Exploratory hole identification (complete part of standpipe are seconds) 0 15 30 45 60	0 0 0 0 0 0 tity pre-monitorir d post-monit d diameter CH ₄ 0 0 0 0 0 tity pre-monitorir d post-monitorir d diameter	0 0 0 0 0 0 ing) oring) CO ₂ 0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0	со	H ₂ S	PID- 0.0
15 30 45 60 Exploratory hole identification (complete part of standpipe are Seconds 0 15 30 45 60 Exploratory hole identification (complete part of standpipe are Seconds) 0 15 30 45 60 Exploratory hole identification (complete part of standpipe are seconds) 0 15 30 45 60	0 0 0 0 0 0 tity pre-monitorir d post-monit d diameter CH ₄ 0 0 0 0 0 tity pre-monitorir	0 0 0 0 0 0 ing) oring) CO ₂ 0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0 0	со	H₂S	PID- 0.0
15 30 45 60 Exploratory hole identification (complete part of standpipe are seconds 0 15 30 45 60 Exploratory hole identification (complete part of standpipe are seconds) 0 15 30 45 60 Exploratory hole identification (complete part of standpipe) Exploratory hole identification (complete part of standpipe)	0 0 0 0 0 tity pre-monitoring d post-monit d diameter CH ₄ 0 0 0 0 0 0 tity pre-monitoring	0 0 0 0 0 0 ing) oring) CO ₂ 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1 0.1	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0	со	H ₂ S	PID- 0.0
15 30 45 60 Exploratory hole identification (complete partial Pressure epth to water (recorepth of standpipe are Seconds 0 15 30 45 60 Exploratory hole identification (complete partial pressure epth of standpipe are seconds) 0 15 30 45 60	0 0 0 0 0 tity pre-monitoring d post-monit d diameter CH ₄ 0 0 0 0 0 0 tity pre-monitoring	0 0 0 0 0 0 ing) oring) CO ₂ 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.7 BH-NSA-44 0-0.1	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0 0	со	H ₂ S	PID- 0.0
15 30 45 60 exploratory hole identification (complete partial Pressure epth to water (recorepth of standpipe are Seconds 0 15 30 45 60	0 0 0 0 0 tity pre-monitorion d post-monit d diameter CH ₄ 0 0 0 0 0	0 0 0 0 0 0 ing) oring) CO ₂ 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.7	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0 0	со	H ₂ S	PID- 0.0
15 30 45 60 Exploratory hole identification (complete partial Pressure epth to water (recorepth of standpipe ar Seconds 0 15 30 45 60	0 0 0 0 0 tity pre-monitoriore-monitoriore-monitoriore CH ₄ 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9 20.7	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0	со	H ₂ S	PID- 0.0
15 30 45 60 Exploratory hole idention range (complete eak flow (complete pifferential Pressure epth to water (recorepth of standpipe ar Seconds 0 15 30 45	0 0 0 0 0 tity pre-monitoriore-monitoriore-monitoriore d post-monit d diameter CH ₄ 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0	со	H ₂ S	PID- 0.0
15 30 45 60 Exploratory hole idention range (complete eak flow (complete pifferential Pressure epth to water (recorepth of standpipe ar Seconds 0 15 30 45	0 0 0 0 0 tity pre-monitoriore-monitoriore-monitoriore d post-monit d diameter CH ₄ 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9 20.9	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0	со	H ₂ S	PID- 0.0
15 30 45 60 Exploratory hole idention range (complete eak flow (complete pifferential Pressure epth to water (recorepth of standpipe ar Seconds 0 15 30 45	0 0 0 0 0 tity pre-monitoriore-monitoriore d post-monit d diameter CH ₄ 0 0 0	0 0 0 0 0 0 ing) oring) CO ₂ 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7 20.9 20.9 20.9	0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0	со	H ₂ S	PID- 0.0
15 30 45 60 Exploratory hole identification (complete parties and flow (complete parties) ferential Pressure epth to water (recorepth of standpipe articles) Seconds 0 15 30	0 0 0 0 0 tity pre-monitoriore-monitoriore CH ₄ 0 0 0	0 0 0 0 0 0 ing) oring) CO ₂ 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 1 0.2 20.7 20.7 20.9	0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0	со	H ₂ S	
15 30 45 60 Exploratory hole identification (complete parties and flow (complete parties) ifferential Pressure epth to water (recorepth of standpipe ar Seconds 0 15	0 0 0 0 0 tity pre-monitoriore-monitoriore d post-monit d diameter CH ₄ 0 0	0 0 0 0 0 ing) oring)	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 1 0.2 20.7 20.9	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%)	со	H ₂ S	
15 30 45 60 Exploratory hole identification (complete part flow (complete part flow (complete part flow (complete part for standpipe ar Seconds 0	0 0 0 0 0 tity pre-monitoriore-monitoriore d post-monit	0 0 0 0 0 ing) oring)	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1 0.2 20.7	0 0 0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%)	со	H ₂ S	
15 30 45 60 Exploratory hole identification (complete eak flow (complete eak flow (complete pifferential Pressure epth to water (recorepth of standpipe an Seconds	0 0 0 0 0 tity pre-monitorione-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monitorio-monito-monitorio-monitorio-monitorio-monitorio-monitorio-monito-mon	0 0 0 0 0 ing)	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4 1	0 0 0 0 1/hr 1/hr Pa m 50mm (ID)	со	H ₂ S	
15 30 45 60 exploratory hole idention range (complete eak flow (complete pifferential Pressure epth to water (recorepth of standpipe ar	0 0 0 0 0 tity pre-monitorion dispersion di	0 0 0 0 0 ing)	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4 0.4	0 0 0 0 1/hr 1/hr Pa m 50mm (ID)	60	Пе	
15 30 45 60 xploratory hole iden low range (complete eak flow (complete p ifferential Pressure epth to water (recor	0 0 0 0 0 tity pre-monitorion	0 0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4	0 0 0 0 I/hr I/hr Pa m			GSV
15 30 45 60 xploratory hole idention range (complete eak flow (complete pifferential Pressure	0 0 0 0 0 tity pre-monitor	0 0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4	0 0 0 0 I/hr I/hr			GSV
15 30 45 60 exploratory hole idention range (complete part flow (complete part flow)	0 0 0 0 0	0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4	0 0 0 0 1/hr			GSV
15 30 45 60 xploratory hole identiow range (complete	0 0 0 0 0	0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43 0.3-0.4	0 0 0 0			GSV
15 30 45 60 xploratory hole ident	0 0 0 0	0 0 0 0	20.8 20.8 20.8 20.7 BH-NSA-43	0 0 0 0			GSV
15 30 45 60	0 0 0 0	0 0 0	20.8 20.8 20.8 20.7	0 0 0			GSV
15 30 45	0 0 0	0 0 0	20.8 20.8 20.8	0 0 0			GSV
15 30 45	0 0 0	0 0 0	20.8 20.8 20.8	0 0 0			GSV
15 30 45	0 0 0	0 0 0	20.8 20.8	0			GSV
15 30	0	0	20.8	0			
15	0	0		-			ľ
			20.9	0			i i
U	U	-				_	i
0	0	0	20.7	0			1
Seconds	CH₄	CO ₂	02	LEL (%)	со	H ₂ S	
				23 (10)			PID- 16.3
epth of standpipe ar		<u> </u>		50mm (ID)			
epth to water (recor	d post-monit	oring)		m			
ifferential Pressure			0	Pa			
eak flow (complete	re-monitorir	ng)	0	l/hr			
low range (complete	pre-monitor	ing)	0	l/hr			
xploratory hole iden	tity		BH-NSA-42				
	0	0	20.8	0			
60	0	0	20.8	0			GSV
45	0	0	20.8	0			CCV
30	0	0	20.8	0			ı
			+				ı
							İ
	1				CO	п ₂ 3	115 0.0
		CO			co	H ₂ S	PID- 0.0
		oring)					
	d nost-monit	orina)	-				
	ore monitorii	·9/					
low range (complete particles and flow (complete particles and particles are lower to water (recorepth of standpipe are seconds	ore-monitorin	ng)	0.3 0.4 2 0 ₂ 20.9 20.9	I/hr I/hr Pa m 50mm (ID) LEL (%) 0	со	H ₂	₂ S

0.7

0.7

1.72

l/hr

l/hr

Pa

m

Flow range (complete pre-monitoring)

Peak flow (complete pre-monitoring)

Depth to water (record post-monitoring)

Differential Pressure

Seconds	CH₄	CO ₂	02	LEL (%)	со	H ₂ S	PID- 0.0	
0	0	0	21	0	0	0		
15	0	0	21.1	0	0	0		
30	0	0	21.1	0	0	0		
45	0	0	21.1	0	0	0		
60	0	0	21.1	0	0	0	GSV	
	0	0	21	0			•	0
Exploratory hole iden	tity		BH-NSA-225					
Flow range (complete pre-monitoring)			0.9-1.2	l/hr				
Peak flow (complete	pre-monitorii	ng)	1.2	l/hr				
Differential Pressure			5	Pa				
Depth to water (recor	rd post-monit	oring)		m				
Depth of standpipe ar	nd diameter			50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	со	H ₂ S	PID- 0.0	
0	0	0	20.8	0	0	0		
15	0	0	21	0	0	0		
30	0	0	20.9	0	0	0		
45	0	0	20.9	0	0	0		
60	0	0	20.9	0	0	0	GSV	
	0	0	20.8	0			!	0
Exploratory hole iden	tity		BH-NSA-226					
Flow range (complete	pre-monitor	ing)	0.8-1.0	l/hr				
Peak flow (complete	pre-monitorii	ng)	1	l/hr				
Differential Pressure			4	Pa				
Depth to water (recor	rd post-monit	oring)		m				
Depth of standpipe ar	nd diameter			50mm (ID)				
Seconds	CH₄	CO2	02	LEL (%)	со	H ₂ S	PID- 0.0	
0	0	0	21.1	0				
15	0	0	21	0				
30	0	0	20.8	0				
45	0	0	20.8	0				
60	0	0	20.8	0			GSV	
	0	0	20.8	0		<u>. </u>	•	0

Depth of standpipe and diameter

50mm (ID)



Exploratory hole identity

Project Name	Upper Heyford
Project Reference	EED10658-109
Consultant	Marc Church
Date	22/25-03-2012
Time	08:00am - 6:00pm

ric Pressure	Pre Monitoring: mospheric Pressure Co			14 Post Monito	oring:		
Weather Condition s		Sunny	Yes	Overcast		Raining	
Wind Condition s		Slight Breeze	Yes	Strong breeze		Windy	
Ground Condition s		Damp		Wet			
Site Conditions Site consists of mainly have areas			hardstanding wi	th grassed			

Flow range	(complete	pre-	0-0.1	l/hr						
Peak flow (complete p	re-	0.1	l/hr						
Differential	ntial Pressure		ial Pressure		ential Pressure			Pa		
Depth to w	ater (recor	d post-		m						
Depth of st	Depth of standpipe and diameter			50mm (ID)						
Seconds	CH ₄ CO ₂		02	LEL (%)	СО	H ₂ S				
0	0	0.3	20.9	0	0	0				
15	0	0.2	20.9	0	0	0				
30	0	0.1	20.9	0	0	0				
45	0 0		20.9	0	0	0				
60	0	0	20.9	0	0	0				
	0	0.3	20.9	0						

BH-NSA-1

PID- 0.0

GSV

Exploratory	y hole ident	ity	BH-NSA-2			
Flow range	(complete	pre-	1.1-1.2	l/hr		
Peak flow ((complete p	re-	1.2	l/hr		
Differentia	l Pressure			Pa		
Depth to w	ater (record	d post-		m		
Depth of st	andpipe an	d diameter		50mm (ID)		
Seconds	CH ₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S
0	0	0.6	19.7	0	0	0
15	0	0.6	19.7	0	0	0
30 0 0.6			19.7	0	0	0
45	0	0.6	19.7	0	0	0
60	0	0.6	19.7	0	0	0
	0	0.6	19.7	0		

PID- 0.0	
GSV	0.0072

Exploratory	hole identi	ity	BH-NSA-3				
Flow range	(complete	pre-	0.1-0.2	l/hr			
Peak flow (d	complete p	re-	0.2	l/hr			
Differential	Pressure			Pa			
Depth to wa	iter (record	l post-		m			
Depth of standpipe and diameter			50mm (ID)				
Seconds	Seconds CH ₄ CO ₂		O ₂	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0.3	19.9	0	0	0	
15	0	0.3	19.8	0	0	0	
30	0	0.4	19.5	0	0	0	
45	0	0.4	19.2	0	0	0	
60	0	0.5	18.9	0	0	0	GSV
	0	0.5	18.9	0			0.001
Exploratory	hole identi	ity	BH-NSA-4				
Flow range	(complete	pre-	0.9-1.1	l/hr			
Peak flow (d	complete p	re-	1.1	l/hr			
Differential	Pressure			Pa			
Depth to wa	iter (record	l post-		m			
Depth of sta	indpipe and	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	2.5	15.9	0	0	0	
15	0	2.5	15.9	0	0	0	
30	0	2.5	15.9	0	0	0	
45	0	2.5	15.9	0	0	0	
60	0	2.5	15.9	0	0	0	GSV
	0	2.5	15.9	0			0
Exploratory	hole identi	ity	BH-NSA-5				
Flow range	(complete	pre-	0.7-0.8	l/hr			
Peak flow (d	complete p	re-	0.8	l/hr			
Differential Pressure				Pa			

Exploratory	xploratory hole identity						
Flow range	low range (complete pre-			l/hr			
Peak flow (eak flow (complete pre-			l/hr			
Differential	Pressure			Pa			
Depth to wa	th to water (record post-						
Depth of sta	andpipe and diameter			50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID-0.0
0	0	0.1	20.9	0	0	0]
15	0	0.1	20.9	0	0	0	
30	0	0.1	20.9	0	0	0]
45	0	0.1	20.9	0	0	0	
60	0	0.1	20.9	0	0	0	GSV
-	0	0.1	20.9	0			0.0008

Exploratory	/ hole ident	ity	BH-NSA-6				
Flow range		-	-3.7	l/hr			
Peak flow (complete p	re-	-3.7	l/hr			
Differential	Pressure			Pa			
Depth to w	ater (record	l post-		m			
Depth of st	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	1
0	0	2.1	14.4	0	0	0	1
15	0	2.1	14.4	0	0	0	1
30	0	2.1	14.4	0	0	0	1
45	0	2.1	14.4	0	0	0	1
60	0	2.1	14.4	0	0	0	1
	0	2.1	14.4	0	-		_
Exploratory	/ hole ident	ity	BH-NSA-7				
Flow range	(complete	pre-	0.4-0.6	l/hr			
Peak flow (complete p	re-	0.6	l/hr			
Differential				Pa			
Depth to w	•	-		m			
Depth of st	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	
0	0	1.1	20.1	0	0	0	-
15	0	0.2	19.8	0	0	0	-
30	0	0	18.5	0	0	0	-
45	0	0	18.4	0	0	0	-
60	0	0	18.4	0	0	0	1
	0	1.1	18.4	0			
Exploratory			BH-NSA-8				
Flow range	-	-	0.4-0.6				
Peak flow (re-	0.6				
Differential				Pa			
Depth to w		_		m			
Depth of st	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	
0	0	0	20.7	0	0	0	
15	0	0	20.8	0	0	0	
30	0	0	20.8	0	0	0	Ī
45	0	0	20.8	0	0	0	
	0	0	20.8	0	0	0	1
60	U	O	20.0	Ü	O	U	

Exploratory	/ hole ident	ity	BH-NSA-9				
Flow range	(complete	pre-	0	l/hr			
Peak flow (complete p	re-	0	l/hr			
Differentia	Pressure			Pa			
Depth to w	ater (record	d post-		m			
Depth of st	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0.2	20.7	0			
15	0	0.1	20.7	0			
30	0	0.1	20.8	0			
45	0	0.1	20.8	0			
60	0	0.1	20.8	0			GSV
	0	0.2	20.7	0			
Exploratory	/ hole ident	ity	BH-NSA-10)			
Flow range		-	0				
Peak flow (-	0				
Differentia				Pa			
Depth to w	ater (record	d post-		m			
_		d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0.2	20.9	0			
15	0	0.2	20.9	0			
30	0	0.2	20.9	0			
45	0	0.2	20.9	0			
60	0	0.2	20.9	0			GSV
	0	0.2	20.9	0			
Exploratory	/ hole ident	ity	BH-NSA-11				
Flow range		-	0	l/hr			
Peak flow (· •	-	0	l/hr			
Differential				Pa			
Depth to w		d post-		m			
Depth of st	andpipe an	d diameter		50mm (ID)			
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.7	0			
15	0	0	20.7	0			
30	0	0	20.7	0			
_	0	0	20.7	0			
45			20.7	Ü			

Exploratory	y hole ident	ity	BH-NSA-12	2				
Flow range	(complete	pre-	0	l/hr				
Peak flow ((complete p	re-	0	l/hr				
Differentia	l Pressure			Pa				
Depth to w	ater (record	d post-		m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0	
0	0	0	20.8	0				
15	0	0	20.8	0				
30	0	0	20.8	0				
45	0	0	20.8	0				
60	0	0	20.8	0			GSV	
	0	0	20.8	0		-		0
Exploratory	y hole ident	ity	BH-NSA-13	3				
Flow range	(complete	pre-	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differentia	l Pressure			Pa				
Depth to w	ater (record	d post-		m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	PID- 0.0	
0	0	0.2	21	0				
15	0	0.1	20.9	0				
30	0	0	21	0				
45	0	0	21	0				
60	0	0	21	0			GSV	
	0	0.2	20.9	0			-	0
Exploratory	y hole ident	ity	BH-NSA-14					
Flow range	(complete	pre-	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differentia				Pa				
Depth to w	ater (record	d post-		m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0	
0	0	0	20.9	0				
15	0	0	20.9	0				
30	0	0	20.9	0				
45	0	0	20.9	0				
43				_				

20.9

0

0

		1	DI 1101 1-				
Exploratory		•	BH-NSA-15				
Flow range	-	-	0				
Peak flow (re-	0	l/hr			
Differential				Pa			
Depth to wa		_		m (:=)			
Depth of sta	Depth of standpipe and diameter			50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	21.2	0			
15	0	0	21.1	0			
30	0	0	21.1	0			
45	0	0	21.1	0			
60	0	0	21.1	0			GSV
	0	0	21.1	0			0
Exploratory	hole ident	ity	BH-NSA-16)			
Flow range	•	-	0	l/hr			
Peak flow (complete p	re-	0	l/hr			
Differential	Pressure			Pa			
Depth to wa	•	-		m			
Depth of sta	andpipe an	d diameter		50mm (ID)			
Seconds	CH ₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0.7	19.9	0			
15	0	0.6	19.8	0			
30	0	0.6	19.6	0			
45	0	0.6	19.5	0			
60	0	0.6	19.5	0			GSV
	0	0.7	19.5	0			0
Exploratory hole identity			BH-NSA-17				
				1.0			
Flow range	· •	-	0.9-10	l/hr			
Flow range Peak flow (Differential	complete p	-	0.9-10	I/hr I/hr Pa			

Exploratory	hole ident	ity	BH-NSA-17	'			
Flow range	(complete	pre-	0.9-10	l/hr			
Peak flow (complete p	re-	1	l/hr			
Differential Pressure				Pa			
Depth to water (record post- Depth of standpipe and diameter			m				
			50mm (ID)				
Seconds	CH₄	CO ₂	O ₂	LEL (%)	со	H ₂ S	PID- 0.0
0	0	0.1	20.7	0			
15	0	0.1	20.6	0			
30	0	0.1	20.6	0			
45	0	0.1	20.6	0			1
60	0	0.1	20.6	0			GSV
	0	0.1	20.6	0			

Exploratory	hole ident	ity	BH-NSA-18	3			
Flow range	(complete	pre-	0.8	l/hr			
Peak flow (complete p	re-	0.8	l/hr			
Differential	Pressure			Pa			
Depth to wa	Depth to water (record post-			m			
Depth of sta	Depth of standpipe and diamete			50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0.1	20.7	0]
15	0	0.2	20.6	0]
30	0	0.2	20.6	0]
45	0	0.2	20.6	0]
60	0	0.2	20.6	0			GSV
	0	0.2	20.6	0			0.0016
Franks t-	hala tila t	:a	DIL NOA 40	,			
	Exploratory hole identity Flow range (complete pre-		BH-NSA-19				
•	•	•	0.7				
Peak flow (re-	0.7				
Differential		1 1		Pa			
Depth to wa	-	-		m FOmm (ID)			
Depth of sta	anapipe an	a diameter		50mm (ID)			_
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID-0.0
0	0	0.1	20.8	0]
15	0	0.2	20.6	0]
30	0	0.3	20.3	0			
45	0	0.3	20.2	0			
60	0	0.3	20.2	0			GSV
	0	0.3	20.2	0			0.0021
Exploratory	hole ident	ity	BH-NSA-20)			
		_	0.5	l/hr			
low range (complete pre-		0.0	.,				
Peak flow (_		0.7				

-xp.o. a.o. y	hole ident	tity	BH-NSA-20					
Flow range	(complete	pre-	0.5	l/hr				
Peak flow (complete p	ore-	0.7	l/hr				
Differential	Pressure			Pa				
Depth to wa	epth to water (record post-			m				
Depth of sta	ındpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0	
0	0	0	20.9	0				
15	0	0	20.8	0				
30	0	0	20.8	0				
45	0	0	20.8	0				
60	0	0	20.8	0			GSV	
	0	0	20.8	0			-	0

Exploratory	hole ident	ity	BH-NSA-21				
Flow range	(complete	pre-	1.2	l/hr			
Peak flow (complete p	re-	1.2	l/hr			
Differential	ifferential Pressure			Pa			
Depth to w	epth to water (record post-			m			
Depth of st	epth of standpipe and diameter			50mm (ID)			
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.9	0			
15	0	0	20.8	0			
30	0	0	20.8	0			
45	0	0	20.8	0			
60	0	0	20.9	0			GSV
	0	0	20.8	0		_	0
Exploratory	hole ident	ity	BH-NSA-22				
Flow range	(complete	pre-	1	l/hr			
Peak flow (complete p	re-	0.7	l/hr			
Differentia	Pressure			Pa			
Depth to w	epth to water (record post-			m			
Depth of standpipe and diameter			50mm (ID)				
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.8	0			
15	0	0.2	20.4	0			
30	0	0.1	20.3	0			
45	0	0.1	20.5	0			
	0	0.4	20.6	0			GSV
60	-	0.1	20.0	ŭ			
60	0	0.1	20.3	0			0.0014
		0.2		0			0.0014
Exploratory	0	0.2	20.3	0			0.0014
Exploratory Flow range	0 v hole ident	0.2 ity pre-	20.3 BH-NSA-23	0			0.0014
Exploratory Flow range Peak flow (0 / hole ident (complete complete p	0.2 ity pre-	20.3 BH-NSA-23 0	0 I/hr			0.0014
Exploratory Flow range Peak flow (Differential	0 / hole ident (complete complete p	0.2 ity pre- re-	20.3 BH-NSA-23 0	0 I/hr I/hr			0.0014
Exploratory Flow range Peak flow (Differential Depth to w	o hole ident (complete possure ater (record	0.2 ity pre- re-	20.3 BH-NSA-23 0	0 I/hr I/hr Pa			0.0014
Exploratory Flow range Peak flow (Differential Depth to w	o hole ident (complete possure ater (record	0.2 ity pre- re-	20.3 BH-NSA-23 0	0 I/hr I/hr Pa m	СО	H₂S	0.0014 PID- 0.0
Exploratory Flow range Peak flow (Differential Depth to w Depth of st	o hole ident (complete complete personne personne ater (recordandpipe and	0.2 ity pre- re- d post- d diameter	20.3 BH-NSA-23 0	I/hr I/hr Pa m 50mm (ID)	со	H₂S	
Exploratory Flow range Peak flow (Differential Depth to w Depth of st	o hole ident (complete possure ater (recordandpipe and CH ₄	0.2 ity pre- re- d post- d diameter CO ₂	20.3 BH-NSA-23 0 0	I/hr I/hr Pa m 50mm (ID)	со	H ₂ S	
Exploratory Flow range Peak flow (Differential Depth to w Depth of st Seconds	o hole ident (complete complete paressure ater (record andpipe and CH ₄	0.2 ity pre- re- d post- d diameter CO ₂ 0	20.3 BH-NSA-23 0 0 21.4	0 I/hr I/hr Pa m 50mm (ID) LEL (%)	СО	H ₂ S	
Exploratory Flow range Peak flow (Differential Depth to w Depth of st Seconds 0 15	o hole ident (complete possure atter (record and pipe and 0	0.2 ity pre- re- d post- d diameter CO ₂ 0	20.3 BH-NSA-23 0 0 2 21.4 20.5	0 I/hr I/hr Pa m 50mm (ID) LEL (%) 0 0	со	H₂S	

Exploratory	hole ident	ity	BH-NSA-24				
Flow range	(complete	pre-	0	l/hr			
Peak flow (complete p	re-	0	l/hr			
Differential	Pressure			Pa			
Depth to wa	ater (recor	d post-		m			
Depth of sta	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.2	0			
15	0	0	19.4	0			
30	0	0	19.2	0			
45	0	0	19.1	0			
60	0	0	19.1	0			GSV
	0	0	19.1	0			
Exploratory	hole ident	ity	BH-NSA-25	;			
Flow range	(complete	pre-	0	l/hr			
Peak flow (complete p	re-	0	l/hr			
Differential	Pressure			Pa			
Depth to wa	ater (recor	d post-		m			
Depth of sta	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.7	0			
15	0	0.2	20.5	0			
30	0	0.2	20.6	0			
45	0	0.2	20.6	0			
60	0	0.2	20.6	0			GSV
	0	0.2	20.5	0			
Exploratory	hole ident	ity	BH-NSA-26	,			
Flow range	(complete	pre-	0	l/hr			
Peak flow (complete p	re-	0	l/hr			
Differential	Pressure			Pa			
Depth to wa	ater (recor	d post-		m			
Depth of sta	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.7	0			
15	0	0	20.9	0			
30	0	0	20.9	0			
	0	0	20.9	0			
45							

Exploratory	/ hole ident	ity	BH-NSA-27				
Flow range	(complete	pre-	0.8-1.0	l/hr			
Peak flow (complete p	re-	1	l/hr			
Differentia	Pressure			Pa			
Depth to w	ater (record	d post-		m			
Depth of st	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.7	0			
15	0	0.9	18.6	0			
30	0	0.9	17.7	0			
45	0	0.9	17.5	0			
60	0	0.9	17.5	0			GSV
	0	0.9	17.5	0		_	0.0
Exploratory	/ hole ident	ity	BH-NSA-28				
low range	(complete	pre-	0.3	l/hr			
Peak flow (complete p	re-	0.3	l/hr			
Differentia	Pressure			Pa			
Depth to w	ater (record	d post-		m			
Depth of st	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.6	0			
15	0	1.5	18.1	0			
30	0	1.5	17.4	0			
45	0	1.5	17.3	0			
60	0	1.5	17.3	0			GSV
	0	1.5	17.3	0			0.00
Exploratory	hole ident	ity	BH-NSA-29				
Flow range	(complete	pre-	1.2	l/hr			
Peak flow (complete p	re-	1.2	l/hr			
Differentia	Pressure			Pa			
Depth to w	ater (record	d post-		m			
Depth of st	andpipe an	d diameter		50mm (ID)			
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0.1	20.4	0			
15	0	0.5	20.5	0			
	0	0.5	20	0			
30		0.5	19.9	0			
30 45	0	0.3	17.7	U			

	0.9	17.5	0			
	0.9	17.5	0			GSV
	0.9	17.5	0			0.009
dent	ity	BH-NSA-28	3			
lete	pre-	0.3	l/hr			
ete p	re-	0.3	l/hr			
ure			Pa			
ecor	d post-		m			
e an	d diameter		50mm (ID)			
4	CO ₂	O ₂	LEL (%)	СО	H₂S	PID- 0.0
	0	20.6	0		_	
	1.5	18.1	0			
	1.5	17.4	0			
	1.5	17.3	0			
	1.5	17.3	0			GSV
	1.5	17.3	0			0.0045
dent	ity	BH-NSA-29)			
lete	pre-	1.2				
ete p	re-	1.2	l/hr			
ure			Pa			
	d post-		m			
e an	d diameter		50mm (ID)			
4	CO ₂	02	LEL (%)	со	H ₂ S	PID- 0.0
	0.1	20.4	0			
	0.5	20.5	0			
	0.5	20	0			
	0.5	19.9	0			
	0.5	19.9	0			GSV
			0			0.006
	0.5	19.9	0			0.000
	0.5	19.9	0			0.000
	0.5	19.9	0			0.000
	0.5	19.9	Ü			0.000

Exploratory	hole ident	ity	BH-NSA-30)			
Flow range	(complete	pre-	0.9-1.0	l/hr			
Peak flow (complete p	re-	1	l/hr			
Differential	Pressure			Pa			
Depth to wa	ater (record	d post-		m			
Depth of sta	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.8	0			
15	0	0.2	20.3	0			
30	0	0.1	20	0			
45	0	0.1	20.1	0			
60	0	0.1	20.1	0			GSV
	0	0.2	20	0			0.002
Exploratory	hole ident	ity	BH-NSA-31				
Flow range	Flow range (complete pre-			l/hr			
Peak flow (complete p	re-	0.2	l/hr			
Differential	Pressure			Pa			
Depth to wa	ater (record	d post-		m			
Depth of sta	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.7	0			
15	0	0	20.8	0			
30	0	0	20.7	0			
45	0	0	20.7	0			
60	0	0	20.7	0			GSV
	0	0	20.7	0			0
Exploratory	hole ident	ity	BH-NSA-32	2			
Flow range	(complete	pre-	0	l/hr			
Peak flow (complete p	re-	0	l/hr			
Differential	Pressure			Pa			
Depth to wa	ater (record	d post-		m			
Depth of sta		_		50mm (ID)			

LEL (%)

0

0

0

0

0

0

СО

H₂S

PID- 0.0

GSV

0

CH₄

0

0

0

0

0

Seconds

0

15

30

45

60

CO₂

1.4

2

2.1

2.1

2.1

2.1

02

20.7

19.9

17.4

17.3

17.3

Exploratory	hole ident	ity	BH-NSA-37					
Flow range	(complete	pre-	0.2-0.3	l/hr				
Peak flow (d	complete p	ore-	0.3	l/hr				
Differential	Pressure			Pa				
Depth to wa	iter (recor	d post-		m				
Depth of sta	ındpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0	
0	0	0	19.9	0				
15	0	0	19.8	0				
30	0	0	19.8	0				
45	0	0	19.8	0				
60	0	0	19.8	0			GSV	
	0	0	19.8	0				(
			D					
Exploratory hole identity Flow range (complete pre-			BH-NSA-38					
	•	-	0.4-0.8	I/hr				
Peak flow (ore-	0.8	l/hr				
Differential		-l L		Pa				
Depth to war		-		m 50mm (ID)				
Depth of Sta	пиріре ап	u diametei		30Hilli (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0	
0	0	0	20.7	0				
15	0	0	19.9	0				
30	0	0	19.7	0				
45	0	0	19.7	0				
60	0	0	19.7	0			GSV	
	0	0	19.7	0				(
Exploratory	hole ident	itv	BH-NSA-39	,				
Flow range			0.6	l/hr				
Peak flow (-	-	0.6	l/hr				
Differential		•		Pa				
		d post-		m				
Depth to water (record post-			-					

Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0	20.7	0			
15	0	0	19.9	0			
30	0	0	19.7	0			
45	0	0	19.7	0			
60	0	0	19.7	0			GSV
	0	0	19.7	0			0
	/ hole ident	_	BH-NSA-39				
	(complete		0.6	l/hr			
	(complete p	ore-	0.6	l/hr			
Differential	l Pressure			Pa			
Depth to w	ater (recor	d post-		m			
Depth of st	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0.2	20.9	0			
15	0	0.4	20.1	0			
30	0	0.8	19.6	0			
45	0	1	19	0			
60	0	1.2	18.4	0			GSV
	0	1.2	18.4	0			0.0072

Exploratory	hole ident	itv	BH-NSA-42)			
Flow range		-	0.1				
Peak flow (-	0.4				
Differential		10-	0.4	Pa			
Depth to wa		d nost-		m			
	•	d diameter		50mm (ID)			
Deptil of sta	andpipe an	u diametei		30mm (ID)			
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	1	20	0			
15	0	1.3	19.4	0			
30	0	1.4	19.4	0			
45	0	1.4	19.3	0			
60	0	1.4	19.3	0			GSV
	0	1.4	19.3	0			0.0056
Exploratory	hole ident	ity	BH-NSA-43	3			
Flow range	(complete	pre-	0.2	I/hr			
Peak flow (complete p	re-	0.3	l/hr			
Differential	Pressure			Pa			
Depth to wa	ater (record	d post-		m			
Depth of sta	andpipe an	d diameter		50mm (ID)			
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	0.1	20.8	0			
15	0	0.7	19.8	0			
30	0	1	18.9	0			
45	0	1.9	17.5	0			
60	0	2	16.8	0			GSV
	0	2	16.8	0			0.006
Exploratory	hole ident	ity	BH-NSA-44				
Flow range	(complete	pre-	0.7	l/hr			
Peak flow (complete p	re-	0.7	l/hr			
Differential	Pressure		3	Pa			
Depth to water (record post-				m			
Depth of sta	andpipe an	d diameter		50mm (ID)			
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0
0	0	1.7	19.8	0	0	0	
15	0	1.6	18.3	0	0	0	
30	0	1.6	18.2	0	0	0	
30							

0

0

GSV

0.0119

0

0

0

0

45

60

0

0

1.6

1.6

1.7

18.2

18.2

Exploratory	hole ident	ity	BH-NSA-4	5				
Flow range	(complete	pre-	() I/hr				
Peak flow (complete p	ore-	() I/hr				
Differential	Pressure			Pa				
Depth to wa		-		m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0	
0	0	3.7	15.5	0	0	0		
15	0	3.7	15.5	0	0	0		
30	0	3.7	15.5	0	0	0		
45	0	3.7	15.5	0	0	0		
60	0	3.7	15.5	0	0	0	GSV	
	0	3.7	15.5	0				0
Exploratory	hole ident	ity	BH-NSA-2	25				
Flow range	(complete	pre-	0.7-1.0) I/hr				
Peak flow (complete p	re-	1	l l/hr				
Differential	Pressure			Pa				
Depth to wa		-		m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0	
0	0	0	18.8	0				
15	0	0	18.5	0				
30	0	0	18.1	0				
45	0	0	17.7	0				
60	0	0	17.4	0			GSV	
	0	0	17.4	0				0
Exploratory	hole ident	ity	BH-NSA-2	26				
Flow range	(complete	pre-	() I/hr				
Peak flow (complete p	ore-	() I/hr				
Differential	Pressure			Pa				
Depth to wa	ater (recor	d post-		m				

	0	0	17.4	0			_	0
Explorator	y hole ident	tity	BH-NSA-2	26				
Flow range	(complete	pre-	() I/hr				
Peak flow	(complete p	ore-	() I/hr				
Differentia	l Pressure			Pa				
Depth to w	ater (recor	d post-		m				
Depth of st	Depth of standpipe and diamete			50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID- 0.0	
0	0	0	21.1	0			1	
15	0	0	21	0			1	
30	0	0	20.9	0				
45	0	0	20.9	0				
60	0	0	20.9	0			GSV	
	0	0	20.9	0			_	0



Project Name	Upper Heyford
Project Reference	EED10658-109
Consultant	Marc Church
Date	02/04-04-2012
Time	08:00am - 6:00pm

ric Pressure	Pre Monitoring: mospheric Pressure Co	ondition (r		992 Post Monitorin	ng:
Weather Condition		Sunny	Yes	Overcast	Raining
Wind Condition		Slight Breeze	Yes	Strong breeze	Windy
Ground Condition s		Damp		Wet	
Site Condit	ions	Site consis areas	sts of mainl	grassed	

Exploratory	/ hole ident	ity	BH-NSA-1			
Flow range	(complete	pre-	0.8	l/hr		
Peak flow (complete p	re-	0.8	l/hr		
Differential Pressure			4	Pa		
Depth to w	ater (record	d post-	3.25	m		
Depth of standpipe and diameter				50mm (ID)		
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0	20.6	0	0	0
15	0	0	20.8	0	0	0
30	0	0	20.8	0	0	0
45	0	0	20.8	0	0	0
60	0	0	20.8	0	0	0
	0	0	20.6	0		

PID - 0.0

GSV

0.0003

Exploratory	, hole ident	ity	BH-NSA-2			
Flow range	(complete	pre-	0.2	l/hr		
Peak flow (ak flow (complete pre-			l/hr		
Differentia	Pressure		0	Pa		
Depth to w	ater (recor	d post-	2.33	m		
Depth of standpipe and diameter				50mm (ID)		
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S
0	0	0.2	20.8	0	0	0
15	0	0.9	18.4	0	0	0
30	0	0.9	18.3	0	0	0
45	0	0.9	18.2	0	0	0
60	0	0.9	18.2	0	0	0
	0	0.9	18.2	0		

PID - 0.0

GSV

Exploratory	hole ident	ity	BH-NSA-3					
Flow range	(complete	pre-	0.3	l/hr				
Peak flow (complete p	re-	0.3	l/hr				
Differential	Pressure		1	Pa				
Depth to wa	ater (record	d post-	3.17	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0	0	0		
15	0	0	20.9	0	0	0		
30	0	0	20.9	0	0	0		
45	0	0	20.9	0	0	0		
60	0	0	20.9	0	0	0	GSV	
	0	0	20.7	0				0
		.,	BH-NSA-4					
	Exploratory hole identity Flow range (complete pre-			1 /la m				
Ū	•	•	0					
Peak flow (Differential		re-						
			0					
Depth to war	•	-	4.45	m 50mm (ID)				
Depth of st	andpipe an	u ulailletei		30Hill (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0.9	20	0	0	0		
15	0	0.4	20.1	0	0	0		
30	0	0.4	20.2	0	0	0		
45	0	0.4	20.2	0	0	0		
60	0	0.4	20.2	0	0	0	GSV	
	0	0.9	20	0				0
Exploratory	, hole ident	itv	RH-NSA-5					
Exploratory			BH-NSA-5	l/hr				
Flow range	(complete	pre-	0					
Flow range Peak flow ((complete complete p	pre-	0	l/hr				
Flow range	(complete complete p Pressure	pre- re-	0	I/hr Pa				

Exploratory	Exploratory hole identity						
Flow range	(complete	pre-	0	l/hr			
Peak flow (complete p	re-	0	l/hr			
Differential	Pressure		0	0 Pa			
Depth to wa	ater (recor	d post-	3.9	m			
Depth of standpipe and diameter			50mm (ID)				
Seconds	CH₄	CO2	02	LEL (%)	со	H ₂ S	PID -
0	0	0	20.8	0	0	0	
15	0	0	20.9	0	0	0	
30	0	0	20.9	0	0	0	
45	0	0	20.9	0	0	0	
60	0	0	20.9	0	0	0	GS
	0	0	20.8	0			1

PID - 0.0

SSV

0

Exploratory	/ hole ident	ity	BH-NSA-6					
Flow range	(complete	pre-	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differential	Pressure		0	Pa				
Depth to w	ater (record	d post-	3.32	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	AVERAGE - 62.9	
0	0	0.5	20.4	0	0	0		
15	0	0	20.2	0	0	0		
30	0	0	19.8	0	0	0		
45	0	0	19.2	0	0	0		
60	0	0	18.5	0	0	0	GSV	
	0	0.5	18.5	0			_	0
Exploratory	Exploratory hole identity		BH-NSA-7					
	low range (complete pre-		0	l/hr				
Peak flow (-	-	0	l/hr				
Differential			0	Pa				
Depth to w		d post-	2.3	m				
-	•	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.8	0	0	0	1	
15	0	0	21	0	0	0	1	
30	0	0	21	0	0	0	1	
45	0	0	21	0	0	0	1	
60	0	0	21	0	0	0	1	
90	0	0	21	0	0	0	1	
120	0	0	21	0	0	0	GSV	
	0	0	21	0			•	0
Exploratory	/ hole ident	ity	BH-NSA-8					
Flow range	(complete	pre-	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differential			0	Pa				
Depth to w	ater (record	d post-	6.44	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0.1	20.8	0	0	0	1	
15	0	0.1	20.6	0	0	0	1	
30	0	0.1	20.6	0	0	0	1	
45	0	0.1	20.6	0	0	0	1	
60	0	0.1	20.6	0	0	0	1	
90	0	0.1	20.6	0	0	0	1	
				-	_	_ ~		

0

20.6

20.6

0

0

0

0

0.1

0.1

120

Exploratory	/ hole ident	ity	BH-NSA-9					
Flow range	(complete	pre-	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differential	Pressure		0	Pa				
Depth to wa	ater (record	d post-		m				
Depth of sta	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 1.0	
0	0	0.4	20.5	0	0	0		
15	0	0.4	20.2	0	0	0		
30	0	0.4	20.2	0	0	0		
45	0	0.4	20.2	0	0	0		
60	0	0.4	20.1	0	0	0		
90	0	0.4	20.1	0	0	0		
120	0	0.4	20.1	0	0	0	GSV	
	0	0.4	20.1	0			-	0
Exploratory	/ hole ident	ity	BH-NSA-10)				
Flow range	(complete	pre-	0	l/hr				
Peak flow (-	-	0	l/hr				
Differential			0	Pa				
Depth to wa	oth to water (record post-			m				
Depth of sta	•	-		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0.2	20.6	0	0	0		
15	0	0.3	20.6	0	0	0		
30	0	0.3	20.5	0	0	0	1	
45	0	0.3	20.5	0	0	0		
60	0	0.3	20.5	0	0	0	GSV	
	0	0.3	20.5	0			•	0
Exploratory	/ hole ident	itv	BH-NSA-11					
Flow range		-	0					
Peak flow (<u> </u>		0					
Differential	• •		0					
Depth to wa		d post-	5.26					
Depth of sta	•	-		50mm (ID)				
Seconds	CH ₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0.1	20.7	0	0	0		
15	0	0	20.7	0	0	0		
30	0	0	20.7	0	0	0		
45	0	0	20.7	0	0	0		
60	0	0	20.7	0	0	0	GSV	
	0	0.1	20.7	0			-	0

Exploratory	hole ident	ity	BH-NSA-12					
Flow range	(complete	pre-	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differentia	Pressure		0	Pa				
Depth to w	ater (record	d post-	4.9	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.6	0	0	0		
15	0	0	20.9	0	0	0		
30	0	0	21	0	0	0		
45	0	0	21	0	0	0		
60	0	0	21	0	0	0	GSV	
	0	0	20.6	0			•	0
F	ploratory hole identity		DII NOA 40					
	low range (complete pre-		BH-NSA-13					
		-	0					
	eak flow (complete pre-		0					
	Differential Pressure							
Depth to w	•	-	12.28					
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.6	0	0	0		
15	0	0	20.8	0	0	0		
30	0	0	20.7	0	0	0		
45	0	0	20.7	0	0	0		
60	0	0	20.7	0	0	0	GSV	
	0	0	20.6	0				0
Exploratory	hole ident	ity	BH-NSA-14					
Flow range		_	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differential	Pressure		0	Pa				
Depth to w	ater (record	d post-	4.4	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.9	0				
15	0	0	20.5	0				
30	0	0	20.5	0				
45	0	0	20.5	0				
60	0	0	20.6	0			GSV	
	0	0	20.5	0		-	I	0

Exploi atol	y noie ident	ity	DI I-NSA- IS	'				
Flow range	(complete	pre-	0	l/hr				
Peak flow	(complete p	re-	0	l/hr				
Differentia	l Pressure		0	Pa				
Depth to w	ater (record	d post-	1.63	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0				
15	0	0	20.9	0				
30	0	0	20.9	0				
45	0	0	20.9	0				
60	0	0	20.9	0			GSV	
	0	0	20.7	0				0
Explorator	Exploratory hole identity		BH-NSA-16	5				
Flow range	(complete	pre-	0	l/hr				
Peak flow	eak flow (complete pre-		0	l/hr				
Differentia	Differential Pressure			Pa				
Depth to w	ater (record	d post-	13.62	m				
Depth of st	Depth of standpipe and diameter			50mm (ID)				
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0.8	18.7	0				
15	0	0.8	18.7	0				
30	0	0.8	18.7	0				
45	0	0.8	18.7	0				
60	0	0.8	18.7	0			GSV	
	0	0.8	18.7	0				0
Explorator	y hole ident	ity	BH-NSA-17	'				
Flow range	(complete	pre-	0	l/hr				
Peak flow	(complete p	re-	0	l/hr				
Differentia	l Pressure		0	Pa				
Depth to w	ater (record	d post-	4.8	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.9	0				
15	0	0	20.8	0				
30	0	0.2	20.7	0				
45	0	0.2	20.7	0				
60	0	0.2	20.6	0			GSV	
	0	0.2	20.6	0				0

Exploratory hole identity

Peak flow ((complete p	re-	0	l/hr				
Differentia	l Pressure		0	Pa				
Depth to w	ater (record	d post-	5.05	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.6	0				
15	0	0.7	19.7	0				
30	0	0.7	19.6	0				
45	0	0.7	19.6	0				
60	0	0.7	19.6	0			GSV	
	0	0.7	19.6	0		_		0
Exploratory	y hole ident	ity	BH-NSA-19)				
Flow range	(complete	pre-	0.3	l/hr				
Peak flow (eak flow (complete pre-		0.3	l/hr				
Differentia	ifferential Pressure		1	Pa				
Depth to w	Depth to water (record post-		4.8	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0				
15	0	0.1	20.7	0				
30	0	0.1	20.7	0				
45	0	0.1	20.7	0				
60	0	0.1	20.7	0			GSV	
	0	0.1	20.7	0			0	.0003
Exploratory	y hole ident	ity	BH-NSA-20)				
Flow range	(complete	pre-	0.6-0.7	l/hr				
Peak flow ((complete p	re-	0.7	l/hr				
Differentia	l Pressure		3	Pa				
Depth to w	ater (record	d post-	4.86	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.8	0				
15	0	0	20.9	0				
30	0	0	20.9	0				
45	0	0	20.9	0				
60	0	0	20.9	0			GSV	
	0	0	20.8	0				0

l/hr

Exploratory hole identity

Flow range (complete pre-

Exploratory	hole ident	ity	BH-NSA-21					
Flow range	(complete	pre-	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differential	Pressure		0	Pa				
Depth to wa	ater (record	d post-	4.96	m				
Depth of sta	andpipe an	d diameter		50mm (ID)				
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0				
15	0	0.3	19.8	0				
30	0	0.3	19.6	0				
45	0	0.3	19.6	0				
60	0	0.3	19.6	0			GSV	
	0	0.3	19.6	0				0
Exploratory	xploratory hole identity							
Flow range	(complete	pre-	0.1-0.3	l/hr				
Peak flow (complete p	re-	0.3	l/hr				
Differential	Differential Pressure			Pa				
Depth to wa	ater (record	d post-	4.35	m				
Depth of sta	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0				
15	0	0	20.9	0				
30	0	0	20.9	0				
45	0	0	20.9	0				
60	0	0	20.9	0			GSV	
	0	0	20.7	0			•	0
Exploratory	hole ident	itv	BH-NSA-23					
Flow range		-	0					
Peak flow (•	•	0					
Differential			0					
Depth to wa		d post-	4.42					
Depth of sta	-	-		50mm (ID)				
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.9	0				
15	0	0	20.7	0				
30	0	0	20.7	0				
45	0	0	20.7	0				
60	0	0	20.7	0			GSV	
	0	0	20.7	0		_	I	0

omplete _l mplete pr		0.3-0.4	l/hr				
mplete pr	20						
	e-	0.4	l/hr				
essure		1	Pa				
r (record	post-	2.47	m				
dpipe and	d diameter		50mm (ID)				
CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	21.2	0				
0	0	21.2	0				
0	0	21.2	0				
0	0	21.2	0				
0	0	21.2	0			GSV	
0	0	21.2	0			•	0
Exploratory hole identity		BH-NSA-25	;				
Flow range (complete pre-		0.1-0.2	l/hr				
Peak flow (complete pre-		0.2	l/hr				
Differential Pressure			Pa				
r (record	post-	2.63	m				
dpipe and	d diameter		50mm (ID)				
CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0.2	20.9	0				
0	0.5	19.7	0				
0	0.5	19.9	0				
0	0.3	20.1	0				
0	0.3	20.3	0			GSV	
0	0.5	19.7	0				0.001
ole identi	ty	BH-NSA-26	,				
omplete j	ore-	0	l/hr				
mplete pr	re-	0	l/hr				
essure		0	Pa				
r (record	post-	2.54	m				
dpipe and	d diameter		50mm (ID)				
CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	20.7	0				
0	0	20.9	0				
0	0	20.9	0				
0	0	20.9	0				
0	0	20.9	0			GSV	
	CH ₄ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	CH ₄	CH4	CH ₄	CH4	CH4

Exploratory hole identity

Flow range	(complete	pre-	0	l/hr				
Peak flow ((complete p	re-	0	l/hr				
Differentia	l Pressure		0	Pa				
Depth to w	ater (record	d post-	2.76	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0.1	20.7	0				
15	0	0.3	20.5	0				
30	0	0.3	20.3	0				
45	0	0.3	20.3	0				
60	0	0.3	20.3	0			GSV	
	0	0.3	20.3	0				0
Exploratory hole identity			BH-NSA-28	3				
Flow range	(complete	pre-	0	l/hr				
Peak flow (Peak flow (complete pre-		0	l/hr				
Differentia	Differential Pressure		0	Pa				
Depth to w	ater (record	d post-	2.72	m				
Depth of st	Depth of standpipe and diameter			50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0	
0	0	0	20.6	0				
15	0	1.8	17.5	0				
30	0	1.8	17	0				
45	0	1.8	17	0				
60	0	1.8	17	0			GSV	
	0	1.8	17	0				0
Exploratory	y hole ident	ity	BH-NSA-29)				
Flow range			0	l/hr				
Peak flow (re-	0					
Differentia			0	Pa				
	ater (record	•	3.13					
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH ₄	CO ₂	02	LEL (%)	CO	H ₂ S	PID - 0.0	
0	0	0	20.8	0				
15	0	0.5	20.3	0				
30	0	0.5	20.2	0				
45	0	0.5	20.2	0				
60	0	0.5	20.2	0			GSV	
	0	0.5	20.2	0				0

Exploratory hole identity

	hole ident	ity	BH-NSA-30					
Flow range	(complete	pre-	0.1	l/hr				
Peak flow (complete p	re-	0.1	l/hr				
Differential	Pressure		0	Pa				
Depth to wa	ater (record	d post-	2.96	m				
Depth of sta	andpipe an	d diameter		50mm (ID)				
Seconds	CH ₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0				
15	0	0	20.9	0				
30	0	0	20.9	0				
45	0	0	20.9	0				
60	0	0	20.9	0			GSV	
	0	0	20.7	0				0
Exploratory	xploratory hole identity							
Flow range	ow range (complete pre-			l/hr				
Peak flow (eak flow (complete pre-			l/hr				
Differential	Pressure		5	Pa				
Depth to wa	ater (record	d post-	3.16	m				
Depth of sta	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.5	0				
15	0	0	21	0				
30	0	0	20.8	0				
45	0	0	20.7	0				
45 60	0	0	20.7	0			GSV	
—							GSV	0
—	0	0	20.7	0			GSV	0
60	0 0 hole ident	0 0	20.7 20.5	0			GSV	0
60 Exploratory	0 0 hole ident (complete	0 0 ity pre-	20.7 20.5 BH-NSA-32	0			GSV	0
60 Exploratory Flow range	0 0 hole ident (complete complete p	0 0 ity pre-	20.7 20.5 BH-NSA-32 0.3-0.4	0 0 !			GSV	0
Exploratory Flow range Peak flow (0 0 nhole ident (complete complete p	0 0 ity pre-	20.7 20.5 BH-NSA-32 0.3-0.4 0.4	0 0 ! !/hr !/hr			GSV	0
Exploratory Flow range Peak flow (Differential	0 0 hole ident (complete complete p Pressure ater (record	0 0 ity pre- re-	20.7 20.5 BH-NSA-32 0.3-0.4 0.4	0 0 ! !/hr !/hr Pa			GSV	0
Exploratory Flow range Peak flow (Differential Depth to wa	0 0 hole ident (complete complete p Pressure ater (record	0 0 ity pre- re-	20.7 20.5 BH-NSA-32 0.3-0.4 0.4	0 0 ! !/hr !/hr Pa m	СО	H ₂ S	GSV PID - 0.0	0
Exploratory Flow range Peak flow (Differential Depth to wa	0 0 nhole ident (complete complete p Pressure ater (record	0 0 ity pre- re- d post- d diameter	20.7 20.5 BH-NSA-32 0.3-0.4 0.4 2 2.89	0 0 ! !/hr !/hr Pa m 50mm (ID)	СО	H ₂ S		0
Exploratory Flow range Peak flow (Differential Depth to was Depth of sta	0 0 hole ident (complete complete p Pressure ater (record andpipe and	0 0 ity pre- re- d post- d diameter CO_2	20.7 20.5 BH-NSA-32 0.3-0.4 0.4 2 2.89	O O I/hr I/hr Pa m 50mm (ID)	со	H ₂ S		0
Exploratory Flow range Peak flow (Differential Depth to wa Depth of sta	0 0 nhole ident (complete personne recorded and pipe and complete personne recorded and compl	0 0 ity pre- re- d post- d diameter CO ₂ 0.1	20.7 20.5 BH-NSA-32 0.3-0.4 0.4 2 2.89 O ₂ 20.8	0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%)	со	H ₂ S		0
Exploratory Flow range Peak flow (Differential Depth to was Depth of sta	0 0 hole ident (complete p Pressure ater (record andpipe and 0	0 0 ity pre- re- d post- d diameter CO ₂ 0.1 0.7	20.7 20.5 BH-NSA-32 0.3-0.4 0.4 2 2.89 O ₂ 20.8 20.1	0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0	СО	H₂S	PID - 0.0	0
Exploratory Flow range Peak flow (Differential Depth to wa Depth of sta Seconds 0 15 30	0 0 nhole ident (complete personne complete pers	0 0 ity pre- re- d post- d diameter CO ₂ 0.1 0.7 0.7	20.7 20.5 BH-NSA-32 0.3-0.4 0.4 2 2.89 O ₂ 20.8 20.1 20	0 0 1/hr 1/hr Pa m 50mm (ID) LEL (%) 0 0	СО	H ₂ S		0

Differential	erential Pressure 0 Pa							
Depth to w	ater (record	d post-	3.73	m				
Depth of st	andpipe and	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0			1	
15	0	0	21	0			1	
30	0	0	20.9	0				
45	0	0	20.9	0				
60	0	0	20.9	0			GSV	
	0	0	20.7	0			_	0
Exploratory	hole ident	ity	BH-NSA-38	3				
Flow range	(complete	pre-	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differential	erential Pressure		0	Pa				
Depth to wa	ater (record	d post-	3.69	m				
Depth of st	andpipe and	d diameter		50mm (ID)			_	
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0				
15	0	0	20.9	0				
30	0	0	20.9	0			J	
45	0	0	20.9	0				
60	0	0	20.9	0			GSV	
	0	0	20.7	0				0
Exploratory	hole ident	ity	BH-NSA-39)				
Flow range	(complete	pre-	0.1	l/hr				
Peak flow (complete p	re-	0.3	l/hr				
D. CC	_		0	Pa				
Differential	Pressure							
Differential Depth to wa		d post-	4.46	m				
	ater (record	-	4.46	m 50mm (ID)				
Depth to ware Depth of sta	ater (record andpipe and CH ₄	d diameter	O ₂	50mm (ID)	СО	H ₂ S	PID - 0.0	
Depth to war Depth of state Seconds	ater (record andpipe and CH ₄	d diameter CO ₂	O ₂ 20.7	50mm (ID) LEL (%) 0	СО	H ₂ S	PID - 0.0	
Depth to war Depth of stars Seconds 0 15	ater (record andpipe and CH ₄ 0	CO ₂ 0	O₂ 20.7 20.9	50mm (ID) LEL (%) 0 0	со	H ₂ S	PID - 0.0	
Depth to war Depth of state Seconds 0 15 30	ater (record andpipe and CH ₄ 0 0	CO ₂ 0 0	O ₂ 20.7 20.9 20.9	50mm (ID) LEL (%) 0 0 0	со	H ₂ S	PID - 0.0	
Depth to war Depth of stars Seconds 0 15	ater (record andpipe and CH ₄ 0	CO ₂ 0	O₂ 20.7 20.9	50mm (ID) LEL (%) 0 0	со	H ₂ S	PID - 0.0 GSV	

Exploratory hole identity

Flow range (complete pre-

Peak flow (complete pre-

BH-NSA-37

l/hr

l/hr

Exploratory	y hole ident	ity	BH-NSA-42	2				
Flow range	v range (complete pre- k flow (complete pre- erential Pressure		0	l/hr				
Peak flow ((complete p	re-	0	l/hr				
Differentia	l Pressure		0	Pa				
Depth to w	ater (record	d post-	3.29	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0				
15	0	1.5	19.6	0				
30	0	1.6	19.3	0				
45	0	1.6	19.2	0				
60	0	1.6	19.2	0			GSV	
	0	1.6	19.2	0				0
	unlaratoru hala idantitu							
-	xploratory hole identity		BH-NSA-43					
ŭ	ow range (complete pre-			l/hr				
	eak flow (complete pre-			l/hr				
Differentia			0					
-	ater (record	-	3.29					
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0				
15	0	0	20.9	0				
30	0	0	20.8	0				
45	0	0	20.8	0				
60	0	0	20.8	0			GSV	
	0	0	20.7	0				0
Exploratory	v hole ident	itv	BH-NSA-44	1				
	(complete		0					
	complete p	-	0					
Differentia			0					
Depth to w	ater (record	d post-	3.68	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH ₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.7	0		2		
		1.6	18.7	0				
15	0					1		
15 30	0	1.6	18.1	0				
			18.1 18	0				
30	0	1.6					GSV	

Exploratory	hole ident	ity	BH-NSA-45	5				
Flow range	(complete	pre-	0	l/hr				
Peak flow (complete p	re-	0	l/hr				
Differential	Pressure		0	Pa				
Depth to w	ater (record	d post-	1.98	m				
Depth of st	andpipe and	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	02	LEL (%)	со	H ₂ S	PID - 0.0	
0	0	0	20.8	0				
15	0	0	20.7	0				
30	0	0	20.7	0				
45	0	0	20.6	0				
60	0	0	20.6	0			GSV	
	0	0	20.6	0			•	0
Exploratory	/ hole ident	ity	BH-NSA-22	25				
Flow range	(complete	pre-	0	l/hr				
Peak flow (ak flow (complete pre-		0	l/hr				
Differential	ifferential Pressure			Pa				
Depth to w	Depth to water (record post-			m				
Depth of st	Depth of standpipe and diameter			50mm (ID)				
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0	20.3	0				
15	0	0	20.7	0				
30	0	0	20.8	0				
45	0	0	20.8	0				
60	0	0	20.8	0			GSV	
	0	0	20.3	0			•	0
Exploratory	, hole ident	itv	BH-NSA-22	26				
Flow range			0.5-0.6					
Peak flow (-	0.6	l/hr				
Differential	Pressure		2	Pa				
Depth to w		d post-	4.67	m				
Depth of st	andpipe an	d diameter		50mm (ID)				
Seconds	CH₄	CO ₂	O ₂	LEL (%)	СО	H ₂ S	PID - 0.0	
0	0	0.5	20.9	0				
15	0	0.9	20.1	0				
30	0	1	19.8	0				
45	0	1	19.7	0				
60	0	1	19.7	0			GSV	
	0	1	19.7	0				0.006



Appendix G Risk Rating Matrix

Table D.1: Risk rating for contaminated land qualitative risk assessment

- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
	Likelihood						
Level of Severity	Most Likely	Reasonably Foreseeable	Unlikely				
Acute harm or severe chronic harm. Direct pollution of sensitive water receptors or serious pollution of other water bodies.	High	High	Low				
Harm from long-term exposure. Slight pollution of sensitive receptors or pollution of other water bodies.	Medium	Medium	Low				
No significant harm in either short or long term. No pollution of water that is likely to affect sensitive receptors. No more than slight pollution of other water bodies.	Low	Low	Low				



Appendix H Environmental Receptors

Table H.1: Pollution to controlled waters

'Section 78A(9) of the EPA 1990 defines the pollution of controlled waters as: "the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter".' (A35)

'Before determining that pollution of controlled water is being, or is likely to be, caused, the local authority should be satisfied that a substance is continuing to enter controlled waters or is likely to enter controlled waters. The local authority should regard something as being "likely" to be caused when the local authority judge it more likely than not to occur.' (A36)

'Land should **not** be designated as contaminated land where:

- (a) a substance is already present in controlled waters;
- (b) entry into controlled waters of that substance from land has ceased; and
- (c) it is not likely that further entry will take place.' (A37)

'Substances should be regarded as having entered controlled waters where:

- (a) they are dissolved or suspended in those waters; or
- (b) if they are immiscible with water, they have direct contact with those waters on or beneath the surface of the water.' (A38)

The term 'continuing to enter' should be taken to mean any entry additional to any which has already occurred. (A39)

Reproduced from DEFRA (2006) Contaminated Land: Implementation of Part IIA of the Environmental Protection Act 1990 Circular 01/2006 and Scottish Executive Rural Affairs Department (2006) Edition 2 (Paper SE/2006/44). Environmental Protection Act 1990: Part IIA – Contaminated Land.

Table H.2: Significant harm to various receptors.

able 11.2. Olgrinicant harm to various receptors.								
Type of receptor	Description of harm to that type of receptor that is to be regarded as significant harm							
Human beings	Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned. In the Guidance, this description of significant harm is referred to as a 'human health effect'.							
Any ecological system, or living organism forming part of such a system, within a location which is:	For any protected location: Harm which results in an irreversible adverse change, or in							
an area notified as an Area of Special Scientific Interest under Section 28 of the Wildlife and Countryside Act 1981.	some other substantial adverse change, in the functioning the ecological system within any substantial part of location;							
any land declared a National Nature Reserve under Section 35 of that Act	or							
any area designated as a Marine Nature Reserve under Section 36 of that Act	Harm which affects any species of special interest within location and which endangers the long-term maintenan							
an area of Special Protection of Birds, established under Section 3 of that Act	the population of that species at that location. In addition, in the case of a protected location that is a							
any European Site within the meaning of Regulation 1 0 of the Conservation (Natural)	European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is							



Description of harm to that type of receptor that is to be Type of receptor regarded as significant harm Habitats etc) Regulations 1994 (ie Special incompatible with the favourable conservation status of Areas of Conservation and Special protection natural habitats at that location or species typically found Areas) any candidate Special Areas of Conservation In determining what constitutes such harm, the local authority or potential Special Protection Areas given should have regard to the advice of English nature and to the equivalent protection requirements of the Conservation (Natural Habitats etc) any habitat or site afforded policy protection Regulations 1994. under paragraph 6 of Planning Policy In the Guidance this description of significant harm is Statement (PPS9) on nature conservation (i.e. candidate Special Areas of Conservation, referred to as an 'ecological system effect'. potential Special protection Areas and listed Ramsar sites); or any nature reserve established under Section 21 of the National Parks and Access to the Countryside Act 1949. Property in the form of: For crops, a substantial diminution in yield or other substantial loss in their value, resulting from death, disease crops, including timber or other physical damage. For domestic pets, death, serious produce grown domestically, or on allotments, disease or serious physical damage. For other property in for consumption this category, a substantial loss in its value resulting from death, disease or other serious physical damage. other owned or domesticated animals; The local authority should regard a substantial loss in value wild animals which are the subject of shooting as occurring only when a substantial proportion of the or fishing rights. animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss. In the Guidance this description of significant ham is referred to as an 'animal or crop effect'. Property in the form of buildings. For this purpose Structural failure, substantial damage or substantial 'building' means any structure or erection and any interference with any right of occupation. part of a building, including any part below ground For this purpose, the local authority should regard substantial level, but does not include plant or machinery damage or substantial interference as occurring when any comprised in a building. part of the building ceases to be capable of being used for the purpose for which it is or was intended. Additionally, in the case of a scheduled Ancient Monument, substantial damage should be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled in the Guidance this description of significant harm is referred to as a 'building effect'.

Reproduced from DEFRA (2006) Contaminated Land: Implementation of Part IIA of the Environmental Protection Act 1990. Circular 01/2006 and Scottish Executive Rural Affairs Department (2006) Edition 2 (Paper SE/2006/44). Environmental Protection Act 1990: Part IIA – Contaminated Land.



Appendix I Generic Assessment Criteria

Human Health Generic Assessment Criteria

Background

In order to be able to make inference on whether the results obtained during the site investigation (e.g. chemical concentrations in soils, waters and gas) point to the presence of a potential hazard to human health, it is necessary to distinguish between the results, reflecting background and/or insignificantly elevated levels of contamination (i.e. with negligible potential to cause harm or pollution) and the results with significantly elevated concentrations (i.e. with significant potential to cause harm or pollution).

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 (2004).

This sets out a tiered approach:

- Preliminary Risk Assessment (e.g. establishing potential pollutant linkages);
- Generic Quantitative Risk Assessment (GQRA) (e.g. comparison of site contaminant concentrations
 against generic standards and compliance criteria e.g. Soil Guideline Values (SGV) or other Generic
 Assessment Criteria including an assessment of risk using the source pathway target model); and
- Detailed Quantitative Risk Assessment (DQRA) (e.g. the comparison of contaminant concentrations against site specific assessment criteria).

Preliminary Risk Assessment

This typically encompasses a desk based generation of a conceptual model to establish the potential pollutant linkages associated with the site and any proposed development. Works would typically involve:

- Evaluation of the potential sources of contamination on the site and in the locality and from both a current and historical perspective
- Statutory Consultation;
- Evaluation of a sites geology, hydrology and hydrogeology;
- Site inspection;
- Additional pertinent information as necessary on a site by site basis.

Where works indicate the presence of a potential pollutant linkage further evaluation and potentially site investigation works are necessary to determine the significance of the linkage.

Generic Quantitative Risk Assessment (GQRA)

In August 2008 the Environment Agency (EA) and Department of Environment Food and Rural Affairs (DEFRA) announced the withdrawal of the Contaminated Land Reports CLR7 – 10, CLEA UK (beta) and existing SGV reports as they no-longer fully reflected the revised approach to human health risk assessment.

New partial guidance (in particular Science Reports SR2, SR3 and SR7) and new risk assessment tools (CLEA model version v1.04, v1.05 and currently v1.06) were published and these allow environmental practitioners to derive generic and site specific Soil Assessment Criteria (GAC and SAC). The EA and DEFRA are currently in the process of updating the existing TOX reports and Soil Guideline Values (SGVs) to reflect the new guidance. Thus far SGVs for arsenic, nickel, mercury, selenium and BTEX compounds (benzene, toluene, ethylbenzene and xylenes) have been made available.



In addition Land Quality Management (LQM), Chartered Institute of Environmental Health (CIEH) and Contaminated Land Applications in Real Environments (CL:AIRE) have undertaken the production of GAC values using CLEA 1.04 for parameters not covered by SGV's.

Alterations have been made to the CLEA model since the GAC's calculated by LQM / CIEH and CL:AIRE, which used software version v1.04. The Environment Agency have however confirmed that v1.05 has only a "minor effect on assessment criteria calculated using the CLEA software 1.04" and consequently the GAC's derived are considered to remain valid. Environment Agency SGV's generated using v1.04 have also not been updated. Software version v1.06 is identical to v1.05 with some password protection enhancements that in no way effect the GAC values generated.

Waterman Energy Environment and Design have used the following hierarchy for the generic assessment of soils to evaluate Human Health.

- Published Soil Guideline Values (SGV's), or in their absence;
- GAC prepared in accordance with the CLEA v1.04 / v1.06 model by authoritative bodies (e.g. Chartered Institute of Environmental Health (CIEH), Land Quality Management (LQM) and Contaminated Land Applications in Real Environments (CL:AIRE), or in their absence,
- Waterman in-house GAC prepared in accordance with the CLEA V1.04 model or associated documents.

Tabulated values of the GACs used are presented overleaf. The references of the sources quoted in the table are:-

- Environment Agency, 2009. CLEA Software, version 1.06.
- DEFRA, Environment Agency, 2004. Model Procedures for the Management of Land Contamination, Contaminated Land Report 11.
- Environment Agency, 2009. Human health toxicological assessment of contaminants in soil. Report SC050021/SR2.
- Environment Agency, 2009. Updated technical background to the CLEA model. Report SC050021/SR3.
- Environment Agency, 2008. Compilation of chemical data for priority organic pollutants for derivation of Soil Guideline Values. Report SC050021/SR7.
- LQM / CIEH, 2009. Generic assessment criteria for human health risk assessment, 2nd edition.
- EIC / CL:AIRE, 2010. Soil generic assessment criteria for human health risk assessment.

Detailed Quantitative Risk Assessment (DQRA)

Detailed Quantitative Risk Assessments are undertaken on a site specific basis and full details of the alterations to the CLEA model and generic land use scenarios will be described within the specific reports.



Generic Quantitative Risk Assessment Criteria

Proposed End Use	units		Residential	esidential		Commercial		Source
Soil Organic Matter Content	%	1	2.5	6	1	2.5	6	
Arsenic	mg/kg	32	32	32	640	640	640	CLEA SGV 2009
Antimony	mg/kg	550	550	550	7500	7500	7500	CL:AIRE 2009
Barium	mg/kg	1300	1300	1300	22000	22000	22000	CL:AIRE 2009
Beryllium	mg/kg	51	51	51	420	420	420	LQM / CIEH
Boron (Water Soluble)	mg/kg	291	291	291	192000	192000	192000	LQM / CIEH
Cadmium	mg/kg	10	10	10	230	230	230	CLEA SGV 2009
Chromium (Total)	mg/kg	3000	3000	3000	30400	30400	30400	LQM / CIEH
Chromium (VI)	mg/kg	4.3	4.3	4.3	35	35	35	LQM / CIEH
Cobalt	mg/kg	240	240	240	240	240	240	Dutch Intervention
Copper	mg/kg	2330	2330	2330	71700	71700	71700	LQM / CIEH
Lead	mg/kg	450	450	450	750	750	750	CLEA SGV 2002 (Withdrawn in 2008)
Mercury	mg/kg	1	1	1	26	26	26	CLEA SGV 2009
Molybdenum	mg/kg	670	670	670	17000	17000	17000	CL:AIRE 2009
Nickel	mg/kg	130	130	130	1800	1800	1800	CLEA SGV 2009
Selenium	mg/kg	350	350	350	13000	13000	13000	CLEA SGV 2009
Vanadium	mg/kg	75	75	75	3160	3160	3160	LQM / CIEH
Zinc	mg/kg	3750	3750	3750	665000	665000	665000	LQM / CIEH
Cyanide (Free)	mg/kg	26	26	26	16000	16000	16000	Waterman GAC - CLEA v1.06
Complex Cyanide	mg/kg	63000	63000	63000	430000	430000	430000	
Total Cyanide	mg/kg							



Proposed End Use	units		Residential		(Commercia	ı	Source
Soil Organic Matter Content	%	1	2.5	6	1	2.5	6	
Thiocyanate	mg/kg	230	230	230	22000	22000	22000	Waterman GAC - CLEA v1.06
Aliphatic EC5 - EC6	mg/kg	30	55	110	3400	6200	13000	LQM / CIEH
Aliphatic EC6 - EC8	mg/kg	73	160	370	8300	18000	42000	LQM / CIEH
Aliphatic EC8-EC10	mg/kg	19	46	110	2100	5100	12000	LQM / CIEH
Aliphatic EC10-EC12	mg/kg	93	230	540	10000	24000	49000	LQM / CIEH
Aliphatic EC12-EC16	mg/kg	740	1700	3000	61000	83000	91000	LQM / CIEH
Aliphatic EC16-EC35	mg/kg	45000	64000	76000	1600000	1800000	1800000	LQM / CIEH
Aliphatic EC35-EC44	mg/kg	45000	64000	76000	1600000	1800000	1800000	LQM / CIEH
Aromatic C6-C7 (Benzene)	mg/kg	0.08	0.16	0.33	28	50	95	CLEA SGV 2009 /
Aromatic C7-C8 (Toluene)	mg/kg	120	270	610	870	1900	4400	Waterman GACs - CLEA v1.04
Aromatic C8-C10	mg/kg	27	65	151	3700	8600	18000	LQM / CIEH
Aromatic C10-C12	mg/kg	69	160	346	17000	29000	34500	LQM / CIEH
Aromatic C12-C16	mg/kg	140	310	593	36000	37000	37800	LQM / CIEH
Aromatic C16-C21	mg/kg	250	480	770	28000	28000	28000	LQM / CIEH
Aromatic C21-C35	mg/kg	890	1100	1230	28000	28000	28000	LQM / CIEH
Benzene	mg/kg	0.08	0.16	0.33	28	50	95	CLEA SGV 2009 /
Toluene	mg/kg	120	270	610	870	1900	4400	Waterman GACs - CLEA v1.04
Ethyl Benzene	mg/kg	65	150	350	520	1200	2800	_
Xylene - o	mg/kg	45	110	250	480	1100	2600	
Xylene - m	mg/kg	44	100	240	630	1500	3500	
Xylene - p	mg/kg	42	98	230	580	1400	3200	_



Proposed End Use	units		Residential			Commercia	ı	Source
Soil Organic Matter Content	%	1	2.5	6	1	2.5	6	
MTBE (Methyl tert-butyl ether)	mg/kg	49	84	160	7900	13000	24000	CL:AIRE 2009
Naphthalene	mg/kg	1.5	3.7	8.7	200	480	1100	LQM / CIEH
Acenaphthylene	mg/kg	170	400	850	84000	97000	100000	LQM / CIEH
Acenaphthene	mg/kg	210	480	1000	85000	98000	100000	LQM / CIEH
Fluorene	mg/kg	160	380	780	64000	69000	71000	LQM / CIEH
Phenanthrene	mg/kg	92	200	380	22000	22000	23000	LQM / CIEH
Anthracene	mg/kg	2300	4900	9200	530000	540000	540000	LQM / CIEH
Fluoranthene	mg/kg	260	460	670	23000	23000	23000	LQM / CIEH
Pyrene	mg/kg	560	1000	1600	54000	54000	54000	LQM / CIEH
Benzo(a)anthracene	mg/kg	3.1	4.7	5.9	90	95	97	LQM / CIEH
Chrysene	mg/kg	6	8	9.3	140	140	140	LQM / CIEH
Benzo(b)fluoranthene	mg/kg	5.6	6.5	7	100	100	100	LQM / CIEH
Benzo(k)fluoranthene	mg/kg	8.5	9.6	10	140	140	140	LQM / CIEH
Benzo(a)pyrene	mg/kg	0.83	0.94	1	14	14	14	LQM / CIEH
Indeno(1,2,3-cd)pyrene	mg/kg	3.2	3.9	4.2	60	61	62	LQM / CIEH
Di-benzo(a.h.)anthracene	mg/kg	0.76	0.86	0.9	13	13	13	LQM / CIEH
Benzo(g.h.i.) Perylene	mg/kg	44	46	47	650	660	660	LQM / CIEH
Phenols	mg/kg	210	390	420	3200	3200	3200	CLEA 2006 / CLEA
Phenol	mg/kg	210	390	420	3200	3200	3200	SGV 1.04
Pentachlorophenol (PCP)	mg/kg	0.55	1.3	2.96	1200	1300	1400	LQM / CIEH
2,4-Dimethylphenol	mg/kg	19	43	97	16000	24000	30000	CL:AIRE 2009
Total Cresols (2-, 3- and 4-	mg/kg	80	180	400	160000	180000	180000	CL:AIRE 2009



Proposed End Use	units		Residentia			Commercia	ıl	Source
Soil Organic Matter Content	%	1	2.5	6	1	2.5	6	
methylphenol)								
1,1,2,2 Tetrachloroethane	mg/kg	0.9	2.1	4.8	120	260	590	LQM / CIEH
1,1,2,2 Tetrachloroethene	mg/kg	0.9	2.1	4.8	130	290	660	LQM / CIEH
1,1,1 Trichloroethane	mg/kg	6.2	13	28	700	1400	3100	LQM / CIEH
Trichloroethane	mg/kg	0.018	0.039	0.089	3	6.6	15	LQM / CIEH
Tetrachloromethane (Carbon Tetrachloride)	mg/kg	0.0054	0.008	0.014	0.71	1	1.8	LQM/CIEH
1,2- Dichloroethane	mg/kg	0.00047	0.00064	0.00099	0.063	0.081	0.12	LQM / CIEH
Chloroethene (Vinyl chloride)	mg/kg	0.11	0.22	0.49	12	25	55	LQM / CIEH
Trichloroethene	mg/kg	0.94	2.1	4.8	130	290	660	LQM / CIEH
Sum of PCDDs, PCDFs and dioxins like PCBs	mg/kg			8			240	CLEA SGVs 2009
Isopropylbenzene	mg/kg	11	27	64	1400	3300	7700	CL:AIRE 2009
Propylbenzene	mg/kg	34	82	190	4100	9700	21000	CL:AIRE 2009
Styrene	mg/kg	8.1	19	43	3300	6500	11000	CL:AIRE 2009
Bromobenzene	mg/kg	0.87	2	4.7	97	220	520	CL:AIRE 2009
1,1,2 Trichloroethane	mg/kg	0.6	1.2	2.7	94	190	400	CL:AIRE 2009
1,1-Dichloroethane	mg/kg	2.4	3.9	7.4	280	450	850	CL:AIRE 2009
1,1-Dichloroethene	mg/kg	0.23	0.4	0.82	26	46	92	CL:AIRE 2009
1,2,4-Trimethylbenzene	mg/kg	0.35	0.85	2	42	99	220	CL:AIRE 2009
1,2-Dichloropropane	mg/kg	0.024	0.042	0.084	3.3	5.9	12	CL:AIRE 2009
2-Chloronaphthalene	mg/kg	3.7	9.2	22	390	960	2200	CL:AIRE 2009
Bromodichloromethane	mg/kg	0.016	0.03	0.061	2.1	3.7	7.6	CL:AIRE 2009



Proposed End Use	units		Residential		_	Commercia	I	Source
Soil Organic Matter Content	%	1	2.5	6	1	2.5	6	
Bromoform	mg/kg	2.8	5.9	13	760	1500	3100	CL:AIRE 2009
Chloroethane	mg/kg	8.3	11	18	960	1300	2100	CL:AIRE 2009
Chloromethane	mg/kg	0.0083	0.0098	0.013	1	1.2	1.6	CL:AIRE 2009
Cis 1,2 Dichloroethene	mg/kg	0.11	0.19	0.37	14	24	47	CL:AIRE 2009
Dichloromethane	mg/kg	0.58	0.98	1.7	270	360	560	CL:AIRE 2009
Hexachloroethane	mg/kg	0.2	0.48	1.1	22	53	120	CL:AIRE 2009
Trans 1,2 Dichloroethene	mg/kg	0.19	0.34	0.7	22	40	81	CL:AIRE 2009
Bis (2-ethylhexyl) phthalate	mg/kg	280	610	1100	85000	86000	86000	CL:AIRE 2009
Butyl benzyl phthalate	mg/kg	1400	3300	7200	940000	940000	950000	CL:AIRE 2009
Diethyl Phthalate	mg/kg	120	260	570	150000	220000	290000	CL:AIRE 2009
Di-n-butyl phthalate	mg/kg	13	31	67	15000	15000	15000	CL:AIRE 2009
Di-n-octyl phthalate	mg/kg	2300	2800	3100	89000	89000	89000	CL:AIRE 2009
Biphenyl	mg/kg	66	160	360	18000	33000	48000	CL:AIRE 2009
2,4-Dinitrotoluene	mg/kg	1.5	3.2	7.2	3700	3700	3800	CL:AIRE 2009
2,6-Dinitrotoluene	mg/kg	0.78	1.7	3.9	1900	1900	1900	CL:AIRE 2009
Tributyl tin oxide	mg/kg	0.25	0.59	1.3	130	180	200	CL:AIRE 2009



Soil Contamination – Risk of Harm to Property

Structures and Underground Services

Buried Concrete

BRE Special Digest 1 (2005), 3rd Edition, entitled *Concrete in aggressive ground*, provides guidance on the specification for concrete for installation in natural ground and in brownfield locations. The procedures given for the ground assessment and concrete specification cover the fairly common occurrences of sulfates, sulfides and acids, and the more rarely occurring aggressive carbon dioxide found in some ground and surface waters, which affects concrete foundations and sub-structures. It gives procedures for specification of concrete and applies to both buildings and civil engineering construction.

Water Supply Pipes

Guidance is provided in the Water Regulations Advisory Scheme Information and Guidance Note entitled *"The selection of materials for water supply pipes to be laid in contaminated land"* No. 9-04-03, October 2002.

Where soil concentrations exceed these threshold values, it is likely that special consideration of material selection will be required.

Notwithstanding the above, it is reasonable to assume that if contaminants are present above background concentrations, problems will arise and therefore materials should be selected accordingly. In cases where there is uncertainty; eg potentially aggressive contaminants are present for which there are no critical thresholds, some organic contaminants may have a greater effect on polyethylene (PE) pipes when present in mixtures than singly; this approach is recommended by the Water Suppliers,.

The material selection thresholds contained in this document are reproduced in the table below:

Contaminant concentrations in Soils

Contaminant	Material selection threshold mg/kg
Corrosion	
Sulphate	2000
Sulphur	5000
Sulphide	250
Ph	Less than pH5 greater than pH8
Toxic Substances	
Antimony	10
Arsenic	10*
Cadmium	3
Chromium (total)	600
Chromium (hexavalent)	25
Cyanide (free)	25*
Cyanide (complex)	250*
Lead	500
Mercury	1
Selenium	3



Contaminant	Material selection threshold mg/kg
Thiocyanate	50
Organic Contaminants	
Coal tar	50
Cyclohexane extractable	50
Phenol	5
PAHs	50
Toluene extractable	50
Petroleum hydrocarbons	50

Footnotes:

Soil Contamination – Risk of Combustion

The combustibility of soils is a complex function of soil type, energy content, and availability of oxygen. The Building Research Establishment (BRE) has published guidance based on Calorific Value (i.e. energy content, alone), namely *IP 2/87*, *Fire and explosion hazards associated with the redevelopment of contaminated land*. This document provides a level below which combustibility is unlikely (2MJ/kg) and a level above which combustibility is likely (10MJ/kg). In the range between these two values combustibility is uncertain. Therefore, where the lower value is exceeded, the other key factors mentioned above need to be considered.

Controlled Waters Generic Assessment Criteria

The Screening Values adopted by Waterman for ground and surface water quality have been selected on the basis of the water quality standards that apply at the controlled water receptor considered to be at potential risk of harm. Where the receptor is to be assessed for potential harm to aquatic life then the Environmental Quality Standards (EQS) for List 1 and List 2 dangerous substances (EC Dangerous Substances Directive (76/464/EEC)) will be used. Where the receptor is to be assessed for potential harm with respect to use as a drinking water resource then the Water Supply (Water Quality) Regulations 1989 and 2000 as amended will be used. Where the receptor is to be used by aquatic life and for drinking water purposes both sets of criteria will be used. The standards for the substances tested for in this investigation are provided in Table D3 and D4 below.

Environmental Quality Standards

Environmental Quality Standards (EQS) annual average		Freshwater
pH (Acid)		6.0
pH (Alkaline)		9.0
Arsenic	μg/l	50
Barium	μg/l	NV
Cadmium	μg/l	5
Chromium	μg/l	5 – 250 ⁽¹⁾
Lead	μg/l	4 -250 ⁽¹⁾
Mercury	μg/l	1
Selenium	μg/l	NV
Boron	μg/l	2000

^{*}It is not recommended that water pipes should be laid in sites where these substances are identified or expected



Environmental Quality Standards (EQS) annual average		Freshwater
Copper	μg/l	1 - 28 ⁽¹⁾
Nickel	μg/l	50 - 200 ⁽¹⁾
Zinc	μg/l	75 - 500 ⁽¹⁾
Sulfate	mg/l	400
Cyanide	μg/l	NV
Ammonium (NH ₃ as N)	μg/l	15
Ammonium (NH ₄ +)	μg/l	NV
Nitrate (as N0 ₃)	mg/l	NV
Total Petroleum Hydrocarbons (TPH)	μg/l	NV
Polyaromatic Hydrocarbons (PAH)	μg/l	NV
Benzo(a)pyrene	μg/l	NV
Phenols	μg/l	NV
Phenol	μg/l	30
Tetrachloromethane (PCM)	μg/l	12
Trichloroethene (TCE)	μg/l	10
Tetrachloroethene (PCE)	μg/l	10
Benzene	μg/l	30
Ethyl Benzene	μg/l	NV
Toluene	μg/l	50
Xylene	μg/l	30

Footnotes:

NV - No value

(1) - Dependant on Hardness (See DoE circular 7/89).

UK Drinking Water Supply Standards

Water Supply (Water Q	uality) Regulations 1989 and 2000-	as amended
pH (Acid)		5.5
pH (Alkaline)		9.5
Acrylamide	μg/l	0.1
Antimony	μg/l	5
Arsenic	μg/l	10
Barium	μg/l	1000
Bromate	μg/l	10
Calcium	mg/l	250
Cadmium	μg/l	5
Chloride	mg/l	250
Chromium	μg/l	50
Iron	μg/l	200
Lead	μg/l	25 (Reducing to 10 in 2013)
Magnesium	mg/l	50
Manganese	μg/l	50
Mercury	μg/l	1



Water Supply (Water Quality) Re	egulations 1989 and 2000- as	amended
Selenium	μg/l	10
Sodium	mg/l	200
Boron	μg/l	1000
Copper	μg/l	2000
Nickel	μg/l	20
Zinc	μg/l	5000
Sulphate	mg/l	250
Total/Complex Cyanide	μg/l	50
Ammonium (NH4+)	μg/l	500
Nitrate (as N0 ₃)	mg/l	50
Nitrite (as N0 ₂)	mg/l	0.5
Hydrocarbons (dissolved/emulsions)	μg/l	10
Polyaromatic Hydrocarbons (PAH)	μg/l	0.1
Benzo(a)pyrene	μg/l	0.01
Phenol	μg/l	0.5
Tetrachloromethane	μg/l	3
Trichloroethene (TCE)	μg/l	10 (combined total)
Tetrachloroethene (PCE)		
Trihalomethanes	μg/l	100
Vinyl chloride	μg/l	0.5
Benzene	μg/l	1
Ethyl Benzene	μg/l	NV
Toluene	μg/l	NV
Xylene	μg/l	NV
EU Surface Water Directive (75/440/EEC) - Class	A1 – only simple treatment red	quired.
Sulphide	mg/l	150

Ground Gas and Volatile Organic Compounds Generic Assessment Criteria Ground Gas

The Building Regulations 2000 Approved Document C (2004 Edition) require that methane and other gases from the ground are considered on a risk assessment basis. Methane and other gases from the ground are defined in this document as "hazardous soil gases which originate from waste deposited in landfill sites or are generated naturally". Ground gas can also be generated by fill materials present on sites that are not classed as landfills. Therefore a preliminary ground gas risk assessment should consider the potential for methane or other gases to be present. This includes identification of the potential sources on or near to the site that could produce methane or other ground gas.

The most common gases assessed with respect to development are methane and carbon dioxide. Methane forms a potentially explosive mixture when mixed with air within certain concentration limits, known as the 'explosive range'. The Lower Explosive Limit (LEL) for methane is 5%. Carbon dioxide (CO₂) is a dense gas, capable of accumulating in confined spaces such as basements, causing a potential asphyxiation hazard. The Occupational Exposure Limit (OEL) for a short-term exposure to



carbon dioxide is 1.5% over a 15 minute period. Both methane and carbon dioxide when present at high concentrations can act as simple asphyxiants by reducing the oxygen content by dilution.

Reference in the Building Regulations is made to guidance documents produced by a variety of organisations, primarily those produced by the Construction Industry Research and Information Association (CIRIA). These include the following documents:

- CIRIA Report 149 Protecting development from methane, 1995
- CIRIA Report 131 The measurement of methane and other gases from the ground, 1993.
- CIRIA Report 150 Methane investigation strategies, 1995
- CIRIA Report 151 Interpreting measurements of gas in the ground, 1995
- CIRIA Report 152 Risk assessment for methane and other gases from the ground, 1995

In addition guidance is provided in the BRE document 'Construction of new buildings on gascontaminated land (BRE Report BR212)'.

CIRIA, Report 131, 1993, suggests that there are no fixed rules for safe gas concentrations on a site since this risk is dependent on a number of factors that include gas emission rate from the ground and the potential for gas to enter into structures.

The Building Regulations relate to domestic dwellings. However, for non-domestic dwellings the same principle of risk assessment applies.

The latest guidance document is provided by CIRIA Report C665, "Assessing risks posed by hazardous ground gases to buildings", 2007 and BS8485:2007: "Code of practice for the characterisation and remediation from ground gas in affected developments".

CIRIA C665 aims to consolidate good practice in investigation, facilitate the collection of relevant data, and instigate appropriate monitoring programmes, all in a risk based approach to gas contaminated land. As with BS8485, this document largely focuses on Methane and Carbon Dioxide. However, much of the text is also relevant to consideration of other contamination present in vapour phase.

BS8485, 2007 describes methods for the investigation and assessment of the ground gases methane and carbon dioxide provides recommendations for protection of new development on affected sites. This standard is not intended for the assessment of completed developments and considers only methane and carbon dioxide.

Both of these publications have been prepared to be generally consistent with CLR11, Model Procedures for the management of land contamination, (DEFRA and the Environment Agency, 2004a) and follow a step by step approach summarised below:-

- 1. Desk Study and Site Walkover
- Development of a Preliminary Conceptual Model and Risk Assessment
 Site Investigation (If deemed necessary from stage 2)
- 4. Risk Assessment and Site Characterisation
- 5. Recommendation and Mitigation

Where, the preliminary conceptual model has deemed further investigation necessary to characterise the ground gas regime, an appropriate site investigation and monitoring regime should be designed and undertaken. In-depth guidance to assist in the design of the investigation is provided within C665, which describes intrusive investigation techniques and provides guidance on selecting the number and location of monitoring wells based on the site specific conceptual model.

Waterman has generally followed the approach recommended in CRIRIA C665 with respect to characterising a site and determining the levels of gas protection methods required. This approach is generally consistent with the guidance provided in BS8485.



In accordance with C665, to assess the ground gas regime at a site, the ground gas monitoring data should be assessed by determining the Gas Screening Value (GSV) (I/hr) (BS8485 refers to the GSV as the Hazardous Gas Flow Rate). The GSV is calculated as follows:

GSV = (Measured Maximum CO_2 or CH_4 Gas Concentration (%) / 100) x Maximum Measured Gas Flow Rate from boreholes (I/hr)

Where the gas flow rate has been measured as less than the detection limit of the instrument used (ie <0.1 l/hr), C665 recommends that the detection limit for the Gas Analyser is used as the gas flow rate (ie 0.1l/hr).

The Gas Screening Value is used to classify the site, subject to the proposed end use of the site, falling into either Situation A or Situation B, as described below.

Situation A – For All Development Types except Low Rise Housing with a ventilated underfloor void (150mm)

For situation A, the Modified Wilson and Card classification system is used. This system attributes a Characteristic Situation (CS) value to the site/zone depending upon the calculated GSV. When attributing a CS, additional factors including the maximum recorded gas concentration and the maximum recorded gas flow rate should also be taken into account and may result in an increase in the CS value. Table I.2 below, outlines the CS values associated GSV's and additional factors which must be taken into account.

Modified Wilson and Card Classification

Characteristic Situation (CIRIA 149)	Risk Classification	Gas screening value (CH ₄ CO ₂) I/hr	Additional Factors	Typical source of generation
1	Very low risk	<0.07	Typically methane ≤1% and / or carbon dioxide ≤5%. Otherwise consider increase to CS 2.	Natural soils with low organic content 'Typical' made ground
2	Low risk	<0.7	Borehole air flow rate not to exceed 70 l/hr. Otherwise consider increase to CS 3.	Natural soil, high peat/organic content. 'Typical' made ground
3	Moderate risk	<3.5		Old landfill, inert waste, mineworking flooded
4	Moderate to high risk	<15	Quantitative risk assessment required to evaluate scope of protective measures.	Mineworking – susceptible to flooding, completed landfill (WMP 26B criteria)
5	High risk	<70		Mineworking unflooded inactive with shallow workings near surface
6	Very High risk	>70		Recent landfill site

Notes:

- 1) Gas screening value: litres of gas / hour is calculated by multiplying the gas concentration (%) by the measured borehole flow rate (I/hr)
- 2) Source of gas and generation potential/performance must be identified.
- 3) If there is no detectable flow use the limit of detection of the instrument.



Once the characteristic situation has been determined, the requirements and scope of gas protection measures can be determined based on Table I.3 below (based on guidance provided within C665):

Modified Wilson and Card Protection Measures

			l building (not those subject C Classification Method	Office/commercial/industrial development		
CS*	Risk Classification	No. of levels of protection	Typical scope of protective measures	No. of levels of protection	Typical scope of protective measures	
1	Very low risk	None	No special precautions	None		
2	Low risk	2	 c) Reinforced concrete cast in situ floor slab (suspended, nonsuspended or raft) with at least 1200g DPM^{2,7} and underfloor venting. d) Beam and block or precast concrete and 2000g DPM⁷/ reinforced gas membrane and underfloor venting. 	1 to 2	 d) Reinforced concrete cast in situ floor slab (Suspended, non-suspended or raft) with at least 1200g DPM^{2,7}. e) Beam and block or pre-cast concrete slab and minimum 2000g DPM / reinforced gas membrane. f) Possibly underfloor venting or pressurisation in combination with a) and b) depending on 	
			All joints and penetrations sealed		use. All joints and penetrations sealed	
3	Moderate risk	2	All types of floor slab as above.	1 to 2	All types of floor slab as above. All joints and penetrations sealed.	
			All joints and penetrations sealed. Proprietary gas resistant membrane and passively ventilated or positively pressurised underfloor sub-space.		Minimum 2000g/reinforced gas proof membrane and passively ventilated underfloor sub-space or positively pressurised underfloor sub-space.	
4	Moderate to high risk	3	All types of floor slab as above. All joins and penetrations sealed. Proprietary gas resistant membrane and passively ventilated underfloor sub-space or positively pressurised underfloor sub-space, oversite capping or binding and in ground venting layer.	2 to 3	All types of floor slab as above. All joins and penetrations sealed. Proprietary gas resistant membrane and passively ventilated or positively pressurised underfloor sub-space.	
5	High risk	4	Reinforced concrete cast in situ floor slab (suspended, non-suspended or raft). All joints and penetrations sealed. Proprietary gas resistant membrane and ventilated or positively pressurised underfloor subspace, oversite capping and in ground venting layer and in ground venting wells or barriers	3 to 4	Reinforced concrete cast in situ floor slab (suspended, nonsuspended or raft). All joins and penetrations sealed. Proprietary gas resistant membrane and passively ventilated or positively pressurised underfloor sub-space with monitoring facility. In ground venting wells or barriers.	
6	Very high risk	5	Not suitable unless gas regime is reduced first and	4 to 5	Reinforced concrete cast in-situ floor slab (suspended, non-	



CS*	Residential building (not those subject to NHBC Classification Method			Office/commercial/industrial development		
	Risk Classification	No. of levels of protection	Typical scope of protective measures	No. of levels of protection	Typical scope of protective measures	
			quantitative risk assessment carried out to assess design of protection measures in conjunction with foundation design.		suspended or raft). All joints and penetration sealed. Proprietary gas resistant membrane and actively ventilated or positively pressurised underfloor sub-space with monitoring facility, with monitoring. In ground venting wells and reduction of gas regime.	

Notes:

- Typical scope of protective measures may be rationalised for specific developments on the basis of quantitative risk assessments.
- 2) Note, the type of protection is given for illustrative purposes only. Information on the detailing and construction of passive protection measures is given in BR414 [Ref: 16]. Individual site specific designs should provide the same number of separate protective methods for any given characteristic situation.
- 3) In all cases there should be minimum penetration of ground slabs by services and minimum number of confined spaces such as cupboards above the ground slab. Any confined spaces should be ventilated.
- 4) Foundation design must minimise differential settlement particularly between structural elements and ground baring slabs.
- Floor slabs should provide an acceptable formation on which to lay the gas membrane. If a block beam floor is used it should be well detailed so it has no voids in it that membranes have to span and all holes for service penetrations should be filled. The minimum density of the blocks should be 600kg/m³ and the top surface should have a 4:1 sand cement grout brushed into all joints before placing any membranes (this is also good practice to stabilise the floor and should be carried out regardless of the need for gas membranes).
- 6) The gas resistant membrane can also act as the damp proof membrane.
- 7) DPM = Damp Proof Membrane

Situation B – For Low Rise Housing with a ventilated underfloor void (min 150mm)

Situation B should be used for low-rise residential housing with gardens and sub-floor void. Where a sub-space void is not proposed, the development should be assessed using the situation A classification system above.

For situation B, the National House Building Council's (NHBC) Traffic Light classification system is used. This system attributes a colour to a site/zone depending upon the calculated GSV. As with the Wilson and Card system, in addition to the GSV, additional factors including the maximum recorded gas concentration and the maximum recorded gas flow rate must be taken into account when determining the Traffic Light classification. Table I.4, outlines the Traffic Light classification system, based on the calculated GSV's and additional factors which must be taken into account.



NHBC traffic light system for 150mm void

	Methane		Carbon Dioxide	
Traffic Light	Typical Maximum Concentration (% v/v)	Gas Screening Value (GSV) I/hr	Typical Maximum Concentration (% v/v)	Gas Screening Value (GSV) I/hr
Green				
Amber 1	1	0.16	5	0.78
Amber 2	5	0.63	10	1.56
\	20	1.56	30	3.13
Red				

Notes:

- The worst gas regime identified at the site, either methane or carbon dioxide, recorded from monitoring in the worst temporal conditions, will be the decider as to what Traffic Light and GSV is allocated.
- Generic GSVs are based on guidance contained within latest revision of Department of the Environment and the Welsh
 Office (2004 edition) "The Building Regulations: Approved Document C" [Ref:17] and used a sub-floor void of 150mm
 thickness.
- This assessment is based on a small room e.g. downstairs toilet with dimensions of 1.5 x 2.5m, with a soil pipe passing
 into the sub-floor void.
- The GSV, in litres per hour, is as defined as the bore hole flow rate multiplied by the concentration of the particular gas being considered.
- The typical maximum concentrations can be exceeded in certain circumstances should the conceptual site model indicate
 it is safe to do so. This is where professional judgement will be required based on a thorough understanding of the gas
 regime identified at the site where monitoring in the worst case temporal conditions has occurred.
- The GSV threshold should not generally be exceeded without completion of a detailed gas risk assessment taking into
 account site specific conditions.

Once the Traffic Light classification has been determined, the requirements and scope of gas protection / mitigation measures can also be determined based on Table I.5 below (based on guidance provided within CIRIA C665):



Gas Protection Measures for Low-Rise Housing Development Based Upon Allocation NHBC Traffic Light (Boyle and Witherington, 2006)

Traffic Light Classification	Protection Measures Required		
Green	Negligible gas regime identified and gas protection measures are not considered necessary.		
Amber 1.	Low to intermediate gas regime identified, which requires low-level gas protection measures, comprising a membrane and ventilated sub-floor void to create a permeability contrast to limit the ingress into buildings. Gas protection measures should be as prescribed in BRE Report 414 (Johnson 2001). Ventilation of sub-floor void should facilitate a minimum of one complete volume change per 24 hours.		
Amber 2.	Intermediate to high gas regime identified, which requires high level gas protection measures, comprising a membrane and ventilated sub-floor void to create a permeability contrast to prevent the ingress of gas into buildings. Gas protection measures should be as prescribed in BRE Report 414. Membranes should always be fitted by a specialist contractor. As with Amber 1, ventilation of the sub-floor void should facilitate a minimum of one complete volume change per 24 hours. Certification that these passive protection measures have been installed correctly should be provided.		
Red	High gas regime identified. It is considered that standard residential housing would not normally be acceptable without a further Gas Risk Assessment and / or possible remedial mitigation measures to reduce and / or remove the source of gas.		

Volatile Organic Compounds

The Building Regulations 2000 Approved Document C (2004 Edition) also refers to volatile organic carbons (VOCs). These are primarily assessed by examination of the VOC content of site soils. Further guidance on VOCs is provided in "The VOCs Handbook; Investigating, assessing and managing risks from inhalation of VOCs at land affected by contamination", CIRIA Report C682, 2009.

For former landfill sites the risk from a wider range of trace gases are considered on a site specific basis when appropriate.

(X pages)



